

2019 UNIVERSAL REGISTRATION DOCUMENT

Including the Annual Financial Report



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2019

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INCLUDING THE ANNUAL FINANCIAL REPORT



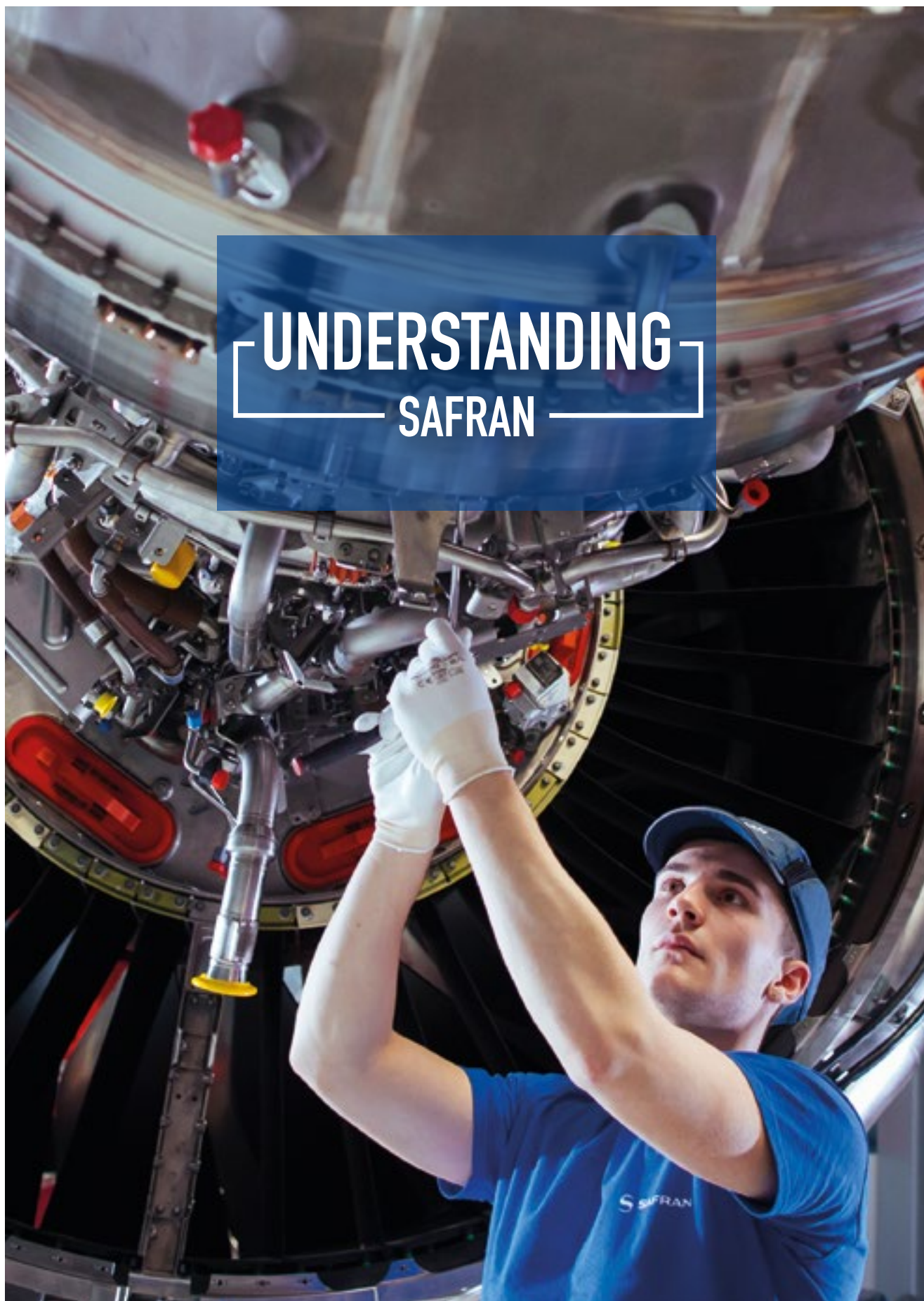
The Universal Registration Document is available on the website at **www.safraan-group.com**



The Universal Registration Document in French was filed on March 31, 2020 with the French financial markets authority (*Autorité des marchés financiers* - AMF) as competent authority under Regulation (EU) 2017/1129, without prior approval pursuant to Article 9 of said Regulation. The Universal Registration Document may be used for the purposes of an offer to the public of securities or admission of securities to trading on a regulated market together with any amendments, if applicable, and a securities note and summary approved by the AMF in accordance with Regulation (EU) 2017/1129.

The English language version of this report is a free translation from the original, which was prepared in French. In all matters of interpretation, views or opinions expressed in the original language version of the document in French take precedence over the translation.

UNDERSTANDING SAFRAN



SAFRAN AT A GLANCE ■ 2019 KEY FIGURES

3rd Global aerospace group, excluding airframers*

2nd Global aerospace equipment supplier*

€24,640 million

REVENUE⁽¹⁾
up 17.1% (up 9.3% on organic basis) on 2018

€3,820 million

RECURRING OPERATING INCOME⁽¹⁾
up 26.4% (up 24.6% on organic basis) on 2018

€2,665 million

PROFIT⁽¹⁾
(Group share)
up 34.5% on 2018

€1,983 million

FREE CASH FLOW
up 11.3% on 2018

€4,114 million

NET DEBT

€695 million

ACQUISITIONS OF PROPERTY, PLANT AND EQUIPMENT⁽²⁾

€1,725 million

TOTAL R&D
(including customer-funded R&D)

95,443

EMPLOYEES
(at December 31, 2019)

OUR ACTIVITIES



AEROSPACE
PROPULSION



AIRCRAFT EQUIPMENT/
DEFENSE/AEROSYSTEMS



AIRCRAFT
INTERIORS

BREAKDOWN OF REVENUE⁽¹⁾ BY SEGMENT

€12,045 million

€9,256 million

€3,321 million

BREAKDOWN OF RECURRING OPERATING INCOME⁽¹⁾ BY SEGMENT

€2,485 million

€1,209 million

€188 million

BREAKDOWN OF RECURRING OPERATING MARGIN⁽¹⁾ BY SEGMENT

20.6%

13.1%

5.7%

* Classification criteria: revenue – Source: Safran.

(1) Adjusted data. See page 90 of the 2019 Universal Registration Document for a reconciliation of the consolidated income statement with the adjusted income statement and a breakdown of the adjustment.

(2) Net of the cash inflow from the disposal of a tertiary property complex in the Paris region.

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS AND THE CHIEF EXECUTIVE OFFICER

ROSS McINNES

Chairman of the Board of Directors

PHILIPPE PETITCOLIN

Chief Executive Officer



Ross McInnes

Faced with the health crisis posed by the coronavirus (Covid-19) epidemic, Safran is taking every possible measure to help slow the spread of the virus and protect the health of its employees. At the same time, it is making continued industrial operations for its customers a priority. Safran is in robust shape, and the commitment of its 95,000 employees is unfaltering.

In 2019, the Group showed once again that the trust of its customers, partners and shareholders is well-founded.

Safran strengthened its position as the number-three aerospace group (excluding airframers)⁽¹⁾ worldwide, with revenue increasing by 17.1% on a reported basis (9.3% organically) to reach €24.6 billion, and recurring operating income coming in at €3.8 billion, of which 51.9% was converted into free cash flow.

Despite the complications arising from the grounding of the Boeing 737 MAX, all of the Group's business areas turned in solid performances.

Deliveries ramped up (especially the LEAP[®] engine, which shipped 1,736 units), products and services met market success, and the seats and cabins businesses brought in from Zodiac Aerospace picked up, driven by convergence of our



Thanks to the commitment of our employees, proven innovation and operational excellence, Safran designs, builds and supports high-tech solutions to contribute to a safer, more sustainable world, where air transport is more environmentally friendly, comfortable and accessible. We also apply our skills to develop solutions that meet strategic needs, such as defense and access to space.



methods and the development of a common culture, further enhancing Safran's consistency and efficiency.

The space and defense sectors also had a fruitful year, with progress on the Ariane 6 program and prime contractorship on the engine demonstrator program for the next-generation European fighter aircraft, in partnership with MTU Aero Engines. Such developments ensure sustained front-runner positioning for Safran in the decades to come.

By honing competitive performance across all Group divisions, we faced up well to fierce market conditions, and proved our capabilities for adaptation.

In 2019, Safran also began a managerial transition with the Board of Directors appointing Olivier Andriès to serve as Chief Executive Officer from January 2021.

There has been a considerable shift in Safran's international balance in recent years. More than half of the Group's workforce is now based outside France. With close contact to markets and leading-edge expertise, we can respond promptly and precisely to ever-changing demand.

Acutely aware of the major challenge represented by climate change,



Philippe Petitcolin

Safran is geared up to leading the way towards decarbonization of the aerospace industry. With positions in all aircraft-system segments, and energy systems in particular, we can tackle this issue from many different technological angles. Some 75% of Safran's R&T budget goes to direct or indirect measures for reducing the environmental impact of air transport. Safran's low-carbon project also includes an ambitious program to shrink the carbon footprint of its processes.

This absolute priority, embedded in our core purpose⁽²⁾ ("*raison d'être*"), ensures that economic performance is rooted in Group-wide values:

"Thanks to the commitment of our employees, proven innovation and operational excellence, Safran designs, builds and supports

high-tech solutions to contribute to a safer, more sustainable world, where air transport is more environmentally friendly, comfortable and accessible. We also apply our skills to develop solutions that meet strategic needs, such as defense and access to space."

In 2020, against the backdrop of the Covid-19 epidemic, Safran will continue to draw strength from its adaptability, workforce dedication and robust business model to tackle the difficulties and continue to seek lasting value creation that is shared fairly among all its stakeholders.

We would like to thank you for your loyalty and hope you enjoy reading this report.

Regards,

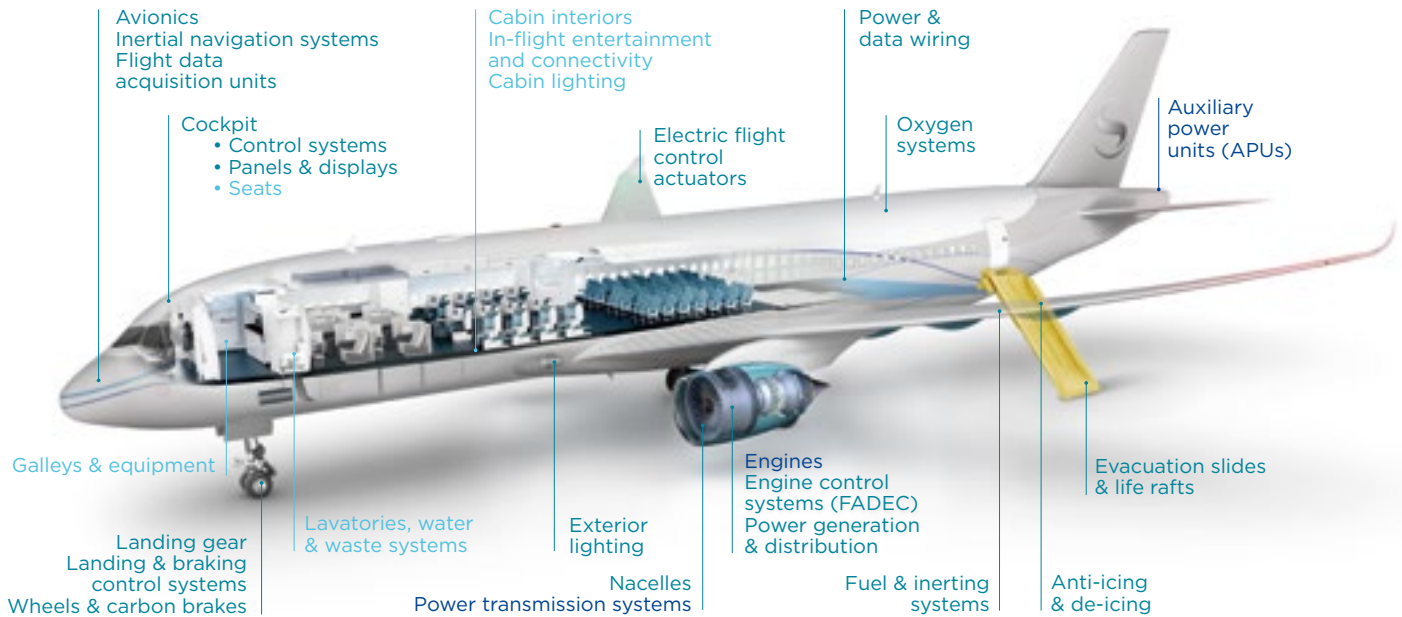
Ross McInnes and Philippe Petitcolin

(1) Classification criteria: revenue – Source: Safran.

(2) The wording of the core purpose is not set out in Safran's bylaws.

SAFRAN: A COMPREHENSIVE OFFERING

Present in all aircraft components, Safran strives to build the future of the global aerospace sector and be the preferred partner of airframers and airlines.



LEADERSHIP POSITIONS IN OUR MAIN BUSINESS SEGMENTS

**NO. 1
WORLDWIDE⁽¹⁾:**

Safran is a global leader in its main markets. In a favorable context shaped by an expected twofold increase in air traffic over the coming twenty years and the introduction of new generations of aircraft, the Group will leverage its aerospace- and defense-focused portfolio and tier-one supplier position to capture strong growth in its business segments.



AEROSPACE PROPULSION

- for engines for 100+ seater commercial aircraft⁽²⁾
- for helicopter turbine engines



AIRCRAFT EQUIPMENT/ DEFENSE/AEROSYSTEMS

- for landing gear
- for wheels and carbon brakes for 100+ seater aircraft
- for electrical wiring
- for helicopter flight controls
- for evacuation slides and oxygen systems



AIRCRAFT INTERIORS

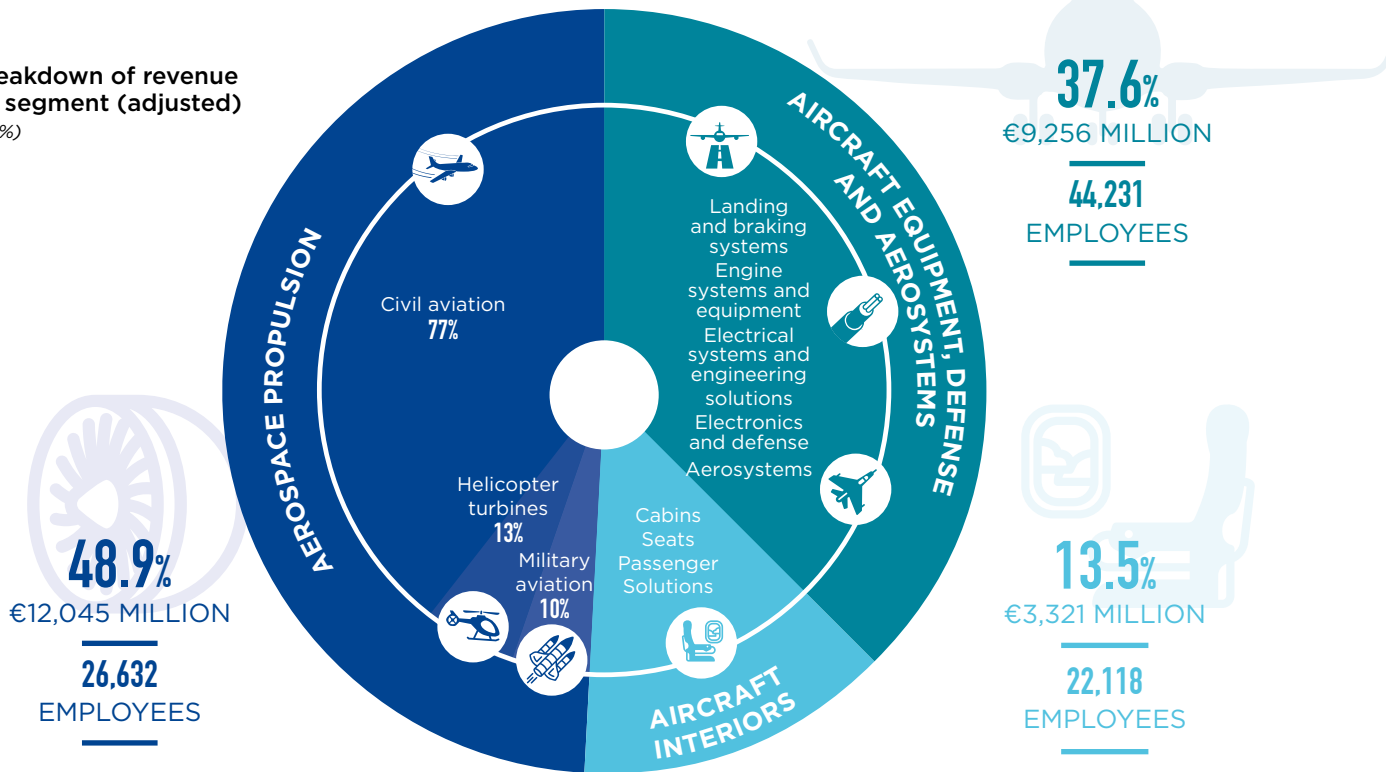
- for lateral partition panels, carts, containers and cabin interiors for regional and business aviation
- for onboard water and waste management systems

(1) Source: Safran.

(2) With GE Aviation, within the CFM International joint venture.

A BALANCED PORTFOLIO ACROSS THE AEROSPACE AND DEFENSE SECTOR

Breakdown of revenue
by segment (adjusted)
(in %)



Safran products have common features that contribute to the resilience of its business model: position as a tier-one supplier to airframers and airlines; high technology content and high demand, whether in original equipment sales or aftersales services.



A full-fledged engine manufacturer⁽¹⁾, Safran supplies airframers with engines for commercial aircraft, military aircraft, regional transport aircraft, business jets and helicopters. To increase cost efficiency and share risks, the world's leading engine manufacturers develop their engine programs in partnership. Safran has primarily partnered with GE Aviation since the 1970s, when they set up the 50-50 joint venture CFM International, which develops the CFM56® and LEAP® engines. This partnership has been extended through to 2040. Safran also contributes to access to space through its 50% stake in the ArianeGroup joint venture, prime contractor for the Ariane 5 and Ariane 6 launchers.



Safran offers a wide range of **aircraft equipment** including landing and braking systems, nacelles, electrical systems and related engineering solutions.

Defense: Safran provides solutions and services in optronics, avionics, navigation systems, tactical drones, electronics and critical software for civil and defense markets.

Aerosystems: Safran is one of the world's leading players in aircraft safety systems (evacuation slides, oxygen masks, etc.), cockpit systems and fluid management systems (fuel, pneumatic and hydraulic circuits).



To ensure passenger safety and enhance their comfort, Safran develops cabin interiors (overhead bins, lavatories, galley and catering equipment, etc.), passenger and crew seats, water and waste management systems, in-flight entertainment systems (RAVE™), and interior refits for commercial aircraft. Safran's aircraft interiors business addresses both airframers (under the SFE⁽²⁾ model) and airline companies (BFE⁽³⁾ model).

(1) A full-fledged engine manufacturer is present in all engine components and all propulsion market segments.

(2) Supplier Furnished Equipment: equipment specified and purchased by the airframer.

(3) Buyer Furnished Equipment: equipment specified and purchased by the airline.

A LEADING GLOBAL PLAYER

Since its creation in 2005, Safran has expanded internationally. With over 95,000 employees in 27 countries, the Group has extended its footprint beyond its European base and is now present in North and South America, Africa, the Middle East, Asia and Oceania.

Leveraging its global footprint, the Group establishes strong and sustainable relationships with the majority of aerospace players and airlines, reflecting its desire to promptly deliver local services to customers.

Geographic spread of employees and sites

Percentage of employees

% of employees in the total Group workforce

Number of sites⁽¹⁾



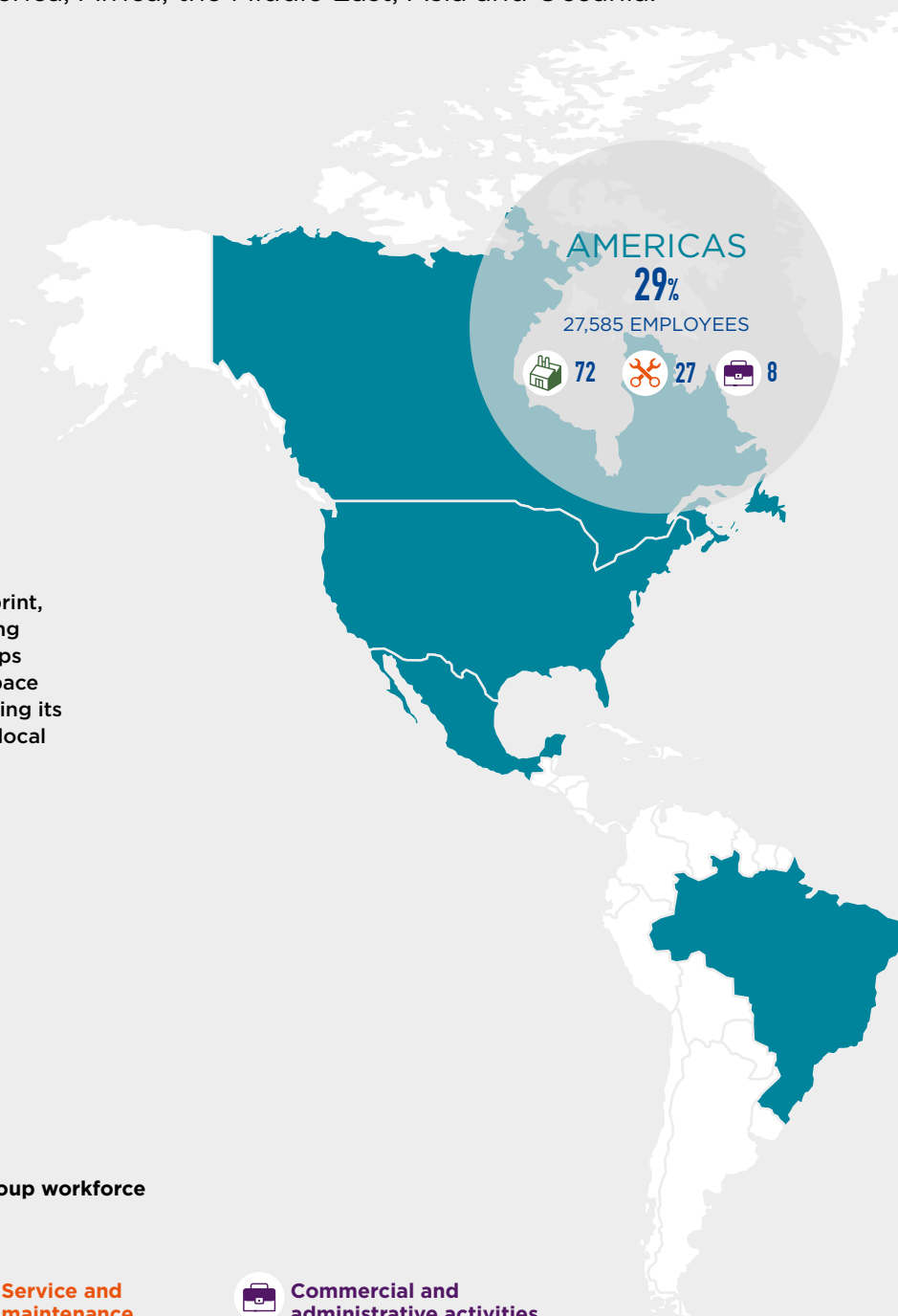
**R&D and
production
activities**



**Service and
maintenance
activities**



**Commercial and
administrative
activities**



(1) Each site corresponds to a legal entity covering one or more tertiary, production, service or maintenance sites.

FRANCE

48%

45,198 EMPLOYEES



66



14



19

EUROPE

(excl. France)

11%

10,668 EMPLOYEES



26



8



3

AFRICA MIDDLE EAST

7%

6,855 EMPLOYEES



9



3



1

ASIA OCEANIA

5%

5,137 EMPLOYEES



9



7



2

A LOOK BACK AT OUR HISTORY

With a rich history spanning over 100 years,
Safran has made high technology its hallmark.

1 9 0 5

Société des Moteurs Gnome is founded in the Paris suburb of Gennevilliers. Gnome rotary engines become the standard for planes around the world.

1 9 1 2

Creation of Société des Moteurs Le Rhône, Gnome's main competitor before being taken over by its rival.

1 9 2 4

Creation of Société d'Applications Générales d'Électricité et de Mécanique (Sagem), that will mainly manufacture cameras and artillery equipment and go on to design the world's first infrared guidance system for air-to-air missiles.

1 9 4 5

Gnome & Rhône is nationalized and renamed Snecma (Société Nationale d'Étude et de Construction de Moteurs d'Aviation).

1 9 4 5 - 2 0 0 2

Several aerospace companies join Snecma: Hispano-Suiza, a specialist in power transmission for aircraft engines, followed by Messier-Hispano-Bugatti, a specialist in landing gear.

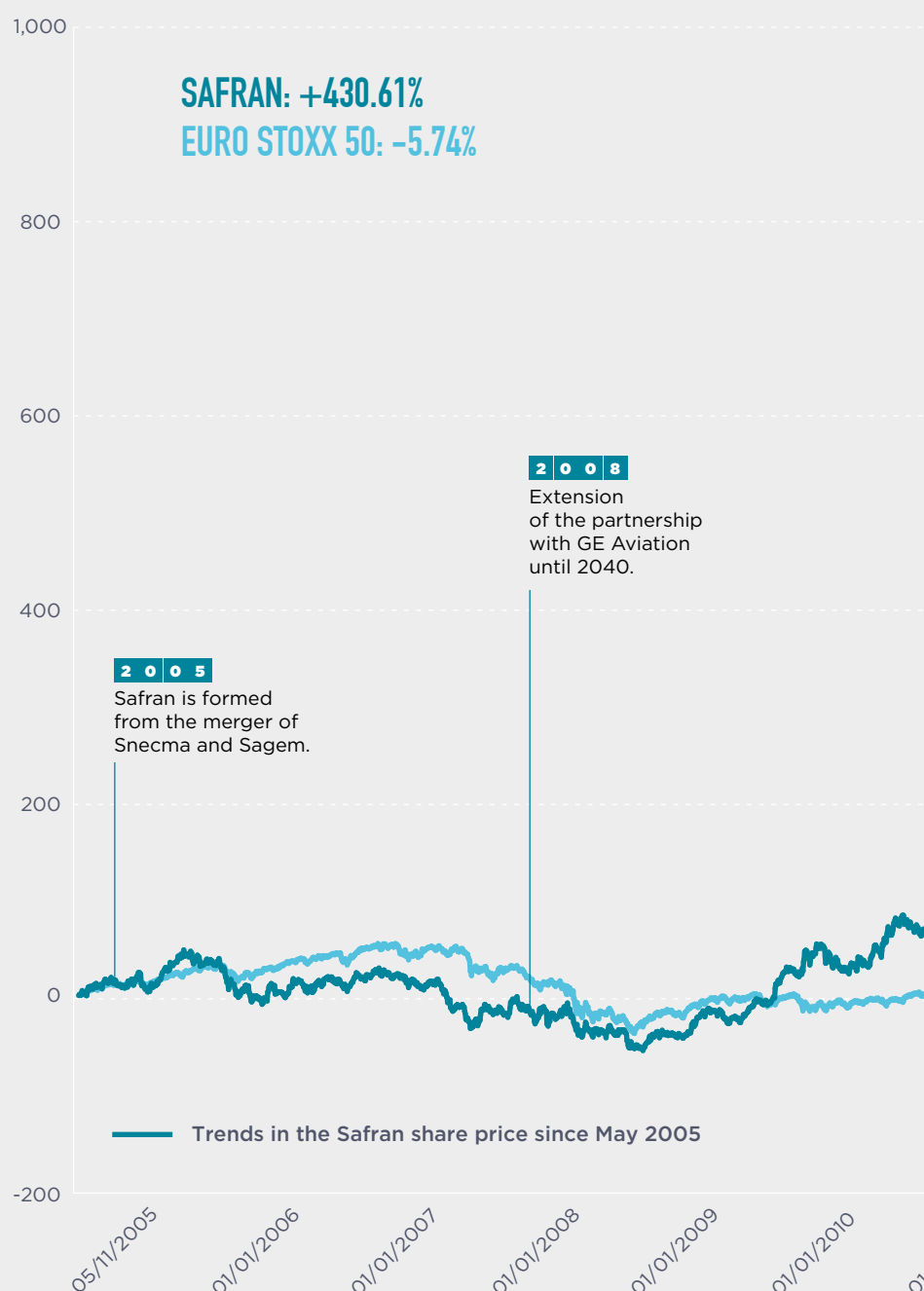
In 2000, wiring specialist Labinal and its helicopter engine manufacturer subsidiary Turbomeca join Snecma.

In 2002, nacelles specialist Hurel-Dubois joins Snecma.

1 9 7 4

Snecma becomes a civil aircraft engine manufacturer through a cooperation agreement with GE Aviation for the manufacture of the CFM56 engine.

TRENDS IN THE SAFRAN SHARE PRICE AND THE EURO STOXX 50 INDEX (in %) (May 11, 2005 to March 25, 2020)

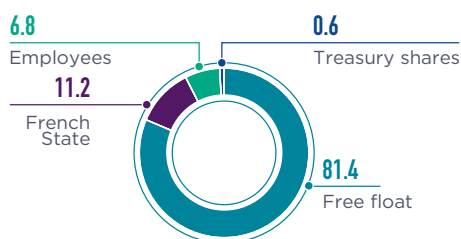


OWNERSHIP STRUCTURE

(in %)

Share capital at December 31, 2019

Number of shares: 427,234,155



2018

Takeover and merger of Zodiac Aerospace by Safran. Rebranding under the Safran name of all former Zodiac Aerospace businesses.

2017

Business combination agreement between Safran and Zodiac Aerospace. Disposal of the detection, identity and security businesses.

2016

Inclusion of "Safran" in the corporate name of all its subsidiaries. Creation of ArianeGroup with Airbus.

2013

Acquisition of Goodrich's electrical systems business.

2020

Worldwide stock-market downturn resulting from coronavirus (Covid-19) epidemic.

— Trends in the EURO STOXX 50 index since May 2005

01/01/2011 01/01/2012 01/01/2013 01/01/2014 01/01/2015 01/01/2016 01/01/2017 01/01/2018 01/01/2019 03/25/2020

OUR CSR⁽¹⁾ COMMITMENTS

Safran is intent on fully undertaking its corporate social responsibility, given its leading market position, international profile, and responsibility as an employer of more than 95,000 people.

SAFRAN'S CSR APPROACH IS AN INTEGRAL PART OF ITS CORE PURPOSE

Corporate social responsibility, an integral part of Safran's business model, is built on the three strategic assets of sustainable innovation, operational excellence and responsible conduct, the aim being to create increasing, lasting value and fulfill responsibilities to all concerned.

Safran's CSR approach factors in the Group's non-financial

challenges, for which the materiality matrix was updated in 2019.

This update was an opportunity for Safran to invite representative input from internal and external stakeholders, with a view to taking these findings on board. Stakeholder input was elicited on 37 challenges identified by an in-depth analysis of international standards across the aerospace sector.

These challenges were submitted to more than 600 internal stakeholders, including employees of all Group companies at sites worldwide, as well as to a panel of 70 external stakeholders.

Nine priority challenges for Safran (shown below) were identified, with a similar consensus both internally and externally.

MATERIALITY MATRIX OF NON-FINANCIAL CHALLENGES

● THE NINE PRIORITY CHALLENGES FOR STAKEHOLDERS APPEAR IN THE CIRCLE AT THE TOP RIGHT.



(1) Corporate Social Responsibility.

SAFRAN'S CONTRIBUTION ON THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Safran contributes to work on meeting the United Nations Sustainable Development Goals for 2030, through its CSR policy and with support from its stakeholders. Its commitments cover 12 of the 17 goals in particular, corresponding to the action taken by the Group consistent with its operations and the nine priority challenges in its materiality matrix.



Safran applies a health, safety and environmental (HSE) policy based on guidelines covering all employees at all sites. Comprising 30 standards, these guidelines are used to audit HSE performance, which is rated bronze, silver or gold, according to the level of HSE maturity reached. Objective for 2025: 100% of sites with gold rating.



Safran promotes the professional integration of young people: 11.6%⁽¹⁾ of recruitment across Europe in 2019 related to interns, work-study program participants and PhD students. Initiatives and partnerships are run with educational establishments in all Safran's host countries.



Safran sees gender equality at work as a driving force in business transformation, and this means developing a more inclusive corporate culture, enhancing employment attractiveness for women and increasing the proportion of women in executive positions. In 2019, Safran obtained renewal of the GEEIS (Gender Equality European & International Standard) label and took on ambitious objectives for 2023.



Safran pays close attention to water, discharge and waste treatment at its sites. Sites that implement chemical processes such as surface treatments have brought in a specific organization for treating discharge.



Safran signed a global framework agreement on **working conditions, CSR and sustainable development** in 2017. It also operates a duty of care plan for suppliers and subcontractors on matters of health, safety, the environment and human rights. Signing Safran's Responsible Purchasing Charter is one of the first commitments undertaken by all suppliers.



Around 75% of Safran's R&T budget goes to direct or indirect measures on reducing the environmental impact of air transport. In 2019, Safran filed more than 1,200 initial patent requests worldwide.



Safran pursues an active policy on employment for people with disabilities, under its 2018-2022 disability agreement. People with disabilities accounted for 5.1% of the overall workforce in 2019 (France agreement scope)⁽²⁾.



Safran's low-carbon project **sets a trajectory on reducing greenhouse gas emissions** linked to its production methods. Targets for 2025 are an 8% reduction in direct (Scope 1) emissions and an 18% reduction in indirect (Scope 2) emissions compared with 2018.



Safran sees the transition to sustainable aviation as an absolute priority, and operates a **climate strategy** designed to bring down product-related and site-related greenhouse gas emissions. Furthermore, its policy has always been to ensure maximum protection of its sites against natural, technological and environmental risks.



Through its health, safety and environment policy, Safran is committed to preventing and minimizing pollution potentially caused by its activities.



In 2012, Safran became the first CAC 40 company to obtain "anti-corruption" certification from the French Agency for the Diffusion of Technological Information (ADIT). This certification, renewed in 2017 for a three-year period, attests to the robustness of Safran's anti-corruption program group-wide, with requirements as strict as those of international standards.



Safran develops many partnerships with the business community, the financial community, associations, the academic world and public partners to advance and share its knowledge and operations and their implementation.

NB: The figures in the icons above correspond to the numbering of the United Nations Sustainable Development Goals.

(1) Percentage of European workforce.

(2) Excluding Safran Aerosystems, Safran Passenger Solutions, Safran Seats, Safran Cabin.

OUR MARKETS

The global commercial aircraft fleet (36 passengers and more) and passenger traffic are expected to double in the next 20 years, excluding consideration of the impact of the coronavirus (Covid-19) epidemic.

CIVIL AVIATION

Several factors contribute to this momentum:

- the increasing popularity of air travel spurred by falling prices;
- pressure on capacity, with load factors reaching new highs in the majority of airlines;
- demand in regions enjoying strong economic growth (in particular China, South-East Asia and India), and renewal of the existing fleet (mainly in North America and Europe).

High growth in air traffic proved resilient against previous global economic crises (in 2001 and 2008), but may suffer sudden fluctuation in the event of a local or global health crisis such as SARS and Covid-19.

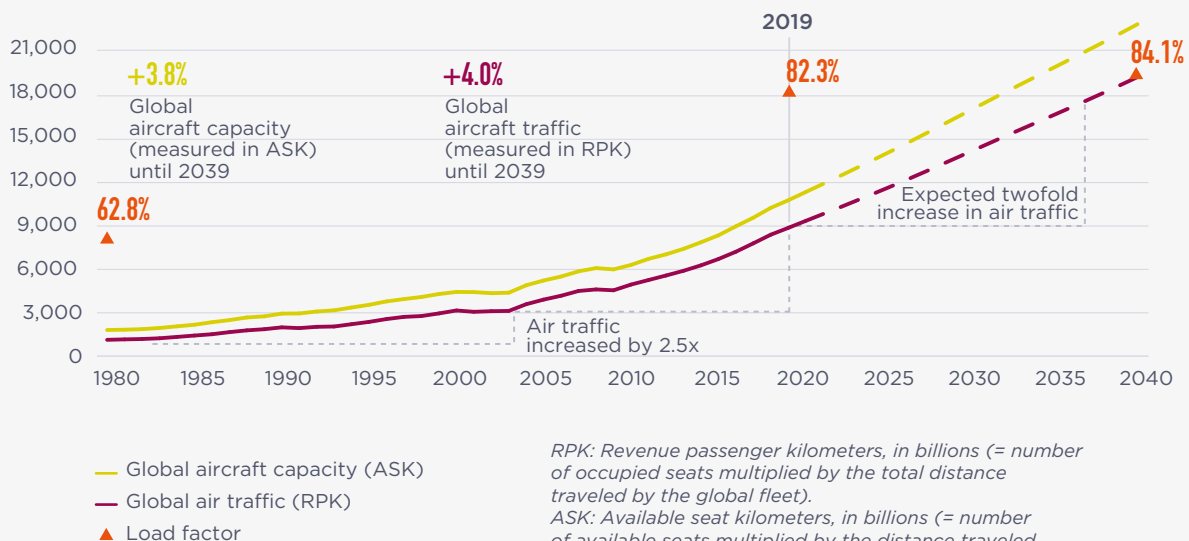
Estimates point to a total of around 39,400 new planes over the next 20 years. This dynamic is especially pronounced in the short- and medium-haul aircraft segment, which expects 23,500 new planes over the

same period. In addition, airframers Airbus and Boeing report very high order backlogs of 7,482 and 5,406, respectively, at the end of December 2019. We see the same trend in the aftermarket, with strong growth driven by the increasing in-service fleet size and longer aircraft service lifespans.

Furthermore, aircraft interior refurbishment requirements are accelerating, with several retrofit cycles in an aircraft's lifespan.

CIVIL AVIATION TRAFFIC, GLOBAL PROJECTIONS

These long-term projections do not take into account the impact of the coronavirus (Covid-19) epidemic.



Source: Safran Aircraft Engines.

DEFENSE



After several years of downward trends, defense budgets are now increasing steadily across the globe, in a context marked by several areas of armed conflict and geopolitical tension.

In Europe, defense initiatives have been boosted with the launch of projects such as the European Defense Industrial Development Programme (EDIDP), for 2019-2020, and the European Defense Fund (EDF), from 2021. In financial terms,

this means more than €500 million budgeted through to 2021, and plans to mobilize over €35 billion in community funding for defense and space initiatives from 2021 to 2027, including €13 billion broken down as €4.1 billion for R&T and €8.9 billion for R&D.

FOCUS ON SAFRAN'S MILITARY ACTIVITIES

Over and above the electronic activities of Safran Electronics & Defense, all Group subsidiaries are present in the military sector, which accounts for approximately 16% of Group revenue. Products notably include the M88 engines powering the Rafale, military helicopter turbines, TP400 engines powering the A400M transport plane, electrical wiring for the Rafale, landing gear, tactical drones and auxiliary power units (APUs). Safran also supplies deterrent equipment.



BUSINESS AVIATION AND HELICOPTERS

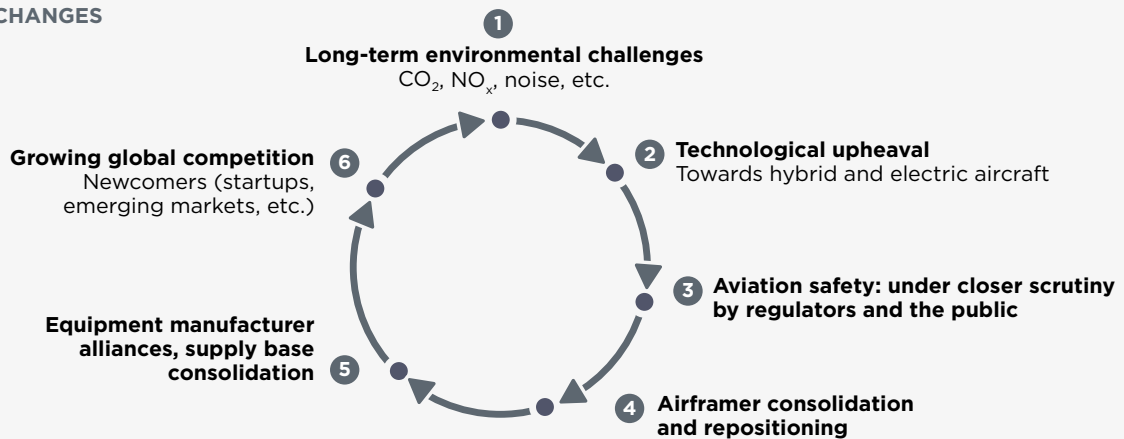
The business aviation market is stable. At the end of 2019, there were around 21,900 business aircraft in service. The helicopter market is restructuring, after several years marked by the crisis faced by players in the oil and oil-related sectors. Some 50,000 helicopters were in service worldwide in 2019.



AEROSPACE INDUSTRY TRANSFORMATION

Safran operates in a changing industrial landscape.

RAPID CHANGES



1 LONG-TERM ENVIRONMENTAL CHALLENGES

Climate change is prompting a systemic transformation in civil aviation. The need for a response consistent with the magnitude and urgency of the global environmental issue raises substantial social and political expectations in all sectors (pages 22 to 25).



2 TECHNOLOGICAL UPHEAVAL

Innovation has been an essential element of the aerospace sector from the outset. Today's aircraft are five times more fuel efficient than their counterparts in the 1950s, mainly thanks to improved engines. In addition, numerous innovations have driven considerable progress in aircraft safety, making civil aviation one of the safest means of transport in the world.



New areas of innovation in short-, medium- and long-haul aviation have appeared: digital (big data, artificial intelligence), connectivity, autonomy, hybrid and/or electric propulsion, distributed propulsion, materials, processes, sustainable fuels, hydrogen, etc. These innovations pave the way for new engine architectures, new concepts, new production methods, new services, new players and new uses (particularly VTOL⁽¹⁾).



(1) VTOL: Vertical Take-Off and Landing aircraft.

3

AVIATION SAFETY, UNDER CLOSE SCRUTINY BY REGULATORS AND THE PUBLIC

Aviation safety is a fundamental collective challenge taken up by all Safran Group companies. For Safran, this is an absolute priority and an unwavering commitment to customers, passengers, pilots and crews. Though air transport is today one of the safest means of transport in the world, the two Boeing 737 MAX accidents, in 2018 and 2019, remind

us of the absolute need to take every possible measure to ensure that this does not happen again. Strong and legitimate public concern, addressing industry players and regulatory authorities, is bringing about closer scrutiny on aviation safety by certification authorities throughout the aircraft life cycle.



4

AIRFRAMER CONSOLIDATION AND REPOSITIONING



Since 2017, airframers have consolidated around the well-established duopoly: transfer of Bombardier's residual interest in the A220 program (former "C Series") to Airbus in February 2020 and the alliance currently under negotiation between Boeing and Embraer. In addition, new players are continuing to emerge, particularly in China and Russia. Airframers are also considering a change in their business scope, bringing certain activities back in-house and increasing their range of services.

5

EQUIPMENT MANUFACTURER ALLIANCES, SUPPLY-BASE CONSOLIDATION

Encouraged by airframers and airlines, suppliers and equipment manufacturers in the supply chain have also been consolidated, with major operations including the 2018 acquisition of Zodiac Aerospace by Safran and the more recent merger underway between Collins Aerospace and Raytheon, following on from the Rockwell-Collins acquisition of B/E Aerospace.

Newcomers have appeared among the equipment manufacturers, attracted by the strong sector growth.

Airframers are furthermore subject to intense competition and put substantial pressure on their equipment manufacturers to reduce prices, with major cost reduction programs. Certain key materials are also rare resources worldwide (titanium, rare earths, etc.) and their supply can be disrupted by geopolitical and trade tensions.

6

GROWING GLOBAL COMPETITION

For airlines, the sector is marked by strong growth for Middle Eastern and South East Asian companies. The ramp-up of low cost players is also significant in short- and medium-haul transport. Lastly, investors, finance companies and aircraft leasing companies are becoming major players in the aviation ecosystem.

OUR AMBITIONS

The major trends in the ecosystem described above suggest sector growth, with a focus on safety, competitive performance, and technological and environmental challenges.

Safran aims to become the world's leading aircraft equipment supplier within the next 15 years. To achieve this goal, the Group draws in particular on:

- a business model building on:
 - products with business cycles of different maturities (from just a few years for an aircraft seat up to 40 years for an engine);
 - service and aftermarket businesses (including spare parts and long-term contracts), that now generate nearly half of its revenue. These services ensure recurring revenue streams, margins with smooth time-spreads, and improved visibility;

- coverage of all sub-segments of the aerospace and defense sector (regional aircraft, short-medium haul, long haul, business jets, helicopters, military aircraft), to reduce sensitivity to variations in business cycles;
- two absolute priorities: climate change and aviation safety;
- a clear strategy drawing upon three key Safran assets: sustainable innovation, operating excellence and responsible conduct.

By focusing both on operating excellence and the investment needed to lead in state-of-the-art technology, the Group is ideally placed to reach a new milestone in business growth and value creation.



(1) Safran is present in all engine components and all segments of the propulsion market.

STRATEGY AND BUSINESS MODEL

ILLUSTRATION OF OUR AMBITIONS IN THE MEDIUM-HAUL SEGMENT, THROUGH THE CFM56-LEAP TRANSITION

In this segment, which represents 60% of global aircraft deliveries, CFM International has a market share of around 80% thanks to 40 years of commercial success.

Long-term prospects

The propulsion business generates significant service activities, mainly comprising the sale of spare parts and maintenance, repair and overhaul services (MRO). With the increasing size of the engine fleet in service, Safran has substantial growth potential. The Group has been developing long-term service

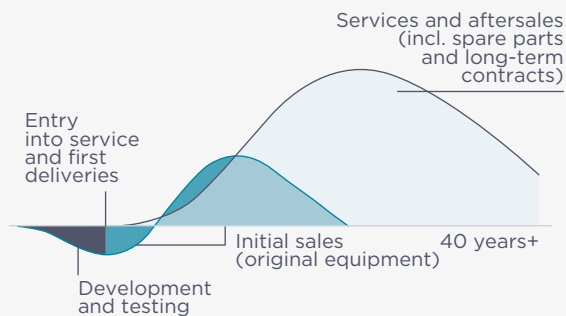
contracts for a number of years, in response to customer demand. These contracts now apply to the LEAP engine. Aftermarket services for this engine will gradually take over from the CFM56 engine from 2025.

A large CFM56 fleet in service

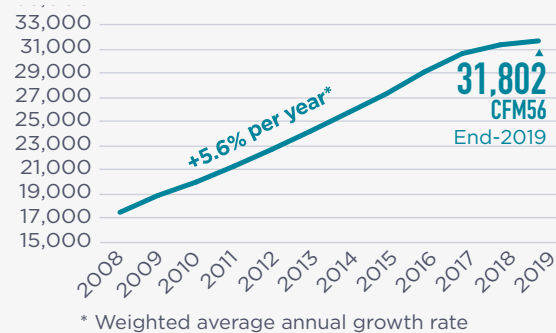
With an in-operation base⁽¹⁾ of over 31,800 engines at the end of 2019,

the CFM56 is the biggest commercial success in the history of civil aviation: every two seconds, a CFM56 engine takes off somewhere in the world. It will continue to generate service activities for Safran over the next 20 years, with a peak expected around 2025.

ECONOMIC LIFE CYCLE OF AN AIRCRAFT ENGINE PROGRAM



CFM56 IN-OPERATION BASE⁽¹⁾



CFM56 (-5B/-7B) FLEET BY NUMBER OF SHOP VISITS PERFORMED

- No shop visit performed
- 1 shop visit performed
- More than 2 shop visits performed

Source: CFM data



LEAP, following through on the CFM56 success story

The CFM56's successor, the new LEAP engine, is already a commercial success. Produced since 2016, its ramp-up is the steepest ever known in the aerospace industry: 1,736 LEAP engines were delivered in 2019 (compared to 1,118 in 2018).

Highly innovative, the LEAP engine reduces fuel consumption by 15% relative to the last generation of CFM56 engines. At the end of December 2019, the LEAP engine had a record order backlog of 15,614 engines, including 1,968 orders registered in 2019. It has been selected for three aircraft:

- LEAP-1A for the Airbus A320neo, which came into service in August 2016 (60.5% market share⁽²⁾);
- LEAP-1B for the Boeing 737 MAX, which came into service in May 2017 (100% market share);
- LEAP-1C for the COMAC C919 (China, exclusive Western source).

(1) In-operation base is equal to engines delivered less engines dismantled or scrapped.

(2) Firm orders at January 31, 2020.

CREATE VALUE FOR ALL OUR

TRENDS IN THE

A FAST-GROWING MARKET

Passenger demand expected to double in 20 years.

LONG-TERM ENVIRONMENTAL CHALLENGES

Limiting CO₂ and NO_x emissions and noise.

AVIATION SAFETY

Under closer and legitimate scrutiny by regulators and the public.

TECHNOLOGICAL UPHEAVAL

Shift to hybrid and electric propulsion, additive manufacturing, composite materials, big data, AI, etc.

OUR RESOURCES⁽¹⁾

HUMAN CAPITAL

- More than **95,000** employees in 27 countries
- **4%** of payroll spent on training
- **14,880** recruitments in 2019
- Recognized governance

INTELLECTUAL CAPITAL

- **€1.7 billion** total R&D expenditure
- Approximately **1,200** PhD graduates
- **16%** of Group employees in R&D (including R&T)

INDUSTRIAL CAPITAL

- **274** sites in the world serving our customers
- **€695 million⁽²⁾** in industrial investments
- Structuring **alliances and partnerships**, including the CFM International joint venture formed with GE Aviation in 1974 and renewed until 2040

FINANCIAL CAPITAL

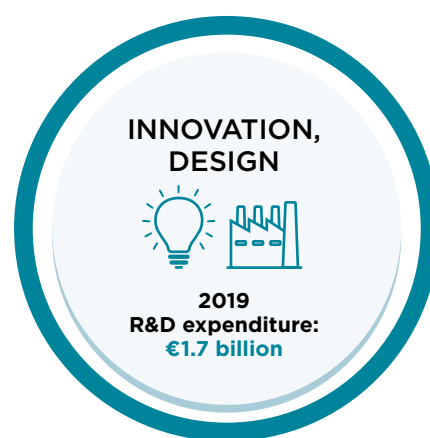
- A **full order backlog**
- A **growing base** in operation (up approximately 5.6% annually for short- and medium-haul engines)
- One of the strongest financial positions in the industry
- A **stable shareholder base** (employees, French State, French industrial families, long-term institutional investors)
- A **strong financial structure** (net debt/EBITDA⁽³⁾ of 0.86)
- A **foreign exchange risk** hedging policy providing **visibility**

SOCIAL AND ENVIRONMENTAL CAPITAL

- **75%** of our R&T investment focused on reducing our environmental footprint
- **Training** in responsible purchasing and good conduct charter

OUR BUSINESS MODEL

OUR BUSINESS MODEL



A BALANCED BUSINESS PORTFOLIO



TWO ABSOLUTE PRIORITIES



Climate change
(page 22)



Aviation safety
(page 26)

(1) All figures refer to 2019 except where noted.

(2) Net of the cash inflow from the disposal of a tertiary property complex in the Paris region.

(3) EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) is equal to a company's profits before deduction of loan interest, taxes and duties and charges to depreciation, amortization and provisions on fixed assets.

STAKEHOLDERS

AEROSPACE INDUSTRY

AIRFRAMER
CONSOLIDATION
AND REPOSITIONING

EQUIPMENT MANUFACTURER
ALLIANCES, SUPPLY BASE
CONSOLIDATION

GROWING
GLOBAL COMPETITION
With newcomers,
new markets and new uses.

SERVING OUR CUSTOMERS

INITIAL SALES
(original equipment)



2019 revenue:
€13.9 billion
56%

SERVICES
AND AFTERMARKET



2019 revenue:
€10.7 billion
44%

Product lifetime (illustrative⁽⁴⁾)

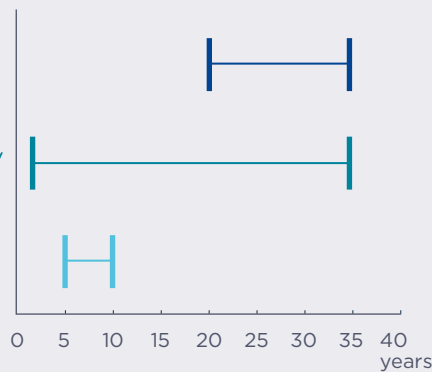
Aerospace
Propulsion



Aircraft
Equipment,
Defense and
Aerosystems



Aircraft
Interiors



THREE ASSETS

1

SUSTAINABLE
INNOVATION

(page 28)

2

OPERATIONAL
EXCELLENCE

(page 32)

3

RESPONSIBLE
CONDUCT

(page 36)

OUR IMPACTS⁽¹⁾

HUMAN CAPITAL

- A **favorable and attractive** social model: profit-sharing, incentive schemes, employee share ownership and employee savings funds
- 43%** of employees are Company shareholders and together hold 6.8% of the share capital

INTELLECTUAL CAPITAL

- 42,000** intellectual property titles

INDUSTRIAL CAPITAL

- €250 million of synergies expected in 2022, following the acquisition of Zodiac Aerospace
- A **robust supply chain** enabling the ramp-up of LEAP production (dual active source for all specific engine parts)

FINANCIAL CAPITAL

- Organic adjusted revenue growth** of 9.3% vs. 2018
- Recurring operating margin of 15.5%, up 110 basis points on 2018
- A **disciplined** M&A policy
- EBIT to FCF conversion rate of 51.9%
- 16.54% annual growth in TSR⁽⁵⁾ from 2005 to 2019
- Stock market performance (up 431% from May 11, 2005 to March 25, 2020)

SOCIAL AND ENVIRONMENTAL CAPITAL

- LEAP: **-15%** CO₂ emissions and **-50%** NO_x emissions
- RESPONSIBLE SUPPLIER RELATIONS **Label**
- 1st** CAC 40 company certified "anti-corruption" by the ADIT⁽⁶⁾

(4) Aircraft engines have an average service life of 20 years in civil aviation and 35 years in military aviation. Aircraft equipment has an average service life ranging from two years for carbon brakes to 35 years for wiring. Aircraft interiors have an average service life ranging from five years for business-class seats to ten years for economy-class seats.

(5) TSR: Total Shareholder Return corresponds to dividends plus the change in the share price.

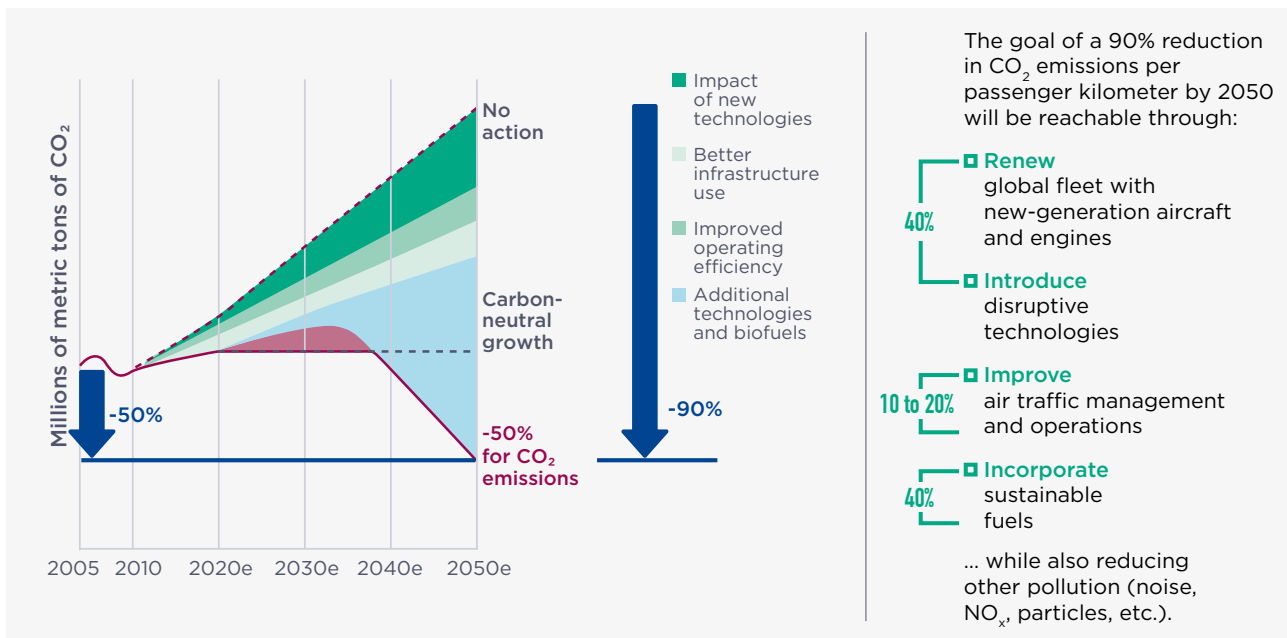
(6) French Agency for the Diffusion of Technological Information (Agence pour la diffusion de l'information technologique - ADIT).



SAFRAN AND THE CLIMATE CHANGE CHALLENGE

Climate change sets a major and systemic challenge for civil aviation. Safran's climate strategy addresses the challenge by offering customers innovative solutions at a competitive cost. With its position in most aircraft-system segments, and all energy systems in particular, Safran makes climate change a central part of its technological solutions.

AN AMBITIOUS COMMITMENT FOR THE AVIATION SECTOR AND SAFRAN'S VISION TO ACHIEVE IT



Air transport accounts for 2% of global CO₂ emissions from human activities. With air traffic expected to double over the next 20 years, the transition to sustainable aviation is an absolute priority for Safran. In 2008, the aviation sector took up a voluntary commitment on achieving carbon neutrality by 2050 (ATAG)⁽¹⁾, by halving net fleet emissions by 2050 compared to 2005 to bring a 90% reduction in average emissions per passenger kilometer across the worldwide fleet, taking into account the expected growth in air traffic⁽²⁾.

Ambition: low-carbon aviation by 2030-2035, towards carbon neutrality by 2050

The aviation sector commitments are consistent with the Paris Agreement on keeping global temperature rise below two degrees centigrade. Our objective is achievable and should involve all players in the sector (industry, airlines, air traffic control, airports, government authorities).

THE SAFRAN COMMITMENT

At the 2019 Paris Air Show Chief Technology Officers (CTOs) of seven of the world's major aviation manufacturers⁽³⁾, including Safran, made this statement:

"As industry CTOs we are committed to driving the sustainability of aviation. We believe in this industry and its role in making our world a brighter and safer place. We also strongly believe we have an approach to make aviation sustainable and play an even bigger role in our global community."

(1) ATAG: Air Transport Action Group.

(2) Annual growth of around 4% is expected, bringing a 3.5 times increase in air traffic from 2005 to 2050.

(3) Airbus, Boeing, Dassault Aviation, GE Aviation, Rolls-Royce, Safran, United Technologies Corporation.

SAFRAN'S CLIMATE STRATEGY

Safran intends to lead the way towards decarbonization of the aviation sector, through a climate strategy taking two focuses: reduction in CO₂ emissions from its production methods, and, what constitutes its essential mission, reduction in CO₂ emissions from its products.

REDUCTION IN CO₂ EMISSIONS FROM ITS PRODUCTION METHODS

Safran takes a committed and ambitious stance on reducing the carbon footprint of its production methods (referred to as Scope 1, Scope 2 and Scope 3 emissions in the GHG Protocol⁽¹⁾), through its low-carbon project.

Safran's low-carbon project

Safran's Health, Safety and Environment Department has been running the Group's low-carbon project since late 2018, and a steering committee comprising several members of the Safran Executive Committee has been formed. In addition, a dedicated organization has been set up, with the appointment of project leaders in each of the Group's tier-one companies, and identification of "business line" liaison officers.

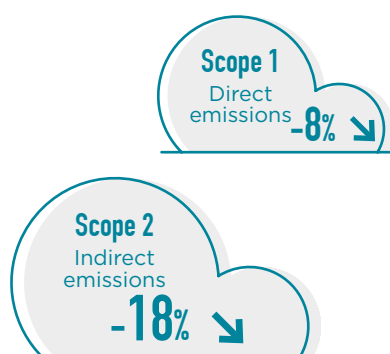
The first phase of this project involves reducing direct and indirect emissions from energy consumption in our production methods:

- direct energy-related emissions (referred to as Scope 1 emissions) include emissions from LPG (butane, propane), natural gas, home heating oil, diesel fuel, heavy fuel oil, aviation fuel and refrigerants;
- indirect energy-related emissions (referred to as Scope 2 emissions) include emissions from purchased electricity, steam, heat and cold.

The second project phase, launched in early 2020, concerns Safran's indirect emissions (referred to as Scope 3 emissions): from logistics operations, purchases of goods and services, and employee travel.

Work here will enable us to reduce CO₂ emissions while optimizing our competitiveness.

Safran's targets to reduce CO₂ emissions across its production methods by 2025 (compared with 2018 levels: 218,906 t CO₂eq. for Scope 1 and 374,691 t CO₂eq. for Scope 2).



Some of the assets employed to meet our objectives are as follows:

- reducing sites' energy consumption, chiefly by improving the energy efficiency of buildings;
- developing breakthrough solutions for heat generation at our sites, by conversions such as replacing gas boilers with biomass boilers;
- choosing low-carbon energy sources, as with electricity suppliers in Mexico, with the signing of a solar power energy contract.

THE EUROPEAN CO₂ EMISSIONS QUOTA SYSTEM (EU ETS⁽²⁾)

EU ETS, introduced in 2005, was the world's first international emissions trading system. It today stands as the largest global mechanism for trading emission rights, representing more than three quarters of international carbon emission trading. A ceiling is set to limit total emissions of certain greenhouse gases from sites covered by the system. This ceiling is gradually reduced to bring down the overall emissions volume. Under the ceiling level, companies are granted or can purchase emission quotas, which they can trade with other companies according to their respective needs. The EU ETS legislative

framework for 2021-2030 was reviewed in early 2018 to meet the emissions reduction objectives under the 2030 climate action and energy framework and under the EU contribution to meeting the 2015 Paris Agreement. EU ETS only applies to three of the more than 150 sites that Safran has in Europe: Gennevilliers, Villaroche and Villeurbanne. The emissions generated by these three Safran sites have never required the purchase of CO₂ quotas. In addition, Safran is examining alternative energy solutions that would enable it to no longer use "licenses to pollute" for the Gennevilliers and Villaroche sites by 2025.

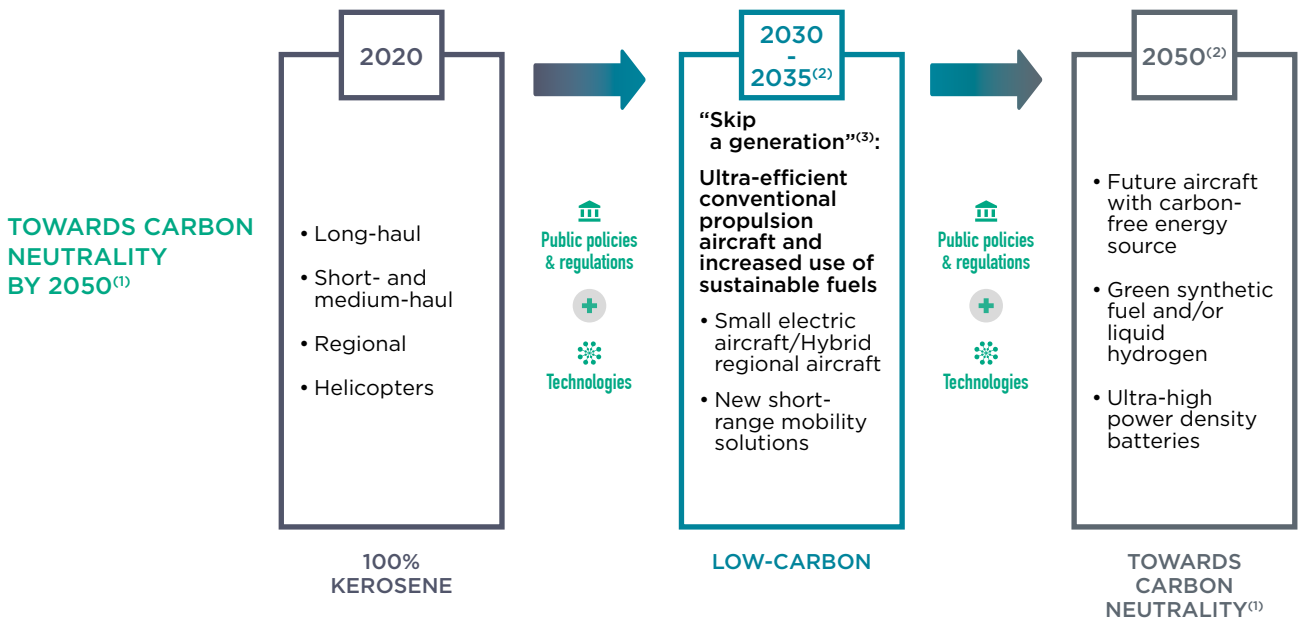
(1) Greenhouse Gas Protocol.

(2) European Union Emission Trading System.

SAFRAN'S CLIMATE STRATEGY

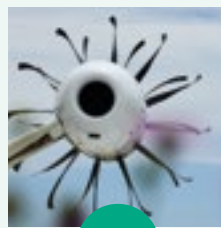
REDUCTION IN CO₂ EMISSIONS FROM ITS PRODUCTS

Because the production of an aircraft accounts for only a small percentage of its emissions over its life cycle, Safran considers that its first challenge is to reduce CO₂ emissions from its products (referred to as Scope 3 emissions in the GHG Protocol).

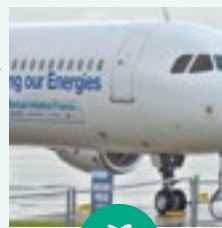


NOT JUST ONE BUT SEVERAL SOLUTIONS

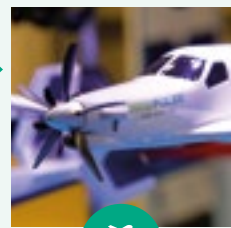
Rather than one single solution, there will be a series of measures, at different timeframes, addressing specific market segments and usages: short-, medium- and long-haul aircraft, helicopters, business jets and new air mobility.



ULTRA-OPTIMIZED THERMAL PROPULSION



SUSTAINABLE FUELS



HYBRID PROPULSION AND ELECTRIFICATION



(1) In-flight emissions & emissions/capture related to fuel production close to zero by 2050.

(2) Target date for aircraft in service.

(3) New aircraft release bringing twice the usual next-generation gain (15%).



ELECTRIFICATION & HYBRIDIZATION: SOLUTION FOR SHORT DISTANCES

Safran is actively involved in all-electric and hybrid propulsion systems addressing applications in new short-haul aviation solutions such as lightweight urban, suburban or even regional transport (VTOL⁽¹⁾ or STOL⁽²⁾ vehicles).

Given the current performance of electrical power systems (especially as regards battery energy density), Safran considers the prospect of an all-electric medium- and long-haul aircraft to be unrealistic for the time being.

Since flights longer than 1,000 km account for 50% of journeys and close to 80% of emissions, the priority is on reducing emissions in the medium- and long-haul segment, which will remain predominantly thermal-powered from 2030 to 2050.



SUSTAINABLE FUELS: A WORKABLE SOLUTION FOR THE NEAR FUTURE

The only way to achieve an immediate reduction in aircraft carbon footprint is by using kerosene alternatives in the form of fuels that have a lower carbon profile across the life cycle and do not, in the production process, entail competition with other uses (food crops in particular).

■ As a supplier of engines and fuel system equipment, Safran is working on making the field of **drop-in sustainable fuels**⁽³⁾ as wide as possible:

- Biomass-derived alternatives, or **biofuels**, are the only immediately available option, though the incorporation of biofuel in aircraft fuel remains very low worldwide (0.1% currently). Safran is targeting the development of technologies enabling engines to go above the present-day technical threshold of a 50% biofuel-kerosene mix.

This primarily involves solving the issue of the lifespan of seals and pumps for fuel systems and ensuring optimum combustion performance.

- **E-fuels** produced using low-carbon electricity, water and CO₂ (such as the e-kerosene produced by **power-to-liquid** technologies) offset biomass needs to improve emission reduction rates.
- In the field of **non-drop-in sustainable fuels**, if biofuel volumes are insufficient and power-to-liquid processes fail to live up to their promises, Safran is also examining the breakthrough option of cryogenic fuels such as **liquid hydrogen**, with a longer R&T horizon and a step-by-step investment approach.

Sustainable fuels should make a substantial contribution to short-term solutions. This will require the development of production and distribution processes capable of reducing the cost of this type of fuel, which is today two to three times more expensive than kerosene.



ULTRA-OPTIMIZED THERMAL PROPULSION: TOWARDS NEW-GENERATION AIRCRAFT

Safran has a major role to play in the arrival, **by 2035 at the latest, of new low-carbon aircraft around 30% more energy efficient** than the present-day fleet. Engine advancements are an instrumental factor here.

The challenge is summed up in a phrase: “**skip a generation**”. Safran and GE are working on the successor to the LEAP engine, which is expected to offer a consumption saving at least equal to the reduction achieved by LEAP compared to the CFM56. Work also includes lightweight design technologies for aircraft systems and cabin interiors, and electrification for new, ultra-efficient aircraft architectures. The objective will require the search for breakthrough technologies (for example, “open rotor” engines) which imply a profound transformation of aircraft and their architecture. This requires the active involvement of airframers.

OPTIMIZING THE MASS & EFFICIENCY OF AIRCRAFT IN SERVICE

If kerosene is eventually to be phased out entirely, this will also require work on reducing the fuel consumption of fleets in service. Among other things, this will mean continuing to phase in new-generation aircraft such as the A320neo and the Boeing 737 MAX.

With its extensive product portfolio in aircraft equipment and interiors, Safran is ideally placed to come up with solutions in areas such as operating efficiency improvement, electrical system optimization and lightweight equipment design, with new cabin interior materials for example.

(1) VTOL: Vertical Take-Off and Landing aircraft.

(2) STOL: Short Take-Off and Landing aircraft.

(3) Drop-in fuels are fuels that can replace all or some of conventional kerosene without any operational impact, i.e., without requiring modification to infrastructures (at airports, for example) or to aircraft or engines, whether existing or under development.



AVIATION SAFETY

Aviation safety has always been an absolute Group-wide priority for Safran.

Aviation safety is the responsibility of all the Group's employees. As a leading global aerospace industry player, Safran gives the utmost importance to safety. The lives of passengers, crew and those on the ground under flight paths depend on this. Safran is as committed as ever to ensuring its customers (airframers and airlines), passengers, crew and populations under flight paths that the products and services it supplies are safe. This is an imperative that influences everything we do.

AVIATION SAFETY FUNDAMENTALS FOR SAFRAN



In 2021, European regulations will extend coverage of the Safety Management System to design and production functions, in addition to maintenance operations, already bound by this requirement in France, Canada and some Asian countries. Safran is preparing for application of this directive by further improving the visibility and reach of its aviation safety fundamentals. These chiefly involve the implementation of a safety management system at each company, capable of ensuring company-wide employee compliance with safety principles and take-up of a strong aviation safety culture. It is essential that all people in the Group are fully aware of their individual roles and the possible consequences of their actions, that information sharing is encouraged, and that safety management systems

THE STRONGEST POSSIBLE AVIATION SAFETY CULTURE THAT:

- makes aviation safety a top priority;
- prevents and mitigates aviation safety risks;
- encourages everyone to report aviation safety concerns within a climate of confidence through a just and fair culture;
- investigates and addresses safety concerns.

SAFETY MANAGEMENT SYSTEM ACROSS ALL SAFRAN COMPANIES ENSURING THAT:

- adequate resources are available;
- all Safran employees understand the effects of their own actions on aviation safety;
- aviation safety is promoted;
- aviation safety performance is measured and continuously improved.

ensure continuous monitoring of and improvement in safety performance.

Safran is stepping up its harmonization approach here to attain the highest performance level, standing as the industry benchmark in this field.

Safran Aircraft Engines, Safran Helicopter Engines and Safran Landing Systems have already drawn up formal flight safety policies based on these fundamentals.

The other Safran Group companies will be following suit in 2020.

Each company's policy will come with detailed objectives spanning the whole product life cycle, including design, production and maintenance. Accompanying action plans will include details on organizational and product focuses.

Safran is preparing for the amendments to Part 21 European regulations on design and production practices in the civil aerospace industry.

OUR COMMITMENT TO FLIGHT SAFETY

SAFRAN AIRCRAFT ENGINES

In late 2018, the Safran Aircraft Engines Management Committee launched its Safety Management System (SMS) project across all Safran Aircraft Engines entities worldwide.



The aim is to coordinate departments' and stakeholders' initiatives (on navigability, flight safety, quality, risks, human resources, progress, etc.) and extend this system, based on MRO⁽¹⁾ experience, company-wide. The project will also put forward a joint response to the need, recognized by all units, to prepare for the amended regulation that will extend the SMS requirement to design and production functions, improve detection and processing of flight safety risks, and provide greater clarity on flight safety matters to customers and partners. In 2019, Safran Aircraft Engines drew up its SMS standard, including its policy, and developed rollout tools. Communication and awareness-raising operations in 2019 included the first Flight Safety Culture survey and the release of a film and journals on air safety.

THE EXAMPLE OF SAFRAN HELICOPTER ENGINES

Since 2016, Safran Helicopter Engines has been running an annual Safety Management System (SMS) seminar with all SMS managers (in MRO⁽¹⁾, production and design).

This includes a presentation of Safety Management System results and updates along with a roadmap for the coming three years. Participants also discuss best practices in aviation safety risk prevention at all cycle stages.

Airframers and operators⁽²⁾ are invited along for a broad industry-wide examination of safety matters. For Safran Helicopter Engines, this is an opportunity to improve

its understanding of customers' needs on engine safety and availability, and to improve its SMS maturity.



SAFRAN LANDING SYSTEMS

For Safran Landing Systems, strong growth, new sites, the merger of three companies, and a worldwide footprint have brought a strong influx of personnel of many different origins and backgrounds. This raises a major challenge in the need for a common basis for working together.

Flight safety is an important pillar of the underlying shared culture here. The major principles behind the flight safety policy include identification, analysis and the tackling of risks, regular personnel training, an anonymous whistleblower alert system accessible to all, and assistance on determining the kinds of event to report in this way. The aim is to improve products and in-service behavior, and not to assign blame. The whole of this project is overseen by a flight safety committee chaired by Quality and Engineering directors.

Safran Landing Systems is ready for the changes under way in European Aviation regulations, which will require all aerospace-industry manufacturing and design businesses to implement a safety management system in 2021.



(1) MRO (Maintenance, Repair and Overhaul).

(2) Participants included: Airbus Helicopters, the SAF group (French operator), the air arm of the French police force, and the association of offshore helicopter transport operators (Heli offshore and Babcock Spain).

ASSET
NO. 1

SUSTAINABLE INNOVATION: SHAPING THE NEXT STATE OF THE ART IN AEROSPACE

In this rapidly changing environment, success depends first and foremost on managing disruptive innovation and technological excellence, to provide customers with a critical advantage.

More than
€600
million

in self-financed
R&T and
innovation
expenditure
in 2022*

3,000

employees
in R&T



more than
1,200

initial patent requests
filed by Safran
worldwide in 2019

75%

of R&T investment
focused on environmental
efficiency

1,200

PhD graduates
in the Group

Safran's innovation capabilities are demonstrated across a breadth of sectors such as electric taxiing, composite 3D-woven fan blades and hemispheric resonator gyros. With the support of the Board of Directors' Innovation and Technology Committee, the Group is implementing an innovation strategy firmly focused on efficient R&T serving all its businesses. This strategy is founded on considerable investment, budgeted to increase over the coming years. It is also based on a dedicated R&T management system and an internal organization providing a balance for Group subsidiaries between own development and shared activities. The R&T plan comprises a limited number of roadmaps tied to the strategic challenges facing the companies and coordinated by the Group. Innovation projects aimed at preparing the main disruptive products, processes and systems are motivated and led under a "proof of concept" approach, closely involving the Group companies. Finally, interactions with the scientific, technological and innovation ecosystem are organized around strategic

partnerships, scientific networks and chairs, collaborative innovation in the supply chain and investments in the share capital of young innovative companies. The number of patents filed bears witness to the creativity of the teams and their capacity to innovate, as well the importance placed on protecting intellectual property. Safran stands among the front-runners for patents filed with the French patents office (*Institut National de la Propriété Industrielle* - INPI). Overall, the Group's patent portfolio protects close to 11,000 inventions and encompasses over 42,000 intellectual property titles.

5 R&T PRIORITIES:

- Aircraft energy chain
- High-performance materials and processes
- Aircraft cabin of the future
- Navigation and autonomy technologies
- Digital technologies and digital transformation

* Excluding the impact of the coronavirus.

AIRCRAFT ENERGY CHAIN

Improving aircraft propulsion systems (turbofan or gas turbine engines) is presented on pages 24 and 25.

Safran enhances each link in the energy chain.



1 POWER TRANSMISSIONS

From materials and processes to system design, Safran keeps upgrading its systems and equipment to enhance integration with engines.



2 ELECTRIC GENERATORS

To meet the needs of more and all-electric aircraft, Safran is developing the most extensive and advanced range of "smart" generators on the market, with fully integrated control electronics.



3 ELECTRIC MOTORS

Safran offers different families of compact yet powerful electric motors with integrated control electronics, tailored for various applications such as landing gear actuation. Other motors are purpose-designed to drive propellers on aircraft with all-electric or hybrid propulsion systems.



4 POWER MANAGEMENT

Power management is taking on an increasingly important role with the electrification of aircraft, to distribute this energy and ensure a stable and protected power supply.



5 WIRING

With more and more functions going electric, aircraft need denser and more complex wiring systems. Safran is developing these systems with its advanced modeling system, and is also working on systems capable of handling the high voltages needed for electric propulsion.



6 ELECTRICAL DISTRIBUTION

Because of the high power required by non-propulsive electrical functions and emerging propulsion needs, especially propulsion, the aim is to develop smart distribution systems, capable of managing an increasing number of loads, and supporting high voltages without overheating, short circuits or arcing.



7 AUXILIARY POWER UNITS (APUs)

Emerging more and all-electric architectures are changing the traditional role of the APU, making it less and less "auxiliary"! Safran is therefore developing the eAPU to address the requirements of new more electric aircraft, and is already looking further ahead with fuel cells that could supplement or even replace APUs.



8 BATTERIES

All aircraft are fitted with batteries used to start their engines. Tomorrow's batteries will have to rise to the challenge of electric propulsion. Safran is naturally focused on significantly increasing battery power density and endurance, while keeping weight as low as possible. Even so, Safran considers the prospect of an all-electric medium- and long-haul aircraft unrealistic for the time being.

NEW AIR MOBILITY: A STRATEGIC FOCUS FOR SAFRAN

Working in partnership with airframers in a highly dynamic ecosystem, Safran stands out as a leader in key systems (propulsion, equipment and interiors) for players in urban and regional air mobility. Safran is ideally placed to provide electric and hybrid propulsion and autonomy solutions for demonstrators and forthcoming commercial programs. The Mission Driven cabin: Safran and Uber have presented an eVTOL⁽¹⁾ cabin offering passengers an identical experience regardless of vehicle manufacturer.

(1) eVTOL: Electric Vertical Take-Off and Landing aircraft.

HIGH-PERFORMANCE MATERIALS AND PROCESSES



The need to reduce aircraft and equipment weight leads to an **increased use of composite materials**. Safran engines and equipment, whether nacelles, landing gear or brakes, are characterized by heavy mechanical loads. To develop these solutions, Safran set up the Safran Composites Center, part of the Group's R&T center, Safran Tech, with resources and expertise in organic matrix composites. Other research focuses on new metal alloys, and on high-performance coatings compliant with **European REACh regulations⁽¹⁾**.

Higher running temperature is a key factor in **improving engine performance**. A specific focus is therefore placed on materials for very high temperatures. A platform for developing new monocrystalline casting techniques for turbine fans was inaugurated at the beginning of 2019. In addition, Safran Seats is developing its **technological lead in materials** (plastics, composites, metals, fabrics, etc.) and implementation processes.

THE AIRCRAFT CABIN OF THE FUTURE

Through system integration and optimization, the aircraft cabin of the future will offer passengers **enhanced comfort and traveling experience**.

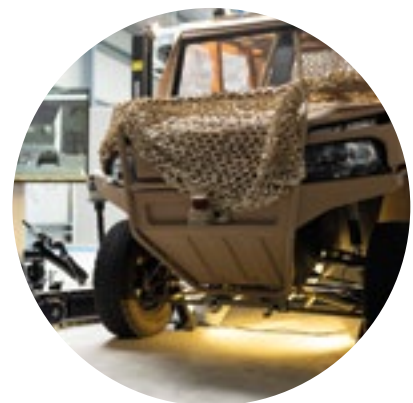
Through Safran Cabin Innovation, Safran offers its customers opportunities for improving sales (by adding seats capable of generating revenue or providing new services), offering an exceptional passenger experience (with a more spacious and comfortable cabin, new features, etc.), and creating or enhancing brand image (through distinctive service, design and products). Safran is also developing innovative solutions in three major aspects of the aircraft cabin of the future: smaller ecological footprint, improved passenger experience and optimized cabin operability in flight and on the ground.

NAVIGATION AND AUTONOMY TECHNOLOGIES

Air, land, sea, satellite and military navigation markets are constantly evolving and expanding. Operational and economic gains are sought by integrating mobile units into cooperative groups, by increasing autonomy, and by ensuring land-onboard continuum via secure links. Actions such as these prove to be powerful drivers of renewed technological development.

Safran is actively preparing the shift to autonomous systems for civil and defense applications based on technologies developed in optronic sensors, inertial navigation, critical onboard electronic systems and image processing and analysis. The use of sensors and artificial intelligence in an integrated system resulted in eRider, an autonomous vehicle demonstrator for military applications that can transport infantry equipment on the ground and navigate autonomously. The demonstrator helped Safran Electronics & Defense win the Furious contract put out for tender by

the French Directorate General of Weapons Procurement (DGA). This covers autonomous vehicles, small land robots and drones, laying the groundwork for autonomous and collaborative combat systems. Proficiency in technologies merging navigation and environment perception data also enables the development of piloting assistance applications for all types of aircraft.



(1) REACh (Registration, Evaluation, Authorisation and Restriction of Chemicals) is a European regulation that came into effect on June 1, 2007. It seeks to improve protection of human health and the environment, against risks relating to chemical substances.

DIGITAL TECHNOLOGIES AND DIGITAL TRANSFORMATION

INDUSTRY 4.0

Safran invests in and adapts its production sites to ensure they are always of the highest industrial standard.

Tools and resources in design, production, maintenance and services benefit from Safran's investments in digital solutions such as augmented reality, robotics, imaging, artificial intelligence and data use. These new applications significantly improve operational performance in terms of cycle, cost and product quality. The **Factory of the Future** is the method of choice for obtaining the best possible profitability from investments and a disruptive competitiveness tool producing remarkable productivity gains. It is a **major asset for the Group's current activities** and is at the very heart of its strategy. A total of 49 projects for the production lines of the future, at 30 sites, have been scheduled across all companies from 2017. Twenty-two of these lines were running by the end of 2019.

ADDITIVE MANUFACTURING

Additive manufacturing provides an opportunity to improve costs, cycles and performance for numerous engine and aircraft equipment components, by reducing the number of parts and tooling and introducing new methods of optimizing design.

These processes also open opportunities for reducing the cost and environmental impact of transportation in the production of parts. Safran Tech's Safran Additive Manufacturing hub, along with partnerships such as the one with Saclay's Additive Factory Hub, help **accelerate the development of these processes** for their future use in series production and repairs.

AMBITIOUS POTENTIAL GAINS THANKS TO ADDITIVE MANUFACTURING: THE ENGINE EXAMPLE

15%

reduction in manufacturing costs

25%

mass reduction

up to
50

components replaced by a single part

Lead time divided by

6

DATA PROCESSING

Innovation efforts are called for to address the growing role played by services in the Group's operations. Techniques used to diagnose and forecast the condition of aircraft equipment and systems bring value for Safran product users, as regards both operational considerations (**optimization of maintenance**) and fleet management support (**evaluation of residual value**).

ELECTRONICS, DIGITAL PLATFORMS AND CRITICAL SOFTWARE

Given that onboard electronics technologies for harsh environments are a central feature of many Group products, **Safran Electronics & Defense runs ambitious projects** on controller architectures featuring more efficient processors, and on component packaging capable of withstanding the higher temperature environments of future aircraft systems. In systems engineering, Safran is working on **process harmonization**: a modern software development workshop has been set up for Group-wide rollout.

SAFRAN ECO-DESIGN AND PRODUCT LIFE CYCLES

Environmental impact reduction at each stage of a product's life cycle is an integral factor, from product design onwards. Safran pays particular attention wherever non-renewable natural resources are used, making product repairability a key point in its offering of maintenance solutions. Safran also proposes the use of reconditioned parts, applying a circular-economy logic in partnership with other industry players.

In 2007, Safran partnered with Airbus and Suez in founding Tarmac Aerosave, which has become the European benchmark operator in storage and dismantling of military and civil aircraft. Since 2007, 170 aircraft and 135 engines have been dismantled and recycled, with a recovery rate of more than 92%.

ASSET
NO. 2

OPERATIONAL EXCELLENCE: FOR LASTING CUSTOMER TRUST

Safran aims to become its customers' leading supplier by offering world-class products and services. Quality and flight safety are the first decision criteria for all the Group's employees.

VOICE OF THE CUSTOMER, A SAFRAN PRIORITY

Customer confidence and satisfaction is founded on the Group meeting its commitments to quality-cost-lead time and the safety of products and services delivered. Performance quality for services is founded on constantly listening

to customer needs. Maintenance centers have been located to ensure maximum proximity to customers and the Group has also developed remote maintenance solutions to enable rapid and efficient troubleshooting and action.

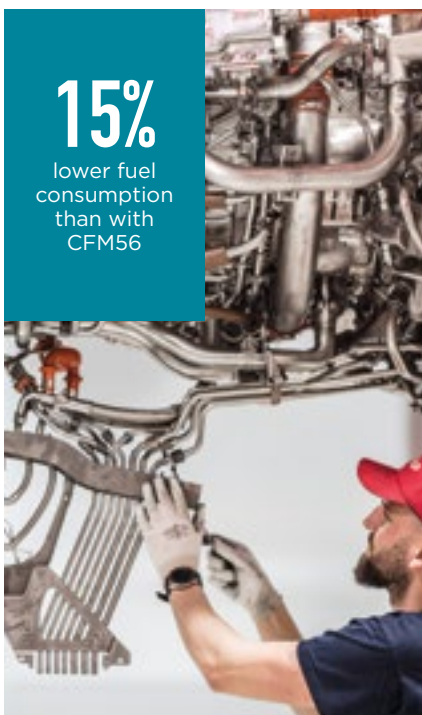
In February 2020, Safran Helicopter Engines opened a new 4.0 aerospace maintenance facility in south-west France. Flow streamlining and new industrial resources at this site result in a 30% reduction in maintenance cycles.

A CUSTOMER-FOCUSED TRANSFORMATION PROJECT

To meet expectations expressed by its customers on excellence and competitiveness, in early 2018 Safran Landing Systems launched the BEST ("Bring Excellence to our cuSTomers") transformation project. This seeks to provide all its airframer and airline customers the assurance of optimum, lasting quality. The transformation involves three phases: "Make non-quality visible", "Demonstrate that quality is possible" and "Make non-quality impossible". More than 1,500 employees across all sites are involved in the project, through 150 initiatives spanning all development functions, from production through to assembly line or service provision support. In the two years the project has been running, best practices have become standard, and the non-quality-on-delivery rate has been cut threefold, with customer satisfaction rising accordingly.

15%

lower fuel
consumption
than with
CFM56



OPERATING EXCELLENCE SERVING LEAP

Since production of the LEAP engine was launched in 2016, its ramp-up has been a challenge. Over and above the high level of innovation and the adoption of new manufacturing procedures (additive manufacturing, composite materials, etc.), the ramp-up of LEAP production has been the fastest ever known in civil aviation industry history, with 1,736 engines delivered in 2019. To sustain this fast pace, Safran made investments to increase its production capacity and adapted the entire production chain:

- introduction of three pulse lines, transforming assembly at the Group's plants;
- active dual source supplier policy and introduction of a third source for the most critical engine components;
- set-up of dedicated teams to share its development and industrialization expertise in view of supporting production ramp-up by suppliers of the most critical parts.

This control over the production chain has enabled commissioning schedules to be met (August 2016 for the LEAP-1A engine powering the Airbus A320neo family, May 2017 for the LEAP-1B engine powering the Boeing 737 MAX) and the technical specifications to be respected (15% reduction in fuel consumption compared to the CFM56 and 50% reduction in NO_x emissions and noise in relation to the CAEP/6 standard). The LEAP engine is the most reliable new-generation civil aircraft engine in its category, used by 109 airlines with over 7.2 million flight hours at the end of January 2020.

SUPPLY-CHAIN PERFORMANCE

Excellence in supply-chain control is a prerequisite for performance quality in product delivery.

Safran's purchasing policy is designed to meet its objectives of excellence, in seamless alignment with its manufacturing strategy. Safran has successfully built a supplier panel that meets its present and future performance needs (cost, quality and lead time) and enables Safran to provide its customers with innovative, value-creating solutions. To develop an agile supply chain, the Group promotes supplier involvement from the development stage of its products and services, inviting them to put forward their innovations and contribute the full breadth of their expertise. Safran has also designed a policy to diversify suppliers, by **systematically qualifying multiple sources for critical materials and parts.**

Safran's suppliers undergo a rigorous selection and approval process. Decisions to award new supply or development contracts are taken collectively by a Supplier Selection Committee spanning industrial, quality and purchasing functions. Suppliers are regularly audited and monitored by some 700 supplier

700

supplier quality
assurance managers

300

supplier performance
managers measure
suppliers' quality and
lead-time performance

quality assurance managers, responsible for ensuring day-to-day quality of all products purchased. The supplier quality assurance managers are backed by a team of more than 300 supplier performance managers, who measure suppliers' quality and delivery-time performance and ensure progress plans are properly implemented. The requirements that Safran applies to its suppliers are formalized in its general purchasing conditions, in the general quality requirements set out in the SAFE (SAfran exigencies) document, and in product-specific documents. SAFE includes the



requirements set by international quality standards, thereby furthering standardization throughout the aerospace sector. The 2020 version of SAFE will extend the Advanced Product Quality Planning (APQP) requirements, strengthen requirements on prevention and remediation of quality deviations, clarify design requirements for build-to-spec⁽¹⁾ suppliers and ensure suppliers' personnel are familiar with the Safran Group's ethics whistle-blowing system (safran@alertethic.com). SAFE also includes Safran's Responsible Purchasing Charter.

CONSTANT IMPROVEMENT

Safran is constantly improving its processes, notably through research and the implementation of innovative concepts, by developing cooperation with suppliers to increase sharing of best practices within the Group. Permanent, cross-Group initiatives are carried out:

- participative innovation initiatives, enabling all employees to put forward ideas for improving the Group. More than **143,000 employee innovations were taken up across all the Group's business sectors in 2019**;

- Lean Sigma, with Green Belts, Black Belts and Master Black Belts driving the Group's transformation through a structured and standardized project management approach;
- visual management;
- QRQC⁽²⁾, which has been rolled out across industrial and technical operations in all Group companies.



(1) Designed by the supplier according to customer specifications.

(2) QRQC: Quick Response Quality Control, a fast problem solving management method that emphasizes constant vigilance and immediate response.

ONE SAFRAN, KEY SUCCESS FACTOR

Safran is pushing ahead with its **One Safran** initiative, launched more than four years ago with the purposes of developing group-wide take-up of a common corporate management system and performance indicators, and deploying operational excellence, all with the goal of product quality and reliability.

1,300

projects launched since
mid-2016, with close to
1,000 completed

One Safran involves building on best practices and extending them throughout the Group. Since mid-2016, a total of 1,300 One Safran projects have been launched, and nearly 1,000 completed. In production, more than 500 projects have been completed, and some teams have already taken up a second or third project. The results of these projects are very tangible, as regards both their impact on performance and buy-in by the teams.

To anchor One Safran more firmly in Group practices, its standards now feature in the training courses given at Safran University. One Safran contributes to upholding customer trust in the Group. Some of its projects are run jointly by Safran with its customers. One example is the One Team project in which all Safran teams at a customer's assembly lines work together with the operational managers of these lines at the customer's site.

ONE TEAM

To improve the efficiency of assembly-line operations and support Airbus in addressing its industrial throughput challenges, a One Team project, applying the principles of the One Safran standard, was run at the A350 line, with personnel from Airbus and six Group companies (Safran Landing Systems, Safran Electronics & Defense, Safran Electrical & Power, Safran Seats, Safran Cabin and Safran Aerosystems). The initiative leaders on the workshop worked together to forge a cohesive and responsive FAL (final assembly line) team capable of effectively solving problems encountered on the ground.

More One Team projects will be run in 2020 to further develop this close contact with the customer.

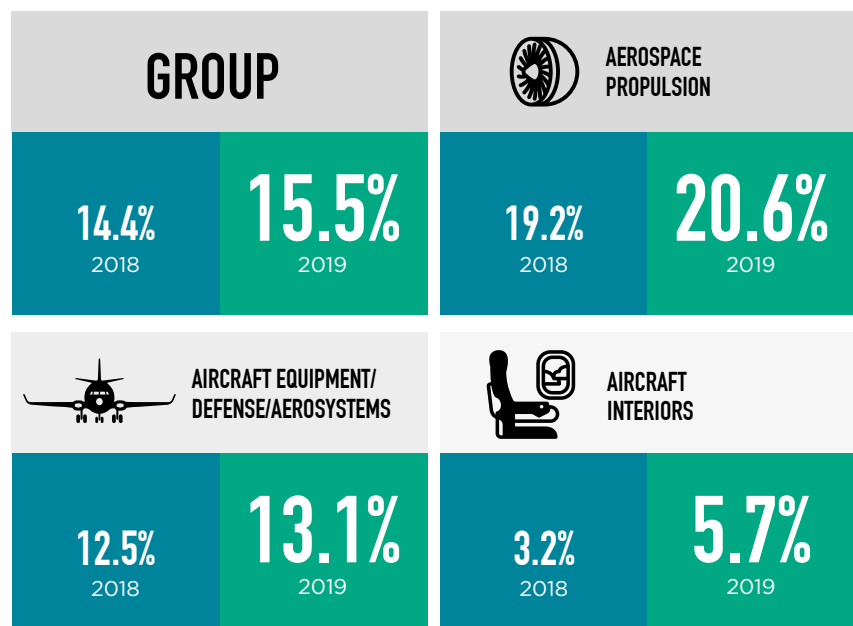
COST CONTROL AND COMPETITIVENESS

Increasing Group competitiveness is founded on constant efforts to reduce production costs.

Building on endeavors previously undertaken, recurring operating margin has continued to grow since 2015, by at least 100 basis points per year.

Thanks to constant productivity gains (optimization of industrial sites and Group locations, modernization of the production tool), recurring purchasing gains and annual synergies of €250 million expected by 2022 following the combination with Zodiac Aerospace, the recurring operating margin should continue to improve.

SAFRAN OPERATING MARGIN ON THE RISE ACROSS ALL BUSINESSES (ADJUSTED DATA)



OPERATING EXCELLENCE IN HEALTH, SAFETY AND THE ENVIRONMENT

Rollout of Safran's occupational health, safety and environment policy (HSE) draws upon:

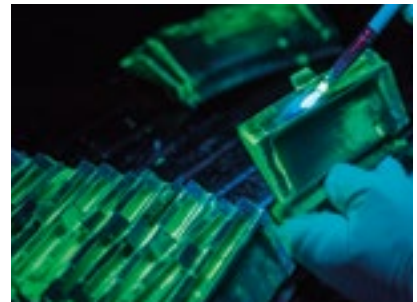
- a tight-knit organization across all levels, with HSE coordinators at tier-one companies, site prevention officers, occupational health services, a network of decentralized experts, and division coordinators covering several entities locally;
- Safran's global Health, Safety and Environment (HSE) guidelines, for steering risk management and improving HSE performance. These guidelines set out requirements applying to all processes throughout the Group. They are implemented by all

entities and provide the basis for audit of the level of HSE maturity reached at each site (50% of sites were "gold" rated in 2019, and the aim is for all sites to attain this rating by 2025).

Safran's health & safety culture

Safran is committed to nurturing a culture of prevention of occupational health and safety risks, for the greater benefit of its employees, suppliers, customers, and all other stakeholders concerned by its operations, in a spirit of transparency and sincerity. In 2019, Safran published its HSE vision through to 2025, setting out a roadmap to further advance the

reach of its health and safety culture. Three priorities were identified: digitized training, prevention of situations liable to entail psychosocial risks and improved expertise in ergonomics.



ABILITY TO FORM TARGETED PARTNERSHIPS

Safran has a long experience of alliances and targeted partnerships. With a long timeframe and adopting a win-win approach, these partnerships support the Group's strategy. They are relevant given the investment levels associated with each new program.



INDUSTRIAL AND COMMERCIAL

Focus on the joint venture with GE

The most emblematic of these alliances is very certainly the partnership with GE to develop engines for short- and medium-haul fleets. It was established in 1974 and renewed in 2008 until 2040, within the joint venture, CFM International. This alliance helped redefine international cooperation and contributed to changing the course of commercial aviation. CFM International is currently the world's leading supplier of commercial aviation engines, with a product line (CFM56 and LEAP) that is the sector reference for efficiency, reliability, cost of ownership and emissions levels.



VENTURE CAPITAL

Safran Corporate Ventures

Safran Ventures, the Safran investment subsidiary formed in March 2015, contributes to the Group's innovation strategy in five priority areas, by financing companies at average first-round amounts of €1 million to €5 million, under an overall portfolio target of €80 million. In the field of new air mobility, for example, from 2017 to 2019 Safran invested in three companies developing breakthrough technologies in aircraft electrification:

- Turbotech, a French startup founded by four former Safran employees, developing a 55kW regenerative-cycle turbogenerator under a disruptive heat-exchanger patent, for VTOL⁽¹⁾ aircraft weighing under 650kg. Operational service is set for mid-2020;

- Oxis Energy, a UK company, front-runner in lithium-sulfur cells for high-energy-density battery systems, in which Safran Ventures has invested alongside Samsung, Arkema, Sasol and Umicore;
- EPS, a US company in which Safran Ventures has invested alongside Boeing Horizon X, selling high-performance batteries that are used in programs set up by NASA (X57), Bell (Manta), Boeing and Bye Aerospace (a front-runner in electric aviation).

Safran Ventures also continues its close watch on US, German, UK, Swiss and French startups in the fields of batteries, autonomy, electric machines and sustainable fuels.

(1) VTOL: Vertical Take-Off and Landing aircraft.

ASSET
NO. 3

RESPONSIBLE CONDUCT: A STAKEHOLDER DEMAND

Safran's leading positions in aerospace, defense and space owe everything to the dedication of its 95,000 employees, and to its many partners. Key factors behind Safran's successful performance, and the workforce engagement, include the provision of safe, respectful, ethical working conditions, the promotion of diversity in all Group entities, and the assurance of satisfying and rewarding career prospects.

COMMERCIAL COMPLIANCE, A DECISIVE FACTOR AND COMPLETE COMMITMENT

In 2012, Safran became the first CAC 40 company to obtain "anti-corruption" certification from the French Agency for the Diffusion of Technological Information (ADIT). This certification, renewed in 2017 for a three-year period, attests to the robustness of the Group's anti-corruption program. Its requirements are as strict as those of international standards: US Foreign Corrupt Practices Act, UK Bribery Act, OECD Convention, the French Sapin II Act, the tenth principle of the UN Global Compact, and ISO 37001. Safran's anti-corruption measures include a specific program on

commercial compliance, again based on the requirements set by international conventions and the national regulations applicable to Safran's operations. This commercial compliance program seeks to instill a group-wide culture of honesty, as set out in Safran's Ethics Guidelines, and see that every employee embraces the imperative of demonstrating exemplary conduct in this regard. With the dual objective of developing personal responsibility and protecting Group assets, the program takes eight focuses: exemplary conduct from the very top ("tone at the top");

specific risk mapping; code of conduct; dedicated organization; appropriate procedures; information and training program; procedure monitoring; and an internal whistle-blowing alert system. It comprises a series of standard operating procedures applied by each subsidiary in accordance with local legislation applicable to its organization, products and markets. It is also proposed to affiliates in which the Group is not the majority shareholder.

INTERNAL NETWORK



EMPLOYEES TRAINED IN 2019



Preventing corruption risks

28 Trade
Compliance Officers
199 Trade
Compliance Managers

4,900

Export control

434 Export
Control Experts
& Correspondents

11,600

Customs regulations

38 Customs
Officers

1,470

Risk mapping
for 100%
of subsidiaries

214 information
memos issued
internally

9 out of 14
tier-one companies
holding ADIT
anti-corruption
certification

15 companies
certified Authorized
Economic Operator
by customs
authorities

40 trade
compliance
reviews performed
in 2019

A RESPONSIBLE RELATIONSHIP WITH SUPPLIERS AND SUBCONTRACTORS

Safran operates a purchasing policy that seeks to ensure it works with a base of suppliers guaranteeing **high-performance, reliability and strict compliance with all applicable national and international regulations**. Suppliers are required to comply with international trade regulations and with all applicable requirements on environmental protection, personal health and safety, ethics and labor relations. The policy ensures business is awarded to suppliers capable of meeting the Group's standards, its competitiveness criteria and the demands of the aerospace, defense and space markets. Safran seeks to engage with suppliers through fair, long-term, mutually beneficial business relationships.

Purchasing
~57%
of adjusted
Group revenue

47%
of purchasing volume
sourced in France, including
83% sourced from SME
and mid-sized companies

In application of French Law No. 2017-399 of March 27, 2017 on duty of care, Safran has drawn up a vigilance plan. This sets out risks faced by the Group and its main subcontractors and suppliers in the areas of environment, health, safety and human rights, along with the measures taken to prevent and minimize such risks. Signing Safran's Responsible Purchasing Charter is one of the first commitments undertaken by all suppliers.

SAFRAN HOLDS
RESPONSIBLE SUPPLIER
RELATIONS ACCREDITATION
SINCE 2017

SAFRAN
HAS BEEN A MEMBER
OF THE SME PACT
SINCE 2010⁽¹⁾

SAFRAN, A RESPONSIBLE EMPLOYER

Developing Safran's employer attractiveness

With more than **12,000 departures and close to 15,000 recruitments per year**, recruitment, integration and skills management challenges are of decisive importance to Safran. Safran's policy on constant development of employer brand and attractiveness is designed to help it draw in top talent. Long-term partnerships are forged to strengthen ties with schools and universities running courses

in aerospace-related subjects. Safran also fields a dynamic employee network of **260 "Safran Ambassadors"**, graduates from selected schools and universities. Through actions such as these, Safran has developed a recognized employer brand: 4th place in the Universum "students" ranking, 7th place in the France Glassdoor best-employers list, and 4th place in the annual ranking of the best employers in France published by business magazine Capital, which

draws up a list of the Top 500 companies voted the best places to work by French employees.

In 2019, Safran began an action plan specific to the United States, where the employment market is more tense, Safran businesses are less well known, and recruitment levels are on the high side, and to Morocco and Mexico, where needs arise for developing Safran's employer attractiveness and talent loyalty.

EMPLOYEE SHARE OWNERSHIP

With around 7% of its share capital (and 10.8% of voting rights) held by current and former employees at December 31, 2019, Safran is in the top five major French companies (CAC 40) with the most developed employee share ownership. Safran successfully encourages its employees holding share capital through permanent measures such as savings plans receiving employer contributions: 43% of Group employees worldwide hold Safran shares. This share ownership also entails the participation of two representatives of the employee shareholding funds in the activities of the Board of Directors. In 2020, Safran announced an international employee shareholding plan aimed at associating employees with the objectives, successes and performances of Safran, as well as strengthening the integration of employees joining the Group. A true historic pillar of the corporate culture, employee share ownership enables the Group to rely, over the long-term, on a stable shareholder base.

(1) France scope (excl. Safran Aerosystems, Safran Passenger Solutions, Safran Seats, Safran Cabin).

2019 KEY FIGURES



95,443
employees
(of which 29% women)



14,880
new hires



2.8%
absenteeism rate



Promoting diversity and inclusion

With women accounting for 29% of the workforce, Safran has increased the number of initiatives for encouraging applications from women, developing gender balance in teams, and facilitating women's access to high-level positions. Safran is a founding member of Women in Engineering, a program that promotes careers for women in the engineering sector. Its action plan on improving the workforce gender balance sets four specific objectives for 2023: make equal opportunity a key factor in corporate transformation, develop a more inclusive corporate culture, make Safran more attractive to women applicants, and increase the number of women in executive positions. In 2019, Safran obtained renewal of the Gender Equality European & International Standard (GEEIS) label at European level.



Safran's disability policy has four key objectives: retaining employees with disabilities, hiring the disabled, working with sheltered workshops and disabled-staffed companies, and deploying the Afnor "disability-friendly workplace" standard for the integration of disability into all Group processes.

5.1%

overall employment
rate of disabled workers
in 2019⁽¹⁾



37%

of new hires were women in 2019

Objective
41%
by 2023

12%

of senior managers
were women in 2019

Objective
16%
by 2023

Safran is also active in social inclusion and professional integration for young people. Under a Europe-wide agreement, Safran commits to Group companies taking on apprentices totaling 5% of the workforce and interns another 5%. Young interns, work-study trainees and PhD graduates made up 11.6% of the Group's Europe-based workforce in 2019.

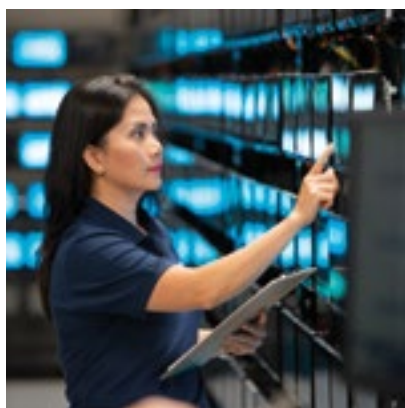
(1) France agreement scope (excl. Safran Aerosystems, Safran Passenger Solutions, Safran Seats, Safran Cabin).

Plan ahead for tomorrow's skills and fulfill employees' aspirations

By virtue of its position as a designer and manufacturer of global solutions in the aerospace value chain, Safran businesses generate new needs in human resources with expert and managerial capabilities.

The transformation that this entails sets major challenges in terms of preparation and support.

Safran addresses these challenges by anticipating future needs and fulfilling the aspirations of its employees to ensure full workforce commitment and optimum Group performance.



It is essential to keep pace with far-reaching change in skill sets and business functions, against a backdrop of rapid transformation:

- digital skills are taking on critical importance, in fields such as digital continuity, predictive maintenance, software, artificial intelligence, additive manufacturing, cybersecurity, data management for new services, architecture, industrial engineering and industrial data processing;
- organizational and managerial adaptations are a necessity, through collaborative management, autonomous cross-functional teams, multi-machining, multi-skills, internationalization of managerial practices, etc.;
- data processing is taking on increasing importance in Safran's well-established skills (in mechanics, avionics and materials), which remain major factors in Safran's ability to stand out from the competition.

At the same time, an ecological transition demands progress in other existing skills in areas such as power electronics, energy management, systems, navigability and new fuels.

Training and skills development

Each year, Safran's strategic training focuses are shared with all of the Group's HR and managerial teams.

Safran University develops a full catalog of training courses, and Group companies assess training priorities in line with these focuses.

Safran University acts as a key vector for onboarding new hires, transforming the organization and instilling leadership across the Group. It inducts new hires and brings together Group employees from different companies, countries and generations, in a place that inspires pride and belonging in the Safran community.

It ensures skills development and participates in the creation of interactive, mutually supportive networks of executives who develop their transformative capabilities and acquire and transmit the Group's values and culture.



2.3 million

hours of training (on-site and distance) worldwide in 2019

483,000

hours of training given by Safran University in key performance areas

83%

attendance at one or more training sessions during the year among all employees worldwide

Career development and mobility

90% of employees attended performance and career development interviews in 2019. Varied career-path propositions are available to all employees, through career committees in operational entities and Group cross-functional committees.

Workforce fluidity and opportunities for employees to switch jobs and locations seamlessly, to develop existing skills and acquire new ones, is both a key to maintaining their employability and a prerequisite for the Group's transformation and agility.

More than 2,000

geographic mobility transfers in 2019

For this reason, mobility practices are strongly encouraged and acknowledged throughout Safran.

In late 2019, Safran began a program to extend its mobility policy internationally, from several aspects:

- develop a more extensive offering of international and cross-company career openings, giving fuller access to wider-scale mobility for "strategic resources" (i.e., high-potential profiles, experts and managers);
- improve mobility openings by employment area to address internal and external recruitment challenges in regions where the job market is less supply, as in Mexico or Morocco;
- step up the action plan on development and acknowledgment of expert capabilities.

A BOARD OF DIRECTORS INCORPORATING BEST GOVERNANCE STANDARDS INTO ITS ACTIVITIES

Safran refers to the “Corporate Governance Code of Listed Corporations”, drawn up jointly by the French companies’ associations, AFEP and MEDEF. Safran’s Board of Directors determines its strategy and oversees its implementation.



Separation of the roles of Chairman of the Board of Directors and Chief Executive Officer

Since 2015, the Board has chosen to separate the roles of Chairman of the Board of Directors and Chief Executive Officer.

Thanks to this governance structure, the Company benefits from the Chief Executive Officer's managerial expertise and industry experience, as well as the Chairman's international standing. The strong strategic fit of their profiles enables the Group to be governed harmoniously, based on transparent relations between the Board of Directors and Executive Management and a balanced and respectful distribution of their roles.

Lead Independent Director

In 2018, the Board of Directors decided to appoint Monique Cohen as Lead Independent Director and define her duties. It was considered good practice to create this position, even if it is not indispensable since the Company has separated the roles of Chairman of the Board and Chief Executive Officer.

Independent Directors

The aim of having independent Directors on the Board is to provide shareholders with assurance that the collegiate body of the Board comprises members who have total independence to analyze, judge, take decisions and act, always in the Company's interests. Highly engaged and involved in the Board's work, their freedom of judgment and expression contributes to the quality of the Board's discussions and decisions. Their professional and personal experience provides an outside view that is beneficial for the Group.

SUCCESSION PROCESS

On November 4, 2019, at the recommendation of the Appointments and Compensation Committee, the Board of Directors appointed Olivier Andriès to succeed Philippe Petitcolin as Chief Executive Officer from January 1, 2021.

Olivier Andriès has all the qualities and attributes required to head up the Group.

In particular, he has built up solid experience over the past ten years, first in Defense and Security between 2009 and 2011, and then in Propulsion since 2011 (Safran Helicopter Engines and Safran Aircraft Engines). Until taking office as Chief Executive Officer, he will stay on as CEO of Safran Aircraft Engines, then take on specific assignments under the supervision of Philippe Petitcolin. The conditions for a smooth, orderly transition are therefore all in place.

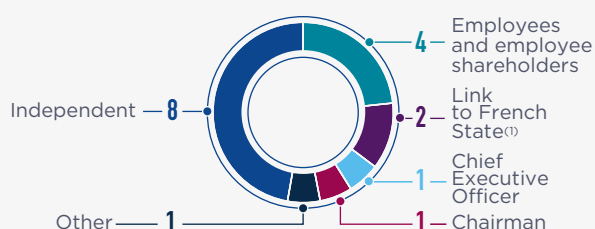
Olivier Andriès was selected after a succession process that involved interviews and assessments of both internal and external candidates, compliant with best corporate governance standards, overseen by the Chairman of the Board of Directors, Ross McInnes, and the Lead Independent Director, Monique Cohen.

AN EXPERIENCED BOARD OF DIRECTORS TAKING UP THE GROUP'S STRATEGIC CHALLENGES

BOARD MEMBERSHIP STRUCTURE CONSISTENT WITH SAFRAN SHARE OWNERSHIP

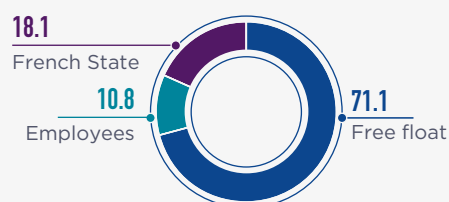
THE BOARD OF DIRECTORS AT DECEMBER 31, 2019

(number of Directors)



SHAREHOLDERS VOTING RIGHTS AT DECEMBER 31, 2019

(percentage)



A DIVERSE RANGE OF PROFILES, EXPERTISE AND SKILLS WITHIN THE BOARD

Experience and specific duties exercised by Directors in different sectors and activities

	Number of Directors
Aerospace industry	11
Other industries	15
Innovation, R&T, Development, Engineering	13
International career and experience	11
Strategy, competition and M&A	11
Finance and management control	11
Digital - New technologies	6
Governance and compensation	17
Human Resources - CSR	9

The Board of Directors has a wide range of experience, making it well equipped to deal with strategy and performance challenges. It regularly considers the desired balance and diversity of its membership structure and that of its committees. Its diversity policy is structured around principles and objectives related to the size of the Board, the representation of the Company's various stakeholders, the proportion of independent Directors, the depth and fit of the directors' skills and expertise, international experience, and gender balance.

COMMITTEES ADDRESSING THE GROUP'S STRATEGIC CHALLENGES

(2019 key figures)

Audit and Risk Committee



5

meetings

6

members

82%

attendance

80%

independent⁽²⁾

Appointments and Compensation Committee



9

meetings

7

members

98%

attendance

67%

independent⁽²⁾

Innovation and Technology Committee



2

meetings

5

members

90%

attendance

75%

independent⁽²⁾

(1) One representative of the French State appointed by way of a ministerial decree and one Director put forward by the French State and appointed by the Annual General Meeting.

(2) Excluding Directors representing employees and Directors representing employee shareholders.

MEMBERSHIP STRUCTURE OF THE BOARD OF DIRECTORS AND ITS COMMITTEES



**ROSS
McINNES**

Chairman
of the Board



**PHILIPPE
PETITCOLIN**

Chief Executive
Officer



**HÉLÈNE
AURIOL POTIER**



**HERVÉ
CHAILLOU**

Director
representing
employees



**JEAN-LOU
CHAMEAU**



**MONIQUE
COHEN**

Lead Independent
Director

Chair of the
Appointments
and Compensation
Committee



**HÉLÈNE
DANTOINE**

Director
representing
the French State



**ODILE
DESFORGES**

Chair of the Audit
and Risk Committee



**DIDIER
DOMANGE**



**LAURENT
GUILLOT**



**VINCENT
IMBERT**

Director
appointed at the
recommendation of
the French State



**GÉRARD
MARDINÉ**

Director
representing
employee
shareholders



**DANIEL
MAZALTARIM**

Director
representing
employees



**PATRICK
PÉLATA**

Chair of the
Innovation
and Technology
Committee



**ROBERT
PEUGEOT**

Director
representing
F&P



**FERNANDA
SARAIVA**

Director representing
employee
shareholders



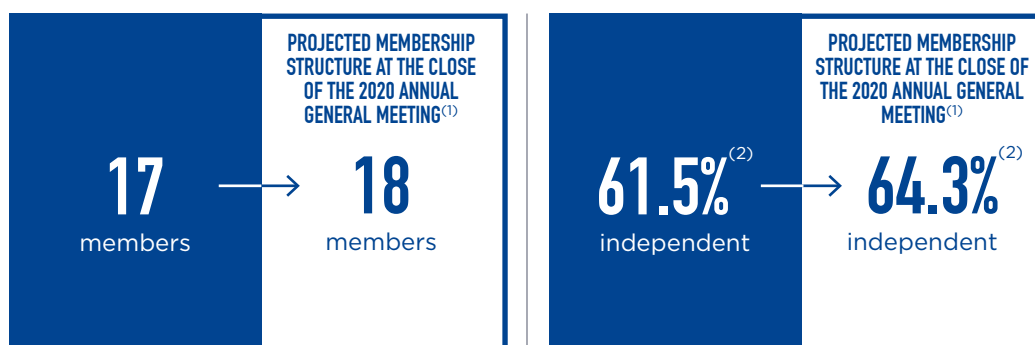
**SOPHIE
ZURQUIYAH**



- ① Independent
- Ⓒ Chairman
- Ⓐ Audit and Risk Committee
- Ⓓ Appointments and Compensation Committee
- Ⓔ Innovation and Technology Committee
- ⒲ Woman
- ⒴ Man

10
meetings

95%
attendance



PROPOSITIONS

presented to the Annual General Meeting of May 28, 2020

■ Appointment of an additional woman independent Director:

- The Board of Directors will invite the shareholders to appoint Patricia Bellinger as an additional independent Director. Patricia Bellinger has all of the attributes that the Company has identified it is looking for in a new Director and that were sought in the selection process. In addition to her independent status, the Appointments Committee was particularly impressed with the depth and breadth of her career and her diverse experience, as well as her time in industry, her HR/Diversity/Talent Management expertise (in terms of both strategic and people-centric issues), her multilingualism, and her knowledge of French corporate governance. To allow this additional appointment, the shareholders are invited to amend the Company's bylaws accordingly.
- Shareholders' acceptance of the Board's proposals will raise the proportion of independent directors to 64.30%⁽²⁾ and the proportion of women on the Board to 42.86%⁽³⁾.

■ Appointments of two Directors representing employee shareholders:

- The high rate of employee shareholding at Safran develops strong long-term alignment between Group employee and shareholder interests. This warrants the presence of two Directors representing employee shareholders, compliant with legislation and Company bylaws. As current directorships expire, new appointments of Directors representing employee shareholders must be put before the Annual General Meeting.
- To ensure that employee shareholders are adequately represented, and also to promote diversity (particularly in terms of trade union representation) and gender balance in all of its components, the Board of Directors supports and recommends that the shareholders approve two of the four candidates proposed, by voting in favor of the appointment of Marc Aubry (chair of the largest employee shareholder corporate mutual fund [FCPE]) and Anne Aubert.

(1) Projected membership structure, subject to the adoption by the Annual General Meeting of May 28, 2020 of the draft resolutions concerning the Board's membership structure.

(2) In accordance with the AFEP-MEDEF Code, Directors representing employee shareholders and Directors representing employees are not taken into account when calculating the percentage of independent Directors.

(3) In accordance with the Pacte Act, Directors representing employee shareholders and Directors representing employees are not included in this calculation.

AN EXECUTIVE COMMITTEE IMPLEMENTING GROUP STRATEGY AND STEERING GROUP OPERATIONS

**THE EXECUTIVE COMMITTEE IS IN CHARGE OF CONDUCTING
SAFRAN'S BUSINESS IN LINE WITH THE STRATEGY
DEFINED BY THE BOARD OF DIRECTORS**

- The Executive Committee ensures that Safran's strategy is implemented consistently across all Group entities. It also monitors its operational performance and facilitates interaction with the various Group companies.
- The Executive Committee comprises the Chief Executive Officer, holding company executives and the heads of the Group's main operating companies. This membership structure provides for balanced representation of the Group's businesses and cross-business support functions.
- Under the authority of the Chief Executive Officer, the Executive Committee meets as often as is necessary and at least once a month. It has 18 members.



- To maximize the Group's strengths, which are integral to its success (see the previous section), the Executive Committee is supported by a number of committees, including the Compliance, Ethics and Anti-Fraud Committee and the Scientific Committee.



Compliance, Ethics and Anti-Fraud Committee



This Committee is responsible for supervising employee compliance with the rules defined in the Ethical Guidelines (upholding the law, engaging in proper business practices, protecting people and assets, etc.), as well as any updates and revisions.

This approach is sponsored by the Corporate Secretary, and the responsibilities are handled by the relevant departments (for example, the Group Department of International and Public Affairs manages trade compliance and export control). The Group's resources mainly include the Ethical Guidelines, anti-fraud policies, internal control procedures, processes and standards, and a fraud prevention, awareness, detection and assessment program.

Scientific Committee



Led by the Group Director of Innovation, the Scientific Committee is tasked with helping Safran deploy a world-class scientific research policy. It assesses, in particular, the excellence of scientific partnerships and the relevance of the long-term R&T plan. The Committee also contributes to Safran's technological difference by identifying new areas of research.

The Committee comprises eight top-level academics and holds three plenary meetings a year. Recent work includes approximately 15 theme-based reviews in three major areas (software and systems engineering, materials and structures and sensors and signal processing). These reviews ensure the Group is advancing in the right direction.

EXECUTIVE COMMITTEE MEMBERS

(At March 25, 2020)



**PHILIPPE
PETITCOLIN**

Chief Executive
Officer



**JEAN-PAUL
ALARY**

CEO Safran Landing
Systems



**OLIVIER
ANDRIES**

CEO Safran Aircraft
Engines



**STEPHANE
CUEILLE**

Senior Executive VP
R&T and Innovation



**BERNARD
DELPIT**

Chief Financial
Officer



**PASCALE
DUBOIS**

Executive VP
Communications



**STEPHANE
DUBOIS**

Executive VP Human
Resources



**ALEX
FAIN**

Corporate Secretary



**CEDRIC
GOUBET**

CEO Safran Nacelles



**NORMAN
JORDAN**

CEO Safran Cabin



**VINCENT
MASCRÉ**

CEO Safran Seats



**JOHN
O'DONNELL**

CEO Safran
Aerosystems



**JEAN-JACQUES
ORSINI**

Executive VP
Performance and
Competitiveness



**FRANCK
SAUDO**

CEO Safran
Helicopter Engines



**ALAIN
SAURET**

CEO Safran
Electrical & Power



**MARTIN
SION**

CEO Safran
Electronics
& Defense



**SEBASTIEN
WEBER**

CEO Safran
Passenger
Solutions



**ALEXANDRE
ZIEGLER**

Senior Executive VP
International and
Public Affairs

18
members

SUSTAINABLE VALUE CREATION

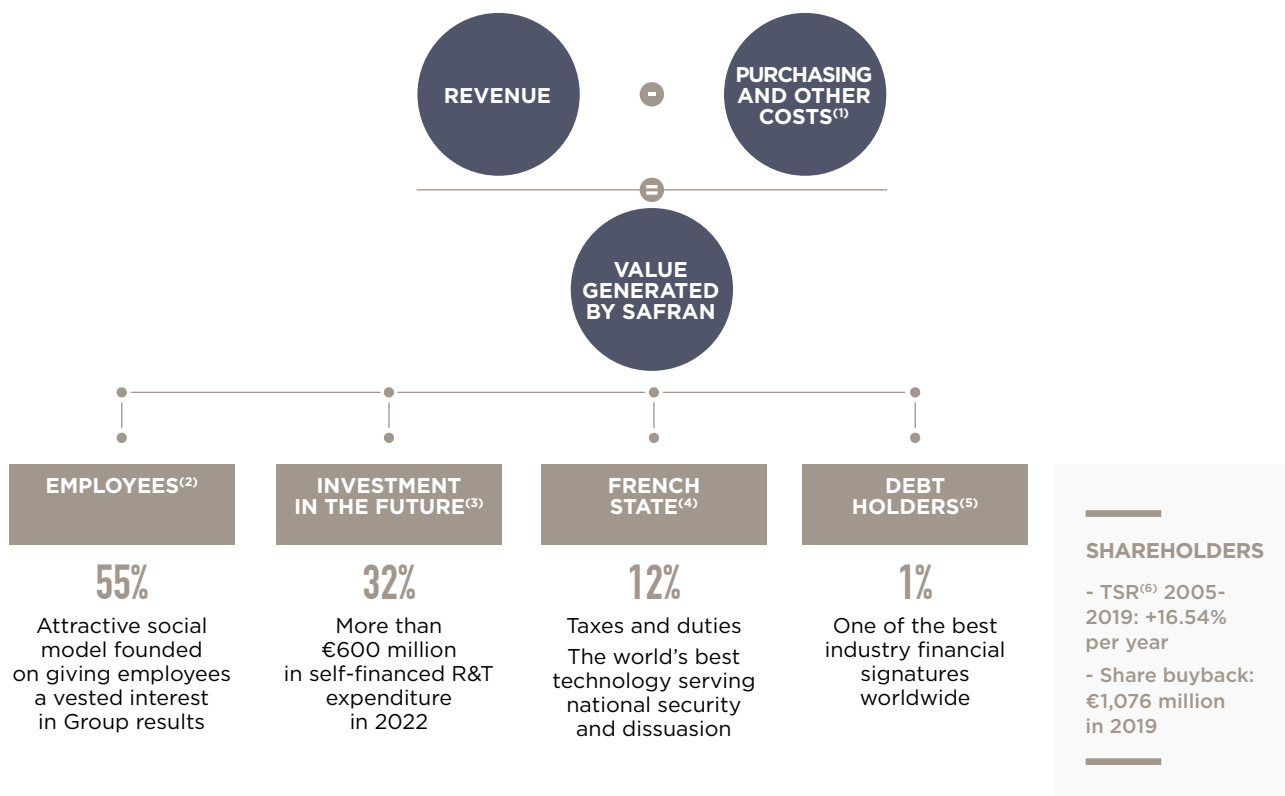
Safran is convinced that in order to sustain prosperity,
a company must create and share value
with all its stakeholders.

By generating a positive contribution for all its stakeholders and investing in technologies that will contribute to meeting aviation sector greenhouse gas emission commitments, Safran is preparing the foundations for its future growth. The Group therefore shares the value

that it creates among all its stakeholders: customers benefit from differentiating and competitive products serving their businesses, employees enjoy attractive working conditions and a social model where they share in profits, the environment benefits from the Group's technology

portfolio and R&D efforts and shareholders receive attractive and sustainable compensation thanks to a capital allocation policy that seeks to provide, over the long term, organic growth in our businesses.

Breakdown of value created in 2019



NB: Based on 2019 adjusted data.

- (1) Raw materials and consumables used + net charges to provisions + asset impairment + other recurring operating income and expenses + share in profit from joint ventures + other non-recurring operating income and expenses + foreign exchange gain (loss) + other income + change in inventories + capitalized production.
- (2) Personnel costs and benefits, excluding employee share ownership.
- (3) Profit for the year not distributed, plus net charges to depreciation and amortization.
- (4) Income tax and other taxes and duties.
- (5) Cost of net debt and other financial income and expenses.
- (6) TSR: Total Shareholder Return corresponds to dividends plus the change in the share price.

KEY PERFORMANCE INDICATORS

Key sustainable innovation indicators	2018	2019
Number of employees in R&T	Approximately 3,000	Approximately 3,000
R&D expenditure self-funded	€1,226 million	€1,337 million
Number of initial patent requests	More than 1,000	More than 1,200

Key operational excellence indicators	2018	2019
Number of production lines “of the future” in operation	16	22
Percentage of sites certified HSE “Gold” (internal standard)	30%	50%
	Objective: all industrial sites by 2025	
Capex (property, plant and equipment)	€780 million	€695 million ⁽¹⁾
CFM56 in operation	31,500	31,802
LEAP backlog	15,329 ⁽²⁾	15,614
Lost-time accident frequency rate	2.9 ⁽³⁾	3.2
Scope 1 direct emissions (t CO ₂ eq.) ⁽⁴⁾	218,906	219,745
	Objective: 8% reduction by 2025 ⁽⁵⁾	
Scope 2 energy-related indirect emissions (t CO ₂ eq.) ⁽⁴⁾	374,691	386,495
	Objective: 18% reduction by 2025 ⁽⁵⁾	
Total waste recovered and reused (in tonnes)	68,090	63,565

Key responsible conduct indicators	2018	2019
% of buyers trained in responsible purchasing methods (France)	43%	56%
Number of employees	92,600	95,443
Annual recruitment	13,050	14,880
Purchasing volume sourced in France	53%	47%
% sourced from small-, medium- and intermediate-sized companies	85%	83%
Absenteeism rate – World	2.6% ⁽⁶⁾	2.8%
% of women in the workforce	28.5%	29.1%
% of women senior managers	12%	12%
	Objective: 16% by 2023	

Key financial performance indicators	2018	2019*
Organic growth in adjusted revenue	+10.4%	+9.3%
Growth in civil aftermarket (in USD)	+12.2%	+9.9%
Recurring operating margin	14.4%	15.5%
EBIT to FCF conversion	58.9%	51.9%
Dividends	€1.82/share (41% distribution rate)	€0/share**

* In light of the grounding of Boeing 737 MAX from March 2019.

** In response to the impact of the Covid-19 pandemic, Safran's Board of Directors has decided not to propose to the Annual General Meeting of shareholders the payment of a dividend in 2020 for the 2019 financial year. In a spirit of responsibility vis-à-vis Safran's stakeholders, this decision preserves the Group's resources in order to protect employees, maintain continuity of its operations, notably for its suppliers, support its customers and ensure liquidity in uncertain times.

Key governance indicators	2018	2019
Average attendance rate at Board meetings	95%	95%
% of Chief Executive Officer compensation subject to performance conditions	69%	69%
% of independent Directors on the Board of Directors after the Y+1 AGM	61.5%	64.3% ⁽⁷⁾
% of women on the Board of Directors after Y+1 AGM	40%	42.86% ⁽⁷⁾

(1) Net of the cash inflow from the disposal of a tertiary property complex in the Paris region.

(2) At March 31, 2019.

(3) Zodiac Aerospace was excluded from the scope for calculating the lost-time accident frequency rate in the 2018 integrated report (2.2), and is now included: 2.9.

(4) The indicators were revised in 2019; they are expressed in absolute value: t CO₂eq. They were in relative value (t CO₂eq./employee) in 2018.

(5) Compared to 2018.

(6) Excluding Safran Aerosystems, Safran Passenger Solutions, Safran Cabin, Safran Seats.

(7) Assuming adoption of the resolutions at the Annual General Meeting of May 28, 2020.



1

PRESENTATION OF THE GROUP

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1.1 SAFRAN OVERVIEW

1.1.1 History

Key dates in the Group's history

Safran was created on May 11, 2005 from the merger of Snecma and Sagem, and is the world's oldest aircraft engine manufacturer.

1905 Louis and Laurent Seguin found the Société des Moteurs Gnome in the Paris suburb of Gennevilliers. In just a few short years, their Gnome rotary engines become the standard for planes around the world.

1912 Louis Verdet founds the engines company Le Rhône. Within two years, Le Rhône becomes Gnome's main competitor and is taken over by its rival to form Société des Moteurs Gnome & Rhône. After the First World War, Gnome & Rhône becomes one of the world's leading manufacturers of aircraft engines.

1924 Marcel Môme creates Société d'Applications Générales d'Électricité et de Mécanique (Sagem), whose main business is to supply power to telephone exchanges. A few years later, Sagem diversifies its business to include the manufacture of cameras, projectors and artillery equipment. It also sets up the first ever analog telephone network. Sagem creates Société d'Application Téléphonique, which in 1960 becomes Société Anonyme de Télécommunications (SAT). This company goes on to design the world's first infrared guidance system for air-to-air missiles.

1945 After the Second World War, the company Gnome & Rhône is nationalized and renamed Snecma (for Société Nationale d'Étude et de Construction de Moteurs d'Aviation). It groups together the majority of French aircraft engine manufacturers launched since the beginning of the century (Renault, Lorraine, Régnier, etc.).

1968 Hispano-Suiza, specializing in power transmission for the engines of civil and military aircraft and helicopters, joins Snecma. A few years later, it teams up with Messier to create Messier-Hispano-Bugatti (MHB) and consolidate all products relating to landing systems.

1974 Snecma becomes a civil aircraft engine manufacturer through a cooperation agreement with General Electric Aircraft Engines for manufacture of the CFM56 ("CF" for General Electric's commercial engine line and "M56" for Snecma's fifty-sixth project). This engine currently represents the world's largest civil aircraft engine fleet⁽¹⁾: with one aircraft powered by the CFM56 taking off every two seconds⁽²⁾.

1993 Sagem purchases Morpho, a specialist in fingerprint-based biometric recognition systems.

1997 Snecma takes full control of Société Européenne de Propulsion (SEP) and enters the space propulsion market (Ariane launcher).

2000 Aircraft wiring specialist Labinal joins Snecma and becomes a leading world player in this market. Labinal helicopter engine manufacturer subsidiary Turbomeca also joins Snecma, to continue a technology success story that started in 1938 with company founder Joseph Szydlowski. Today, the company is the world's premier manufacturer of turbine engines for helicopters⁽²⁾.

2002 Hurel-Dubois merges its businesses with the aircraft engine nacelle business of Hispano-Suiza to become Hurel-Hispano. Three years later the company is renamed Aircelle. It is currently one of the key participants in the aircraft engine nacelle market.

2005 Safran is formed from the merger of Snecma and Sagem. Safran strengthens its positions in the Security business with the acquisition of smartcard specialist Orga Kartensysteme GmbH.

2008 Safran extends its partnership with General Electric (GE) in the fields of aerospace propulsion and nacelles through to 2040. Safran's Security business acquires Sdu-I in the Netherlands, renamed Morpho BV.

2009 Safran acquires 81% of GE's Homeland Protection business, and Motorola's biometrics business (under the Printak brand, now MorphoTrak). Then in 2012, Safran acquires the remaining 19% of GE Homeland Protection, renamed Morpho Detection Inc.

2010 Labinal completes its acquisition of Harvard Custom Manufacturing, an American company based in Salisbury (Maryland).

2011 Safran acquires L-1 Identity Solutions, now MorphoTrust USA, a leading identity management provider in the US market, to become a front-line world player in identity solutions and electronic documents. It also acquires SME (formerly SNPE Matériaux Énergétiques), to be merged with Snecma Propulsion Solide in 2012 to form Herakles.

2012 In optronics, Safran and Thales form the 50-50 joint venture Optrolead. The two companies also buy out the Areva stake to obtain 50% each of Sofradir and transfer their infrared businesses to this company.

2013 Safran acquires the electrical systems business of Goodrich (Goodrich Electrical Power Systems - GEPS). The Group also acquires the 50% interest of Rolls-Royce (United Kingdom) in their joint RTM322 helicopter engine program, to strengthen its position on the strategic heavy-lift helicopters segment.

2014 Safran brings all the Group's electrical systems operations together into a single unit to form a leading world player in aircraft electrical systems: Labinal Power Systems. Safran also acquires the aerospace power distribution management solutions and integrated cockpit solutions businesses of Eaton Aerospace.

(1) Source: Cirium Fleets Analyzer.

(2) Source: Safran.

- 2015** Hispano-Suiza and Rolls-Royce found Aero Gearbox International, a joint venture specializing in design, development, production and after-sales for accessory drive trains (ADTs).
- 2016** Safran brings all its companies together under the same banner and includes “Safran” in the corporate name of its subsidiaries. Safran and Airbus Group SE finalize the merger of their launch vehicle businesses in a 50-50 joint venture, Airbus Safran Launchers (later renamed ArianeGroup), to support the onset of the Ariane 6 project and provide Europe with a new family of competitive, versatile and high-performance launch vehicles. Safran becomes the sole shareholder in Technofan, later renamed Safran Ventilation Systems.
- 2017** Safran and Zodiac Aerospace sign a business combination agreement to create a world leader in aerospace equipment. The financial arrangements for this project are approved by the Annual General Meeting in June, and the necessary regulatory clearance come through in December. Safran finalizes the disposal of its detection businesses to Smiths Group in the second quarter.

Safran completes the disposal of its identity and security businesses to Advent International, owner of Oberthur Technologies.

2018 Safran takes control of Zodiac Aerospace in February. In November, an Extraordinary Shareholders’ Meeting approves the merger of Zodiac Aerospace into Safran, effective from December 1, with the new Zodiac Aerospace businesses coming under the Safran name. Safran and Boeing announce creation of the Initium Aerospace joint venture, to handle design, manufacture and after-sales support for auxiliary power units (APUs). The acquisition of the flight control actuators, cockpit equipment and special products businesses of Rockwell Collins strengthens the Group’s positions in electric actuators and flight controls.

2019 Safran modifies the operational management of its equipment businesses to step up synergies in connection with integration of the Zodiac Aerospace Aerosystems and Aircraft Interiors businesses, founding Safran Passenger Solutions, a company specializing in complex cabin equipment and passenger comfort solutions (water and waste management and in-flight entertainment).

1.1.2 Organization and position of the issuer in the Group

Organization

Safran is an industrial group within which each subsidiary directly manages the operational side of its business activity and takes responsibility for the internal control system to be implemented in accordance with Group procedures and internal rules.

The organizational structure is based on:

- Safran, the parent company and issuer, responsible for the Group’s strategic management, organization and development;
- companies handling specific business lines, under strategies determined by the parent company’s Board of Directors. Executive Management of the parent company ensures that the strategic orientations defined for each business line are implemented and complied with at the operational level.

Tier-one entities (shown in section 1.1.3) are responsible for overseeing the tier-two entities with which they have operational ties.

Role of the issuer within the Group

Safran is listed in compartment A of the Euronext Paris Eurolist and is eligible for deferred settlement (see Euronext notice 2005-1865 of May 11, 2005).

As the Group’s parent company, Safran performs the following functions for the Group companies:

- it holds and manages shares in the Group subsidiaries;
- it steers and develops the Group, determining: Group strategy; research and technology (R&T) policy; sales policy; legal and financial policy; human resources policy; personnel training, retraining and skills matching by Safran University; communications; and oversight of operations;

■ it provides:

- support services on legal, taxation and financial matters, and in particular:
 - centralized cash pooling to govern the terms and conditions of advances and investments between Safran and each Group company,
 - foreign currency management policy to reduce uncertainty factors and protect the economic performance of operating subsidiaries from random foreign currency fluctuations (mainly US dollars),
 - tax consolidation, in jurisdictions such as France where Safran is liable for the entire income tax charge, additional income tax contributions and the minimal tax charge due by the tax group comprising itself and its tax-consolidated subsidiaries;
- services through Shared Services Centers (SSCs) in the following areas: payroll administration and management, recruitment, non-production purchases, materials purchases, IT, and some transaction accounting (customers, suppliers and fixed assets).

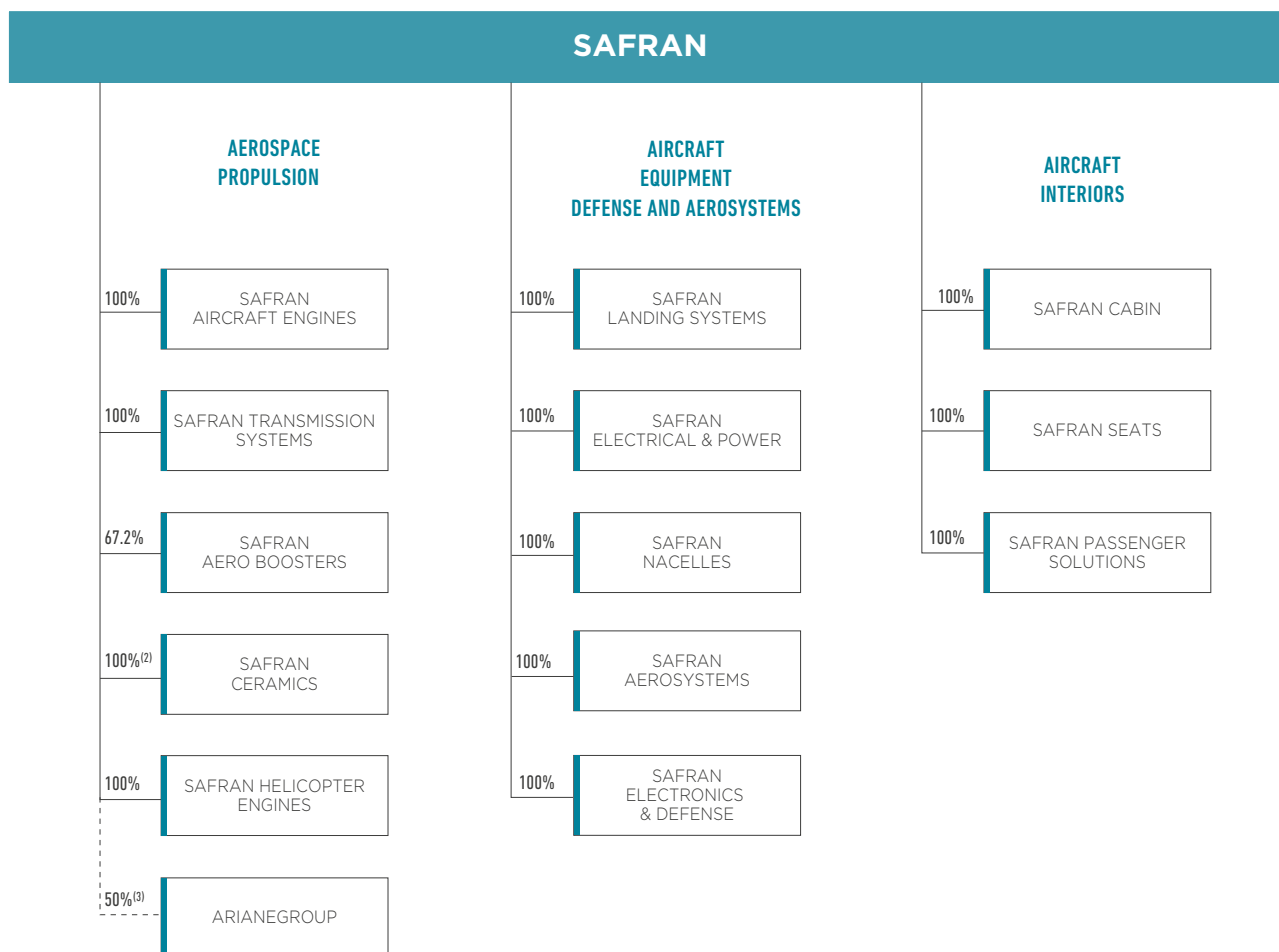
Financial flows between the issuer and Group companies

Safran receives dividends paid by its subsidiaries compliant with applicable regulations (see section 3.3, Note 4.3).

It receives payment for services provided to Group companies, and invoices them for services provided through the Shared Services Centers (SSCs) (see section 3.3, Note 4.1).

1.1.3 Simplified operational organization chart

Safran, the issuer, is the parent company of the Group. The simplified organization chart⁽¹⁾ as of December 31, 2019 is as follows:



The list of consolidated companies is presented in section 3.1, Note 37.

(1) Tier-one entities.

(2) Less a golden share held by the French State.

(3) 50-50 joint venture with Airbus.

1.1.4 Main Group companies by business sector

Safran today covers three main markets: Aerospace Propulsion, Aircraft Equipment and Aircraft Interiors.

Aerospace Propulsion

Safran Aircraft Engines

Engines for civil and military aircraft, maintenance, repair and overhaul (MRO), and support and related services. Electric propulsion and propulsion systems for satellites and orbital vehicles.

Safran Transmission Systems

Mechanical power transmission systems for civil and military airplane and helicopter engines. Maintenance, repair and overhaul (MRO), and support and related services. Mechanical components for airplane and helicopter propulsion systems.

Safran Aero Boosters

Low-pressure compressors and lubrication equipment for aircraft engines. Test cells and equipment for engine testing. Regulation valves for space engines.

Safran Ceramics

Safran center of excellence in high-temperature composite materials from research groundwork through to production. Development of ceramic technologies for Group products.

Safran Helicopter Engines

Engines for aircraft (chiefly civil, semi-public and military helicopters), auxiliary power units (APUs), starting systems for civil and military aircraft, and propulsion systems for missiles, target drones and unmanned aerial vehicles (UAVs). Maintenance, repair and overhaul (MRO), and support and related services.

ArianeGroup

Design, development and production of civil and military space launchers, and propulsion systems and equipment for space applications.

Aircraft Equipment

Safran Landing Systems

Aircraft landing and braking systems. Control and monitoring systems. Capabilities covering the entire product cycle, from design and production to maintenance, repair and overhaul (MRO).

Safran Electrical & Power

Electrical power systems for the aerospace market, covering all onboard electrical functions (power generation, distribution and conversion, wiring, components, load management). Engineering solutions.

Safran Nacelles

Nacelles for all civil aircraft market segments: long-haul, medium-haul, regional and business jets. Capabilities covering the entire product cycle, from design and production to maintenance, repair and overhaul (MRO).

Safran Aerosystems

Inflatable safety systems for aircraft and helicopters, emergency arresting systems, oxygen systems for pilots and crew, fluid management systems, support and related services. Capabilities covering the entire product cycle, from design and production to maintenance, repair and overhaul (MRO).

Safran Electronics & Defense

Equipment and systems for observation, decision-making and guidance for civil and defense markets: optronics, avionics, navigation, electromechanics, tactical drones, telemetrics, electronics and critical software. Customer support for all land, sea, air and space applications.

Aircraft Interiors

Safran Cabin

Cabin interiors for regional, medium-haul, long-haul, business and military aircraft. Integrated cabins, overhead bins, galleys, onboard service equipment, lavatories, crew rest areas and freight containers. Capabilities covering the entire product cycle, from design and production to maintenance, repair and overhaul (MRO).

Safran Seats

Passenger seats for economy, premium economy, business and first class, technical seats for flight-deck and cabin crew, helicopter seats. Capabilities covering the entire product cycle, from design and production to maintenance, repair and overhaul (MRO).

Safran Passenger Solutions

In-flight entertainment systems, environment control and ventilation systems, water and waste management systems, lighting and cabin electronics management systems, and engineering services for cabin interior refits for commercial and private aircraft. Capabilities covering the entire product cycle, from design and production to maintenance, repair and overhaul (MRO).

1.2 GROUP BUSINESSES

1.2.1 Aerospace Propulsion

Safran designs, develops, produces and markets, independently or collaboratively, propulsion and mechanical power transmission systems for commercial aircraft, military transport, training and combat aircraft, civil and military helicopters, satellites and drones. This segment also includes maintenance, repair and overhaul (MRO) activities and the sale of spare parts.

In 2019, a total of 26,741 Safran employees contributed to the development of this business, which comprises four main sectors.

■ AIRCRAFT ENGINES AND SATELLITE PROPULSION SYSTEMS

- Civil aircraft engines
 - Business jets
 - Regional jets
 - Short- to medium-haul aircraft
 - Long-haul aircraft
- Military aircraft engines
 - Fighters
 - Training and support aircraft
 - Patrol, tanker and transport aircraft
- Space vehicle propulsion systems
 - Satellites

■ HELICOPTER TURBINES AND AUXILIARY POWER UNITS

- Turbine engines for helicopters
 - Light helicopters
 - Medium-weight helicopters
 - Heavy-lift helicopters
- Auxiliary power units

■ MECHANICAL POWER TRANSMISSION SYSTEMS

- Civil aircraft
- Military aircraft
- Helicopters

■ LAUNCH VEHICLES – ARIANEGROUP

- Civil space industry
- Military industry

1.2.1.1 Aircraft engines and satellite propulsion systems

Civil aircraft engines

Key characteristics of the business sector

The civil aviation sector comprises four main segments:

- business jets powered with engines each delivering from under 1,000 to 115,000 pounds of thrust;
- regional jets (36 to 100 seats) powered by engines each delivering between 8,000 and 18,000 pounds of thrust;
- short- and medium-haul aircraft (100 to more than 200 seats) powered by engines each delivering between 18,500 and 50,000 pounds of thrust;
- high-capacity long-haul aircraft (more than 200 seats) powered by engines each delivering over 50,000 pounds of thrust.

At the end of 2019, there were around 21,900 business jets in service worldwide⁽¹⁾. To meet expected demand in this market, some 7,500 aircraft of this type will be delivered over the next ten years⁽²⁾.

There were around 25,800 commercial aircraft (regional, short-, medium- and long-haul) in service at the end of 2019⁽¹⁾. In response to the expected increase in this number, and the need to replace aircraft that will be scrapped or dismantled over the period, some 39,400 commercial aircraft will be manufactured over the next 20 years⁽²⁾.

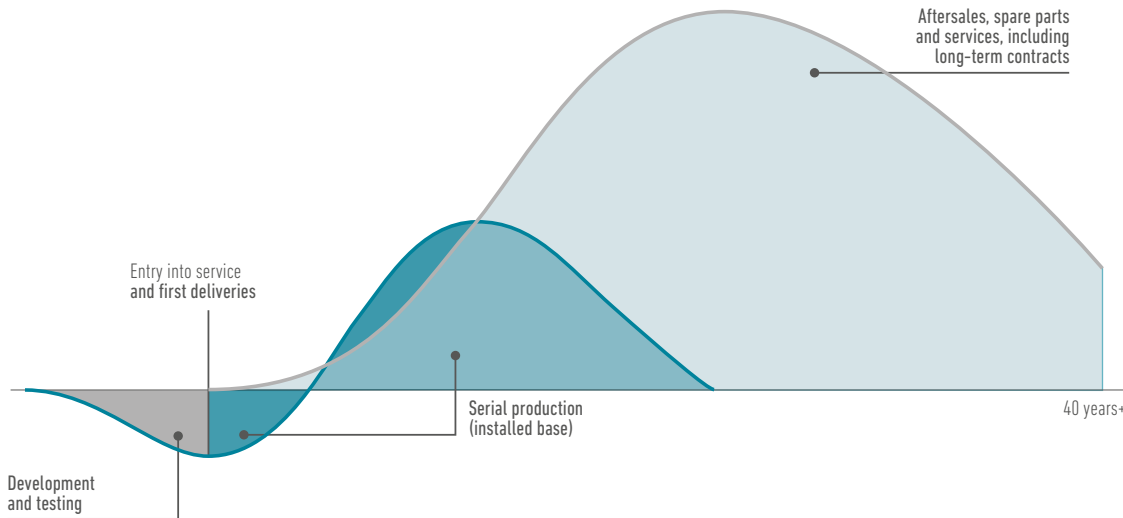
In response to airframers' requirements for specific engines for each of these business sectors, engine manufacturers invest in civil engine programs comprising two types of activity:

- original equipment, involving the sale of engines installed on new aircraft;
- aftermarket, comprising the sale of spare parts and service contracts entered into on a case-by-case or long-term basis with operators and approved maintenance centers.

(1) Source: Safran.

(2) Source: Safran – projections prepared before the emergence of coronavirus (Covid-19).

ECONOMIC LIFE CYCLE OF AN AIRCRAFT ENGINE PROGRAM⁽¹⁾



These programs may span more than 40 years and have several phases. A significant portion of revenue generated by these programs comes from aftersales services.

Addressing operators' expectations in this market, there is a growing tendency to offer long-term rate-per-flight-hour service contracts. This improves visibility for customers and offers engine manufacturers a better guarantee of revenues and a smoother cash profile throughout the engine life cycle.

There are four major engine manufacturers in the sector that can act as prime contractors: General Electric (GE) (United States), Rolls-Royce (United Kingdom), Pratt & Whitney (United States) and Safran.

In the industry, the US dollar is used almost exclusively as the transaction currency.

Alliances and partnerships

Because of the very substantial investment involved in new engine programs, Safran often works in partnership with other engine manufacturers.

Partnerships may take the form of joint ventures, such as on engines for short- to medium-haul aircraft.

They can also be based on contractual risk-and-revenue-sharing agreements, under which Safran receives a share of revenue for the final delivered product, corresponding to its share in the program. For example, this kind of arrangement applies on high-thrust engine programs such as CF6, GE90, GENx, GP7200 and GE9X.

Group products and programs

The Group's operations in the civil aircraft engines segment mainly involve Safran Aircraft Engines and Safran Aero Boosters.

Low-thrust engines for civil aircraft

This engine family powers regional jets and business jets.

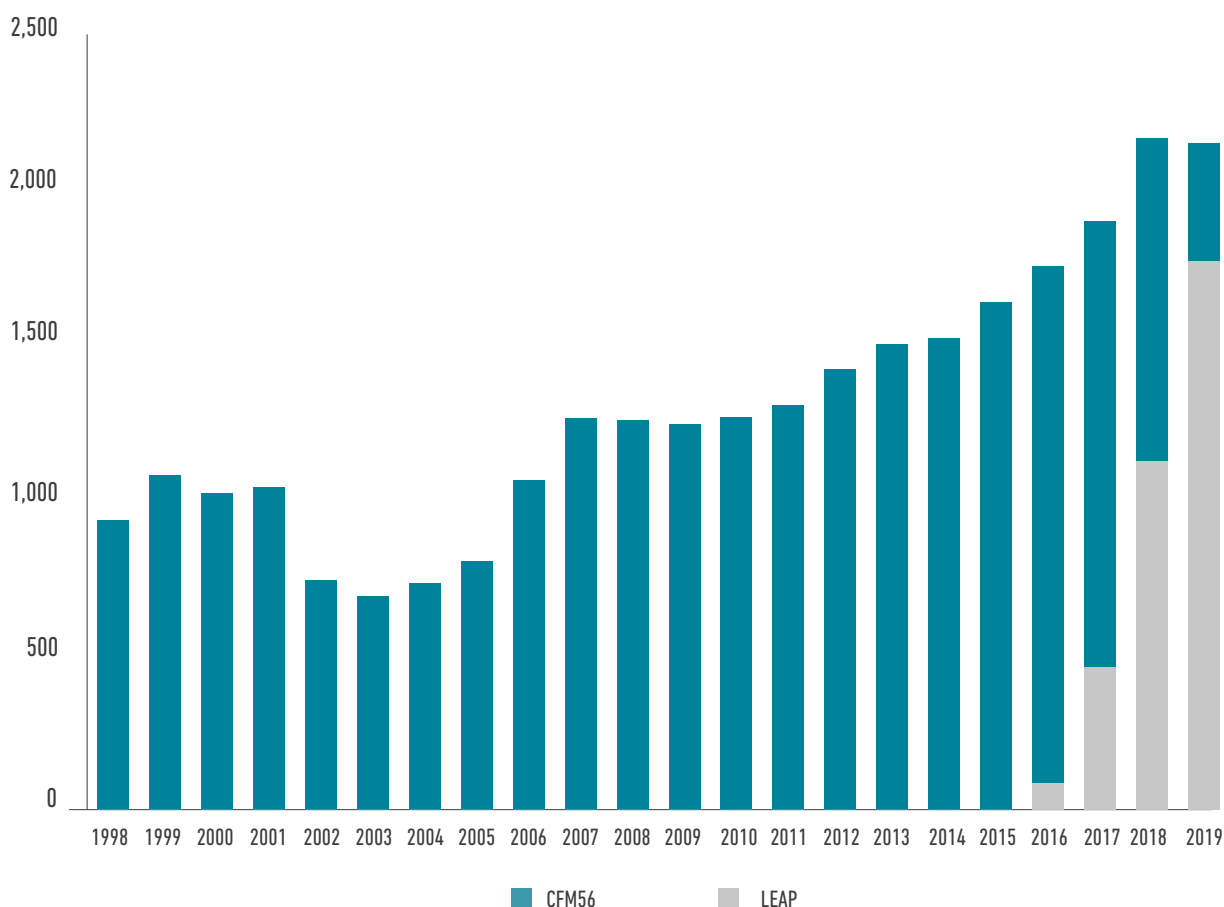
Safran is the prime contractor for the SaM146 program, in partnership with the Russian engine manufacturer, UEC Saturn. The SaM146 is the sole engine for the Superjet 100, the 70- to 95-seater aircraft made by Russian manufacturer Sukhoi.

Safran also invests in engines for business jets through its Silvercrest program, in the category of engines delivering 10,000 pounds of thrust.

The Group also operates in this engine range through the participation of Safran Aero Boosters in the following GE programs:

- CF34-10 (Embraer 190 and COMAC ARJ21 regional jets);
- Passport (Bombardier Global 7500 business jet).

(1) For illustrative purposes only.

*Mid-thrust engines for civil aircraft*NUMBER OF PRODUCTION-STANDARD CFM56 AND LEAP ENGINES MANUFACTURED⁽¹⁾

In 2019, the CFM56 and LEAP engine programs (including spare parts, maintenance and repair sales) generated 63% of Safran's Aerospace Propulsion revenue. These engines are developed under equitable joint cooperation agreements by CFM International, a 50-50 joint venture between Safran and GE.

The success of this program with airline companies has led to a steady rise in the fleet of CFM56 engines delivered over the past 35 years. This engine currently represents the world's largest engine fleet; more than 33,500 CFM56 units have been delivered and more than 31,800 are in operation⁽¹⁾.

For the Airbus A320ceo (current engine option), the CFM56 holds a total market share of 59%⁽¹⁾. Competition to power the Airbus range comes from the V2500 engine made by the IAE consortium (Pratt & Whitney, MTU Aero Engines in Germany and Japanese Aero Engines Corp in Japan).

The current generation of the Boeing 737 NG, like the previous version (Classic), is powered solely by CFM56 engines. In 2019, the CFM56 fleet set a new world record by becoming the first aircraft engine range in aviation history to achieve one billion engine flight hours.

The CFM56/LEAP transition is under way. The LEAP engine achieves a 15% reduction in fuel consumption and CO₂ emissions compared with the latest generation of CFM56 engines. The new engine will also significantly reduce nitrogen oxide emissions and noise levels, with no compromise on the reliability or competitive cost of ownership of CFM56.

The LEAP engine has so far been selected for use on three aircraft:

- the LEAP-1A version is one of the two engine options for the new Airbus A320neo, the other being the PurePower PW1000G developed by Pratt & Whitney;
- the LEAP-1B version is the sole source for the Boeing 737 MAX;
- the LEAP-1C version is the sole Western source for the propulsion system (engine plus nacelle) on China-based COMAC's C919 aircraft.

The highly innovative LEAP engine continues its meteoric rise, unprecedented in the aviation industry, with an order backlog of 15,614 units by the end of 2019. This success confirms CFM International as leader in the market for 100+ seater aircraft. This sales success builds on the successful performance of the LEAP-1A engine in 2016 and the LEAP-1B in 2017. A total of 1,736 LEAP engines were delivered to Airbus and Boeing in 2019. Six COMAC C919 aircraft powered by LEAP-1C engines continued their test-flight programs during the year.

⁽¹⁾ Source: Safran.

High-thrust engines for civil aircraft

The Group operates in this engine range as a risk-and-revenue-sharing partner of GE. Participation rates vary between 7% and 24% across several engine programs in serial production, including the CF6 powering the A330 (19.4%) and the Boeing 767 (10%), and the GE90 powering the Boeing 777 (23.7% for the -115 version currently in production). Safran is a partner on the GEnx engine program: 7.7% for the 1B version powering the Boeing 787 Dreamliner long-haul aircraft and 7.3% for the 2B version powering the Boeing 747-8. Safran also partners with GE, at 11.2%, on the program for the forthcoming GE9X engine, the sole source for Boeing's new 777X long-haul aircraft, which will come into service in 2021. Finally, as part of its cooperative arrangements with the Engine Alliance consortium partners (GE and Pratt & Whitney), Safran has a 17.5% stake in the GP7200 engine that powers the A380.

Spare parts and services for civil aircraft engines

Aftersales operations primarily involve the sale of spare parts and the provision of maintenance, repair and overhaul (MRO) services. They hold significant growth potential for the Group, owing to the size and lifespan of the aircraft fleets concerned.

Each CFM56 engine is removed for inspection and servicing in a maintenance workshop three to five times during its service life. For several years, the Group has also been developing long-term service contracts with airline companies and the main maintenance workshops to assert its position on this highly competitive market. Sales of spare parts for the fleet of CFM56 engines in service will thus continue to increase even after serial production of this engine has been discontinued.

New-generation LEAP engines may be sold with contracts covering the provision of spare parts and/or services, which contribute to generating long-term revenue. Safran also draws revenue from sales of spare parts.

On other civil aircraft engine programs, including those for high-thrust engines in which Safran holds a minority stake alongside GE or Engine Alliance, the Group also benefits from revenue from spare parts and service contracts sales.

Military aircraft engines

Key characteristics of the business sector

The military aviation sector comprises three main segments:

- fighters and combat drones;
- training and support aircraft;
- patrol, tanker and transport aircraft.

The military aircraft engine and related services market is dependent on the budgets of customer air forces. The military market is also influenced by national independence and diplomatic considerations.

The nature and performance of engines vary considerably depending on the segment: jet engines with a high thrust-to-weight ratio for fighters, and jet engines or turboprops closer to those found in civil aircraft for training and patrol aircraft.

As in the civil aviation sector, military engine programs generally involve two types of activities, namely original equipment and aftersales services, the latter comprising the sale of spare parts, maintenance and repair activities, as well as other customer services.

Alliances and partnerships between engine manufacturers have been forged to bring together the best technological and commercial assets, pool risks and meet the needs of pan-European programs.

The majority of civil engine manufacturers are active in military aircraft engines and benefit from the technical synergies that exist between the two activities.

The main Western players on the fighter engines market are Pratt & Whitney, GE, Rolls-Royce (United Kingdom) and Safran. The main European players are Safran (with the Atar engine powering the Mirage III, 5 and F1 family, the M53 powering the Mirage 2000 and the M88 powering the Rafale), Rolls-Royce (whose Pegasus engine powers the Harrier), and the European Turbo-Union consortium⁽¹⁾ (for the RB199 engine powering the Tornado fighter). The European Eurojet consortium⁽²⁾ develops the EJ200 engine that powers the Eurofighter Typhoon.

The choice of engines in the training and support aircraft sector extends mainly to those made by Safran (the Adour, in cooperation with Rolls-Royce and the Larzac in partnership with MTU and Rolls-Royce Deutschland), Pratt & Whitney (PW500 and PW300) and Honeywell (United States) (TFE731 and F124 engine families).

In the engine segment for military tanker, transport and patrol aircraft, the fleet is primarily made up of the T56 and AE2100 turboprops developed by Rolls-Royce North America and the Tyne engines developed by Rolls-Royce and made under license by Tyne Consortium (Safran 52%, MTU Aero Engines 28% and Rolls-Royce 20%). Safran is also involved in the program for the TP400 engine powering the A400M European military transport aircraft, with a 32.2% stake in the Europrop International GmbH (EPI) consortium, which also includes Rolls-Royce, Industria de Turbo Propulsores (ITP) and MTU Aero Engines.

Group products and programs

Safran's operations in the military aircraft engines segment mainly involve Safran Aircraft Engines, Safran Helicopter Engines and Safran Aero Boosters.

Fighter engines

Historically tied to Dassault Aviation, activity in this segment is based mainly on the following programs:

- the M88 engine (7.5 metric tons of thrust), which powers the Rafale. At the end of the year, there were 478 of these engines in service with three customers. A fourth customer's fleet of M88 engines will come into operation in 2020;
- the M53 engine (9.5 metric tons of thrust), which powers the Mirage 2000. There are 577 of these engines in service with eight customers;
- the Atar engine (4.5 to 7.1 metric tons of thrust), which powers the Super-Étendard jets and the Mirage III, 5 and F1 family. In 2017, Mirage F1 aircraft powered by this engine program were selected as adversary planes⁽³⁾ for training US Air Force pilots.

(1) The Turbo-Union consortium comprises Rolls-Royce, MTU Aero Engines (Germany) and Avio (Italy).

(2) The Eurojet consortium comprises Rolls-Royce, MTU Aero Engines, Avio and Industria de Turbo Propulsores (ITP) (Spain).

(3) Plane acting as an opposing force in military wargames.

In 2019, Safran and MTU Aero Engines announced their partnership to jointly lead the development, production and aftersales activities of the new engine that will power the next-generation European fighter aircraft, as part of the Franco-German Future Combat Air System (FCAS)⁽¹⁾. The aircraft will enter into service by 2040 to take over from the Eurofighter and Rafale fighters.

Training and support aircraft engines

Activity in this segment is based on the following programs:

- the Adour engine, which delivers thrust of 3.7 metric tons (with afterburner) or 2.9 metric tons (without afterburner). Made in cooperation with Rolls-Royce, it powers support and attack aircraft such as the Jaguar aircraft produced by Dassault Aviation and BAE Systems, and training aircraft such as the Hawk produced by BAE Systems and the Goshawk T-45A produced by Boeing. There are currently some 1,100 Adour engines in service;
- the Larzac engine (1.4 metric tons of thrust), which powers Dassault Aviation's Alpha Jet training aircraft (250 units of the more than 500 sold are still in service in 10 countries).

Patrol, tanker and transport aircraft engines

Activity in this segment is based on the following programs:

- the CFM56 engine powering military versions of the Boeing 707 (CFM56-2), the KC135 tanker aircraft and the Boeing 737 (CFM56-7), the C-40 transport aircraft, the P-8 Poseidon MMA (Multimission Maritime Aircraft), and the AEW&C (Airborne Early Warning & Control) aircraft;
- the 4,550 kW Tyne engine that powers C-160 Transall transport aircraft and Atlantique 2 maritime patrol aircraft (program generating revenue solely through spare parts and repairs today);
- the TP400 turboprop engine, the world's most powerful unit currently in production (8,203 kW, i.e., 11,000 hp), powering the Airbus A400M European military transport aircraft, with 406 engines in service.

Spare parts and services for military aircraft engines

Aftermarket operations for military aircraft primarily involve the sale of spare parts and repair services. These activities are directly linked to the aircraft availability needs of governments using military aircraft. Two programs account for the bulk of these military aircraft service operations today: Mirage 2000 (M53 engine) and Rafale (M88 engine). The Group also continues to provide services for older aircraft fleets, to meet the needs expressed by customers.

Because of the extreme operating conditions involved, military aircraft engines are usually serviced before they reach 1,000 hours in flight. One of Safran's constant development objectives is to lengthen the interval between servicing visits. In 2012, the Group introduced a new variant of the engine that powers the Rafale, the M88 Pack CGP (for "total cost of ownership"), helping to maintain the aircraft in optimal operating condition. Hot parts and rotating parts have a longer service life, lengthening inspection intervals for the main engine modules and considerably reducing the M88 cost of ownership. Currently, governments generally delegate the management of their spare parts to the engine manufacturer.

Space vehicle propulsion systems

Key characteristics of the business sector

This business sector covers satellite engines.

Plasma propulsion is the preferred solution for satellite orbit raising and attitude and orbit control. This technology, also referred to as Hall-effect or stationary plasma propulsion, has a considerable advantage over traditional chemical propulsion systems as regards take-off mass.

The main participants in the commercial plasma propulsion market, besides Safran, are EDB Fakeel (Russia), Busek (United States) and Aerojet Rocketdyne (United States).

Group products and programs

Safran's operations in plasma propulsion systems for satellites and space exploration probes involve Safran Aircraft Engines.

In an increasingly competitive market, Safran adapts its offering to new strategies for placing satellites in orbit, and to customer demands on costs and availability. The Group has been developing, integrating, testing and marketing plasma thrusters and plasma propulsion systems with power ratings from 200 W to 20 kW for more than 30 years. They can be found on the telecommunication platforms Eurostar 3000 EOR (Airbus Defence and Space), Alphabus (Thales Alenia Space and Airbus Defence and Space) and Electra (OHB - Orbitale Hochtechnologie Bremen, Germany). Safran plasma thrusters have also been selected for the SSL telecommunication platforms (United States), the Astranis commercial platform (United States), the Boeing commercial platforms, and, under the European Space Agency (ESA) Neosat program, the Airbus Defence and Space Eurostar Neo and the Thales Alenia Space Spacebus Neo platforms.

1.2.1.2 Helicopter turbine engines and auxiliary power units

Key characteristics of the business sector

The helicopter turbine engine market is characterized by significant diversity in applications and end-users. With the exception of armed forces and certain specific civil applications, current helicopter fleets are small in size.

Some 50,000 helicopters were in service worldwide at the end of 2019⁽²⁾. To meet growing demand and replace helicopters scheduled for dismantling or decommissioning, a total of around 31,000 helicopters are expected to be delivered over the next 20 years⁽³⁾.

Helicopter engine size is determined mainly by airframe weight and mission type. Helicopters may have one, two or sometimes three engines.

(1) The Future Combat Air System (FCAS) combines New Generation Fighter (NGF) aircraft, drones, future cruise missiles and drone swarms. It will connect with aircraft, satellites, NATO systems and land and sea combat systems.

(2) Source: Safran.

(3) Source: Safran - projections prepared before the emergence of coronavirus (Covid-19).

The Group serves:

- government and semi-public applications: police, border control, medical and emergency services;
- civil applications: offshore oil industry, transportation, tourism and private ownership, and airborne work such as spraying and construction;
- military applications: transportation, attack and ground support, maritime patrol.

This diversity, coupled with the fact that engines are tightly integrated into the helicopter airframe, gives rise to a wide variety of engines and related versions.

The helicopter turbine engine market, like the civil aviation market, has two components:

- sale of turbine engines to helicopter manufacturers for installation in new airframes (original equipment);
- aftersales activities based on spare part, maintenance and repair contracts with operators, requiring a major global customer support network with local reach, given the large number of users and the helicopter's limited radius of action.

The profile of a helicopter turbine engine program is extremely similar to that of a civil aircraft engine program as presented earlier in this section.

The airframe/engine pairing is often unique and at the origin of a new model. However, there is a trend toward multiple engine sizes among some helicopter manufacturers (offering a choice between two engines). This can also be seen where a helicopter is adapted for a specific purpose, thereby reintroducing competition to a given program.

There are fewer partnerships between engine manufacturers than in the civil aviation engine sector. The main partnership is MTRI (MTU Aero Engines, Safran Helicopter Engines, Rolls-Royce and Industria de Turbo Propulsores [ITP]), on the 1,450-shp⁽¹⁾ MTR390-E engine powering the Tiger. The growth of the helicopter market in emerging economies has also led Safran to develop other types of partnerships with consortiums of helicopter manufacturers claiming a role in the propulsion sector. This is the case with Hindustan Aeronautics Ltd. (HAL) in India and AVIC in China, which are becoming both customers and partners.

The majority of major Western aircraft manufacturing groups are also present in the helicopter turbine engine market: Safran, GE, Pratt & Whitney Canada, Rolls-Royce and Honeywell. Safran ranks number-one in the sector, with a market share of 36%⁽²⁾.

Safran has also developed a range of auxiliary power units (APUs), based on turbine technology and featuring innovations developed through substantial technological investment and strategic partnerships.

Group products and programs

Most of Safran's helicopter engines are modular turbine units adaptable to civil and military helicopters. Modularity makes for more efficient maintenance programs. Safran helicopter engines are designed with a large additional power potential (up to 15%), which means they address a broad application spectrum. Through Safran Helicopter Engines, Safran covers all of the helicopter engine categories described below.

Auxiliary power units are non-propulsive systems that generate energy on an aircraft for powering onboard systems. Safran fields a range of auxiliary power units through Safran Power Units.

Turbine engines for light helicopters

For single-engine helicopters from 2 to 3 metric tons and twin-engine helicopters from 4 to 6 metric tons, Safran offers three engine families: Arrius (450 to 750 shp), Arriel (590 to more than 1,000 shp) and Arrano (1,100 to 1,300 shp).

Arrius engines and their derivatives power many civil helicopters, from Airbus Helicopters (H120, H135), Kamov – Russian Helicopters (Ka-226T) and Bell (Bell 505 Jet Ranger X), along with military versions of Leonardo's A109 LUH (Light Utility Helicopter).

Arriel engines and their derivatives power helicopters manufactured by Sikorsky (S-76 C++), AVIC (AC311A, AC312) and Airbus Helicopters (H125, H130, H145, H155, AS365 N3+), as well as military models manufactured by Airbus Helicopters (H145M, AS565MB, etc.). These engines have also been selected by Korea Aerospace Industries (KAI) to power its forthcoming LCH (Light Civil Helicopter) and LAH (Light Armed Helicopter).

The Arrano will consume 10% to 15% less fuel than the previous generation of engines in service today, meaning enhanced performance (range, payload) and a smaller environmental footprint. Airbus Helicopters selected the Arrano as the sole source for its twin-engine H160 helicopter (5.5 to 6 metric tons), and for its military version, the H160M Guépard. EASA⁽³⁾ certification for this engine was announced at the 2019 Paris Air Show.

Turbine engines for medium-weight helicopters

For helicopters from 5 to 7 metric tons, Safran is present in the military market for combat helicopters, with the MTR390 (1,250 to 1,450 shp), developed jointly with Rolls-Royce and MTU Aero Engines, that powers the Airbus Helicopters Tiger, and the TM333 (900 to 1,100 shp) that powers Hindustan Aeronautics Ltd's Dhruv (India). A special development contract has been signed with Spain for a more powerful version of the MTR390 for the Tiger.

For helicopters from 5 to 8 metric tons, Safran's Ardiden range of engines covers power ratings from 1,400 to 2,000 shp. The Ardiden 1H1/Shakti powers the Dhruv and twin-engine light combat helicopters (LCHs) from Indian helicopter manufacturer Hindustan Aeronautics Ltd (HAL). HAL selected the Ardiden 1U variant to power its light utility helicopters (LUHs). EASA certification for the Ardiden 1U was announced in November 2019. The Ardiden 3G is designed for helicopters of up to 8 metric tons, and has already won orders from Kamov – Russian Helicopters for the Ka-62. In China, the Ardiden 3C/WZ16 obtained CAAC⁽⁴⁾ certification in 2019. This engine, developed by Safran with Aero Engine Corporation of China (AECC), will power the new French-Chinese AC352 helicopter, itself a product of a joint project between Airbus Helicopters and Chinese airframer HAIG, an AVIC subsidiary.

(1) Shaft horsepower.

(2) Percentage of new helicopters delivered in 2019 powered by Safran engines. Source: Safran.

(3) European Aviation Safety Agency.

(4) Civil Aviation Administration of China.

Turbine engines for heavy-lift helicopters

In the heavy-lift helicopters market, Makila turbine engines from 1,800 to 2,100 shp are used on helicopters including the H225/225M in the Airbus Helicopters Super Puma family.

The RTM322 turbine engine, which develops 2,100 to 2,600 shp, powers the NHIndustries NH90 helicopter and the Leonardo AW101 Merlin helicopter and Apache UK fighter helicopter.

The new range of high-power Aneto engines features advanced technologies developed under the Group's research work. This engine range, to include models with power ratings from 2,500 to more than 3,000 shp, has the advantage of offering 25% more power than existing units. The first 2,500-shp model, named Aneto-1K, was selected by Leonardo to power its twin-engine AW189K. Following EASA certification for the Aneto-1K engine in 2019, the AW189K helicopter is set to come into service in 2020.

Lastly, the Aneto-1C engine was selected by AVIC to be the new engine of the AC313 three-engined heavy-lift (13 metric tons) helicopter. The first flight for this heavy-lift helicopter with its new engine is scheduled for 2020.

Spare parts and services for helicopter turbine engines

Following the example of its civil aviation activities, Safran has developed an international structure able to provide customers with local access to technical and sales support for their turbine engines, along with spare parts and services. Local coverage is provided through a worldwide network of repair centers (performing thorough maintenance) and service centers.

Auxiliary power units

The auxiliary power units developed by Safran meet the demanding requirements of the world's leading aircraft and helicopter manufacturers. Safran supplies a large fleet of civil and military aircraft and helicopters, including Alenia Aermacchi's M-346, Dassault Aviation's Rafale, BAE Systems' Hawk, NHIndustries' NH90, Airbus Helicopters' H225M and Leonardo's AW189. Bombardier's Global 7500 business jets are also fitted with Safran auxiliary power units.

Safran has also teamed up with Boeing to form Initium Aerospace, a 50-50 joint venture specializing in design, production and aftersales support for auxiliary power units for commercial aviation. Initium Aerospace will enable the companies to develop a more competitive offer on the auxiliary power unit market.

Lastly, Safran provides aftersales support for these high-technology systems.

1.2.1.3 Mechanical power transmission systems

Key characteristics of the business sector

The mechanical power transmission market covers a range of applications, the main ones being accessory gearboxes (which deliver mechanical energy to engine accessories), reduction drives (which transfer power to the propeller blades on turboprop aircraft and are also used in turbofan engines with very high bypass ratios) and main transmission gearboxes (which transfer power to the blades on helicopters). The main participants in this market are the engine and helicopter manufacturers themselves, along with aerospace equipment suppliers such as Collins Aerospace (United States), GE, KHI (Japan), Triumph (United States) and Northstar (United States).

Group products and programs

Safran's operations in the mechanical power transmission sector involve Safran Transmission Systems.

Safran designs, manufactures, markets and provides maintenance services for a wide range of mechanical power transmission systems for civil and military aircraft engines and helicopters. Recognized technical expertise in this field is harnessed to develop applications for the world's leading airframers and for Airbus Helicopters.

Aero Gearbox International (AGI), a 50-50 joint venture formed by Safran and Rolls-Royce in 2015, specializes in design, development, production and aftersales services for power transmission systems, the first application of which is on the A330neo. The company has exclusive coverage of the whole range of Rolls-Royce's forthcoming civil aircraft engines, for all aircraft categories (business jets, single-aisle, twin-aisle). AGI already supplies power transmission systems for the Trent 7000 that powers the A330neo and the Pearl 15 engine that powers the Bombardier Global Express 5500 and 6500.

1.2.1.4 Launch vehicles

Key characteristics of the business sector

This business sector comprises three main segments:

- the civil space industry, with launch vehicles for placing satellites in orbit;
- the military industry, with ballistic and tactical missiles;
- products, equipment and services: a largely commercial segment covering institutional customers, the main satellite manufacturers and gas generators for vehicle airbag systems.

In the first two segments, development and engineering programs tend to follow long cycles under finance by institutional budgets, such as ESA for civil space activities in Europe or national defense budgets for strategic operations. Tactical missile development is also financed by customer governments.

In the civil space industry, competition is quite intense. The main competitors of Arianespace (a subsidiary of ArianeGroup, itself a 50-50 joint venture with Airbus) in the market for commercial launch services are the US company Space X, with its Falcon 9 launch vehicle and new Falcon Heavy version, and, to a lesser extent, the Russian Proton launch vehicle marketed by International Launch Services (ILS), though this only made one commercial flight in 2019. Competition will be intensifying in the medium-term, with a number of new launch vehicles currently under development. This highlights the relevance of the forthcoming Ariane 6 launch vehicle, set to be introduced in 2020. These projects are run by other players, in the United States (New Glenn from Blue Origin, Vulcan from United Launch Alliance and OmegA from Northrop Grumman), Russia (Angara), India (GSLV), China (Long March 5, which made a successful first flight in late December 2019) and Japan (H3).

The military launch vehicle segment covers ballistic and tactical missiles:

- ballistic missiles are an essential component of national nuclear deterrent forces for countries possessing this capability. In Western Europe, France is the only country to develop its own ballistic missiles powered by solid-propellant engines. The main players in the ballistic missile segment are ArianeGroup in Europe and Lockheed Martin and Boeing in the United States;

■ tactical missiles appear in all battlefield situations. They use various types of propulsion systems (solid propellant, turbojet and ramjet). Safran primarily covers the solid-propellant propulsion sector, through its stakes in Roxel (50-50 joint venture with MBDA) and ArianeGroup, and the turbojet propulsion sector, through Safran Power Units. Other main players in the sector of solid-propellant engines for tactical missiles are Nammo (Norway), Bayern Chemie (Germany), Avio (Italy), Aerojet Rocketdyne (United States), Northrop Grumman (United States), Rocketsan (Turkey) and Denel (South Africa).

The third segment comprises products, equipment and services for civil and military launch vehicles, satellites, space surveillance, production of critical infrastructures (satellite integration centers, remediation units, etc.), gas generators for vehicle airbag systems, and production of parts for the aerospace industry.

Group products and programs

Safran covers the civil and military launch vehicle sector through ArianeGroup, its joint venture with Airbus. ArianeGroup is the product of the joint ambition of Safran and Airbus to drive the European space industry to unrivaled heights, in a context of mounting international competition. It merges both partners' businesses and expertise in civil and military launch vehicles into a single, coherent entity.

Safran covers the sector of propulsion systems for tactical missiles and targets through Roxel and Safran Power Units.

Civil space industry

ArianeGroup is prime contractor for the Ariane 5 launch vehicles developed by ESA, which involves coordinating an industrial network of more than 550 companies in 12 European countries. It manages the whole of the industrial chain, which covers plant and equipment, engine manufacture, then integration of the individual stages and the launch vehicle as a whole in French Guiana. ArianeGroup is also prime contractor on the program for the forthcoming Ariane 6 launch vehicles, the first flight of which is expected in 2020. It contributes to the solid propulsion component of the Vega program, and to prime contractorship for the Russian Soyuz launch vehicle in French Guiana. Its Arianespace subsidiary, a front-line world player, takes charge of marketing and operation of these launch vehicles from the Guiana Space Center.

Ballistic missiles

In the military market, ArianeGroup is industrial prime contractor on the missiles program for France's fourth-generation ocean-going strategic nuclear force (M51). Neither ArianeGroup nor Safran is responsible for the provision of nuclear heads for these ballistic missiles.

Following the M51.1 version, which came into operation in 2010, and M51.2 in 2016, development is under way on the new M51.3 version. The critical development review, scheduled for 2020, will allow for the M51 missile to be adapted to the geopolitical context of the coming years.

ArianeGroup also develops technologies for forthcoming high-performance propulsion systems (modular propulsion, DACS⁽¹⁾, etc.) under national and international R&T contracts.

Tactical missile propulsion

Safran covers the sector of solid-propellant engines for tactical missiles through Roxel, which develops and manufactures a large range of solid-propellant engines for tactical missiles of international renown (Milan, Mistral MdCN⁽²⁾, MICA⁽³⁾, AASM⁽⁴⁾, Exocet, Aster, Meteor, etc.). Neither ArianeGroup nor Safran is responsible for the provision of explosive charges for these tactical missiles.

Through Safran Power Units, the Group is a leading global player⁽⁵⁾ in jet engines for military applications (missiles and targets). Safran makes engines for missiles including the SCALP and RBS-15, and for the US targets MQM-107 for the US Air Force.

Products, equipment and services

ArianeGroup currently sells products, equipment and services in more than 50 countries, and is the supplier to the main satellite manufacturers, for products including propulsion systems, antenna reflectors and central tubes. It is also the supplier to 18% of the European market and around 7% of the world market for gas generators in vehicle airbag systems⁽⁶⁾.

Through its worldwide GEOTRACKER network, ArianeGroup also meets the needs expressed by civil and military customers for services involving the detection and surveillance of space objects.

Through its Pyroalliance subsidiary, ArianeGroup provides pyrotechnic equipment on a broad range of missiles (MdCN, SCALP, Aster, Exocet, MICA, IRIS-T⁽⁷⁾, Crotale, Otomat, Marte, Eryx, etc.) and launch vehicles (Ariane and Vega).

Through its Compagnie Industrielle des Lasers (CILAS) subsidiary, ArianeGroup develops, engineers and manufactures systems coupling laser and precision optics technologies in high-tech military and civil applications.

ArianeGroup's Sodern subsidiary fields cutting-edge expertise in space instrumentation, optics and neutronics for civil and military applications.

ArianeGroup's Nuclétudes subsidiary provides prime expertise in tests and engineering on ruggedization, for the protection of electronic systems and mechanical structures in harsh radiative and electromagnetic environments.

(1) Divert and Attitude Control System.

(2) Missile de croisière naval (naval cruise missile).

(3) Missile d'interception, de combat et d'autodéfense (interception, combat and self-defense missile).

(4) Armement air-sol modulaire (modular air-to-ground weapon).

(5) Source: Safran.

(6) Source: ArianeGroup.

(7) Infra Red Imaging System Tail/Thrust Vector-Controlled.

1.2.2 Aircraft Equipment, Defense and Aerosystems

Safran's Aircraft Equipment, Defense and Aerosystems business operates in five main sectors:

■ LANDING AND BRAKING SYSTEMS

- Landing gear
- Wheels and brakes
- Electric taxiing
- Landing and braking control systems
- Services for landing gear, wheels and brakes and related systems

■ ENGINE SYSTEMS AND EQUIPMENT

- Nacelles and thrust reversers
- Services for nacelles and thrust reversers

■ ELECTRICAL SYSTEMS AND ENGINEERING

- Electricity generation and distribution
- Electrical interconnection systems (wiring)
- Engineering

■ AEROSYSTEMS

- Safety and protection systems
- Integrated fluid management and control systems

■ ELECTRONICS & DEFENSE

- Avionic equipment
- Defense equipment
- Data systems
- High-performance optics

Safran holds front-line positions in all these fields. In 2019, a total of 44,231 Safran employees contributed to the development of this business.

1.2.2.1 Landing and braking systems

Safran is a preferred partner of airframers, holding technological expertise across a large number of sectors and capable of offering a comprehensive range of products and services. Safran is notably the sole comprehensive "ATA 32" supplier (landing gear + brakes + systems).

This business comprises three main product lines: landing gear, wheels and brakes, and landing and braking systems.

Safran has combined these operations within Safran Landing Systems. This organization is a response to market shifts toward more tightly integrated offerings addressing both airframers and airline companies.

Landing gear

Key characteristics of the business sector

The market for commercial aircraft landing gear is shared by Safran, Collins Aerospace, Liebherr (Switzerland), Héroux-Devtek (Canada) and a handful of niche players positioned in specific market segments (business jets, helicopters, drones, etc.). Technology requirements are high, as landing gear must bear extreme loads during maneuvers on the ground: it must be light, compact and robust, while being fully adapted to and optimized for the aircraft's profile. The business model includes a long development period – which starts with the initial aircraft development phase – limited production volumes and regular service flows. Technological challenges include the use of new materials to improve the resistance and mass of parts, new, more eco-friendly production processes (including the elimination of chrome) and enhanced acoustics.

Group products and programs

Safran addresses the landing gear segment through Safran Landing Systems, which holds more than half the market⁽¹⁾ for landing gear for commercial aircraft carrying more than 100 passengers.

Safran designs, manufactures and provides aftersales services for landing gear for civil and military planes and helicopters of all sizes. It also handles integrated systems if requested by the customer, and provides the technical assistance, spare parts and repair services needed for its equipment.

Safran is worldwide leader⁽¹⁾ for landing gear structural units, having equipped a fleet of some 28,000 aircraft. The Group supplies the world's major airframers (including Airbus, Boeing, Bombardier and Dassault Aviation) and military and civil operators. Among the main commercial aircraft programs are the main Airbus platforms (A300, A310, A320ceo, A320neo, A330, A330neo, A340, A350 and A380) and the Boeing 787 Dreamliner.

Safran also has a strong presence in military applications, where it equips the A400M, Rafale, Eurofighter Typhoon, F18 and V22 planes and helicopters from Airbus Helicopters, as well as in the business and regional jets (ATR, Bombardier, Dassault Aviation and Sukhoi) markets.

Wheels and brakes

Key characteristics of the business sector

The present-day wheels and brakes market for commercial aircraft with 100 or more seats splits into two segments: aircraft with steel brakes (first-generation brakes), which in 2019 account for some 20%⁽¹⁾ of commercial aircraft of 100 or more seats, and aircraft with carbon brakes, invented by Safran, which account for around 80%⁽¹⁾. The market for carbon brakes has developed rapidly since the 1980s, with the increase in air traffic and the gradual phase-out of steel brakes, replaced by carbon units. The wheels and brakes market is currently shared among four major global participants: Safran, Collins Aerospace, Honeywell and Meggitt (United Kingdom).

(1) Source: Safran.

Group products and programs

Safran designs and manufactures wheels and carbon brakes for aircraft, and provides related after-sales services. It also provides electronic and electrohydraulic systems for aircraft braking, tire/brake/landing gear monitoring and landing gear steering systems.

Safran is a leading player in wheels and brakes, particularly for civil applications (on the A320ceo, A320neo, A330, A330neo, A340, A350, Boeing 737 NG, Boeing 737 MAX, Boeing 767, Boeing 777 and Boeing 787) and the military sector (on the A400M, Rafale, KC135 refueler and C-17 and KC-390 transport aircraft).

With more than 10,300 aircraft fitted with Safran wheels and carbon brakes, the Group holds more than half of the market⁽¹⁾ for civil aircraft having over 100 seats and fitted with carbon brakes. Given the size of the fleet equipped by Safran, 36% of which is less than five years old, the business model underpinning this activity contributes to strong revenue streams.

Electric taxiing

In 2019, Airbus decided to turn down the Safran Electric Taxiing program, which would have enabled aircraft to taxi from the airport terminal to the runway with the main engines off, using a small electric motor mounted on the main landing gear. Safran continues to firmly believe in the relevance of this eco-friendly solution, which offers increased operational efficiency (approximately 4% reduction in fuel costs for companies that do not yet practice single-engine taxiing); greater on-ground autonomy for aircraft (more on-time departures); and environmental benefits (reduced greenhouse gas emissions and noise pollution).

In addition to Safran, other companies are also working on electric taxiing solutions.

Landing and braking control systems

Key characteristics of the business sector

This market includes braking systems, orientation systems, landing gear and door extension/retraction systems, and monitoring systems. The main participants are Safran, Collins Aerospace, Crane Aerospace & Electronics (United States), Meggit and Liebherr.

Group products and programs

Safran's operations in the landing and braking system segment mainly involve Safran Landing Systems. Customers include Airbus, for all its programs, Boeing for the 747-8, Embraer for its KC-390 military program, Gulfstream for its G650 program and Dassault Aviation for its Falcon (7X, 2000 and 900) and Rafale programs.

In the landing and braking electronic control systems segment, Safran's position is buoyed by its technological advance in electric braking and its ability to propose to customers a comprehensive offering encompassing landing gear, wheels and brakes, and associated control systems.

Services for landing gear, wheels and brakes and related systems

Safran provides maintenance services for its own products and for competitor products on commercial aircraft with more than 100 seats, and, alone or in partnership, for regional jets and business jets.

To provide maintenance services for landing gear and landing and braking systems, Safran has developed regional repair centers in Mexico, the United Kingdom, France, Singapore, the United States and China. Some of these repair centers are managed as joint ventures with partners such as Singapore Airlines Engineering Company, China Eastern Airlines and Dassault Falcon Jet.

1.2.2.2 Engine systems and equipment

Nacelles and thrust reversers

Key characteristics of the business sector

The nacelle is a complex piece of equipment that optimizes internal and external engine airflows, helps reduce noise and incorporates safety components. It is made up of an air inlet, a fairing, a thrust reverser and a nozzle. The thrust reverser, which reverses the engine's thrust to help brake the aircraft, represents more than half the value of the nacelle.

Today's market for aircraft engine nacelles splits into two main segments, addressed by:

- nacelle component manufacturers;
- nacelle integrators such as Safran, capable of supplying engine manufacturers and airframers with complete nacelles. Nacelle research requires specific technical expertise in areas such as achieving acoustic, aerodynamic, thermal and mechanical performance through the intensive use of composite material and titanium technologies. Specifications vary with engine power and location (under the wings for airliners and regional jets, or at the rear of the fuselage for business jets).

Safran's main competitor on the integrated nacelles market is Collins Aerospace.

Group products and programs

As a nacelle integrator, Safran designs, manufactures and provides after-sales support for aircraft engine nacelles through Safran Nacelles. On this market, the Group ranks second worldwide, with market share of more than 25%⁽¹⁾.

In the segment of nacelles for commercial aircraft with more than 100 seats, Safran enjoys a long-standing position as a manufacturer of complete nacelle systems and large thrust reversers for the Airbus A320ceo, A320neo, A330, A330neo and A380 platforms. Boeing selected Safran to supply titanium exhaust systems for the 777X. Safran also supplies nacelles for regional jets (Sukhoi Superjet 100, Embraer 170) and is a leading supplier of nacelles for top-end business jets (Dassault Aviation, Gulfstream in the United States, Bombardier, Cessna in the United States and Embraer), with a market share of 28%⁽¹⁾.

(1) Source: Safran.

Safran has developed⁽¹⁾ the nacelle for the Airbus A320neo version powered by the LEAP-1A engine from CFM International. It has also developed⁽²⁾ the COMAC C919 nacelle as part of the CFM International LEAP-1C “integrated propulsion system” package. This contract comes with an industrial cooperation agreement between Safran and the Chinese group AVIC.

Services for nacelles and thrust reversers

Safran’s NacelleLife™ service program provides customers with closely tailored solutions throughout the nacelle life cycle. NacelleLife is an offering of services split up to address successive nacelle life cycle stages. Customers determine the technical assistance services and replacement solutions required on the basis of their actual needs, be this in response to unexpected events or for scheduling servicing operations. NacelleLife solutions generate revenues from sale of parts, maintenance programs, spares and related services. NacelleLife also draws on innovative solutions such as predictive maintenance.

1.2.2.3 Electrical systems and engineering

The shift toward more electric aircraft systems is a major and irreversible structural change undertaken by airframers to increase safety, reduce greenhouse gas emissions, optimize weight and volume, lower costs and simplify aircraft manufacture, assembly and maintenance.

Three recent market trends afford Safran opportunity for development:

- **the “more electric” aircraft**, as most of the hydraulic and pneumatic systems found in present-day aircraft are phased out by electrical systems. This change calls for a significant increase in the power ratings of onboard electricity generation and distribution systems, along with extremely high-quality requirements for electrical signals;
- **electric hybridization**, with gas turbines backed by electric motors to reduce the aircraft’s carbon footprint;
- **new aircraft projects**, for short-distance passenger or freight transportation, to ease urban mobility. These platforms will use hybrid or all-electric propulsion, opening a fresh market for the engines and electric power management systems in which Safran has developed expert capabilities.

Safran has bolstered its legitimacy in electrical systems through substantial internal efforts in research and technology plus external growth operations. Safran Electrical & Power brings together all of Safran’s electrical systems operations under a single dedicated unit made up of:

- electrical interconnection systems;
- onboard electrical energy (generation and distribution);
- power electronics;
- battery power management systems;

- maintenance and repair of electrical equipment;
- electric motors;
- engineering, design and production services, especially for electrical systems.

Electric propulsion, generation and distribution systems

Key characteristics of the business sector

The electrical systems market mostly covers power generation and distribution functions. This market is currently commanded by major participants including Safran, Collins Aerospace, GE and Transdigm-Esterline (United States). Only Collins Aerospace and Safran field a comprehensive offering spanning main and backup power generation, conversion, and primary and secondary distribution.

The power electronics market is more recent, arising directly from developments in electrically powered aircraft functions (electric thrust reversers, electric brakes, electric load control, etc.). Power electronics also covers conversion (DC-AC) or starting functions. Aside from Safran, Collins Aerospace, GE, Transdigm (United States) and Honeywell also hold competencies in this field.

With recent developments, onboard electrical systems are also extending to propulsion functions. With electric hybridization, a conventional engine can work together with an electric motor, the two relaying each other or running in tandem depending on flight phase or mission requirements. As well as bringing down aircraft fuel consumption, electric hybridization also improves the operability of a conventional engine, relieved of duty at low speeds, for example. All-electric propulsion could be an option for some types of VTOL⁽³⁾ light aircraft. The main players on these new hybrid and electric propulsion markets are Safran, GE, Rolls-Royce, Collins Aerospace and Honeywell.

Group products and programs

Safran covers the electric propulsion, generation and distribution systems sector through Safran Electrical & Power.

Safran offers a wide range of variable frequency generators addressing customers’ needs on civil aircraft (Airbus A380, Bombardier Global Express), military aircraft (Airbus A400M, Lockheed C-130J Super Hercules, Boeing F15), and helicopters (Bell 525, Sikorsky CH-53, Boeing CH-47 Chinook). Many aircraft are fitted with Safran DC engine starter generators, APUs⁽⁴⁾ and backup power systems (Ram Air Turbine [RAT]).

Safran has also developed a range of electric motors and generators. Known respectively as ENGINEUS and GENeUS, these products offer superior performance and high output, thanks to the integration of power electronics, which increases power density. They are especially well placed to meet customers’ needs in hybrid and electric propulsion solutions on new markets such as VTOL.

(1) The A320neo nacelle was developed in partnership with the GE subsidiary Middle River Aircraft System (MRAS). In 2019, GE sold MRAS to the Singapore-based group ST Engineering.

(2) The C919 nacelle was developed through Nexcelle, a 50-50 joint venture between Safran and MRAS.

(3) Vertical Take-Off and Landing aircraft.

(4) Auxiliary power unit.

Safran stands as world number-one⁽¹⁾ in primary electrical power distribution, equipping the majority of recent civil aviation programs, including Airbus A220, A320ceo, A320neo and A350, Boeing 787, Bombardier Global 7500, Embraer E-Jet E2 and Irkut MC-21 (Russia).

Examples of Safran's capacity for innovation in power electronics include Electrical Thrust Reverser Actuation System (ETRAS), the world's first electric control system for nacelles, developed on the A380, and Electrical Braking Actuation Controller (EBAC), on the Boeing 787. These major technological advances, along with Safran's engine and electrical wiring expertise, enable the Group to offer airframers innovative electrical aircraft systems for their forthcoming programs.

Electrical interconnection systems

Key characteristics of the business sector

The Group is a leading worldwide supplier⁽¹⁾ in this market. Wiring and electrical interconnection systems mainly comprise electrical harnesses, for power and data transmission, and primary and secondary electrical distribution cabinets.

Much of the aircraft wiring market is still in the hands of airframers' internal departments. Safran's main rivals on the aircraft wiring market are GKN (United Kingdom) and LATElec.

Group products and programs

Safran's operations in the wiring and electrical interconnection system segment involve Safran Electrical & Power.

Safran's customers in this field include the main airframers and helicopter manufacturers. Safran provides electrical and layout design work in addition to harness production and installation support services, for customers including Airbus, Boeing and COMAC. If requested, as on upgrade programs, Safran can take on the planning and onboard installation stages. This can – as with major programs such as the A380 and A350 – extend to an “end-to-end” service covering engineering, manufacture and installation support. Safran also takes charge of fitting electric bays, enclosures and cabinets for commercial aircraft (Airbus A320) and helicopters (including Airbus Helicopters H160, Boeing CH47 and NHIndustries NH90).

Safran supplies the wiring harnesses mounted on the CFM56 and LEAP engines, on the landing gear of commercial aircraft (A320ceo, A320neo, A330, Boeing 737, Boeing 787) and business jets (Dassault Aviation Falcon 7X and Falcon 8X, Embraer E-Jet), and on missiles (AASM⁽²⁾).

Electrical components

Key characteristics of the business sector

Customers on the electrical connections market judge suppliers largely by their ability to produce complete systems and subassemblies, which are often required to withstand harsh environments such as high temperatures. A determining factor is the capacity for offering customers expertise across all the components integrated in these systems and subassemblies.

Competencies in this field are chiefly found with Safran, Glenair (United States), 3P – Produits Plastiques Performants, Transdigm, Amphenol (United States), and HellermannTyton (United Kingdom).

Group products and programs

Through its Safran Electrical Components subsidiary, Safran holds expertise in design, production and aftersales support for electrical interconnection components, power contacts and fluid transfer components and subassemblies. Safran's components and subassemblies address the defense, automotive and industry sectors, as well as aviation.

Engineering

Key characteristics of the business sector

The engineering market is dependent on major development programs, some of which have reached completion (Airbus A350 and Boeing 787). This means that major airframers and aircraft equipment manufacturers experience less need for prime engineering expertise.

Engineering services providers must be able to accompany their customers on an international market, to offer offshore capabilities (with a pool of engineers located in low-cost countries such as India), to take responsibility for completing engineering work, to support process improvement and to develop and retain skills.

The Group's main competitors are leading French full-service engineering groups such as Alten and Altran, and French niche aviation engineering suppliers including Assystem and Aeroconseil.

Group products and programs

Safran is present in the engineering market through Safran Engineering Services. In Europe, North America, Asia and North Africa, Safran provides engineering services primarily on the aviation market (for airframers and equipment manufacturers), but also on the automotive and rail markets, where the Group offers expertise in electrical systems.

Safran Engineering Services expertise in six broad areas (electrical systems architecture, aerostructures, mechanical systems, systems engineering, embedded systems and certification support) is used by various Group companies, chief among which ranks Safran Electrical & Power. Services are also provided to major aviation customers (Airbus, Boeing, Dassault Aviation, ArianeGroup) and land transport companies (Alstom, Renault).

Safran Engineering Services also works toward fulfilling Group ambitions by focusing development in areas of digitalization, program management, additive manufacturing, industrialization and supply chain management.

(1) Classification criteria: revenue – Source: Safran.

(2) Armement air-sol modulaire (modular air-to-ground weapon).

1.2.2.4 Aerosystems

Key characteristics of the business sector

Safran Aerosystems designs, develops and manufactures high-technology aircraft equipment and systems for in-flight safety and onboard fluid management and control.

Most equipment and systems are specified and selected by the airframer⁽¹⁾ at the onset of each new aircraft program. They are covered by airworthiness type certification granted by authorities such as the EASA in Europe or the FAA in the United States. This entails substantial investments at the onset of a program, offset by regular original equipment and spare parts revenues throughout the program lifespan. Some systems, however, such as life vests, are selected by operators⁽²⁾.

Safran's main competitors in these businesses in France and abroad include: Collins Aerospace, EAM (United States), DART Aerospace (United States), Honeywell, Cobham (United Kingdom), Parker Hannifin Corporation (United States), Eaton Corporation (United States) and GE.

Group products and programs

Safran designs and manufactures high-technology solutions to enhance aircraft performance and improve aircraft and passenger safety in-flight and on the ground. These systems equip most commercial aircraft (from Airbus, Boeing, Embraer, Irkut and COMAC) and business jet programs (from Dassault, Gulfstream, Bombardier, Cessna and Daher), as well as most helicopter platforms (from Airbus Helicopters, Leonardo, Bell, Sikorski, Mil and Kazan Helicopters). They are also featured on several French and European military programs (Dassault, Airbus, Leonardo, Saab, etc.).

Safety and protection systems

Safran's expertise in safety and protection systems extends to emergency evacuation systems for civil and military aircraft (slides, life vests and life rafts), inflatable safety products for helicopters (safety floats and life rafts), emergency ground arresting systems for military aircraft, oxygen systems and masks for the cockpit and passenger deck, and protection equipment for military and space missions (survival suits, vests, anti-G pants, oxygen masks, etc.).

Safran holds world-leading⁽³⁾ positions in most of these fields. Aware of the crucial importance of ensuring safety for aircraft passengers, crew and pilots, Safran offers its customers engineering, production, technical support and aftersales capabilities tailored to their requirements and constraints, worldwide.

Integrated fluid management and control systems

Safran offers customers prime expertise in the management of the various fluids needed for aircraft operation (fuel, pneumatic and hydraulic circuits, etc.).

Fuel control, in flight and on the ground, is an important factor in the safety and efficiency of aviation operations. Safran fields expert know-how in the design and manufacture of aircraft fuel systems, a specialty in which it has forged a very strong position by developing lightweight, flexible fuel tanks using its own specific mixes and doped fabrics. It is a major player in this field, offering fuel circulation, gaging and management and fuel-tank inerting systems.

Safran is also one of the world's leading designers and manufacturers of hydraulic components, high-pressure and high-temperature pipe systems, and flexible couplings.

Spare parts and services for aerosystems

Safran operates an international network specializing in aftersales for customers' aerospace systems. This spares and services business primarily involves the sale of spare parts and the provision of maintenance, repair and overhaul (MRO) services.

1.2.2.5 Electronics & Defense

Safran is involved in major civil and defense programs, and is one of the world's leading providers⁽³⁾ of solutions and services in optronics & navigation, avionics, electronics and critical software. These sectors are covered primarily through Safran Electrical & Power. Prime expertise in these technologies enables Safran to offer armed forces, security forces and civil customers optimally cost-effective observation, decision-support and guidance solutions for land, sea, air and space applications. Safran also draws upon the expertise of its subsidiaries, located on all continents.

Avionics

Key characteristics of the business sector

Two key characteristics of this sector are the rapid pace of change in the electronics technologies used, and the lengthy and costly processes involved in equipment airworthiness certification, which entail a need for long-term customer relations. To succeed in this field, Safran addresses new civil and military markets with breakthrough products and services building on tried and tested dual-use solutions.

It equips all types of aerospace, launch vehicle and satellite platforms, along with commercial, regional, business and military aviation, helicopters and drones. Its systems and equipment chiefly address applications in flight control, from the cockpit through to the cylinders that actuate the aircraft's aerodynamic surfaces.

(1) *Supplier Furnished Equipment (SFE): equipment specified and purchased by the airframer, which offers operators one or more configurations from catalog.*

(2) *Buyer Furnished Equipment (BFE): equipment specified and purchased by the operator. For new equipment, fitting is usually delegated to the airframer.*

(3) *Classification criteria: revenue – Source: Safran.*

Safran's customers here include airline companies and the leading aircraft and helicopter manufacturers, including Airbus, Airbus Helicopters, Boeing, Dassault Aviation, Hindustan Aeronautics Ltd., Embraer, Bell, Leonardo and COMAC.

Its main competitors in France and abroad include: Collins Aerospace, Honeywell, Thales, BAE Systems, Teledyne Technologies and Korry Electronics.

Group products and programs

The innovative systems developed by Safran in avionics, electronics and critical software contribute to pilot comfort, aircraft performance and flight and navigation safety. Safran is involved in the largest aircraft programs, including NH90 (NHIndustries), Caracal (Airbus Helicopters), A400M, A320neo, A320XLR, A350 (Airbus), Rafale and Falcon (Dassault Aviation) and 787 Dreamliner (Boeing).

In the space and astronomy sector, Safran designs and produces high-precision optical systems for earth and space observation. These land-based or satellite-borne systems contribute to the success of major international scientific programs. Safran has also been selected by ArianeGroup to be the supplier for SpaceNaut, the inertial reference unit on the new ESA launch vehicle, Ariane 6.

Electromechanical actuation systems

Safran is a leading player worldwide⁽¹⁾ in automatic pilot systems for civil and military helicopters, designed to aid the pilot and ensure maximum safety.

Safran develops electromechanical and flight control solutions for all types of aviation application (planes, helicopters, drones, etc.), meeting the strictest criteria on practicality, reliability and safety. From sensors through to actuators, the Safran solutions stand out for their efficacy and accommodate new, more electric, architectures.

With its automatic pilots, navigation systems, controllers, flight control actuators, electrical systems and thrust reversers, Safran contributes to many programs: helicopters such as the Airbus Helicopters H160 and NHIndustries NH90; and planes including the Airbus A350 XWB, A320neo and A220 family, the Embraer KC390 and the COMAC ARJ21 and C919.

In 2019, Safran finalized the acquisition of Collins Aerospace's ElectroMechanical Systems businesses. This acquisition expands Safran's electrical actuation and flight control business lines. In particular, the acquisition enables Safran to reach critical mass in these sectors and to eventually enhance their competitiveness.

Safran supplies electromagnetic actuator systems for various applications (secondary flight controls, seat actuators for pilot, business-class and first-class seats, door opening and closing mechanisms, etc.). More than 230,000 seat actuators are currently in service with more than 70 airline companies.

Cockpit solutions

Safran offers a range of cockpit solutions for ensuring flight safety and efficient, comfortable piloting on helicopters and commercial, military and business aircraft:

- piloting controls: sidesticks, yokes, throttle controls, pedals, etc.;
- secondary control levers: shutter controls, air brakes, landing gears, etc.;
- cockpit control panels: from components and retro-lit buttons to integrated panels;
- complete wiper systems.

Safran cockpit solutions provide efficient service day-in, day-out on many civil aircraft and helicopters.

Visual perception systems

During all flight and ground phases, exterior aircraft lighting is an important safety factor, both in-flight and for ground personnel. Safran has more than 70 years of experience in this field, and develops a full range of exterior lighting solutions for all types of aircraft.

Optronic and avionic solutions are combined to give excellent capabilities for observing the immediate surroundings and for use in the most demanding missions: intelligence, surveillance, targeting, protection, intervention, and search & rescue.

Data management & services

Safran has developed flight-data recording systems (Aircraft Condition Monitoring System - ACMS) for airplanes and helicopters, along with automatic end-of-flight data transfer solutions, typically using WEFA (Wireless Extension For ACMS). These systems are fitted on many civil aircraft from ATR, Embraer, Boeing and Airbus, and on many helicopters, through an upgrade authorized by a Supplemental Type Certificate⁽²⁾. Under Airbus prime contractorship, Safran also provides the secure gateway between the cockpit and the cabin information system for the A380 and A350.

Given the extensive fleet it equips among many airline companies, Safran is ideally placed for developing its Cassiopée data management services, which input recorded flight data to provide precious decision-support service in areas such as flight analysis (Flight Data Monitoring [FDM]) and optimization of fuel consumption (SFCO2®) and running and maintenance costs.

Electronics and critical software

Given the strategic importance of onboard electronics and critical software today, Safran vertically integrates these technologies through Safran Electronics & Defense. Safran Electronics & Defense subsidiaries in Canada, Asia and Europe offer good geographical reach to customers, for development projects and for repair and maintenance services.

(1) Source: Safran.

(2) Document issued by the air safety authorities allowing modification to an aircraft such as the addition of new aircraft equipment.

Safran Electronics & Defense provides all Group companies with world-leading electronic equipment and critical software. It develops, produces, and maintains certified embedded computers for numerous systems, particularly in aviation (FADEC⁽¹⁾, thrust reversers, landing gear, braking systems and flight control systems). With its partners, it has woven strong, balanced links through FADEC International (joint venture with BAE Systems) and FADEC Alliance (joint venture between GE and FADEC International).

Electronic equipment

Safran Electronics & Defense specializes in increasingly integrated electronic systems for critical and harsh environments (temperature, vibration, etc.). It designs and produces onboard computers used in engine, flight, braking and landing gear control systems. Safran designs and installs electronic control systems for electromechanical actuators and for Safran Electrical & Power power converters⁽²⁾. In the space segment, Safran is conducting work on the electronic propellant flow-rate regulation demonstrator for the future Ariane 6 engines, and on electronic control systems for plasma thrusters. Safran's holds prime expertise in the production of electronic circuit boards and complex computers.

Onboard critical software

Safran Electronics & Defense develops the complex critical software used in Group onboard systems. Critical software is software that plays a crucial role in flight safety and must therefore comply with extremely demanding certification standards, as regards dependability in harsh environments.

Safran teams use modern software platforms to handle software specification, architecture, coding, verification, quality assurance, configuration management and certification.

Aerospace navigation and sensors

Initially developed for the defense sector (see the Defense section below), inertial navigation is a good example of dual-use technology. Inertial navigation in civil aviation and space applications is performed by navigation systems or by APIRS (Aircraft Piloting Inertial Reference System) heading and attitude systems, all using Safran inertial sensors. The latest navigation system for civil aviation applications is SkyNaute, a highly compact and highly efficient integrated inertial navigation system operational in all circumstances and hybridized with provision of position, navigation and timing (PNT) data from navigation satellites. With its three HRG Crystal^{TM(3)} hemispherical resonator gyroscopes and three micro-electromechanical MEMS⁽⁴⁾ accelerometers, SkyNaute uses proven, mature technologies and offers low operating costs.

Customer support

Safran's customer support in avionics extends to high value-added services, including repairs, equipment delivery and technical support. Customer satisfaction is sustained through constant improvements in turnaround time (TAT), up to industry benchmark level, to ensure the best competitive performance in equipment availability. Given its highly varied worldwide avionics customer base, Safran may localize support services for closer contact with the customer. Customer support performance is a key issue, providing a long-term revenue source throughout the life cycle of an avionics product and developing customer loyalty, thereby influencing customer choices on new programs.

At its repair centers in France, the United States and Singapore, Safran Electronics & Defense performs maintenance of its own onboard computers along with systems from other Group and third-party manufacturers. It also maintains and repairs computers and electronic boards for many airline companies and air forces worldwide.

Defense

Key characteristics of the business sector

France's strategic autonomy in defense calls for a world-class technological and industrial base. Safran plays an instrumental role in enabling self-reliance for its customers, offering a wide range of observation, decision-support and guidance solutions that meet the full spectrum of military tactical and strategic needs on land, sea and air.

Safran's main customers and partners in this sector are governments (ministries or armed forces) and industrial groups such as Thales, Airbus, KNDS⁽⁵⁾, BAE Systems, MBDA, Leonardo, Saab AB (Sweden), Dassault Aviation, Naval Group, General Dynamics Land Systems (US) and CMI (Belgium).

Safran's main competitors in these businesses in France and abroad include: Thales, BAE Systems, Leonardo, Elbit (Israel), L-3 Wescam (Canada), FLIR Systems (United States) and Northrop Grumman.

Group products and programs

Safran covers the realtime sensor-to-shooter operational chain with embedded intelligence solutions for all land, sea and aerospace settings, enhancing the operational performance of units in the field with support in surveillance, tactical support, information, navigation, orientation, observation, detection, fire direction and protection.

(1) Full Authority Digital Engine Control.

(2) See section 1.2.2.3, "Electrical systems and engineering".

(3) The HRG Crystal gyroscope, a major innovation patented by Safran, is the highest-performance system of its kind on the market. Using this sensor, with its straightforward mechanism and proven technology, Safran develops new ultra-reliable and extremely compact inertial systems capable of addressing a very wide performance range for civil and military applications in space, air, land and sea environments.

(4) Micro Electro Mechanical Systems.

(5) KMW+Nexter Defense Systems.

Optronics and sights

Portable optronic equipment

Safran is one of the world's leading manufacturers of portable optronic equipment⁽¹⁾. It offers a full range of hardware and systems for observation, surveillance, detection, pointing, identification and target designation, for use under day or night conditions. Its multi-purpose night-vision imagers, such as the JIM LR long-range multifunction imager and the JIM Compact™, are widely used in overseas operations by French and allied forces and are considered a global market benchmark.

Onboard systems

Safran equipment provides protection for land combat vehicles (tanks, infantry combat vehicles and light vehicles). Stabilized sighting is a key factor in ambulant firing capability under day or night conditions, from target identification to engagement. Safran equips close to 10,000 land vehicles in France and other countries (Leclerc, Challenger 2, PT91M, Jaguar, VBCI, LAV, etc.) with its range of land vehicle sights, which includes PASEO.

In airborne optronics, Safran participates in major combat helicopter programs, such as Tiger, NH90, Cougar, Panther and Caracal. The STRIX and OSIRIS sighting systems meet requirements on exceptionally demanding operational conditions and guarantee the performance of the weapons systems. Euroflir gyro-stabilized electro-optical systems provide valuable service in long-range observation and target location. They feature on new airborne intelligence systems including the Patroller drone, the Diamond-42 twin-engine aircraft (in cooperation with DCI) and the T-C350 aerostat from A-NSE.

In the naval field, Safran offers a full range of optronic surveillance, fire direction and self-protection systems for surface vessels, and has recognized expertise in optronic masts and periscopes for conventional and nuclear submarines. Safran contributes to many platforms, including the Charles-de-Gaulle aircraft carrier, the ANZAC, FREMM & Horizon frigates and the Scorpène and Agosta submarines. The new generation of nuclear combat submarines, the Barracuda class, will be equipped with Safran's periscope system using non-penetrative optronic masts.

Soldier modernization

Safran harnesses experience from the FELIN⁽²⁾ program on soldier modernization in the French armed forces to offer innovative and modular solutions, such as the NeoFelis system, addressing the needs of various armed and security forces in France and further afield. It builds on this know-how to offer capacity kits focused on the key infantry combat functions of command, observation, protection and engagement.

Safran is also pushing ahead with innovation and R&T in areas such as mobility aids, with development of the exoskeleton, a wearable biomechanical and electronic structure that provides powered assistance to body movements. These technologies hold considerable potential in the military, civil security and industry sectors.

Parachutes and protection

Safran is a global leader⁽³⁾ in parachute and protection equipment for troops and cargoes in military and space missions.

Navigation and sensors

Inertial navigation analyses motion using acceleration sensors (accelerometers) and rotation sensors (gyroscopes) to provide an estimation of vehicle position, speed and attitude (for aircraft, launch vehicles, ships, submarines and land vehicles), without the need for external reference points other than the point of departure. This avoids dependence, for example, on a satellite navigation system such as GPS.

Safran is number-three worldwide and European number-one⁽³⁾ in military inertial navigation, with more than 70 years' expertise in the key underlying technologies (mechanical, thermal, laser, fiber optics, resonant structures, etc.).

It offers a wide range of inertial and stabilization systems covering all performance classes. This equipment offers reliability, precision and robustness, for dependable operation in the toughest environments. The HRG Crystal gyroscope, a major innovation patented by Safran in 1999, is the highest-performance system of its kind on the market. Using this sensor, with its straightforward mechanism and proven technology, Safran develops new extremely compact inertial systems addressing civil and military applications in space, air, land and sea environments.

Seekers and guidance systems

Safran couples know-how in optronics and inertial systems to offer infrared seekers for the main missiles used by the French army, including Mistral, MICA IR and MMP⁽⁴⁾, as well as the French-British light anti-ship missile Sea Venom/ANL⁽⁵⁾.

The AASM is a high-precision modular air-to-ground weapon that can be used in all conditions, day or night. It is currently in service on Rafale fighters belonging to the French air force and navy as well as in other international air forces. It comes in several versions and harnesses Safran expertise in many areas, including infrared and image processing technology, inertial components with hemispherical resonator gyro (HRG) and laser guidance. It has proved highly effective in many overseas operations.

Drones

Safran is active in drone systems through its expertise in critical function chains, namely navigation and flight control, image chain and data transmission. Safran tactical drone systems are used on a daily basis in day- and night-time operations.

Safran sits on the Civil Drone Commission set up by the French Directorate General for Civil Aviation (DGAC), along with other aerospace companies, SMEs in the sector and major contractors. The purpose of this commission is to organize and promote the civil drone industry in France by drawing up technological roadmaps for the development of safe civil usages.

(1) Source: Safran.

(2) Fantassin à équipements et liaisons intégrés (infantrymen with integrated equipment and links).

(3) Classification criteria: revenue - Source: Yole - 2017 report "High End Inertial Sensors for Defense, Aerospace and Industrial Applications".

(4) Missile moyenne portée (medium-range missile).

(5) Anti-navire léger (light anti-ship missile).

Group businesses

The French Directorate General of Weapons Procurement (DGA) selected Safran's Patroller as the French army's tactical drone system.

Working with innovative SMEs and civil-sector institutions, Safran has also developed an autonomous off-road demonstration vehicle, the eRider, designed for logistics, convoy, perimeter protection, intelligence and reconnaissance missions.

Customer support

Safran's customer support includes high value-added services, including repairs, equipment delivery, technical support and training. They all strive toward the same goal: ensuring that equipment is in full working order at all times, a strategy primarily reflected in Global Support Package contracts.

Data systems

Key characteristics of the business sector

Safran is a leading world player⁽¹⁾ in civil and military niche markets for equipment, solutions and services in telemetrics, flight-test instrumentation and space communication. These highly specific markets are experiencing high growth, especially in North America and Asia.

Telemetry applications are primarily intended for use during the test, calibration and maintenance campaigns run by test centers and manufacturers of aircraft, helicopters, and civil or military drones. They provide totally secure capabilities for realtime collection, transfer and processing of test data.

Safran offers a range of satellite communication equipment, for space agencies and operators, manufacturers of launch vehicles, satellite providers and scientific missions.

Safran's main competitors in this sector are the US companies Curtiss-Wright in telemetrics and Viasat in space communication.

Group products and programs

Safran Data Systems provides a full suite of equipment and solutions for flight tests, from data acquisition through to processing: instrumentation products and solutions (embedded data acquisition units, routers, modular data recorders and transmitters); ground telemetry products and solutions (tracking antennas, wide-band RF recorders, analog and digital signal recorders, decommutators); and full software suites (configuration, operation, processing).

It also offers a wide range of video and data recorders, servers, secure computers and routers for pilot training, mission debriefing and C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance).

It provides equipment and solutions for satellite ground stations: broadband antennas, modems and receivers; command and control (C2); distance measurement; payload data reception; quality control for satellite communication services; and space situational awareness (SSA).

More recently, Safran Data Systems has developed new antenna solutions for satellite constellations.

High-performance optics

Key characteristics of the business sector

Through its Safran Reosc subsidiary, Safran is a leading world player⁽¹⁾ in the design, manufacture and integration of high-performance optical systems for observation in astronomy, space, large-scale laser and semiconductor industry applications. Given that these systems address highly demanding applications (in scientific research in particular), customers demand the best available technologies with specifications at maximum reachable levels worldwide. Contracts here are usually for a few units, prototypes, or small production runs.

Customers in this segment are chiefly major prime contractors and space agencies, institutes or major international scientific programs.

Depending on the application, Safran's competitors are Thales SESO, Hensold Optronics (Germany), Coherent, L3Harris (United States).

Group products and programs

From initial design through to production and integration, Safran holds world-class expertise in all the competencies required for providing customers with the highest-performance precision optical and opto-mechanical equipment.

Capabilities and services cover: opto-mechanical and thin-film engineering; machining and weight-optimization for glass and vitroc ceramic substrates; precision polishing; optic metrology for surface shape and structure at nanometric precision; thin-film optical deposition; and clean-room equipment assembly.

Recent projects include: mirrors, lenses and focal plane components for scientific and observation satellites (Gaia, Meteosat, CSO, IASI NG, Euclid, Merlin, Microcarb); giant mirrors for astronomy (Gran Telescopio Canarias (GTC), Gemini); mirrors and lenses for short-pulse lasers (Apollon, Laser Megajoule, Orion, etc.); photolithography systems for semiconductor etching; far-ultraviolet microlithography; thin-film optic coatings from ultraviolet to infrared; and multispectral coatings for infrared detectors.

Safran Reosc is providing polishing and integration for the five mirrors in the world's most powerful telescope, the Extremely Large Telescope being built by the European Southern Observatory (ESO) in Chile.

(1) Source: Safran.

1.2.3 Aircraft interiors

The Aircraft Interiors business breaks down into three key sectors:

■ CABINS

- Cabin interiors

■ SEATS

- Passenger seats
- Technical seats
- Helicopter seats

■ COMPLEX CABIN EQUIPMENT AND PASSENGER COMFORT SOLUTIONS

- Water and waste management systems
- In-flight entertainment and connectivity solutions
- Ventilation and environment control systems
- VIP aircraft interiors

Aircraft Interiors covers not only seats but also cabin fittings, closets, in-flight entertainment systems and flight-deck equipment. In 2019, a total of 22,118 Safran employees contributed to the development of this business.

Cabin equipment must meet demanding requirements on appearance and quality, because operators consider the aircraft interior to be an important brand image factor.

1.2.3.1 Cabins

Cabin interiors

Key characteristics of the business sector

The aircraft interiors market covers a large proportion of what passengers see and use in the aircraft: partitions, overhead bins, cabin class dividers, closets, lavatories, galley and catering equipment (inserts, trolleys), rest areas, containers. This market is driven both by the growth in air transportation and by the cabin interior policies of operators (airline and leasing companies) and maintenance centers.

This market is dominated by a few world players, including airframers themselves, as with Boeing Interiors Responsibility Center (United States) and aircraft equipment manufacturers such as Safran, AVIC Cabin Systems (China), Diehl (Germany), Collins Aerospace, JAMCO (Japan) and Bucher (Switzerland). Safran and Collins Aerospace are the two main players covering the full spectrum of products and services expected by airframers and operators.

Group products and programs

Safran is one of the world leaders⁽¹⁾ in cabin interiors for commercial and business aircraft, with a market share of 18.5%⁽²⁾, through Safran Cabin. It also supplies complete cabin interiors for regional jets from major players including Embraer and Bombardier.

Safran designs, certifies and manufactures everything needed for OE and retrofit cabin equipment and fittings. Its expertise extends to high-technology molding, advanced composite material structures (such as pre-impregnated composite fibers, honeycomb composites, preformed composites and carbon composites), and cabin fitting panels. Safran also offers customers a range of galley and trolley equipment for onboard service (galleys and inserts, lightweight containers, trolleys, etc.).

In the business jets sector, Safran supplies complete interiors for the Honda HA-420 HondaJet (Japan), the Bombardier Challenger 650 and the Bombardier Global 5000, 6000 and 7500. Safran's cabin interiors for these aircraft combine complex wood inserts and veneers, high-gloss paint finishes and luxury leather linings. Safran also offers electric galley utensils for these aircraft.

In the regional jets sector, Safran supplies complete cabin interiors meeting the needs of operators flying Embraer (E-Jet and E-Jet E2), Bombardier (CRJ) and Airbus (A220) planes. Safran will also be offering complete cabin interiors for the forthcoming MC-21 from Irkut, and SpaceJet M90 and M100 from Mitsubishi Aircraft Corporation (Japan), currently under development.

Safran provides cabin interior equipment for short- and medium-haul aircraft: Boeing 737 NG and Boeing 737 MAX (high-security cockpit doors, galley units and electric galley utensils). Safran's cabin interior teams also support ramp-up of the Airbus short- and medium-haul program, A320neo, providing galleys, electric galley utensils, trolleys, cabin class dividers (partitions), closets and SpaceFlex equipment that combines galleys and lavatory units, enabling airline companies to increase the number of passenger seats. On COMAC's forthcoming single-aisle C919, Safran will be providing equipment including galleys, lavatory units and secure cockpit doors.

In long-haul aircraft, Safran provides lavatory units, galleys and overhead bins on the Airbus A330neo, as well as the A350-900. For the A350-900 aircraft, Safran supplies equipment such as electric galley utensils, bars, electric waste compactors, lavatory units, cabin class dividers (partitions) and secure cockpit doors. Safran provided cabin fittings on the A380 program. Equipment supplied by Safran on the Boeing 787, Boeing 767 and Boeing 777 includes galleys and electric galley utensils.

Safran Cabin also offers airline companies and freight operators robust and innovative cargo equipment (modular containers, pallets).

(1) Source: Safran.

(2) Source: Safran & Counterpoint Market Intelligence Ltd, Aircraft Interiors Review – 2018.

Spare parts and services for cabin interiors

Safran provides maintenance and retrofit support for aircraft cabin interiors. This is usually specified by the cabin interior policies of the operators concerned (airline and leasing companies), and by maintenance centers. This business holds considerable growth potential for Safran.

1.2.3.2 Seats

Aircraft seats

Key characteristics of the business sector

Aircraft seats have to meet demanding requirements on appearance and quality, because airline companies consider them an important brand image factor enabling them to stand out from the competition in terms of service quality. The equipment supplier adapts seats to the specific needs expressed by each individual airline company, which means production runs tend to be smaller and diversity wider. To reduce aircraft fuel consumption, seat weight is a determining factor.

This market is driven both by the growth in air transportation and by airline companies' cabin interior policies.

In addition to Safran, the other major players in aircraft seats are Collins Aerospace and Recaro (Germany).

Group products and programs

Safran is one of the world leaders in aircraft seats, through Safran Seats. Safran holds a 30% share of the world market for commercial aircraft seats, with more than a million in service among more than 150 airline companies⁽¹⁾.

Safran expertise covers the whole seat manufacturing chain, from design and certification through to assembly. This expertise is applied to offer customers a full range of innovative and customized seats combining ergonomics, comfort, aesthetics and cabin space optimization, in terms of passenger and storage capacity, etc.

Passenger seats (Economy, Premium Economy, Business and First Class)

Safran offers its customers a full range of passenger seats for fitting on a wide range of aircraft. The seats address specific airline company needs on passenger comfort and satisfaction, and what can be tight operating constraints on efficiency optimization.

With its wide range of seats and ability to offer made-to-measure solutions, Safran meets the needs of individual airline companies of all business models and aircraft user profiles (low-cost through to five-star, regional operators, etc.).

Economy Class

Consistent with each airline company's sales strategy and flight duration requirements, Economy Class seats are designed to offer a good trade-off across comfort, density and operating costs, which are the most relevant criteria in this segment.

Safran's seats offering here ranges from straightforward, lightweight, efficient non-reclining solutions through to more sophisticated and more spacious solutions with additional comfort features (such as articulated headrests, and more comfortable cushions), reclining mechanisms, integrated screens and features for electronic devices (such as power sockets and tablet or smartphone supports).

For Economy Class seats, the pitch between seat rows is usually from 28 to 32 inches (around 71 to 81 cm). Safran's most recent seats in this segment are the Z110 and Z200 for short- and medium-haul flights and the Z400 for long-haul flights.

Premium Economy Class

Premium Economy Class seats offer comfort and spacing mid-way between Economy and Business Class. They are larger, and the pitch between rows is greater than in Economy Class, offering passengers close to 40% more personal space. They can recline by about 10 degrees more than in Economy Class, and can accommodate a larger screen. Seats in this class can take the form of either reclining armchairs or fixed shells, possibly with electric controls.

The pitch between seat rows in Premium Economy Class is usually from 38 to 40 inches (around 96 cm to just over 1 m). The Z535 is Safran's flagship product in this segment.

Business Class

Seats in Business Class offer passengers upmarket comfort, space and equipment. Passengers enjoy individual suites with direct aisle access and flat beds, offering in-flight privacy (e.g., doors) and comfort (wide-screen television, sophisticated lighting systems, soundproofing, temperature control, etc.). Business Class seats require many different components (shells, consoles, etc.), and most include electrical controls.

This market segment holds a strategic challenge for airline companies, which compete to attract and keep passengers holding the highest profitability prospects. This gives rise to considerable endeavors on market differentiation between airline companies, which can generate high demand for customization.

Given the variety of possible combinations for seats in Business Class, pitch between seat rows is not a relevant criterion. Instead, airline companies select solutions the most consistent with their market objectives. Therefore, Safran's *Optima* Business Class seat focuses on onboard density whereas seats such as *Versa* and especially *Fusio* focus on living space.

⁽¹⁾ Source: Safran.

First Class

First Class seats offer unique, top-of-the-line services combining very high quality with advanced technological solutions.

Volumes are very low in this segment, since only twenty or so airline companies operate in this segment, offering just a few seats on each plane. Since this is a high-visibility segment as regards an airline company's corporate identity, customers usually require a unique presentation enabling them to stand out from their competitors.

Technical seats

Safran expertise in technical seats for flight-deck and cockpit personnel covers all the features, technologies and materials needed for developing products that combine safety, quality and innovation.

Helicopter seats

Safran products meet the specific needs of the highly demanding market for seats for vertical take-off aircraft, integrating functions such as an energy absorption system for enhanced pilot and passenger safety along with innovative seat actuator systems and much appreciated comfort functions.

Spare parts and services for seats

Safran provides worldwide sales and technical support throughout the service life of its seat products, meeting customer demand even in the most critical situations.

Safran service also covers cabin retrofits. Given the service life of aircraft seats (five to fifteen years), cabins will need retrofitting two or three times during the aircraft's career. As well as supplying the new seats, Safran also provides the expertise needed for certification of the new cabin configurations.

Safran also offers solutions meeting specific operator needs in areas such as personnel training, flight-per-hour support, reliability and maintenance analysis, annual orders and advance stocks.

1.2.3.3 Complex cabin equipment and passenger comfort solutions

Key characteristics of the business sector

Safran Passenger Solutions has developed a full range of complex equipment for enhancing passenger onboard comfort (such as water and waste management and in-flight entertainment), along with an offering for interior retrofits for commercial aircraft and creation of luxury interiors. The programs on this kind of fit-out usually have short development cycles, and Safran stands out from the competition in this segment due to its ability to offer complete systems.

Safran's main competitors on this market are Collins Aerospace, Diehl (Germany), Panasonic (Japan), Thales, and much smaller companies with positionings on component markets or sector-specific niches.

Group products and programs

Safran Passenger Solutions has developed a full range of complex cabin equipment for enhancing passenger comfort, mostly in the commercial and business aviation segments.

This business builds on technological expertise in four main product ranges: water and waste management; in-flight entertainment and connectivity solutions; ventilation and environment control systems; and retrofits and luxury interior design for commercial aircraft.

Water and waste management systems

Safran is one of the world's leading players in integrated water and waste management systems on aircraft and trains, fielding expertise in development, certification, and production and aftersales support. Its solutions enjoy wide market recognition for innovation and extreme reliability.

Safran has developed cutting-edge technologies such as tanks in composite material, ultraviolet sterilization of drinking water, low-pressure pipes in composite material and a range of ultrasound level sensors. It offers drinking water management and distribution systems for different types of aircraft (civil, military, business jets). The Group developed the first chemical lavatories and was one of the pioneers in vacuum-flush lavatories on planes and trains. Its capabilities in this sector today extend to integrated waste and water management systems and integrated lavatory compartments for trains.

In-flight entertainment and connectivity solutions

With air passenger volumes on the rise, and intensifying market competition, in-flight entertainment (IFE) is becoming an increasingly important customer appeal factor for airline companies. Safran's innovative RAVE™ (Reliable, Affordable and Very Easy) solution

is an independent IFE system with media content integrated in the seat screen, which simplifies the onboard network and provides passengers access to on-demand audio and video. As well as offering passengers a content and activities catalog, Safran's RAVE system also includes a connectivity solution, recently developed and brought to market by the Group, offering passengers a WiFi connection for broadband internet access by satellite and a data transmission network. RAVE also offers lightweight screens with low electricity consumption, benefiting from a partnership with a major player in consumer electronics and from the latest technological advances in this field. With its uncomplicated design, RAVE also offers simplified maintenance and low cost of ownership.

Safran's RAVE in-flight entertainment solution has already been selected by more than 50 airline companies, including Lufthansa, Air France, All Nippon Airways, Virgin Atlantic and China Southern.

Competitive position

Ventilation and environment control systems

Through Safran Ventilation Systems, Safran designs, manufactures and markets ventilation systems for aircraft cabins and avionics, and brake cooling systems for commercial and military aircraft and helicopters. Safran supplies all ventilation circuit equipment (valves, air filters, nozzles, heat exchangers, flowrate sensors, pressure sensors, etc.).

Safran is one of the world's leading players in climate control systems⁽¹⁾, with an offering that includes equipment for cabin climate control on the ground and in flight. It makes integrated systems for commercial aircraft, small private aircraft and helicopters not fitted with an auxiliary power unit (APU) for on-ground activation of a climate control system.

VIP aircraft interiors

Safran has expertise in designing VIP interiors for short- and medium-haul single-aisle aircraft (Boeing 737), long-haul aircraft (Boeing 747, Boeing 777, Boeing 787), and business jets transporting dignitaries such as heads of state, government or certain multinationals. Safran provides turnkey solutions in the design, manufacture and fitting of tailor-made cabin interiors, plus aircraft certification prior to handover of the aircraft to the customer.

To meet requirements on airline companies' cabin refurbishment programs, Safran also provides turnkey aircraft interior retrofit services covering procedures through to certification with the aviation safety authorities, in addition to provision of the actual upgrade kits.

1.3 COMPETITIVE POSITION

Safran covers international high-technology markets in aerospace and defense.

In all these fields, Safran faces competition from both global rivals and niche players in some markets.

The Group operates in the strictest observance of all applicable rules on competitive business practice in all of its host countries, complying with all specific measures applicable to each market (see section 4.3.1.3).

To mobilize sufficient resources and share the industrial risks involved in innovative and costly programs, participants in the aviation industry can form partnerships capable of developing new technologies, products and services. Accordingly, it is not unusual to find otherwise rival companies joining forces on certain aviation programs.

1.4 RESEARCH AND DEVELOPMENT

Safran is a high-technology group that offers high-value-added products and services. Technology and reliability requirements are high, consistent with the highly critical nature of the applications concerned. To meet these requirements, Safran harnesses highly specialized advanced expertise in many fields: mechanics, metals, composite materials, fuel and propulsion systems, aerodynamics, combustion, thermodynamics, electrics, electronics, sensors, signal processing, digital technologies, modeling and simulation. Research and technology (R&T) comprises all studies, research and technological demonstrations needed to develop expertise for a given product at the lowest possible risk and cost and within the shortest possible timeframe.

Further downstream, research and development (R&D) corresponds to product design, prototype manufacture, development tests and certification tests showing that the product meets customer specifications and applicable regulations.

The Innovation Department spans R&T and R&D to nurture the emergence of new developments using innovative concepts and help Group companies identify, produce and validate proof-of-concept demonstrators, thereby shortening development lead times to meet time-to-market targets.

Around 16% of Group employees are involved in R&D activities. Safran's R&T and innovation projects are guided by forward-looking considerations, and the substantial budgets they draw are in line with the Group's current or targeted positions in its markets. Research, technology, innovation and development

are fundamental to the implementation of the Group's strategy, reflecting the importance given to preparing for the future and developing new products and programs.

Under Safran's R&T policy, each company in the Group determines its own research program and concentrates on its own objectives. In tandem, the Group is constantly working to develop technology synergies.

R&T operations are guided by roadmaps charting the strategic challenges faced by Group companies (competitive positioning sought at different timeframes, along with the corresponding technological demonstrations and fulfillment levers in terms of external partnerships and internal synergies). The roadmaps are analyzed on an annual basis by Group experts, who issue recommendations accordingly.

Safran Tech is the Group's R&T center, located at the Saclay high-tech cluster, France's largest science and technology campus, near Paris. The center's 500 or so employees are split into six units, covering energy & propulsion, materials & processes, sensor technologies & applications, electrical & electronic systems, signal & information processing and modeling & simulation. Safran Tech also runs platforms specially equipped for developing next-generation materials and processes: Safran Composites, Safran Additive Manufacturing, Safran Ceramics and Safran Advanced Turbine Airfoils, at a new Safran Tech site opened in 2019 in Gennevilliers, near Paris. At this 3,000 sq.m. facility, with its ultra-modern equipment, a team of around thirty

(1) Source: Safran.

engineers and postgraduate students are working on developing the technologies behind the very-high-performance turbine blades of the future.

The Safran Tech center underlines the Group's resolve to intensify and pool R&T endeavors on major technological breakthroughs. Safran Tech opens a new dimension to the Group's R&T operations, with an emphasis on open innovation. Universities,

public organizations, industrial partners and innovative startups work with Safran Tech teams in joint laboratories or on shared platforms, forming a creative, connected, top-level scientific campus open to the outside world.

Safran's expansion into Aerosystems, Cabin and Seats brings complementary technological capabilities, especially in electrical equipment, materials and processes.

1.4.1 Major technological focuses

1.4.1.1 Aircraft engine technologies and new propulsion configurations

Reducing the carbon footprint of flying is a major priority for the aviation industry. In 2008, the Air Transport Action Group (ATAG)⁽¹⁾ set the highly ambitious objective of a 50% reduction in CO₂ emissions by 2050 compared with 2005. Assuming a 5% annual increase in air traffic, this comes down to a 90% reduction in average emissions per passenger/km with respect to 2015 conditions. If this objective is to be reached, action on several fronts is needed: fleet renewal with new-generation aircraft and incremental enhancements; improvements in air traffic management and operations; breakthrough technologies; and alternatives to kerosene, along with reductions in other nuisances (noise, NO_x, particles). Safran is addressing these challenges and developing the means needed for fulfilling its ambitions (see section 5.5.1).

As a leading driver of change in the industry, due to its positions in very many aircraft-system segments, including energy systems, Safran is committed to low-carbon aviation and dedicates 75% of its R&T budget to environmental protection. This chiefly involves work on propulsion, electrification, lightweight equipment and sustainable fuels. Safran's roadmap specifies contribution to a technological breakthrough in the form of an aircraft that consumes 30% to 40% less fuel by 2030-35, to achieve carbon neutrality by 2050.

Architecture and performance

The Group's roadmap for the aircraft propulsion systems of the future incorporates three technology stages:

- the first stage is the LEAP turbofan engine, with a very high bypass ratio. For those modules under the responsibility of Safran Aircraft Engines in CFM International, this stage covers advanced technologies such as a highly innovative lightweight fan made from composite materials and a high-efficiency low-pressure turbine. The LEAP engine, which came into commercial operation in 2016, brings major improvements in line with the ACARE 2020⁽²⁾ objective, particularly in terms of fuel consumption. It has been selected by Airbus for its A320neo, by Boeing for its 737 MAX and by COMAC for its C919. R&T work is in progress on long-term continuous improvement in engine performance;

- the second stage is more ambitiously innovative, calling for breakthroughs in engine architecture, through the exploration of developments such as the open rotor concept and faired architectures with very high bypass ratios. These concepts are addressed by advanced research under national and European programs such as the Clean Sky Joint Technology Initiative. The open rotor program culminated in a demonstrator, prizewinner in the propulsion category of the 62nd Aviation Week Laureates in 2019;

- the third stage seeks to introduce low-carbon energy sources. Demonstrations have already been performed with biofuels in a mix with current fuel. Other scenarios under examination concern synthetic fuels derived from decarbonated hydrogen and, in the long term, propulsion concepts using liquid hydrogen directly.

Safran also cooperates with scientific and academic institutions on groundwork in future aircraft propulsion configurations. To this end, Safran founded the AEGIS chair with the ISAE-SupAero engineering school.

Helicopter turbine engines are subject to similar imperatives requiring reductions in fuel consumption and environmental impacts. Through its subsidiary Safran Helicopter Engines, Safran has undertaken ambitious technology programs to address future market needs. A number of technologies developed under the TECH800 program have been adopted on the Arrano engine, selected by Airbus Helicopters as the sole source for its new H160. The Group's technological progress strategy is backed by work in close liaison with all its customers to come up with innovative new engine integration developments such as hybrid power architecture concepts in drive systems.

Scenarios considering the emergence of hybrid or even fully electric propulsion are studied for smaller aircraft, "commuters" or vertical take-off and landing aircraft (VTOL) associated with new uses over short distances and in urban areas. Evaluations and simulations are also being carried out to examine how propulsion hybridization might contribute to developments in groundbreaking propulsion configurations for short- and medium-haul aircraft.

(1) A non-profit organization representing all players in the aviation industry.

(2) Advisory Council for Aeronautics Research in Europe.

In 2018, Safran carried out the first ground tests on a hybrid electric distributed propulsion system developed jointly across several Group companies. In this system, a turbo-generator (comprising a gas turbine driving a generator) is coupled to a bank of batteries. A new-generation power management system at the heart of the hybrid system distributes the electricity generated to power multiple electric motors, which turn propellers to provide propulsion.

At the last Paris Air Show, Airbus and Safran signed a letter of intent (LOI) on joint work on new technologies capable of significantly reducing CO₂ emissions and noise levels of forthcoming vertical take-off and landing (VTOL) platforms. A number of technology options will be explored, including different electrification levels, more efficient gas turbines, alternative fuels, and advanced engine architectures capable of reducing turbine noise. This cooperation forms part of preparations for the forthcoming European research program, Horizon Europe⁽¹⁾.

Materials and processes

The need to lighten planes, helicopters and their equipment has led to increased use of composite materials. Safran engines and equipment (whether nacelles, landing gear or brakes) are characterized by heavy mechanical loads and a more difficult environment than for other aircraft sections such as airframes. To develop its composite materials solutions, Safran set up the Safran Composites Center, now part of Safran Tech, with resources and expertise in organic matrix composites. Safran Ceramics, the center of competence for these technologies, opened in 2018, provides core expertise in thermostructural composites for aircraft engines, a major technological challenge addressed by substantial research efforts. This research, along with work on new metal alloys, and on high-performance coatings compliant with European REACH⁽²⁾ regulations, is coordinated by the Safran Materials and Processes Department. The platform for developing new monocrystalline casting techniques with engine applications opened in early 2019.

Safran gives priority importance to stepping up materials research using data analysis and digital physics. The application of statistical learning in mechanics opens up new possibilities in the understanding of mechanisms and for ultra-fast simulations of the properties of materials usage. With this in mind, Safran founded the BIGMECA chair in late 2019 with the Mines ParisTech engineering school, which will be reaping the fullest possible benefit from combined academic and industrial approaches.

Safran Seats develops its technological lead in materials (plastics, composites, metals, fabrics, etc.) and implementation processes. One important innovation focus in recent years is on additive manufacturing. This brings new openings for the design of products that are safer, more comfortable, easier to use, easier to make, easier to operate, more reliable and lighter in weight, which also means more efficient in terms of energy consumption.

1.4.1.2 Electric technologies and new power configurations

The move continues toward increased use of electrical energy for aircraft systems and actuators. The movement, which started with the A380 and Boeing 787 programs, will be a defining characteristic of the next generation of short- and medium-haul aircraft. The ultimate aim is overall aircraft energy optimization, covering energy production and energy consumption, for both propulsive and non-propulsive functions. The breadth of its aircraft engine and equipment expertise allows Safran to explore a huge spectrum of solutions for making tomorrow's aircraft more competitive, in terms of performance, functionality and cost of ownership.

Expertise in aircraft electrical systems is rolled out through Safran Electrical & Power and Safran Aerosystems, giving the Group some of the best technologies in electricity generation, conversion, distribution and transmission and enabling it to adopt a whole-system approach to aircraft electricals.

Optimization involves investigation into all forms of electricity generation, from mechanical engine motion to auxiliary power units (APUs) in hybrid solutions combining turbines, fuel cells and batteries. This work involves several Group companies: Safran Electrical & Power, Safran Power Units, Safran Aircraft Engines and Safran Helicopter Engines. One of the units of the Safran Tech innovation center is dedicated to developing simulation systems for evaluating advanced global energy and propulsive architectures.

Safran is involved in several technology programs alongside airframers in a European or French context. Cooperation on these programs takes various forms:

- academic cooperation, with fifteen or so CNRS⁽³⁾ laboratories and major research organizations such as ONERA⁽⁴⁾ and CEA⁽⁵⁾;
- industrial partnerships, such as with Alstom (France), Valeo (France) and Electricité de France (France), each recognized as technology leaders in their sectors.

1.4.1.3 Digital technologies and digital transformation

Industry 4.0

Design, production, maintenance and service tools and resources benefit from Safran's investments in digital solutions such as augmented reality, robotics, imaging, artificial intelligence and data use. These new applications significantly improve operational performance in terms of the cycle, cost and quality of high-tech products developed, manufactured and rolled out by the Group. Digital solutions also meet the demands of the Group's customers, partners and suppliers wishing to develop collaborative co-design strategies and optimize their supply chain and maintenance operations.

Automatic imaging solutions (based on machine learning) developed by Safran Tech to inspect complex parts are already used in the Group's plants.

(1) Horizon Europe is the European Union's forthcoming framework program on research and innovation (R&I) for the period 2021-2027.

(2) Registration, Evaluation and Authorisation of Chemicals.

(3) Centre national de la recherche scientifique (French National Center for Scientific Research).

(4) Office national d'études et de recherches aérospatiales (French National Aerospace Research Office).

(5) Commissariat à l'énergie atomique et aux énergies alternatives (French Atomic Energy Commission).

Additive manufacturing

Additive manufacturing provides an opportunity to improve costs, cycles and performance for numerous engine and aircraft equipment components, by reducing the number of parts and components and introducing new methods of optimizing design. Certification has already been obtained for parts including fuel injector nozzles and combustor swirlers for helicopter engines produced via selective laser melting, whereby an assembly of 15 components can be replaced by a single part. Safran Tech's Safran Additive Manufacturing unit has the resources to define different additive manufacturing processes for metallic materials. These resources, along with partnerships such as the one with Saclay's Additive Factory Hub and the specific program organization set up at Safran, help accelerate the development of these processes for their future use in serial production and repairs.

Safran has decided to centralize all its additive manufacturing capabilities at a new Safran Additive Manufacturing Campus. The new site under construction in Haillan, near Bordeaux, will house all the Group's operations in research, industrialization and production of additive manufacturing components, for optimally efficient rollout across all relevant products.

Data processing

Innovation efforts are called for to address the growing role played by services in the Group's operations. Techniques used to diagnose and forecast the condition of aircraft and helicopter equipment and systems bring value for Safran product users, as regards both operational considerations (optimization of maintenance) and fleet management support (evaluation of residual value). To address this need, Safran is developing its Monitoring Services system for managing fleet equipment operating data.

Big data extraction techniques offer promising development opportunities. Here, the Safran Analytics teams at the Safran Tech site will be stepping up rollout of more agile services, better oriented to value creation for aircraft operators. Safran Analytics has designed and rolled out its own big data platforms to facilitate the Group-wide implementation of data analytics solutions. One of the first services implemented on analytics environments consists in rendering aircraft trajectory data. This allows Group companies to gain a better understanding of how Safran products are used by customers, and thereby improve their performance.

Electronics, digital platforms and critical software

Given that onboard electronics technologies for harsh environments are a central feature of many Group products, Safran Electronics & Defense runs ambitious projects on controller architectures featuring more efficient processors, and on component packaging capable of withstanding the higher temperature environments of future aircraft systems (see section 1.2.2.5). On systems engineering, Safran is working on process harmonization: a modern software development workshop has been set up for Group-wide rollout.

1.4.1.4 Navigation and autonomy technologies

Air, land, sea, satellite and weapons navigation markets are constantly evolving and expanding. Operational and economic gains are sought by integrating mobile units into cooperative groups, by increasing autonomy, and by ensuring land-onboard continuum via secure links. Quests such as these prove to be powerful drivers of renewed demand and technological development. Safran is actively preparing the shift to autonomous systems for civil and defense applications based on technologies developed in optronic sensors, inertial navigation, critical onboard electronic systems and image processing and analysis. Specific research focuses on robust and reliable artificial intelligence for autonomous functions, working closely with the scientific community.

Safran's approach relies strongly on breakthrough HRG⁽¹⁾ technology, whose characteristics make it possible to design and produce world-leading navigation equipment and weapons at competitive costs. Through its subsidiary Safran Electronics & Defense and the Safran Tech sensors unit, the Group continues with the development of MEMS-technology⁽²⁾ accelerometers and gyroscopes for portable geolocation applications. With its prime expertise in high-integrity navigation systems, Safran Electronics & Defense leads the field in drone navigation.

Safran harnesses advanced optronics and ICT⁽³⁾ to develop innovations that will help the Group offer enhanced operational efficacy to armies, navies and air forces. Optronics needs range from imagers operating in one or more wavelength bands through to full image processing systems handling monitoring, detection, identification, fire control and self-protection. Integrated battlefield perception and soldier support solutions are developed using systems that couple infrared sensor and light intensification technologies with other functions such as geolocation and data analysis.

For infrared sensors, the Safran Group uses technologies from Lynred, its joint venture with Thales, resulting from the merger of Sofradir, French specialists in infrared cameras, and its subsidiary Ulis, specialists in microbolometers. Interchange of infrared sensor technologies between the two partners enables Lynred to offer one of the world's largest product ranges in this field. To extend its technological sources to other types of sensor and their integration in intelligent systems, Safran is working in partnership with Valeo on autonomous vehicle technologies. Safran and Valeo are also behind a research chair at the École des Mines engineering school in Paris, and run a joint laboratory at the Safran Tech complex in Magny-les-Hameaux, near Paris.

The use of sensors and artificial intelligence in an integrated system resulted in eRider, an autonomous vehicle demonstrator for military applications which can transport infantry equipment on the ground and navigate autonomously. The demonstrator helped Safran win the Furious contract put out for tender by the French Directorate General of Weapons Procurement (DGA). This covers autonomous vehicles, small land robots and a drone, laying the groundwork for autonomous and collaborative combat systems under the Scorpion modernization program. Proficiency

(1) Hemispherical resonator gyro.

(2) Micro Electro Mechanical Systems.

(3) Information and Communication Technologies.

in technologies merging navigation and environment perception data also enables the development of piloting assistance applications for all types of aircraft.

1.4.1.5 Designing the cabin of the future

Through system integration and optimization, the aircraft cabin of the future will offer passengers enhanced comfort and traveling experience. Safran innovations in aircraft cabins, developed at its Safran Cabin Innovation (SCI) design studio in Huntington Beach (California, United States), go beyond the

classic measures on reducing the cost and weight of aircraft equipment. Through Safran Cabin Innovation, the Group offers its customers opportunities for improving sales (by adding seats capable of generating revenue or providing new services), offering an improved passenger experience (with a more spacious and comfortable cabin, new features, etc.), and creating or enhancing brand image (through distinctive service, design and products).

Safran also develops innovative solutions for automating ground operations (bunkering and cabin preparation) prior to take-off and in flight prior to landing. Other capabilities offered by connected equipment include monitoring and cost reduction.

1.4.2 Technical and scientific partnerships

In implementing its R&T strategy, Safran draws on partnerships providing it with scientific and technological expertise. Safran thereby meets the two prerequisites for success: it identifies known and latent market needs through customer contact, and it adopts an open approach to what is an increasingly complex and multidisciplinary scientific and technological environment.

In 2009, Safran created a scientific council, currently chaired by Professor Mathias Fink, which comprises nine leading international scientists bringing expertise in all the scientific disciplines underlying Group businesses. This council meets every three months and issues recommendations on the structure and quality of the Group's scientific partnerships.

For the first R&T levels, Safran has developed a network of scientific partners in France in the university and applied research sectors. Safran implements framework agreements with ONERA, CEA and CNRS, which offer access to the best in French scientific research. The Group has long-term partnerships with many research and higher education organizations, some of whose laboratories form valuable external research hubs. These partnerships also help Safran recruit leading talents: Safran finances work on around 180 training-through-research (CIFRE) and technology research diploma (DRT) courses, runs several international thematic networks on key issues in

aerodynamics, combustion, noise reduction, mechanics, digital technology, etc., and backs five research chairs. In 2019, Safran signed a framework partnership agreement with the INSA Lyon laboratory (LaMCoS) and Mecalam, a company specializing in the development of cutting-edge calculation software in mechanical transmission engineering, to boost the development of modeling systems in the field of contact mechanics. Safran was actively involved in the foundation of three IRT centers⁽¹⁾. It is also a major participant in several competitiveness hubs, including System@tic, Aerospace Valley and ASTech.

Safran plays an active role in European Union bodies and programs. Since 2008, Safran has been closely involved in establishing the Clean Sky Joint Technology Initiative, bringing together the leading players in aviation R&D along with the European Commission in a demonstration program on airframes, engines and systems. In 2014, Safran worked to renew this public-private partnership through to 2024: Clean Sky 2 is now operational.

The intellectual property related to this cooperative work is defined contractually at the beginning of projects between partners. The general principle is that the intellectual property belongs to the partners who performed or co-financed the work, and, at the very least, Safran receives rights of use in its own field.

1.4.3 Innovation and intellectual property

Innovation is at the heart of Safran's strategy. The competitiveness of its products is largely based on the successful integration of technological innovation or adjustments, providing the customer with industry-leading performances. Safran's ability to produce breakthrough technological innovations is amply demonstrated across a huge breadth of sectors, such as electric taxiing, composite fan blades and hemispheric resonator gyros (HRGs). A proof-of-concept approach involving close liaison across Group companies affords an efficient and high-performance organizational structure for managing innovation, typified by the high-potential projects run by the Innovation Department. Safran also develops cooperative innovation with its suppliers and with startups working with the Group. The capacity to identify then implement efficient cooperative operations with outside partners helps Safran integrate best practices in order to offer innovative and mature solutions within short lead times.

The development of technical expertise is also key to preparing for the technological challenges of tomorrow. A process has been set up to determine companies' expertise needs Group-wide and thereby plan ahead for renewals and training of new experts.

Intellectual property is a fundamental component of Safran's asset portfolio. The development and protection of intellectual property is increasingly important given the growing trends toward market globalization and intensifying competition. Intellectual property responds to operational imperatives by strengthening and securing Safran's positions. The creative and innovative ability of teams, and the special attention given to protecting intellectual property, are demonstrated by the number of patents filed in 2019: more than 1,200 first patent applications worldwide in 2019, a level unprecedented in Safran's history. This places Safran among the front-runners for patents filed with INPI, the French patents office⁽¹⁾. Overall, the Group's

(1) Instituts de recherche technologique (*technology research institutes formed under France's PIA Investments for the Future Program*).

patents portfolio comprises close to 11,000 inventions covered by more than 42,000 intellectual property rights around the world, bolstering Safran's position in its areas of business.

In addition to patent protection, because of Safran's international reach and extensive partnership involvement, the Group gives great importance to ensuring close control over technology transfers and defining precise policy on the matter.

Some transfers are essential for market access reasons. Technologies for transfer, which do not belong to Safran's core technology portfolio, must be clearly identified, accurately valued, and covered by carefully structured long-term partnership arrangements. Under no circumstances may such partnerships restrict the Group's capacity for technological differentiation in the future.

Dependence

Safran has not identified any dependence on patents, licenses, industrial, commercial or financial contracts or new manufacturing processes likely to have a material impact on the Group.

There are risks of production delays and cost penalties for Safran in the event of supplier or partner shortcomings, as set out in section 4.3.2.4, "Supplier and partner risks" of this Universal Registration Document.

1.4.4 Safran Corporate Ventures and relations with startups

Safran Corporate Ventures is a Safran subsidiary responsible for financing innovative companies that have developed breakthrough technologies or business models in the aerospace and defense industries. In line with the Group's strategy on innovation and transformation, Safran Corporate Ventures seeks primarily to support innovative startups in the following fields:

- Industry 4.0 (non-destructive testing, augmented reality, Internet of Things for industry, robotics/cobotics, additive manufacturing and cybersecurity in industry);
- onboard components (critical onboard electronics, onboard software, connectivity, onboard energy, thermal management, electric hybridization and cybersecurity);
- new and advanced materials (nanotechnologies, surface treatment processes, composites, ceramics and advanced manufacturing processes);
- new services and business models (data analytics, on-demand aviation, new maintenance modes, co-design and collaborative engineering);
- passenger experience and connected cabins;
- new markets and platforms (civil drones, non-conventional vertical take-off and landing aircraft [VTOL] and new transportation modes).

Safran Corporate Ventures goes beyond financing to offer valuable development support to innovative and agile startups, working in close liaison with teams Group-wide:

- access to an international network of leading experts in Safran's areas of business;

- commercial and industrial exposure to Safran companies worldwide;
- implementation of commercial and development agreements with Safran entities.

Safran Corporate Ventures has invested in 11 tech startups since its formation in 2015, ten of which are still in its portfolio. In 2019, through Safran Corporate Ventures, the Group invested in:

- Electric Power System (EPS), a leading supplier of advanced energy storage solutions, alongside Boeing HorizonX Ventures;
- Outsight, a French-Finnish startup developing semantic cameras for autonomous vehicles; and
- BtoV Industrial Tech early-stage funds (Germany), specializing in Industry 4.0 innovations.

In 2019, Safran Corporate Ventures also stepped up support to companies in its portfolio, through active participation in five refinancing operations: Krono-Safe⁽²⁾, Turbotech⁽³⁾, Diotat⁽⁴⁾, Oxis Energy⁽⁵⁾ (alongside companies including Arkema, a world leader in chemicals and advanced materials, and the Brazilian investment fund Confrapar) and Cailabs⁽⁶⁾ (with a stake in Supernova Invest⁽⁷⁾ and Definvest⁽⁸⁾).

In 2019, Safran Corporate Ventures also contributed to a dozen partnerships or demonstrators between Group companies and innovation-oriented startups.

(1) Third in INPI ranking, April 2019 (for patents filed in France in 2018).

(2) Krono-Safe develops realtime operating-system software for safety-critical equipment in transportation (connected and autonomous vehicles), industry (Internet of Things), aerospace, defense and cyber-security.

(3) Turbotech develops a range of turbine engines for light aviation, based on innovative regenerative-cycle turbines. Regenerative-cycle technology seeks reductions in fuel consumption by using a heat exchanger to recover energy from the turbine's exhaust gas.

(4) Diotat is France's leading publisher of augmented reality software solutions for industry.

(5) Oxis develops technologies and materials for battery cells and very-high-energy-density lithium-sulfur batteries.

(6) Cailabs is a pioneer in breakthrough light shaping technology, protected by multiple patents. It designs and sells photonic components, modules and equipment for the telecom and industrial lasers markets.

(7) Supernova Invest is a venture capital fund under a partnership between Amundi and CEA (French Atomic Energy and Alternative Energies Commission).

(8) Definvest is a French government investment fund for strategic defense companies.

1.4.5 Research and development expenditure

Including the portion funded by customers, the total expenditure on Research, Technology and Development (RTD) was approximately €1.7 billion in 2019, representing 7% of revenue. RTD operations in France amounted to €1,295 million, representing 75% of overall RTD expenditure.

The self-funded RTD effort before research tax credit, of €1,337 million, represents 78% of total RTD expenditure, and breaks down as follows:

- development: 52% (aircraft programs, aircraft interior fittings, aerosystems, helicopter engines, avionics and defense);
- R&T: 41%;
- other: 7%.

(in € millions)	2018	2019
Total R&D	(1,472)	(1,725)
Portion of expenditure funded by customers	246	388
Self-funded RTD	(1,226)	(1,337)
% of revenue	5.8%	5.4%
Research tax credit	151	166
Self-funded RTD after research tax credit	(1,075)	(1,171)
Capitalized expenditure	320	325
Amortization and impairment of R&D expenditure ⁽¹⁾	(218)	(270)
Impact on recurring operating income	(973)	(1,116)
% of revenue	4.6%	4.5%

(1) Excluding non-recurring items.

Capitalized R&D was €325 million compared with €320 million in 2018. Capitalized R&D was €5 million down on the 2018 figure, and amortization and impairment of capitalized R&D was €270 million, up from €218 million in 2018.

The impact on recurring operating income of expensed R&D was €1,116 million compared with €973 million in 2018. R&D expensed in recurring operating income rose by €143 million.

1.5 INDUSTRIAL INVESTMENTS

1.5.1 Industrial policy and the factory of the future

Safran is an established industry reference and a major participant in its core businesses of aerospace and defense. Its aim is to supply its customers with increasingly advanced technological engines and equipment, meeting ever stricter safety standards, at a lower cost and with shorter timeframes.

This demand for performance and innovation, which is central to the success of Safran's products and services worldwide, is also present at the level of the Group's plants. The Group's companies, working with the Industrial Management Department, focus their investments and organization on adapting production sites, preparing for tomorrow's industrial challenges and developing competitive advantages: expertise in new production technologies, supply chain upgrades and upskilling.

Through its constant drive for innovation and excellence, Safran stands as one of Europe's leading groups in the concrete implementation of technologies and processes driving the digital transformation of industry. Under Safran's ongoing Factory of the Future project, 2019 saw the rollout of 49 production lines, 22 of which were operational by the end of the year. These production lines cover manufacturing, assembly and repair operations, implementing advanced digital solutions that now constitute Safran standard practice.

Work on standardization and rollout is continuing:

- in equipment connectivity and use of industrial data from production activities, a plan to connect 5,000 systems at 60 industrial facilities is going ahead. The pilot sites here are Safran Landing System in Bidos, Safran Aero Boosters in Milmort and Safran Nacelles in Le Havre;
- for plant digital modeling, BIM⁽¹⁾ technology is used; in 2019, plant modeling covering a surface area of some 100,000 sq.m. was implemented for systematic use on Safran's new industrial projects.

At the same time, to step up rollout of technological solutions under its Factory of the Future program, Safran took part in CampusFab, an industry-of-the-future innovation hub near Paris.

CampusFab's work covers in four main areas: flexible digital factories, physical operator assistance, process and test automation and cognitive operator assistance. CampusFab is supported by a consortium of companies, government bodies and local administrations. Its first training courses began toward the end of 2019.

Advances in additive manufacturing provide a good example of Safran's expertise in Factory of the Future technologies. Work on introducing products using additive manufacturing stepped up in 2019:

- certification of new parts and equipment for helicopter and aircraft engines and auxiliary power units, and ongoing industrial investments at Safran Aircraft Engines, Safran Helicopter Engines, Safran Aero Boosters and Safran Landing Systems;
- identification of target products on the markets covered by Group companies;
- exploration of new product concepts, with demonstrators, aimed at weight reductions, performance improvements and significant reductions in the number of parts assembled; and
- creation of Safran Additive Manufacturing Campus, which will pool research, development and production in additive manufacturing across the Group (see section 1.4.1.3). Safran Additive Manufacturing Campus is a good example of the Group's rapid response capability as regards measures for achieving specific advances in additive manufacturing.

Safran's steadfast commitment to innovation and excellence is also apparent in its supply chain transformation endeavor. Control over physical flows of parts and subassemblies is a key factor in working towards Safran's commitments on increased customer satisfaction and reduced inventory levels and work-in-progress. Eighty supply chain improvement projects were launched in 2019 across Group companies, along with a digital management transformation initiative.

(1) Building Information Modeling: 3D building modeling combined with a data processing, creation and integration process.

1.5.2 Main industrial investments

Safran's industrial investments totaled €695 million in 2019.

These investments are intended to prepare the Group for substantial growth in business, and the industrial upgrades needed for new programs.

Geographic zone (in € millions)	2018	2019
France	488	413
Europe (excluding France)	84	78
Americas	135	146
Asia & Oceania	58	45
Africa & Middle East	15	13
TOTAL	780	695⁽¹⁾

(1) Net of the cash inflow from the disposal of a tertiary property complex in the Paris region.

Safran's industrial investments in 2019 targeted upgrade and renewal of production facilities and plants. Most (59%) industrial investments were made in France, on projects including:

- expansion of the Safran Aircraft Engines site in Châtelleraut, to accommodate capacities in high-power engine repairs;
- redevelopment for the Safran Helicopter Engines site in Tarnos, with:
 - a parts and components repair shop,
 - a repair shop for servicing helicopter engines from the Europe-Africa-Middle East region,
 - a new building housing the worldwide management center for Safran helicopter engine services;
- new Safran Transmission Systems workshop in Colombes, specializing in development of engine reduction-drive technologies.

Safran's other investments in France continue the policy of previous years:

- capacity increase for the LEAP engine, including investments in the forge for rotating parts at the Gennevilliers site and machining plant at the Safran Aircraft Engines Évry-Corbeil and Creusot sites;
- capacity increase for the A320neo at Safran Nacelles in Le Havre;

- modernization of test equipment for landing and braking systems at the Safran Landing Systems Vélizy site;
- extension to the network of workshops supporting the fleet of Safran Aircraft Engines LEAP engines;
- development of R&T capacity (additive manufacturing, analytics, composites and experimental castings), with, for example, the new Safran Tech turbine blade research platform in Gennevilliers.

Safran's main investments outside of France were:

- capacity increase for the LEAP engine, with:
 - a new Safran Aircraft Engines facility making turbine parts in Hyderabad (India),
 - investments in Querétaro (Mexico) on composite fan blades and a new manufacturing line for aluminum OGVs (Outlet Guide Vanes) for Safran Aircraft Engines,
 - expansion of the network of workshops supporting the fleet of LEAP engines (East Europe and Asia);
- further production capacity increase at the Safran Landing Systems site in Sendayan (Malaysia);
- production startup at the new Safran Electrical & Power electrical wiring plant in Hyderabad (India);
- reorganization of logistics operations at the Safran Seats plant in Cwmbran (United Kingdom).

1.6 SITES AND PRODUCTION PLANTS

Safran's headquarters are located in Paris, France.

The table below lists the Group's sites by main type of site activity, at December 31, 2019.

Figures and locations shown correspond to consolidated companies, as defined in section 3.1, Note 37.

Safran Group sites December 31, 2019	Main activities at Safran sites				Occupancy	
	R&D/production	Service/ maintenance	Commercial/ administrative	Total sites ⁽¹⁾	Owner ⁽²⁾	Tenant
Safran Aircraft Engines	14	13	4	31	12	19
Safran Helicopter Engines	7	9	-	16	7	9
Safran Ceramics	4	-	1	5	1	4
Safran Aero Boosters	2	-	-	2	1	1
Safran Landing Systems	10	11	1	22	13	9
Safran Electrical & Power	34	10	2	46	9	37
Safran Passenger Solutions	9	2	3	14	2	12
Safran Transmission Systems	2	-	-	2	2	-
Safran Nacelles	6	2	-	8	6	2
Safran Electronics & Defense	36	1	7	44	15	29
Safran Aerosystems	20	9	1	30	9	21
Safran Cabin	25	1	2	28	5	23
Safran Seats	10	1	1	12	1	11
Safran	2	-	7	9	4	5
Other	1	-	4	5	-	5
TOTAL	182	59	33	274	87	187

(1) Each site corresponds to a legal entity, covering one or more sites that may be used for tertiary, production, services or maintenance purposes.

(2) Including five sites under finance leases.

The Group owns its major and strategic production sites, and tends toward rental of its other sites.

The bulk of Group R&D work is carried out at its main production sites. For this reason, the table shows "R&D" and "production" in the same column.

Because of the diversity of Safran's operations, the notion of "production capacity" does not apply.

There were four major real estate operations in 2019:

■ in France:

- official launch of construction for the fourth Safran Landing Systems carbon brakes production plant, in Feysin,

- official launch of the construction project for a dedicated additive manufacturing plant in Haillan (see section 1.4.1.3),
- upgrade of the Safran Helicopter Engines site in Tarnos;
- delivery of the new Safran Electrical & Power electrical wiring harnesses plant in Hyderabad (India).

Environmental factors liable to influence the Group's use of its property, plant and equipment are presented in section 5.5. The Group has drafted Health, Safety and Environment (HSE) guidelines that enable it to assess the compliance of its property, plant and equipment, and its operations, with HSE regulations. It also regularly conducts self-assessments and audits.

1.7 SAFRAN PERFORMANCE AND QUALITY POLICY

Safran has an ambitious quality policy targeting three main goals:

- flight safety;
- customer satisfaction;
- continuous progress in performance.

This policy involves a permanent drive on innovation, continuous improvement and risk control. It is based on Group-wide methods and tools derived from shared experience and best practices across all Group companies.

Safran is pushing ahead with its One Safran initiative, launched more than four years ago with the purposes of developing Group-wide take-up of a common corporate management system and performance indicators and deploying operational excellence, in order to ensure product quality and reliability. The initiative involves building on best practices and extending them throughout the Group.

A major step forward was taken in 2018 with publication of the Develop process, to run alongside the Prompt program-steering system which has been in operation for several years now.

The Develop process brought improvements in areas such as development preparatory stages, system architecture, product industrialization, and regular reviews run by recognized independent experts in specific projects. A development program is punctuated by nine Master Engineering Reviews covering all aspects of the process (design, production release, and preparation for support and services). This system includes the requirements of the aerospace industry's authoritative AS/EN9145 Advanced Product Quality Planning standard.

Global program management also extends to suppliers, whether working on a build-to-specification basis (meaning they design their products themselves) or a build-to-print basis (meaning they manufacture to Safran specifications or external standards).

Safran's suppliers undergo a rigorous selection and approval process. Decisions to award new supply or development contracts are taken collectively by a Supplier Selection Committee spanning industrial, quality and purchasing functions. Suppliers are regularly audited and monitored by some 700 supplier quality assurance managers, responsible for ensuring day-to-day quality of all products purchased. The supplier quality assurance managers are backed by a team of more than 300 supplier performance managers, who measure suppliers' quality and delivery-time performance and ensure progress plans are properly implemented.

The rules that Safran applies to its suppliers are laid down in its general purchasing conditions, in the general quality requirements set out in the SAFe (SAfran exigencies) document, and in product-specific documents. SAFe includes international quality standards, to further standardization throughout the aerospace supply chain. The 2020 version of SAFe will extend the APQP (Advanced Product Quality Planning) requirements, strengthen rules on prevention and remediation of quality deviations, clarify design requirements for build-to-spec suppliers and ensure suppliers' personnel are familiar with the Safran Group's ethics whistle-blowing system (safran@alertethic.com). SAFe also includes Safran's Responsible Purchasing Charter.

Safran Group companies hold AS/EN 9100 certification. Certification involves phase-in of group-wide One Safran processes. Safran also sits in the working groups or management teams of international aerospace industry quality bodies (IAQG⁽¹⁾, Nadcap⁽²⁾), making active contributions to forthcoming updates of existing quality standards and release of new standards on emerging aerospace industry matters (through ASD⁽³⁾), in liaison with civil aviation authorities. All these activities help to harmonize the aerospace industry supply chain, to strengthen safety culture and to improve product quality.

The Safran Group also operates a Safety Management System to preemptively identify risks liable to jeopardize the safety of its products, and to take remedial action, before they can have a negative impact on its customers or business. It is accordingly committed to developing proactive response capability across all fields. To this end, each of the Group's companies undertakes to hold and maintain product certificates and approvals issued by the relevant authorities for its design, production and maintenance operations. All these actions contribute to upholding a solid climate of trust between Safran, its customers and authorities.

Each of the Group's companies also runs its own action plans, tailored to its own particular business context, on improving product quality and safety. This priority measure applies at all levels, from Group executive management to in-the-field teams.

Since mid-2016, Safran has been running grassroots operational excellence workshops, drawing upon standards defined for the whole Group, with the aim of engaging teams in rapid-action progress plans over a period of 16 weeks. The workshop objectives are consistent with the operational needs in each particular sector, on improvements in quality, productivity, customer service rates, repair cycles for MRO operations, or significant optimizations in program management, development, supply chain, etc. Since mid-2016, 1,300 workshops have been launched and some 1,000 completed. In production, more than 500 workshops have been run, and some teams have already taken up a second or third project. To anchor One Safran more firmly in Group practices, One Safran standards now feature in the training courses given at Safran Corporate University, further contributing to customer trust. Some One Safran workshops are run jointly by Safran with its customers. An example of this is the One Team workshops in which Safran teams at the customer's assembly lines work together with the operational managers of these lines at the customer's site.

Customer satisfaction performance continued to rise in 2019, with ongoing expression of confidence in and appreciation of Safran teams' customer relations, attention and response times. Regular contact between Safran quality teams and major airframers has been set up to afford a more global vision of performance and joint action plans, in addition to the operational vision existing between individual Group companies and their customers.

Work on the key focuses of the progress initiative, known as Safran+ since 2009 and enhanced with the arrival of One Safran, continued to bring performance improvements throughout the Group. To embed this improvement, Safran+ defines key areas for progress, sets targets and suggests possible methods.

(1) International Aerospace Quality Group.

(2) National Aerospace and Defense Contractors Accreditation Program.

(3) Aerospace and Defence Industries Association of Europe.

Safran+ is based on a network with centralized organization, and deployed within all of the Group's entities. This network facilitates an array of improvement initiatives, either created by the Group and applicable to all of its companies, or created by the companies themselves for their own internal use. These initiatives may involve either continuous optimization or disruptive projects put forward and coordinated by the Group.

Quality performance and policy draw on a deep-rooted Lean Sigma culture and on networks of quality, progress and business-line teams working together to fulfill the Group-wide quality vision: "to be the customer's preferred supplier".

Other permanent, cross-Group initiatives include:

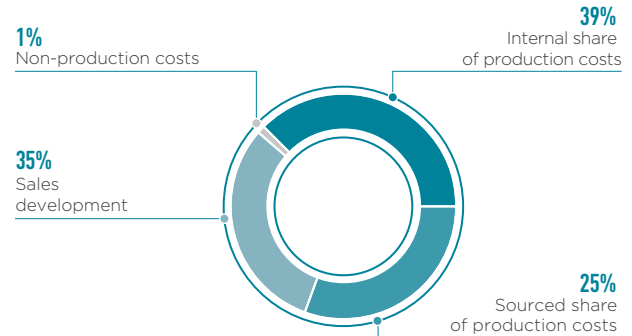
- participative innovation initiatives enabling employees in all sectors to put forward ideas for improving their companies' performance. More than 143,000 employee ideas were applied across all the Group's business sectors in 2019;
- Lean Sigma, with Green Belts, Black Belts and Master Black Belts driving the Group's transformation through a structured and standardized project management approach;
- visual management;
- QRQC⁽¹⁾ which has been developed across industrial and technical operations in all Group companies. Rollout of this method is ongoing.

Most projects target at least one of the following objectives:

- advancing in customer satisfaction;
- raising operating profit;
- reducing working capital.

The managers concerned report on progress initiatives to Group Executive Management at annual reviews.

The savings achieved by the Safran+ initiative in 2019 break down as follows:



(1) Quick Response Quality Control, a fast problem solving management method that emphasizes constant vigilance and immediate response.



2

REVIEW OF OPERATIONS IN 2019 AND OUTLOOK FOR 2020

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2019 ADJUSTED KEY FIGURES

	Aerospace Propulsion		Aircraft Equipment, Defense and Aerosystems		Aircraft Interiors		Holding company and other		Total	
(in € millions)	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
Revenue	10,579	12,045	7,942	9,256	2,511	3,321	18	18	21,050	24,640
Recurring operating income (loss)	2,030	2,485	992	1,209	81	188	(80)	(62)	3,023	3,820
Profit (loss) from operations	1,999	2,478	983	1,188	42	182	(116)	(15)	2,908	3,833
Free cash flow ⁽¹⁾	1,418	1,125	406	706	(67)	(1)	24	153	1,781	1,983
Acquisitions of property, plant and equipment ⁽²⁾	420	376	286	292	41	60	33	(33)	780	695
Self-funded R&D	546	573	502	527	178	237	N/A	N/A	1,226	1,337

(1) Free cash flow represents cash flow from operating activities less any net disbursements relating to acquisitions of property, plant and equipment and intangible assets.

(2) Net of proceeds from disposals.

BUSINESS HIGHLIGHTS IN 2019

Aerospace Propulsion

- Delivery of 2,127 CFM56 and LEAP engines amid the grounding of the Boeing 737 MAX.
- Order and commitment backlog of more than 15,614 LEAP engines.
- Growth of the civil aftermarket.
- The 500th M88 engine to power the multi-mission Rafale fighter jet was manufactured.
- CAAC⁽¹⁾ type certification obtained for the WZ16 engine powering the AVIC⁽²⁾ AC352 helicopter.
- EASA⁽³⁾ certification obtained for the Ardiden 1U engine installed on HAL's⁽⁴⁾ Light Utility Helicopters (LUH), for the Aneto-1K engine selected by Leonardo to power the AW189K twin-engine heavy-lift helicopter, and for the Arrano 1A engine which will be the sole source on Airbus Helicopters' future twin-engine H160 helicopter, as well as its military version, the H160M Guépard.

Aircraft Equipment, Defense and Aerosystems

- Reorganization of the Aerosystems activities within the Group.
- Delivery of the 1,000th A320neo nacelle powering the LEAP-1A engine.
- Signature of new contracts for over 850 aircraft with Safran carbon brakes.

- Selected by the Swiss Armed Forces to supply next-generation multifunction infrared and night-vision goggles. The contract is for the supply of over 1,000 multifunction infrared goggles (JIM Compact™, MOSKITO TI™) and more than 8,000 stereoscopic night vision goggles.
- Launch of the new Cassiopée NODE flight data processing software, a tool designed to enhance safety and operational efficiency and optimize aircraft maintenance.
- Selected by the Australian Navy for the detailed design of three major combat system components for future attack-class submarines: optronic search and attack masts, the navigation radar and navigation data distribution components.
- Production of the five millionth life vest, just three years after reaching the three million threshold.

Aircraft Interiors

- Selected by Air France to fit out 51 of its A320 and A321 aircraft with Safran ECOS (Efficient Cabin Open Space) overhead bins. This new-generation solution can store 60% more baggage than a standard compartment through its "on-edge" innovation, thereby allowing each passenger to transport and store a wheeled suitcase vertically in the overhead bins.
- Selected by Turkish Airlines to fit out most of its commercial aircraft fleet with Hybrite trolleys.
- First commercial flight of the new Fusio Business Class seats on a Boeing 777-300ER operated by Japanese airline ANA.
- Safran in-flight entertainment solutions passed their 50th airline customer.

(1) Civil Aviation Administration of China.

(2) Aviation Industry Corporation of China.

(3) European Aviation Safety Agency.

(4) Hindustan Aeronautics Ltd.

2.1 COMMENTS ON THE GROUP'S PERFORMANCE IN 2019 BASED ON ADJUSTED DATA AND OUTLOOK FOR 2020

2.1.1 Reconciliation of consolidated data with adjusted data

Foreword

To reflect the Group's actual economic performance and enable it to be monitored and benchmarked against competitors, Safran prepares an adjusted income statement in addition to its consolidated financial statements.

Readers are reminded that Safran:

- is the result of the May 11, 2005 merger of Sagem and Snecma, accounted for in accordance with IFRS 3, "Business Combinations", in its consolidated financial statements;
- recognizes, as of July 1, 2005, all changes in the fair value of its foreign currency derivatives in "Financial income (loss)", in accordance with the provisions of IFRS 9 applicable to transactions not qualifying for hedge accounting (see section 3.1, "Accounting policies", Note 1.f).

Accordingly, Safran's consolidated income statement has been adjusted for the impact of:

- purchase price allocations with respect to business combinations. Since 2005, this restatement concerns the amortization charged against intangible assets relating to aircraft programs revalued at the time of the Sagem-Snecma merger. With effect from the first-half 2010 interim financial statements, the Group decided to restate:
 - the impact of purchase price allocations for business combinations, particularly amortization and depreciation charged against intangible assets and property, plant and equipment recognized or remeasured at the time of the transaction and amortized or depreciated over extended periods due to the length of the Group's business cycles, and the impact of remeasuring inventories, as well as
 - gains on remeasuring any previously held equity interests in the event of step acquisitions or asset contributions to joint ventures.

Safran has also applied these restatements to the acquisition of Zodiac Aerospace with effect from 2018.

- the mark-to-market of foreign currency derivatives, in order to better reflect the economic substance of the Group's overall foreign currency risk hedging strategy:
 - revenue net of purchases denominated in foreign currencies is measured using the effective hedged rate for the period, i.e., including the costs of the hedging strategy,
 - all mark-to-market changes on instruments hedging future cash flows are neutralized.

The resulting changes in deferred tax have also been adjusted.

Changes in the organization of the Group's segment information

In 2019, Safran changed the presentation of its segment information to accelerate the implementation of the Group's strategy, particularly as regards more electric aircraft and connected cabins. The new operational organization will promote knowledge-sharing by bringing together teams working in similar areas, the development of new customer offerings and the optimization of costs.

As of June 30, 2019 and following the combination of the businesses resulting from the Zodiac Aerospace acquisition in respect of which strategic and commercial synergies were identified, the Group's businesses are classified within three operating segments:

- Aerospace Propulsion, which now includes Safran Transmission Systems given its close relationship with engine activities;
- Aircraft Equipment, Defense and Aerosystems, which combines the former Safran Aircraft Equipment activities with part of the former Zodiac Aerospace Aerosystems and Safran Defense businesses;
- Aircraft Interiors, which includes the former Safran Cabin and Safran Seats activities and which now includes Safran Passenger Solutions, a new consolidation sub-group focused on complex cabin equipment and passenger comfort solutions (onboard water and waste management and in-flight entertainment). These activities complement the Cabin and Seats businesses.

2 REVIEW OF OPERATIONS IN 2019 AND OUTLOOK FOR 2020 ■

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

Reconciliation of the consolidated income statement with the adjusted income statement

The impact of these adjustments on 2019 income statement items is as follows:

(in € millions)	2019 consolidated data	Currency hedges		Business combinations		2019 adjusted data
		Remeasurement of revenue ⁽¹⁾	Deferred hedging gain (loss) ⁽²⁾	Amortization of intangible assets from Sagem-Snecma merger ⁽³⁾	PPA impacts – other business combinations ⁽⁴⁾	
Revenue	25,098	(458)	-	-	-	24,640
Other recurring operating income and expenses	(21,438)	9	(1)	51	354	(21,025)
Share in profit from joint ventures	164	-	-	-	41	205
Recurring operating income	3,824	(449)	(1)	51	395	3,820
Other non-recurring operating income and expenses	13	-	-	-	-	13
Profit from operations	3,837	(449)	(1)	51	395	3,833
Cost of debt	(33)	-	-	-	-	(33)
Foreign exchange gain (loss)	(283)	449	(175)	-	-	(9)
Other financial income and expense	(47)	-	-	-	-	(47)
Financial income (loss)	(363)	449	(175)	-	-	(89)
Income tax expense	(962)	-	60	(13)	(97)	(1,012)
Profit for the period	2,512	-	(116)	38	298	2,732
Profit for the period attributable to non-controlling interests	(65)	-	-	(2)	-	(67)
PROFIT FOR THE PERIOD ATTRIBUTABLE TO OWNERS OF THE PARENT	2,447	-	(116)	36	298	2,665

Reconciliation of profit from operations with EBITDA

The reconciliation of profit from operations with EBITDA is as follows:

(in € millions)	2019 consolidated data	Currency hedges		Business combinations		2019 adjusted data
		Remeasurement of revenue ⁽¹⁾	Deferred hedging gain (loss) ⁽²⁾	Amortization of intangible assets from Sagem-Snecma merger ⁽³⁾	PPA impacts – other business combinations ⁽⁴⁾	
Profit from operations	3,837	(449)	(1)	51	395	3,833
Net recurring charge to depreciation, amortization, impairment and provisions	1,543		1	(51)	(354)	1,139
Net non-recurring charge to depreciation, amortization, impairment and provisions	(4)			-	-	(4)
EBITDA	5,376	(449)	-	-	41	4,968

(1) Remeasurement of foreign-currency denominated revenue net of purchases (by currency) at the hedged rate (including premiums on unwound options) through the reclassification of changes in the fair value of instruments hedging cash flows recognized in profit or loss for the period.

(2) Changes in the fair value of instruments hedging future cash flows that will be recognized in profit or loss in future periods (a negative €175 million excluding tax), and the impact of taking into account hedges when measuring provisions for losses on completion (a negative €1 million) at December 31, 2019.

(3) Cancellation of amortization/impairment of intangible assets relating to the remeasurement of aircraft programs resulting from the application of IFRS 3 to the Sagem-Snecma merger.

(4) Cancellation of the impact of remeasuring assets at the time of the Zodiac Aerospace acquisition for €315 million excluding deferred tax and cancellation of amortization/impairment of assets identified during other business combinations.

■ REVIEW OF OPERATIONS IN 2019 AND OUTLOOK FOR 2020

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

The impact of these adjustments in 2018 was as follows:

(in € millions)	2018 consolidated data	Currency hedges		Business combinations		2018 adjusted data
		Remeasurement of revenue ⁽¹⁾	Deferred hedging gain (loss) ⁽²⁾	Amortization of intangible assets from Sagem-Snecma merger ⁽³⁾	PPA impacts – other business combinations ⁽⁴⁾	
Revenue	21,025	25	-	-	-	21,050
Other recurring operating income and expenses	(18,934)	(14)	(2)	56	640	(18,254)
Share in profit from joint ventures	189	-	-	-	38	227
Recurring operating income	2,280	11	(2)	56	678	3,023
Other non-recurring operating income and expenses	(115)	-	-	-	-	(115)
Profit from operations	2,165	11	(2)	56	678	2,908
Cost of debt	(67)	-	-	-	-	(67)
Foreign exchange gain (loss)	(351)	33	232	-	-	(86)
Other financial income and expense	(58)	-	-	-	-	(58)
Financial income (loss)	(476)	33	232	-	-	(211)
Income tax expense	(348)	(14)	(80)	(19)	(177)	(638)
Profit for the period	1,341	30	150	37	501	2,059
Profit for the period attributable to non-controlling interests	(58)	(2)	-	(2)	(16)	(78)
PROFIT FOR THE PERIOD ATTRIBUTABLE TO OWNERS OF THE PARENT	1,283	28	150	35	485	1,981

Readers are reminded that only the consolidated financial statements set out in section 3.1 of this Universal Registration Document are audited by the Group's Statutory Auditors. The consolidated financial statements include the revenue and operating profit indicators set out in the adjusted data in section 3.1, Note 5, "Segment information".

Adjusted financial data other than the data provided in section 3.1, Note 5, "Segment information" are subject to the verification procedures applicable to all of the information provided in this Universal Registration Document.

Reconciliation of profit from operations with EBITDA

The reconciliation of profit from operations with EBITDA is as follows:

(in € millions)	2018 consolidated data	Currency hedges		Business combinations		2018 adjusted data
		Remeasurement of revenue ⁽¹⁾	Deferred hedging gain (loss) ⁽²⁾	Amortization of intangible assets from Sagem-Snecma merger ⁽³⁾	PPA impacts – other business combinations ⁽⁴⁾	
Profit from operations	2,165	11	(2)	56	678	2,908
Net recurring charge to depreciation, amortization, impairment and provisions	1,114		2	(56)	(300)	760
Net non-recurring charge to depreciation, amortization, impairment and provisions	78			-	-	78
EBITDA	3,357	11	-	-	378	3,746

(1) Remeasurement of foreign-currency denominated revenue net of purchases (by currency) at the hedged rate (including premiums on unwound options) through the reclassification of changes in the fair value of instruments hedging cash flows recognized in profit or loss for the period. However, the use of the outstanding portfolio of currency derivatives held by Zodiac Aerospace at the acquisition date gave rise to the partial reclassification of changes in the fair value of currency hedges to financial income (loss) for a six-month transition period.

(2) Changes in the fair value of instruments hedging future cash flows that will be recognized in profit or loss in future periods (a positive €232 million excluding tax), and the impact of taking into account hedges when measuring provisions for losses on completion (a negative €2 million) at December 31, 2018.

(3) Cancellation of amortization/impairment of intangible assets relating to the remeasurement of aircraft programs resulting from the application of IFRS 3 to the Sagem-Snecma merger.

(4) Cancellation of the impact of remeasuring assets at the time of the Zodiac Aerospace acquisition for a negative €601 million excluding deferred tax (see section 3.1, Note 4, "Scope of consolidation") and cancellation of amortization/impairment of assets identified during other business combinations.

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

2.1.2 Overview of the Group's performance in 2019

Adjusted income statement

(in € millions)	2018 Adjusted data ⁽¹⁾	2019 Adjusted data
REVENUE	21,050	24,640
Other income	321	297
INCOME FROM OPERATIONS	21,371	24,937
Change in inventories of finished goods and work-in-progress	343	453
Capitalized production	447	438
Raw materials and consumables used	(12,448)	(14,439)
Personnel costs	(5,671)	(6,349)
Taxes	(295)	(388)
Depreciation, amortization and increase in provisions, net of use	(822)	(1,194)
Asset impairment	62	55
Other recurring operating income and expenses	(191)	102
Share in profit from joint ventures	227	205
RECURRING OPERATING INCOME	3,023	3,820
Other non-recurring operating income and expenses	(115)	13
PROFIT FROM OPERATIONS	2,908	3,833
Cost of debt	(67)	(33)
Foreign exchange gain (loss)	(86)	(9)
Other financial income and expense	(58)	(47)
FINANCIAL INCOME (LOSS)	(211)	(89)
PROFIT BEFORE TAX	2,697	3,744
Income tax expense	(638)	(1,012)
PROFIT FOR THE PERIOD	2,059	2,732
Attributable to:		
■ owners of the parent	1,981	2,665
■ non-controlling interests	78	67
Earnings per share attributable to owners of the parent (in €)		
Basic earnings per share	4.60	6.20
Diluted earnings per share	4.54	6.13

(1) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see section 3.1, Note 3.a, "Application of IFRS 16").

Review of operations

Adjusted revenue

Revenue for 2019 amounted to €24,640 million. This represents an increase of 17.1%, or €3,590 million, compared to the year-ago period. Changes in scope had a net contribution of €929 million, of which €781 million from former Zodiac Aerospace activities (2 months) and €148 million related to the acquisition of ElectroMechanical Systems. The net impact of currency variations was €704 million, reflecting a positive translation effect on non-euro revenues, principally USD. The average EUR/USD spot rate was USD 1.12 to the euro in 2019 compared to USD 1.18 to the euro in the year-ago period. The Group's hedged rate was stable at USD 1.18 to the euro between 2019 and 2018.

On an organic basis, revenue increased by 9.3% as all divisions contributed positively:

- Propulsion growth of 10.8% was supported by OE volumes (civil and military) as well as services (civil aftermarket and military support activities);
- Aircraft Equipment, Defense and Aerosystems revenue increased by 7.4% thanks to nacelles (services and OE), avionics activities and landing systems support activities;
- Aircraft Interiors revenue (up 8.8%) was supported by OE sales for Seats and Passenger Solutions and by services from all activities.

(in € millions)	2018 ⁽¹⁾	2019	% change	% change scope	% change currency	% change organic
Aerospace Propulsion	10,579	12,045	+13.9%	-	+3.1%	+10.8%
Aircraft Equipment, Defense and Aerosystems	7,942	9,256	+16.5%	+5.6%	+3.5%	+7.4%
Aircraft Interiors	2,511	3,321	+32.3%	+19.3%	+4.2%	+8.8%
Holding company and other	18	18	N/A	-	-	N/A
TOTAL GROUP	21,050	24,640	+17.1%	+4.4%	+3.4%	+9.3%

(1) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see section 3.1, Note 3.a, "Application of IFRS 16").

Adjusted recurring operating income

Recurring operating income for 2019 reached €3,820 million, up 26.4% compared to 2018. This increase includes scope changes of €41 million as well as a positive currency impact of €13 million (conversion effect on foreign subsidiaries).

On an organic basis, recurring operating income increased by 24.6% thanks to all divisions:

- Propulsion growth of 21.9% mainly came from civil aftermarket and military activities;
- Aircraft Equipment, Defense and Aerosystems recurring operating income increased by 16.6% thanks to services activities and continuous improvement in industrial performance;

- the strong growth in Aircraft Interiors recurring operating income (up 140.7%) was supported by OE and services activities from Seats and Passenger Solutions, and a decrease in production costs in all businesses.

Group recurring operating income margin stood at 15.5% of revenue compared with 14.4% in the year-ago period.

Non-recurring items, which amounted to €13 million, mainly related to capital gains on the disposal of a building and a subsidiary (pruning of former Zodiac portfolio).

(in € millions)	2018 ⁽¹⁾	2019
Adjusted recurring operating income	3,023	3,820
% of revenue	14.4%	15.5%
Total one-off items	(115)	13
Capital gains and losses on disposals	-	12
Impairment reversal (charge)	(38)	(11)
Other infrequent and material non-operating items	(77)	12
ADJUSTED PROFIT FROM OPERATIONS	2,908	3,833
% of revenue	13.8%	15.6%

(1) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see section 3.1, Note 3.a, "Application of IFRS 16").

Adjusted financial income (loss)

The Group reported an adjusted financial loss of €89 million in 2019, compared with a loss of €211 million in 2018. The caption includes the cost of unwinding discounts on certain assets and liabilities, mainly provisions and repayable advances, and the impact of any changes in the discount rates used. The cumulative impact of these non-cash items was an expense of €39 million in 2019 versus an expense of €25 million in 2018. The financial loss in 2019 also includes a non-cash charge totaling €13 million arising on the translation of provisions denominated in US dollars (non-cash charge of €30 million in 2018).

Adjusted income tax expense

Adjusted income tax expense increased from €638 million in 2018 to €1,012 million in 2019, representing an effective tax rate of 27.0% (23.7% in 2018).

The increase in the effective tax rate is mainly attributable to the rise in taxable profit in France, which is taxed at a rate of 34.43%, and to the non-renewal of tax credits, which reduced the effective tax rate in 2018.

Adjusted profit attributable to owners of the parent

Adjusted profit attributable to owners of the parent was €2,665 million (basic EPS of €6.20 and diluted EPS of €6.13) compared with €1,981 million in 2018 (basic EPS of €4.60 and diluted EPS of €4.54). It includes:

- a net adjusted financial loss of €89 million, including cost of debt of €33 million;
- an adjusted tax expense of €1,012 million (27.0% apparent tax rate).

2 REVIEW OF OPERATIONS IN 2019 AND OUTLOOK FOR 2020

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

2.1.3 Adjusted key figures by business

Summary of adjusted key figures by business

	Aerospace Propulsion		Aircraft Equipment, Defense and Aerosystems		Aircraft Interiors		Holding company and other		Total	
(in € millions)	2018	2019	2018	2019	2018	2019	2018	2019	2018 ⁽¹⁾	2019
Revenue	10,579	12,045	7,942	9,256	2,511	3,321	18	18	21,050	24,640
Recurring operating income (loss)	2,030	2,485	992	1,209	81	188	(80)	(62)	3,023	3,820
Profit (loss) from operations	1,999	2,478	983	1,188	42	182	(116)	(15)	2,908	3,833
Free cash flow ⁽²⁾	1,418	1,125	406	706	(67)	(1)	24	153	1,781	1,983
Acquisitions of property, plant and equipment ⁽³⁾	420	376	286	292	41	60	33	(33)	780	695
Self-funded R&D	546	573	502	527	178	237	N/A	N/A	1,226	1,337
Headcount ⁽⁴⁾	26,217	26,741	44,534	44,231	19,662	22,118	2,226	2,353	92,639	95,443

(1) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see section 3.1, Note 3.a, "Application of IFRS 16").

(2) Free cash flow is equal to cash flow from operating activities less changes in working capital and acquisitions of property, plant and equipment and intangible assets.

(3) Net of proceeds from disposals.

(4) Headcount at December 31. Headcount for 2018 is broken down based on Safran's new segment reporting, following the reorganization of Safran's and Zodiac Aerospace's activities.

2.1.3.1 Aerospace Propulsion

Adjusted key figures

(in € millions)	2018	2019	Year-on-year change
Revenue	10,579	12,045	+14%
Recurring operating income	2,030	2,485	+22%
Profit from operations	1,999	2,478	+24%
Free cash flow	1,418	1,125	-21%
Acquisitions of property, plant and equipment	420	376	-10%
Research and development			
Self-funded R&D	(546)	(573)	+5%
% of revenue	5.2%	4.8%	-0.4 pts
Research tax credit	62	65	N/A
Self-funded R&D after research tax credit	(484)	(508)	+5%
Capitalized expenditure	103	96	-7%
Amortization and impairment of R&D expenditure	(106)	(111)	+5%
Impact on profit from operations	(487)	(523)	+7%
% of revenue	4.6%	4.3%	-0.3 pts
Headcount	26,217	26,741	+2%

Aerospace Propulsion activities operate in three main sectors:

Business line	% of business line revenue	
	2018	2019
Civil aviation	80%	77%
Military aviation	9%	13%
Helicopter turbine engines	11%	10%

Review of Aerospace Propulsion operations in 2019

In 2019, revenue was €12,045 million, up 13.9% compared to €10,579 million in 2018. On an organic basis, revenue grew 10.8%, notably thanks to the contribution of the civil aftermarket (9.9% in USD terms) and military engines OE (M88) and services. Helicopter turbines support activities also contributed to the growth.

OE revenue grew 13.5% (10.1% organically), despite the impact of the 737 MAX grounding on LEAP-1B engine deliveries; total narrowbody engine deliveries (CFM56 and LEAP) reached 2,127 units, a decrease of 35 compared with 2018. M88 engine deliveries amounted to 62 units in 2019 compared with 23 in 2018. Helicopter turbines OE deliveries decreased compared to 2018.

Services revenue increased by 14.2% (in euros, 11.4% organically) and represented 56.9% of sales. Civil aftermarket revenue grew 9.9% (in USD) thanks to continuous higher spare parts sales for the latest generation of CFM56 engines and widebody platforms and a higher contribution of service agreements. Military services as well as helicopter turbines maintenance activities contributed positively during the year.

Recurring operating income was €2,485 million, an increase of 22.4% compared with €2,030 million in 2018. Recurring operating margin grew from 19.2% to 20.6%.

Profitability benefited from civil aftermarket growth and the higher contribution of military activities.

The CFM56-LEAP transition was a headwind of €98 million to Propulsion adjusted recurring operating income growth in 2019 compared with 2018, at the high end of the guidance range (€50 to €100 million).

Commercial and industrial developments

Civil aviation

Low-thrust engines for civil aircraft (regional and business jets)

Silvercrest (9,000–12,000 pounds of thrust)

The Silvercrest engine had been selected by Cessna (Textron group) in 2016 for its future large-cabin Citation Hemisphere business jet. In 2019, Textron decided to suspend its Hemisphere program. The initial contract between Cessna and Safran was therefore terminated, with no financial impact for either party.

Safran has resolved to continue developing Silvercrest. This new-generation engine will incorporate leading-edge technology to offer unrivaled performance, in terms of fuel consumption, reliability and respect for the environment. Safran will keep Textron updated on the progress of the Silvercrest program, thereby providing it with an opportunity to reassess the situation.

SaM146 (13,500–17,800 pounds of thrust)

The SaM146 engine, developed in partnership with Russian engine manufacturer UEC Saturn, powers the Superjet 100 produced by Sukhoi (United Aircraft Corporation).

PowerJet is a joint venture set up by Safran Aircraft Engines and UEC Saturn to manage the engine program in terms of development, production, marketing and sales, and to provide customer support and maintenance, repair and overhaul (MRO) services.

In early September, PowerJet⁽¹⁾ delivered the 400th SaM146 propulsion system to Sukhoi Civil Aircraft (SCAC) to be fitted to an aircraft intended for Aeroflot. After having developed the maintenance capacities for the engine in both Russia and France over the past two years, Powerjet also delivered the 100th SaM146 engine from a shop visit.

In all, 23 SaM146 propulsion systems were delivered in 2019 (versus 54 in 2018), and at the end of the year, SaM146 engines powering in-service Superjet 100 aircraft had clocked up almost 1,400,000 flight hours.

Passport (13,000–18,000 pounds of thrust)

Through Safran Aero Boosters, Safran has a 7.4% share in Passport, the new GE engine program designed for the long-range (7,400 nautical miles, or 13,700 km) Bombardier Global 7500 business jet, which entered into service at the end of 2018.

During the year, 72 subassemblies were delivered for Passport engines.

Mid-thrust engines for civil aircraft (short- to medium-haul aircraft)

CFM56 – LEAP

LEAP-1A is competing with Pratt & Whitney's PurePower PW1100G for the A320neo program. The LEAP-1B model was chosen as the sole engine for the Boeing 737 MAX. The LEAP-1C model is the sole Western source for the propulsion system (engine plus nacelle) on COMAC's C919 aircraft.

Throughout 2019, Safran continued to develop its production capacity with a view both to achieving a seamless transition from CFM56 to LEAP and meeting a ramp-up in production amid the grounding of the Boeing 737 MAX.

A total of 2,127 CFM56 and LEAP engines were delivered to airframers in 2019 (compared to 2,162 CFM56 and LEAP engines delivered in 2018):

- CFM International has recorded over 33,500 deliveries of CFM56 engines since the start of the program, including 391 during the year (1,044 CFM56 deliveries in 2018). CFM56 engines currently in service at 615 customers and operators had topped one billion flight hours at the end of 2019. The CFM56 has entered aerospace history as the first range of high-bypass turbofan engines to achieve more than one billion flight hours;
- the ramp-up of production for LEAP engines continued in 2019, with 1,736 engines delivered during the year in coordination with airframers (1,118 LEAP engines delivered in 2018):
 - LEAP-1A: at the beginning of 2020, 55 airlines were operating 632 aircraft powered by LEAP-1A engines, totaling over 5.5 million flight hours,
 - LEAP-1B: before the grounding of the Boeing 737 MAX, 54 airlines were operating 387 aircraft powered by LEAP-1B engines, totaling over 1.7 million flight hours,
 - LEAP-1C: the 6th COMAC C919 test aircraft made its first flight on December 27, 2019.

(1) 50-50 joint venture between Safran Aircraft Engines and UEC Saturn, in which Safran is responsible for developing the high-pressure core and the control system. The Group is also responsible for propulsion system integration.

2 REVIEW OF OPERATIONS IN 2019 AND OUTLOOK FOR 2020 ■

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

The LEAP engine continued to enjoy commercial success, with 1,968 firm orders and purchase commitments received in 2019. At December 31, 2019, there was an order and commitment backlog of 15,614 LEAP engines to be delivered for the three

A320neo, Boeing 737 MAX and C919 programs. This success confirms CFM International as leader in the market for 100+ seater aircraft.

	2018	2019	Year-on-year change
LEAP engines			
Engines delivered	1,118	1,736	+55%
Backlog	15,620	15,614	N/A
Orders received	3,211	1,968	-39%
Orders canceled	201	238	+18%

Spare part activities and service agreements

In 2019, Safran saw a rise in business related to service agreements for mid-thrust engines, mainly for the latest generation of CFM56 engines. These service agreements are a long-term source of revenue for Safran.

New service agreements for LEAP engines were also signed in 2019 with airline companies IndiGo, Southwest Airlines, Qatar Airways, and Viva Air Columbia. These agreements offer LEAP engine customers a wide range of bespoke aftersales services adapted to their particular business model and to fleet size and/or condition.

High-thrust engines for civil aircraft (long-haul aircraft)

An increased number of high-thrust engines – for which Safran as program partner is also responsible for subassemblies – were delivered in 2019, at 489 engines compared to 435 in 2018.

GE90

Safran has an interest of 23.7% in this GE program that currently enjoys a sole-source position on the Boeing 777, for which it delivered 103 compressor modules in 2019 (96 in 2018). These volumes will gradually decline in line with the announced decrease in production of the Boeing 777 as from 2017, ahead of the aircraft's expected gradual replacement by the Boeing 777X as from 2021.

GE9X

Testing in view of certification for the GE9X continued throughout the year. GE9X certification is now expected in 2020, after several modifications had to be made to the engine during the tests. Since 2014, Safran has participated in the development of GE's high-thrust GE9X engine that was chosen by Boeing as the exclusive powerplant on its new 777X long-haul aircraft.

Safran has a stake of 11.2% in this program through Safran Aircraft Engines and Safran Aero Boosters.

Safran Aircraft Engines is responsible for the design and production of several critical parts of the engine:

- composite fan blades as manufactured by CFAN, its joint venture with GE based in San Marcos, Texas (United States);
- fan casings using 3D woven composite parts, produced through its partnership with Albany International; and
- the exhaust casing, which is manufactured at Safran Aircraft Engines' plants in France, particularly FAMAT, a joint venture with GE based in Saint-Nazaire.

The low-pressure compressor and the fan disk are made by Safran Aero Boosters.

GP7200

Safran has a 17.5% interest in this engine, the last of which was delivered in 2018. Safran provided support (maintenance and repairs) and aftersales services to the engine throughout the year. In 2019, several airline companies operating the A380 announced the potential retirement of several of their in-service A380 aircraft. Ultimately, this could lead to a reduction in support and service activities under this program.

GENx

Safran is a partner on the two GENx engine programs, with a 7.7% interest in the GENx-1B version powering the long-haul Boeing 747-8 and a 7.3% interest in the GENx-2B version powering the Boeing 787 Dreamliner. Safran delivered 305 modules in 2019, 55 more than in 2018.

CF6 family – LM6000

A total of 81 engines for the CF6 engine family (powering certain A330 and Boeing 767 aircraft) and LM6000 industrial gas turbines were delivered in 2019, compared to 88 in 2018. Safran is in charge of the subassemblies for these engines and turbines, and is responsible for assembling the CF6-80E engines. Safran's interest ranges from 10% to 19.4% in the CF6 engine program, and from 8.6% to 12% in the LM6000 gas turbine program.

Service agreements

In its role as partner, Safran benefits from service agreements negotiated and signed by GE and Engine Alliance with the relevant operators for the high-thrust GE90 and GP7200 engines, respectively. Several new agreements for these engines were signed, extended or renewed during the year, notably by Emirates, Qatar Airlines, Ethiopian Airways, British Airways and Etihad Airways. Safran provides maintenance and repair services for the GE90's high- and low-pressure compressors, as well as the bulk of maintenance services for the GP7200's high-pressure compressor. The Group leverages its expertise, industrial capabilities and global network to offer operators continuous support and a comprehensive range of services.

Industrial operations

During the year, Safran announced that it was to build a new 13,000-sq.m. plant in Hyderabad (Telangana State) in India to make parts for the LEAP engine. The plant will be gradually ramped up, reaching its full production rate in 2023 when it will be delivering over 15,000 parts each year to support the LEAP's sustained production rate. The plant will ultimately employ some 300 people, all of whom will follow a comprehensive training program. The plant will also be based on Safran's highest standards for industrial processes and machinery, including real-time monitoring of production parameters and the latest integrated production inspection methods.

Military aviation

M88

A total of 62 engines were delivered for the Rafale fighter jet in 2019 (23 engines in 2018). The 500th M88 engine was manufactured during the year and the global in-service fleet has clocked up over 753,000 operating hours.

Throughout the year, Safran continued its preliminary work authorized by the French Ministry of Armed Forces in 2017 for the future Rafale F4 standard. Technological advances proposed by Safran and selected by the French government essentially include a new M88 control unit with enhanced processing capacity and improved maintenance features (surveillance, recording, trouble-shooting and predictive maintenance). The preliminary system design review was completed successfully in 2019.

TP400

A total of 57 units were delivered in 2019 compared with 82 in 2018. At the end of the year, orders and purchase commitments covered 292 engines for the A400M aircraft from Airbus Defence & Space.

Adour

A total of 8 Adour engines were delivered in 2019 for the BAE Systems Hawk trainer aircraft. The order backlog stood at three engines at the end of 2019.

Atar and Larzac

These engine programs were boosted by the selection of the Mirage F1 fighter jet as an adversary plane⁽¹⁾ for US Air Force pilots in 2017, and by the selection of the Alphajet as an adversary plane for Canadian Air Force pilots in 2018. This fast-growing market will give renewed impetus to sales of spare parts for these engines.

Engine option for the New Generation Fighter (NGF) jet

The Future Combat Air System (FCAS) is a joint European program to develop a new-generation combat air system, combining a New Generation Fighter (NGF) aircraft by 2040 with a wide array of interconnected and interoperable elements such as drones, and based largely on artificial intelligence.

In late 2019, Safran Aircraft Engines and MTU Aero Engines settled the details concerning their partnership to develop the engine that will power the European NGF. This industrial agreement relies on the principles of the letter of intent (LOI) signed by the two companies in February 2019, which specifies that Safran will take the lead in engine design and integration, and MTU Aero Engines will take the lead in engine services.

In the framework of the contractual scheme defined by France and Germany, Safran Aircraft Engines will be the prime contractor and MTU Aero Engines the main partner for the first phase of Research and Technology (Phase 1A). The two partners also

agreed on the foundation of a 50-50 joint venture that will be incorporated by the end of 2021 to manage the development, production and aftersales support of the new engine.

Helicopter turbines and auxiliary power units

Safran Helicopter Engines delivered 696 helicopter engines in 2019 compared to 773 in 2018.

During the year, Safran Helicopter Engines obtained a large number of certifications.

Light helicopters

Development continued apace during the year on this engine option segment.

The Arriel 2H engine, selected to power the AC312E helicopter developed by Avic Harbin Aircraft Industry Group (a subsidiary of the AVIC⁽²⁾ group), obtained a validation-of-type certification (VTC) from the CAAC⁽³⁾ during the year. Based on the EASA⁽⁴⁾ type certification obtained in 2018, the VTC confirms that the engine conforms with Chinese airworthiness standards. On December 31, 2019, the CAAC certified the AC312E helicopter powered by its two Arriel 2H engines.

The Light Civil Helicopter (LCH) prototype developed by Korean Aerospace Industries (KAI) completed its maiden flight in 2018 powered by two Arriel 2L2 engines. The Arriel 2L2 engine was developed in partnership with Hanwha Aerospace, which will manufacture the engine under license in its Changwon plant in South Korea and will be responsible for all MRO. The engine should be certified in 2020 and is expected to come into service in 2022. The prototype of the military version of this helicopter (Light Armed Helicopter, or LAH) left the plant in 2018 and completed its maiden flight in 2019.

The Arrano 1A engine, the upcoming sole source on Airbus Helicopters' future twin-engine H160 helicopter along with its military version, the H160M Guépard, received EASA certification during the year and the first series-produced engines were delivered.

Medium-weight helicopters

Ardiden 1U received EASA certification during the year. This engine was selected in 2014 by the Indian helicopter manufacturer Hindustan Aeronautics Ltd (HAL) as the power source on its Light Utility Helicopter (LUH).

The WZ16 engine received CAAC type certification in 2019. This engine had already been certified by EASA in Europe in April 2018 as Ardiden 3C. The engine, developed jointly by Safran and AECC⁽⁵⁾, is the result of unprecedented close cooperation in the aircraft industry between France and China. The program will allow the Group to benefit from opportunities offered by the growing Chinese helicopter market over the next decade. A joint venture between Safran and AECC was also incorporated during the year with a view to marketing the WZ16 engine. This engine will power the new French-Chinese AC352 helicopter, itself a product of a joint project between Airbus Helicopters and Chinese airframer HAIG, an AVIC subsidiary.

(1) Plane acting as an opposing force in military wargames.

(2) Aviation Industry Corporation of China.

(3) Civil Aviation Administration of China.

(4) European Aviation Safety Agency.

(5) Aero Engine Corporation of China.

Heavy-lift helicopters

The Aneto-1K engine, selected by Leonardo in 2017 to power its future twin-engine AW189K helicopter, obtained EASA certification in 2019. Safran continued its tests on this engine in a AW189K helicopter throughout the year, including "hot and high" tests during the summer in Colorado (United States). The engine was considered to have delivered an excellent performance. The AW189K helicopter is expected to obtain certification and enter into service in 2020.

New mobility concepts (VTOL), hybrid propulsion system

At the 2019 Paris Air Show, Safran announced its collaborative partnership with Airbus and Daher to design and develop a wing-mounted distributed hybrid-propulsion demonstrator, EcoPulse™. Kickstarted by the French Civil Aviation Research Council (CORAC) with support from the French Civil Aviation Authority (DGAC), the project aims to develop technologies that will improve the environmental efficiency of aircraft and meet the future needs of the air travel industry. The demonstrator, which will be based on Daher's TBM single-engine light aircraft, will feature Safran's distributed hybrid propulsion system, providing thrust for the six counter-rotating thrusters mounted along the wings of the aircraft. Each thruster will feature a 45 kW Safran ENGINEUS 45 electric engine and propeller. The first flight on the demonstrator is slated for 2022.

During the year, Safran Helicopter Engines also supplied a 100 kW turbogenerator to Boeing Aurora for its VTOL demonstration dedicated to urban air mobility.

Drone engines

In late September, as part of the current tender for an engine to power the future European MALE RPAS⁽¹⁾ drone ("Eurodrone"), Safran announced that it had signed a cooperation agreement with Germany's ZF Luftfahrttechnik (ZFL) and MT-Propeller. Under the agreement, MT-Propeller will be responsible for the propeller and ZF Luftfahrttechnik (ZFL) for the PAGB (propeller and accessory gearbox).

This 100% European turboprop engine will derive from the Ardiden 3 and will use technologies developed within the scope of the Clean Sky 2⁽²⁾ program.

Helicopter turbine engine services

Based on a secure web portal and a global network of technical and sales representatives, EngineLife® provides operators of Safran's helicopter engines with assistance throughout the life of their engine. At the end of the year, around 6,000 engines were covered by service agreements for 550 civil and military customers.

Auxiliary power units

Safran manufactures the leading-edge SPU150[DA] and SPU300[BA] auxiliary power units (APUs). The SPU150[DA] currently under development is especially designed for midsize to super midsize business aircraft, and will power Dassault Aviation's future Falcon 6X business jet. The SPU300[BA], which entered into service at the end of 2018, is designed for long-range business jets and is fitted on Bombardier's Global 7500.

Services for auxiliary power units

During the year, Safran continued to roll out PowerCare®, a maintenance service for business jet auxiliary power units. Bombardier's Global 7500 business jet is the first aircraft to benefit from PowerCare® services.

Mechanical power transmission systems

In 2019, Safran continued to expand its specialist gears, casings and engine component production activities in Sędziszów (Poland).

The Global Express 6500 business jet entered into service in the last quarter of the year. This jet has two Rolls-Royce Pearl 15 engines fitted with power transmission systems developed, manufactured and marketed by Aero Gearbox International (AGI)⁽³⁾. Like the Trent 7000 transmission system powering Airbus' A330neo, this new system was partly manufactured in Poland in AGI's Ropczyce plant. This program will continue to be ramped up, in line with the airframer's schedule.

Work continued satisfactorily during the year on the development and industrialization of the main power transmission gearbox for the Rolls-Royce Pearl 700 engine that will be fitted onto the future Gulfstream G700 business jet. The first prototypes for the main transmission gearbox are expected to be manufactured at AGI's Ropczyce plant in Poland in 2020.

Space vehicle propulsion systems

In 2019, Safran delivered to Boeing the first PPS*5000⁽⁴⁾ plasma thrusters to be mounted on the company's new-generation all-electric satellite platforms. The power processing unit (PPU) for these thrusters are slated for delivery in 2020. This first Boeing satellite fitted with PPS*5000 Hall-effect thrusters should be placed in orbit in 2021.

Reinforcing its position as baseline supplier to the world's leading manufacturers of commercial satellites, Safran's PPS*5000 plasma thrusters were chosen by Boeing in a second order for a new satellite program.

In 2019, Airbus Defense & Space and Thales Alenia Space were also delivered Safran PPS*5000 Hall-effect thrusters, to be respectively mounted onto a commercial satellite and the French military SYRACUSE 4A satellite. These two satellites should be transferred into orbit in 2021.

Launch vehicles

Owned equally by Safran and Airbus, ArianeGroup brings together each company's activities and expertise in commercial and military launchers under a single entity. Through its subsidiary Arianespace, ArianeGroup offers a comprehensive range of launch services with its Ariane, Vega and Soyuz launchers.

(1) Medium Altitude Long Endurance Remotely Piloted Aircraft System.

(2) The Clean Sky 2 Joint Undertaking is a public-private partnership between the European Commission and the European aeronautics industry designed to develop the technologies needed to create a clean, innovative and competitive aviation system.

(3) 50-50 joint venture between Safran and Rolls-Royce specializing in design, development, production and after-sales for power transmission systems.

(4) The underlying electric thruster system ordered by Boeing is the first time three PPS*5000 plasma thrusters functioning simultaneously at 5 kW have been used for orbital transfer of a satellite.

Ariane, Vega and Soyuz launchers

ArianeGroup is prime contractor for Ariane European space launchers and also contributes to the Vega launcher⁽¹⁾.

Its Arianespace subsidiary takes charge of the marketing and operation of three launch vehicles (Ariane, Vega and Soyuz⁽²⁾⁽³⁾) from the Guiana Space Center in French Guiana. Arianespace signed over half⁽³⁾⁽⁴⁾ of all commercial launcher contracts open on the global market in 2019, giving the company almost €4 billion worth of orders at the end of the year, covering 54 launches: 19 Ariane 5 and Ariane 6 launches, 25 Soyuz launches and 10 Vega/Vega C launches.

Arianespace completed nine successful launches and orbited 24 satellites from the Guiana Space Center in Kourou, French Guiana in 2019:

- the European heavy-lift Ariane 5 launcher completed four successful launches during the year. The launcher's exceptional reliability was celebrated during the year during the 40th anniversary of the first Arianespace mission with the Ariane 1 rocket. Since 1980, Arianespace has completed 250 flights, launching 616 satellites for over 100 institutional and commercial customers from across the globe. It has made a major contribution to space exploration, the protection of our planet and the improvement of life on Earth;
- a Vega rocket successfully completed lift-off on behalf of ASI⁽⁴⁾. Following the failure of Vega's second flight, the launcher is expected to return to flight in 2020;
- Soyuz also performed three successful launches for commercial (OneWeb, SES⁽⁵⁾) and the innovative start-ups HEMERIA and Tyvak) and institutional (the Italian Ministry of Defense, ASI, ESA and CNES⁽⁶⁾) customers.

At the 2019 Paris Air Show, Arianespace and ESA signed a launch service contract with Ariane 5 or Ariane 64 (with four boosters) for JUICE (JUperiter ICy Moons Explorer). JUICE is the first large-class mission in ESA's Cosmic Vision 2015-2025 program. Planned for 2022, the aim of the mission is to send a six-ton payload to Jupiter to make in-depth studies of three of its moons: Ganymède, Europa and Callisto.

Work continued during the year on the development program for the future Ariane 6 launcher, which ArianeGroup has said will make its maiden flight in 2020. In July, the P120C solid-fuel rocket motor completed its second successful qualification test. Jointly developed by ArianeGroup and Avio (Italy), the P120C is the largest monolithic carbon-fiber solid rocket motor in

the world. It will equip both Ariane 6 (in both its two-booster Ariane 62 and four-booster Ariane 64 versions) and the first stage of Vega C.

The Vulcain 2.1 and Vinci liquid propulsion engines, which will power the main and upper stages of the future Ariane 6 launcher, successfully completed the qualification tests, in September 2019 and end-2018, respectively.

Member States of the European Space Agency (ESA) placed an order with the ArianeGroup for the first 14 Ariane 6 launchers and finalized the roadmap for the replacement of the current launchers by Ariane 6 and Vega C. Preparation for the phased transition to Ariane 6, its continued improvement and the development of critical technological components (Prometheus engine and THEMIS stage-recovery demonstrator) for future Ariane versions were announced at the ministerial meeting in Seville in late November 2019.

Military industry

Regarding the naval component of France's nuclear deterrent, the development of the new M51.3 strategic missile continues in line with the development schedule.

ArianeGroup's work continued apace during the year after its selection by the French Directorate General of Weapons Procurement (DGA) for the development of a hypersonic glider demonstrator. The project, dubbed V-max (*Véhicule Manœuvrant expérimental*, or experimental maneuvering vehicle), should see its first flight in 2021.

Through GEOTracker, its worldwide network of optical stations, ArianeGroup continues to be a key player in space surveillance, notably for the French Joint Space Command. In response to the growing number of space objects (satellites and debris) and efforts by several countries to militarize space, ArianeGroup's GEOTracker can provide its customers with permanent coverage of the entire geostationary arc.

Industrial operations

ArianeGroup inaugurated its new integration facility for the Ariane 6 upper stages towards the end of 2019. This 21 meter-high, 6,000-sq.m. building is located in Bremen (Germany). All manufacturing and integration processes for the Ariane 6 upper stages completed in this facility will be based on cutting-edge technologies in order to optimize costs, shorten leadtimes and protect the environment.

(1) Vettore Europeo di Generazione Avanzata, or the Advanced Generation European Vector, is a lightweight launcher designed to carry small payloads (1.5 metric tons) into low orbit.

(2) Since 1996, Arianespace has marketed the Russian Soyuz launcher through its subsidiary Starsem on the international market. Following the agreement between the ESA and the Russian space agency Roscosmos, Arianespace has also been responsible for the launch of Soyuz rockets from the Kourou Space Center (French Guiana) since 2011.

(3) Source: Arianespace.

(4) Agenzia Spaziale Italiana (Italian Space Agency).

(5) Société européenne des satellites (European Satellite Company).

(6) Centre national d'études spatiales (French national agency for space research).

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

2.1.3.2 Aircraft Equipment, Defense and Aerosystems

Adjusted key figures

(in € millions)	2018	2019	Year-on-year change
Revenue	7,942	9,256	+17%
Recurring operating income	992	1,209	+22%
Profit from operations	983	1,188	+21%
Free cash flow	406	706	+74%
Acquisitions of property, plant and equipment	286	292	+2%
Research and development			
Self-funded R&D	(502)	(527)	+5%
% of revenue	6.3%	5.7%	-0.6 pts
Research tax credit	86	95	+10%
Self-funded R&D after research tax credit	(416)	(432)	+4%
Capitalized expenditure	172	161	-6%
Amortization and impairment of R&D expenditure	(99)	(140)	+41%
Impact on profit from operations	(343)	(411)	+20%
% of revenue	4.3%	4.4%	-0.1 pts
Headcount	44,534	44,231	-1%

Review of Aircraft Equipment operations in 2019

In 2019, revenue was €9,256 million, up 16.5% compared with €7,942 million in 2018. On an organic basis, revenue was up 7.4%, notably due to nacelles sales and to landing systems support activities.

OE revenue grew 16.7% (or 6.8% organically) in 2019, mainly driven by increased volumes of A320neo and A330neo nacelles and by wiring and avionics. Deliveries of nacelles for LEAP-1A powered A320neo intensified and reached 602 units in 2019 (438 units in 2018). The ramp-up of A330neo nacelles continued, with 92 nacelles delivered in 2019 compared to 18 units in 2018. OE revenue was sustained by the ramp-up of wiring for the Boeing 787 program. OE sales were also supported by avionics (FADEC for LEAP, flight control and onboard information systems) and Defense (sighting systems) activities.

Lower A380 nacelles volumes as well as A320ceo thrust reversers negatively impacted OE sales.

Services revenue grew 16.3% (or 8.7% organically) in 2019, driven by continuing momentum in carbon brakes, landing gear and nacelles support activities (mainly for the A320neo). Safran Aerosystems activities (safety and fluid systems) also contributed to full-year growth.

Recurring operating income was €1,209 million, an increase of 21.9% compared to €992 million in 2018. Recurring operating margin increased from 12.5% to 13.1%, driven by higher volumes in nacelles and landing systems activities (notably in services) and by the benefits of cost reduction and productivity measures. Growth was partially offset by a higher R&D impact on income and a dilutive scope impact.

Commercial and industrial developments

Landing and aircraft systems

Landing gear

In all, 1,370 landing gear units were delivered by Safran in 2019 (compared to 1,378 units in 2018).

The year 2019 saw Safran and Airbus join forces to develop and supply modified landing gear units for the future A321neo XLR⁽¹⁾ aircraft.

Landing system maintenance and repair contracts were also signed by Safran during the year, particularly for the A320 fleets operated by easyJet and JetBlue, and for Qantas' A320 and A330 fleets.

Wheels and brakes

New contracts were signed in 2019 to fit over 850 aircraft with Safran carbon brakes.

At the end of the year, with almost 10,300 aircraft equipped with Safran carbon brakes, the Group has a share of over 50% of the market⁽²⁾ for 100+ seater civil aircraft. The Group is the leader⁽³⁾ on this market, particularly for the Airbus A320 (ceo and neo) and A350, as well as the Boeing 737 NG carrying carbon brakes and the Boeing 787.

Electric taxiing

At the end of 2019, Airbus decided not to pursue the electric taxiing program which it had launched with Safran in 2018. Consequently, the program's development has been suspended.

Electric taxiing enables aircraft to taxi at airports without having to use their main engines or call upon airport towing services. Safran continues to firmly believe in the relevance of this eco-friendly solution, which offers increased operational efficiency (approximately 4% lower fuel costs), greater on-ground autonomy for aircraft (more on-time departures) and environmental benefits (reduced greenhouse gas emissions and noise pollution).

(1) eXtra Long Range.

(2) Source: Safran.

(3) Classification criteria: market share – Source: Safran.

An electric taxiing feature will continue to be a major step in aircraft electrification and would reduce the environmental footprint of aircraft. Safran will continue its R&T work with a view to developing new solutions to be directly integrated onto the next generation of short- and medium-haul aircraft.

Landing and braking control systems

Safran is a preferred partner of airframers for the development and supply of full systems for ATA 32⁽¹⁾ landing and braking functions. During the year, Safran teamed up with US-based Aerion to study landing gear and associated systems (braking, steering and lifting) for Aerion's future supersonic AS2 business jet.

At the 2019 Paris Air Show, Safran and Michelin announced the successful flight tests of the first connected aircraft tire. Known as PresSense, this tire has an electronic sensor that measures tire pressure and transmits this data wirelessly. This innovative tire will significantly facilitate on-the-ground maintenance operations for airlines.

During the year, Safran also continued initiatives looking to offer its customers services that draw on the analysis of data from equipment and control systems so that it can offer preventive maintenance and therefore increase operational fleet availability.

Industrial operations

In July, Safran announced that it was to build a new carbon brake manufacturing facility in Feyzin, on the southern outskirts of Lyon (France). This new plant will expand the Group's carbon brake production capacity, and will be able to produce up to 600 metric tons of carbon each year. The plant will use cutting-edge robotic and digital technologies to automate production and slash energy and water consumption.

In September, Safran laid the cornerstone of ExceLAB, its new test laboratory in Vélizy, south of Paris, that will develop landing and braking systems for tomorrow's aircraft. The new lab spans approximately 2,000 sq.m. and will house Safran's test capabilities for future landing and braking equipment, from R&T prototypes to finished products, which will be subjected to a wide range of simulated operating conditions. ExceLAB reflects the Group's strategy to support the gradual electrification of aircraft functions, and is fully outfitted to carry out all required hydraulic and electrical tests.

Also in September, the Civil Aviation Administration of China (CAAC) granted certification for the Xiesa site (Xi'an CEA Safran Landing Systems Services Co Ltd), a 50-50 joint venture between Safran Landing Systems and China Eastern Airlines based in Xi'an (China). The 12,300-sq.m. site, which includes 9,000 sq.m. of workshops, is the Group's eighth landing gear maintenance and repair facility. This certification marks the start of operations at the site, which will focus on the maintenance and repair of landing gear for the Boeing 737 and A320 families for the Chinese and Asian markets. China Eastern Airlines will be the first customer. This new joint venture marks the continuation of Safran's strategy of basing itself close to its customers.

Engine systems and equipment

Nacelles and thrust reversers

Safran continued to develop its industrial capacities to meet the ramp-up of the LEAP-1A engine and offer the support and services needed by airline companies. In 2019, Safran supplied 602 nacelles for the A320neo, 164 more than in 2018.

A number of other decisive advances were made in 2019:

- a ceremony was organized during the Paris Air Show in 2019 to celebrate the delivery of the 1,000th nacelle for the A320neo fitted with LEAP-1A engines;
- the 100th nacelle was delivered to Airbus for an A330neo;
- flight tests continued during the year for the six prototypes of COMAC's future short- and medium-haul C919 aircraft fitted with integrated propulsion systems (nacelle and LEAP-1C engine);
- Safran was selected to provide the complete nacelle for Gulfstream Aerospace's G700 aircraft (powered by the Pearl 700 turbofan), which was unveiled at the 2019 NBAA Business Aviation Convention & Exhibition in Las Vegas.

The Group's efforts in terms of nacelles and thrust reversers were recognized by Airbus during the year. Safran collected the airframer's award for the best aftersales support in 2019 in the OEM⁽²⁾ supplier category, in recognition of its services to airline companies during in-service operations (Airbus narrowbody aircraft and widebody jetliners).

In response to the last A380 deliveries as from 2021, Safran continued to scale back its industrial operations associated with aircraft nacelles. As some 250 aircraft (representing around 1,000 nacelles) will remain in operation, Safran will continue to offer maintenance and repair services to aircraft operators.

An agreement was signed during the year with US-based Aerion to study nacelles (engine inlets, fan cowl doors and thrust reversers) for Aerion's future supersonic AS2 business jet.

Nacelle services

In 2019, Safran signed 11 NacelleLife contracts, including with All Nippon Airways for its A380 fleet, Azul for its A330neo fleet, and Pegasus for its A320neo fleet. A first maintenance agreement was also signed for the nacelle on the Passport propulsion system (engine and nacelle) of Bombardier's G7500 business jet.

Electrical systems and engineering

Power generation and distribution systems

The Group clocked up a number of commercial achievements during the year:

- Safran APS⁽³⁾ intended for use on the future Boeing T-X military training aircraft was selected by Swedish defense company Saab;
- a contract was signed with Xi'an Aircraft Industrial Corporation (XCAC), a subsidiary of AVIC⁽⁴⁾, on the main and auxiliary electrical generation systems of the Xian MA700, the future regional turboprop aircraft;
- Safran's Electrical Master Box was selected by Airbus Helicopters to fit out the new version of its H145. Functioning as the "electrical core", the Electrical Master Box will distribute power to the helicopter, i.e., by managing the availability of power based on the priority (criticality) of each item of equipment for the various phases in-flight and on-the-ground.

Safran also hit significant milestones in its aircraft programs under development, including (i) the certification and entry-into-service of the electrical distribution system for the Bombardier Global 7500 business jet, (ii) certification of electrical control units adapted to Rafale fighter jets operated by the Indian Armed Forces, and (iii) delivery of the first series of electrical distribution equipment for Dassault Aviation's Falcon 6X.

(1) The Air Transport Association of America (ATA) categorizes aircraft systems into chapters.

(2) Original Equipment Manufacturer.

(3) Auxiliary Power System: system used to provide electrical and hydraulic power to aircraft during start-up on the ground and during any in-flight emergency. It is a complete system that provides levels of redundancy to power the electrical and hydraulic systems.

(4) Aviation Industry Corporation of China.

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

The Group's efforts in terms of electrical power generation and distribution systems were also distinguished during the year: for the second year running, Safran collected the Customer Support Award from Airbus. This award recognizes Safran's excellent customer support in its aftersales services for electrical power generation systems.

At the 2019 Paris Air Show, Safran unveiled its full range of electrical systems designed for hybrid electric and all-electric aircraft (GENeUS™ smart generators, GENeUSPACK™ smart batteries, GENeUSGRID™ power management systems, and ENGINEUS™ smart motors).

Electrical wiring interconnection systems (EWIS)

The Group clocked up a number of commercial wins during the year:

- the contract as sole supplier of electrical wiring for the Boeing 787 family was extended for a number of years;
- Safran's electrical wiring was selected by Boeing to fit out the new 777X (-8/-9) and by Airbus for its new twin-turbine H160 light helicopter. The latter success reinforces Safran's participation in this helicopter program, for which it already supplies the cockpit avionics bay and rear avionics bay;
- the contract to supply electrical wiring for Leonardo's AW119 and AW139 helicopters was renewed for a further three years;
- Dassault Aviation awarded Safran the contract for the mid-life upgrade of the electrical interconnection wiring systems of the Dassault Mirage 2000 military aircraft;
- Safran's electrical wiring was selected to fit out the American military aircraft Lockheed Martin F-16 and Northrop Grumman E2D Advanced Hawkeye, and Boeing's military helicopter, the MH-47 Chinook;
- Safran's wiring harness was chosen for the main landing gear unit of the A330neo aircraft.

Safran's electrical wiring interconnection systems benefited from the ramp-up of recently launched programs during the year (Boeing 787, A320neo, A220 and A350). The Group also continued its partnership with Cailabs to develop high-speed fiber optic networks capable of handling a large amount of data.

The Group's efforts in terms of electrical wiring interconnection systems were recognized during the year by US-based Sikorsky, which gave Safran "Elite Supplier" status for its operational performance, and by Airbus Defence and Space, which awarded the Group "Best Supplier" in recognition of Safran's best-in-class product quality and on-time delivery.

Engineering

In 2019, Safran renewed its engineering support contract with Airbus for a further three years covering electrical and mechanical design activities for the entire Airbus fleet.

During the year, Safran also saw an increase in electrical installation and design activities relating to rotating parts under Airbus Helicopters programs.

Industrial operations

Throughout the year, the Group continued to combine and streamline activities associated with Zodiac Aerospace electrical systems within Safran Electrical & Power. The aim is to create a coherent and competitive industrial division.

In 2019, Safran completed construction of a plant manufacturing electrical wiring interconnection systems based in Hyderabad, India. This 4,000-sq.m. plant will serve both the local market as well as the European and US markets. It will eventually employ 250 employees and will benefit from the Group's cutting-edge industrial technologies, focusing on the digitalization and standardization of operators' workstations.

Aerosystems

The core business of Safran Aerosystems is safety and fluid systems. The aim is to consolidate the range of products and solutions on offer, improve customer service and create commercial and R&T synergies.

Safety and protection systems

Emergency evacuation systems

Safran, world leader⁽¹⁾ in emergency evacuation systems⁽²⁾⁽²⁾, delivered further evacuation slides for the Airbus A320, A350 and Boeing 787 programs. Safran also celebrated the production of its five millionth life vest, just three years after reaching the three million threshold.

Emergency arresting systems

Safran continued its deliveries of emergency arresting systems (barriers, cables, etc.) for military aircraft on the ground. Safran also supplies the arresting system installed on the new type of US nuclear aircraft carrier spearheaded by the USS Ford, which continues to undergo tests at sea and is expected to enter into service in 2020.

Integrated fluid management and control systems

In 2019, Safran's fuel gauging and distribution systems were chosen by Gulfstream for its future G700 business jet program.

Safran continued its upgrade program for new-generation in-flight refueling nacelles (NARANG) that will be fitted to Rafale fighter jets currently used by the French Navy. The flight tests for this new nacelle were completed successfully, paving the way for an order from the French Armed Forces.

Avionics

Electromechanical actuation systems

In 2019, Safran finalized the acquisition and integration of the ElectroMechanical Systems business from Collins Aerospace. This acquisition expands Safran's electrical actuation and flight control business lines. In particular, the acquisition enables Safran to reach critical mass in these sectors and to eventually enhance their competitiveness.

Data management and services

Cassiopee services enable airline companies to analyze flight data from each aircraft (fuel consumption, wear of brakes and landing gear, time at taxiways, etc.) and to improve fleet management, reduce operating costs by optimizing fuel consumption (SFCO2*), and reduce maintenance costs. Cassiopee also increases flight safety by detecting risk situations and anticipating technical incidents.

(1) Classification criteria: revenue – Source: Safran.

(2) Source: Safran.

In March 2019, HeliDax (France), AMS (Aircraft Maintenance Systems) (France) and Safran signed a letter of intent (LOI) to collaborate on the first complete digital chain for helicopters based on the Cassiopée software suite. The aim is to automatically collect all data captured before, during and after each flight in order to establish digital continuity between flights, maintenance and operations. As well as reducing operating costs, the arrangement will improve flight safety by analyzing safety-related events. Operators can therefore maximize helicopter availability by the timely scheduling of maintenance services.

In mid-June, Safran announced the launch of Cassiopée NODE, its latest flight data processing software. Paving the way for new high value-added functions such as predictive maintenance, Cassiopée NODE is a tool designed to enhance safety and operational efficiency and optimize aircraft maintenance. Designed for operators of large fleets and for major players in the aviation industry (airframers, components manufacturers, service providers), this tool will help decode large volumes of data more quickly than ever. Two major customers have already chosen Cassiopée NODE for predictive maintenance: Air France and SITAONAIR (Switzerland), a subsidiary of SITA (Belgium) specializing in ground-to-air connectivity.

Electronics and critical software

In February 2019, the Indian airframer Hindustan Aeronautics Ltd (HAL) and Safran announced the signature of three new contracts for Safran-designed autopilots for various helicopters manufactured by HAL. These contracts concern the supply of development and integration (bench) capabilities and the set up of a software workshop to develop and validate control laws necessary for the use of autopilots. They also concern the supply of an autopilot for HAL's new Light Utility Helicopter (LUH), and the development of the specific control laws for the coastal security version of the Advanced Light Helicopter (ALH) for the Indian Navy.

Defense

Optronics and sights

Gyrostabilized pods: in June 2019, Safran Electronics & Defense, Hensoldt⁽¹⁾ (Germany) and Mades⁽²⁾ (Spain) signed collaboration agreements to jointly develop Euroflir™ 610, a high-performance multispectral electro-optical targeting and observation system proposed for the MALE RPAS (Medium Altitude Long Endurance Remotely Piloted Aircraft System), the future European drone. Thanks to this partnership, the Euroflir™ 610, which was unveiled at the 2019 Paris Air Show, will reflect the state-of-the-art in electro-optical systems worldwide, leveraging advanced technologies developed in Europe.

Navy equipment: in March, Safran signed a new contract with the Royal Australian Navy to provide in-service support to its infrared long-range search and track VAMPIR⁽³⁾ systems. Under this contract, Safran will allocate most of the work in Australia, including full support and maintenance for the defense platforms, engineering management, strategic procurement and inventory management. This contract is integral to a broader strategy to expand the range of services provided to the Australian Defence

Force (ADF), and includes setting up a dedicated team in Australia to support infrared search and track systems based at the new facilities inaugurated in Botany (Sydney) at the end of 2018.

Lockheed Martin Australia chose Safran for the detailed design of three major combat system components for the Royal Australian Navy's future attack-class submarines: optronic search and attack masts, the navigation radar and navigation data distribution components.

On July 12 in France, during a ceremony in Cherbourg attended by the French President, Naval Group launched Suffren, the first Barracuda-class nuclear-powered attack submarine (SSN). This submarine operated by the French Navy carries a number of solutions designed and manufactured by Safran Electronics & Defense, including navigation systems, optronic masts and a radar mast.

In early June, Safran and Thales announced that they were to restructure their infrared (IR) sensor activities by merging Sofradir (a 50-50 joint venture between Safran and Thales) with its own wholly-owned subsidiary, Ullis, to create a new entity called Lynred. This new venture, 50%-owned by Safran and 50% by Thales, will provide a broad range of products for aerospace, military and industrial applications. Boasting almost 1,000 employees, Lynred will focus its R&D activities on large-dimension IR detectors needed for space and astronomy observations, as well as compact and light IR detectors that can be used in portable devices and on drones.

Soldier modernization

In April 2019, Safran unveiled the latest version of its JIM Compact multifunction infrared goggles featuring an embedded long-range sniper function (TELD) developed in partnership with the French Special Operations Command (COS).

At the end of an international tendering process, Armasuisse, Switzerland's Federal Office for Defense Procurement, part of the Federal Department of Defense, chose Safran to provide the country's armed forces with its next generation of multifunction infrared goggles and night vision goggles (NVG). The contract is for the supply of over 1,000 multifunction infrared goggles (JIM Compact™, MOSKITO TI™) and more than 8,000 stereoscopic night vision goggles.

The NATO Support and Procurement Agency (NSPA) also selected Safran to deliver new-generation JIM Compact™ long-range multifunctional infrared goggles to several NATO countries.

These successes in 2019 confirm Safran's position as one of the world's leading suppliers⁽⁴⁾ of handheld optronic equipment.

Parachutes and protections

Safran was chosen by the French Directorate General of Weapons Procurement (DGA) during the year to supply an air delivery system capable of releasing heavy loads from the A400M Atlas military transport aircraft operated by the French Armed Forces.

Thanks to the ambitious progress plan in place, normal deliveries are resuming for the parachute and protection business in the United States.

(1) Hensoldt is a German company specializing in sensor technologies for protection and surveillance missions in the defense, security and aerospace industries.

(2) Mades is a Spanish company providing cutting-edge systems for aerospace and defense.

(3) Veille Air-Mer Panoramique Infra-Rouge (infrared search and track).

(4) Source: Safran.

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

Navigation and sensors

At the 2019 Paris Air Show, Safran and Orolia⁽¹⁾ announced the signature of a strategic partnership to offer the latest Positioning, Navigation and Timing (PNT) solutions in environments where Global Navigation Satellite System (GNSS) signals are not available or are degraded. PNT equipment is mission-critical for air, land, sea and space programs in GNSS-denied environments ('white areas', jammed signals, etc.).

Drones

Patroller UAV systems

In 2016, Safran was awarded the contract for the French Army's future tactical drone system (TDS) with Patroller, including 14 drones and six ground control stations. The Patroller is a surveillance drone with a wingspan of 18 meters, able to fly 14 hours within a range of 150 km around each ground control station. It carries a Safran optronic pod fitted with 11 sensors and an electronic scanning radar.

By the end of 2019, having clocked up 270 flight hours since 2016, the Patroller had demonstrated all of its capabilities.

However, during an industrial reception flight on December 6, 2019, an accident occurred at the Istres flight test center. An investigation is underway to determine the causes of the incident and Safran has taken specific steps to deal with the consequences.

Tactical land-based robot

A major land robotics initiative, the "Furious" Science and Technology Project (PST) led by the French Directorate General of Weapons Procurement (DGA) lays the groundwork for the future integration of land robots into the French Armed Forces, as part of Phase 2 of the Scorpion modernization program. To fulfill this contract, Safran has sought assistance from small- and medium-sized businesses, supported by academia. The project involves the development of three robot demonstrators,

including the eRider autonomous vehicle. At the end of 2019, Safran successfully validated the simulated version of its Furious software, a major milestone in the project's development.

Data systems

Safran's WeTrack network was extended to the United States in 2019. This infrastructure is used to monitor virtually all of the world's geostationary satellites, i.e., over 200, tracking their positions 24/7 and processing measurements in less than 20 minutes.

High-performance optics

In March, Safran Reosc was selected by the European Southern Observatory (ESO), a European organization for astronomical research, to design and produce the fifth and final mirror (M5) for the future Extremely Large Telescope (ELT). Safran previously won the contracts to make the thin glass petals of the M4 mirror in 2015, polish the M2 mirror in 2016 and polish the M3 mirror and all segments of the M1 mirror in 2017. Safran has therefore participated in each of the ELT mirrors. Installed in Chile, the ELT will be the biggest telescope ever built. It is expected to come into service – "first light" – in 2025.

Industrial operations

In 2019, Safran Electronics & Defense started work on a Research and Development (R&D) center in Valence, France. In the new 4,500 sq.m. facility, Safran will continue its work on developing both more electric aircraft and technologies for highly integrated electronics, and its research will target all large-scale aircraft, space and defense programs in France and abroad.

Safran will therefore be concentrating a significant proportion of its resources for electric control systems and technologies for integration and electronic assembly in harsh environments in Valence.

2.1.3.3 Aircraft Interiors

Adjusted key figures

(in € millions)	2018	2019	Year-on-year change
Revenue	2,511	3,321	+32%
Recurring operating income	81	188	+132%
Profit from operations	42	182	+333%
Free cash flow	(67)	(1)	N/A
Acquisitions of property, plant and equipment	41	60	+46%
Research and development			
Self-funded R&D	(178)	(237)	+33%
% of revenue	7.1%	7.1%	N/A
Research tax credit	3	6	+100%
Self-funded R&D after research tax credit	(175)	(231)	+32%
Capitalized expenditure	45	68	+51%
Amortization and impairment of R&D expenditure	(13)	(19)	+46%
Impact on profit from operations	(143)	(182)	+27%
% of revenue	5.7%	5.5%	-0.2 pts
Headcount	2,226	2,353	+6%

(1) Orolia is a French company that develops resilient Positioning, Navigation and Timing (PNT) solutions.

Review of Aircraft Interiors operations in 2019

In 2019, revenue was €3,321 million, up 32.3% compared to €2,511 million in 2018. On an organic basis, revenue grew 8.8%, mostly driven by Seats and Passenger Solutions activities whereas Cabin was flat.

OE revenue grew 30.8% (or 7.7% organically) in 2019. Sales increased thanks to the ramp-up of Business Class seats programs (Fusio and Polaris), A350 toilets deliveries and Connected Cabin (IFE) for Safran Passenger Solutions. Lower volumes for galleys in Cabin impacted growth.

Services revenue grew 36.4% (or 11.9% organically) in 2019, mainly driven by Safran Seats aftersales and, to a lesser extent, by Safran Cabin and Passenger Solutions activities.

Recurring operating income was €188 million, an increase of €107 million compared to €81 million in 2018. Recurring operating margin increased from 3.2% to 5.7%. Profitability increased in all businesses thanks to increasing volumes, lower non-quality costs and productivity plans.

Commercial and industrial developments

Cabins

Safran reported a number of major commercial wins in the Cabin sector in 2019:

- Safran was selected by Airbus to supply high-security cockpit access doors as well as specific bays on its new A350 aircraft;
- Cathay Pacific chose Safran to provide the galleys for its 21 new Boeing 777-9s in a linefit order;
- Corsair and Kuwait Airways chose Safran galleys to fit out their A330neo aircraft in a linefit order, covering six aircraft (three Corsair planes and three Kuwait Airways planes);
- Turkish Airlines chose to fit out most of its fleet with Safran Hybrite food trolleys and containers;
- Safran's Lower Deck Mobile Crew Rests (LDMCR) were chosen by Air Lingus, Azul, Corsair and TAP for their A330 aircraft. A dozen or so modules will be delivered to the four airlines over the 2019-2021 period;
- Jeju Air (South Korea) selected Safran galleys and inserts for its 40 new Boeing 737 MAX aircraft. Delivery of this equipment is slated to begin in 2022 (source: Cirium Fleets Analyzer);
- Air France chose to fit out 51 of its A320 and A321 aircraft with Safran ECOS⁽¹⁾ overhead bins. The new-generation solution designed by Safran can store 60% more baggage than a standard compartment through its "on-edge" innovation, thereby allowing each passenger to transport and store a wheeled suitcase vertically in the overhead bins.

At the 2019 Paris Air Show, Safran Cabin and Chinese components manufacturer Zhejiang XiZi Aircraft Component Company announced that they had signed a strategic partnership agreement.

At the Uber Elevate Summit in Washington DC (United States), Safran and Uber unveiled a cabin mock-up for future eVTOL (electric vertical take-off and landing vehicles). Through its cooperation with Uber, Safran demonstrated its ability to design a complete cabin interior for this type of aircraft using rapidly maturing vehicle technology.

Aircraft seats

Passenger seats (Economy, Premium Economy, Business and First Class)

Economy and Premium Economy Class passenger seats

In 2019, Safran signed new orders with various airline companies to supply more than 61,000 Economy Class passenger seats which will enter into service in the next few years. This commercial success during the year was primarily driven by two major contracts with two Asian airlines:

- for the first contract, Safran was selected to supply Z400 Economy Class seats for Boeing 787 aircraft;
- the second contract concerns Z110i Economy Class seats for the Boeing 737 MAX. These aircraft will operate short- and medium-haul routes in Asia.

In the Premium Economy Class segment, Safran was chosen by an Asian company to supply a customized version of Airgo FX Premium seats for its future Airbus A350 fleet. In all, Safran was selected to supply more than 2,200 Premium Economy Class seats in 2019.

Business and First Class passenger seats

Safran's Business and First Class seats enjoyed significant success during the year. More than 6,700 Business and First Class seats were ordered in 2019 and are expected to come into service in the next few years.

Cirrus Business Class seats were selected by Air France to retrofit 14 additional Boeing 777 aircraft⁽²⁾. This contract concerns over 500 seats in all, with the first deliveries to begin in 2021. During the year, Air France also celebrated the entry-into-service of the first A350 in its fleet fitted with 34 Safran Optima Business Class seats, and 266 Z300 Economy Class seats.

2019 saw the delivery of the first batch of Safran Cirrus NG seats for 12 A350 aircraft operated by Virgin Atlantic. Z400 Economy Class seats were also delivered in the year. The first London-New York flights for Virgin Atlantic's A350 fitted with Safran seats began in 2019.

The first batch of Fusio seats for the 12 Boeing 777-300ER aircraft operated by Japan's ANA (six new aircraft and six retrofits) was also delivered in 2019. ANA's first aircraft fitted with Fusio seats began operating the Tokyo-London route. Fusio seats allow airline companies to maximize use of cabin space thanks to their distinctive configuration (one seat facing the direction of travel, with the other facing in the opposite direction).

The first batch of Safran S-Lounge Business Class seats was delivered during the year for 75 new Boeing 777X aircraft to be operated by Emirates. The delivery also included Z400 Economy Class seats.

Other Safran Business Class seat models also enjoyed commercial success in the year: Z600 seats were chosen by US and Asian airlines, while Aura seats were adopted by an Asian airline for its future A330 aircraft.

(1) Efficient Cabin Open Space.

(2) In 2012, Air France ordered 1,800 Cirrus seats for 44 Boeing 777 aircraft. Delivery of these seats began in 2014.

Comments on the Group's performance in 2019 based on adjusted data and outlook for 2020

Safran Seats was also selected to supply First Class seats for two major airline companies. These seats will be designed and developed jointly with each airline.

Lastly, Unity, Safran's new Business Class seat concept unveiled in 2019 at the Hamburg aircraft interiors expo, was selected by two airline companies. The seat will be customized according to the needs of each company. With a staggered configuration designed to enhance the passenger experience, these seats will be fitted to the companies' future A350 fleets.

Complex cabin equipment and passenger comfort solutions

Water and waste management systems

Safran, among the leaders⁽¹⁾ of the market for water and waste management systems, benefited from the growth in global air traffic throughout the year, not only with the increase in fleets of new aircraft on which its systems were selected (such as, for example, on the A220, Boeing 787, and Embraer E-Jet E2), but also with sustained maintenance operations for the in-service fleet.

In 2019, cabin retrofit activities continued to develop, driven by the success of Safran's latest equipment including the Revolution toilet, which offers reduced water consumption and easier maintenance. Similarly, Safran's bespoke drinking water distribution systems helped land several contracts in the VIP aircraft segment.

The end of the year also saw success in the rail transport segment, with two major new contracts in Europe and in Asia.

In-flight entertainment and connectivity solutions

Safran signed new contracts during the year, passing the symbolic mark of 50 airline customers. For the first time in 2019, Safran won contracts to install in-flight entertainment systems on new Boeing 787 aircraft in a linefit order. New contracts to install Safran in-flight entertainment systems were also signed in the Middle East, Asia and the Pacific region.

Safran's new RAVE Ultra⁽²⁾ system proved a resounding success, with a record number of new orders. This product line continues to be developed and the first screens were delivered at the end of 2019.

Complementing the RAVE Ultra system, Safran has also developed an audio headset connection system. At the APEX (Airline Passenger Experience) Expo in Los Angeles, Safran announced the possibility for all onboard passengers to connect to the in-flight entertainment system simultaneously using their personal Bluetooth audio headsets, a world first. Having resolved frequency interference issues caused by Bluetooth audio congestion inside the cabin, Safran is the first company to offer this product to airline customers.

Ventilation and environment control systems

2019 was a year of growth, driven by sustained production, especially for the A320 and A350. The aftersales market was buoyant thanks to the marketing of Safran Ventilation Systems' preventive maintenance solution. Linked to an electronic card, the solution helps airline companies reduce their maintenance costs. The cards began to be fitted onto the in-service fleet in 2018, with work continuing in 2019.

During the year, Safran also continued to develop the air conditioning system for the future Cessna Denali turboprop business jet. The Group also saw solid sales of integrated air conditioning systems for military helicopters. Work on seven other air conditioning-related programs awarded in 2018 and early 2019 continued, with the first programs expected to enter into production in 2020. This positions Safran as one of the leaders in environmental control systems for under 10-seater aircraft.

VIP aircraft interiors

In the VIP aircraft interiors design segment, despite a sharp slowdown in the market caused by the grounding of the Boeing 737 MAX, Safran was selected to retrofit three US government aircraft, and was awarded a large number of fleet reconfiguration and harmonization contracts in the commercial airline interiors retrofit market.

Industrial operations

As part of the restructuring of its Aircraft Interiors business, Safran:

- agreed a restructuring plan with employee representative bodies for its Herborn cabin interiors plant in Germany;
- streamlined its overhead bins, lavatories and electrical kitchen equipment operations;
- continued to integrate its aftersales services by setting up Safran Cabin Services.

2.1.4 Subsequent events

On February 27, 2020, at the time of its 2019 annual results presentation, Safran disclosed its objectives for 2020:

- based on an estimated average spot rate of USD 1.13 to the euro in 2020, adjusted revenue expected to decrease in the range 0% to 5% compared with 2019. Similar variation in organic terms;
- adjusted recurring operating income expected to grow around 5% at a hedged rate of USD 1.16 to the euro;
- free cash flow expected to be higher than in 2019.

These objectives, set early in the year, factored in a Covid-19 impact on civil aftermarket revenue growth, as long as disruption created by the coronavirus to air traffic did not extend beyond first-quarter 2020.

(1) Source: Safran.

(2) In addition to its numerous innovative features (such as 4K ultra high definition video and access to audio content via Bluetooth for passengers with their own headsets), Safran's RAVE Ultra system packs a new lighter, slimmer screen available in various sizes.

On March 26, 2020, and in the context of the worldwide spread of the coronavirus crisis, Safran issued a press release further to a meeting of its Board of Directors. This press release, disseminated effectively and completely in accordance with the regulations in force, is available on the Group's website <http://safran-group.com/> and is reproduced below in full:

"Safran takes actions to adapt to the current crisis:

- **Enhanced adaptation plan**
- **2020 guidance withdrawn**
- **Cancellation of 2019 dividend proposal with cash impact of €1 billion**
- **New €3 billion credit line**

The Board of Directors of Safran (Euronext Paris: SAF) under the Chairmanship of Ross McInnes, met on March 26, 2020 to consider an action plan prepared by Executive Management in response to the impact of the Covid-19 pandemic.

Executive commentary

CEO Philippe Petitcolin commented:

"In this critical period, our attention is focused on taking care of our employees and monitoring our customers and suppliers. While preserving cash in the very short term, we are preparing to re-establish and strengthen operations when the situation recovers. As demonstrated in past crisis thanks to its agility and resilience, I am convinced that Safran will overcome these challenges and further consolidate its position in the future."

Adaptation plan

The Group regularly and proactively coordinates the efforts of all subsidiaries and sites in all countries in order to ensure priorities in reaction to the crisis:

- Protection of employees through specific organization of working practices;
- Response to customer needs, particularly for delivery schedules;
- Resilience and flexibility of the supply chain;
- Managing the Group's cash and liquidity, while low debt is already an asset.

Executive Management welcomes the mobilization and responsiveness of all employees, giving confidence in the company's ability to meet current challenges.

Chinese plants are already fully operational and European sites are gradually restarting.

The actions implemented since December 2019 in response to Boeing's decision to shut down the Boeing 737 MAX assembly line are now enhanced. Very significant measures are implemented such as a pause in Capex, the definition of new objectives for R&D and the reduction of direct and indirect costs. Safran will also use all schemes set up by governments, particularly short time working.

2020 guidance

Given the unprecedented nature of the situation and the remaining uncertain impact for its customers of worldwide measures taken to contain the pandemic, Safran is withdrawing its 2020 guidance previously announced.

When impacts on the business and the adjustment measures can be assessed with sufficient precision, Safran will share them with the financial community.

2019 dividend

Safran's Board of Directors has decided not to propose to the Annual General Meeting of shareholders the payment of a dividend in 2020 for the 2019 financial year.

The previously announced dividend of €2.38 per share reflected Safran's very good performance in 2019 and the outlook for 2020 as it prevailed last February when the Board met. Based on the number of shares in circulation, the payment of the dividend would have represented an outflow of around €1 billion in June 2020.

In a spirit of responsibility vis-à-vis Safran's stakeholders, this decision preserves the Group's resources in order to protect employees, maintain continuity of its operations, notably for its suppliers, support its customers and ensure liquidity in uncertain times.

Annual General Meeting

Safran's Annual General Meeting will be called on May 28, 2020 at the Safran Campus – 32, rue de Vilgénis, 91300 Massy (France).

The date, venue and conditions of shareholder attendance are likely to change for public health reasons and/or regulatory/legal reasons. In particular, it may be necessary to hold the Meeting behind closed doors, without any shareholders being physically present.

We will therefore strongly encourage shareholders to vote by post (or online before the Meeting), or to give proxy to the Chairman of the Meeting.

We will also invite shareholders to regularly check the 2020 Annual General Meeting section of the Company's website to obtain the latest information: <https://www.safran-group.com/finance/annual-general-meeting>.

Liquidity

As of December 31, 2019, the Group's net financial debt was as follows:

- cash and cash equivalents at €2,632 million,
- interest-bearing financial liabilities at €(6,779) million,
- and debt hedging instruments at €33 million.

Between January 1, 2020 and March 24, 2020, net financial debt improved by around €900 million (data not audited). To date, cash and cash equivalents amount to €3.1 billion (unaudited data), of which €2.8 billion (unaudited data) are available immediately or within 90 days.

Safran's commercial paper program (NEU CP) outstanding is €1,802 million and €419 million subscribed by a corporate mutual fund of the Group savings plan, maturing end of April to mid-May 2020.

Comments on the consolidated financial statements

Two debt instruments will mature in 2020: a floating-rate bond with a nominal amount of €500 million on July 13 and another fixed-rate debt with a nominal amount of €99 million on July 27, representing a total of €599 million.

Safran is in the process of setting up of a new credit line of €3 billion, with a term of up to two years, in addition to its current Revolving Credit Facility of €2,520 million currently undrawn and available until December 2022.

Based on these elements and taking into account the withdrawal of the 2019 dividend, the Group has sufficient liquidity to fund continuity of operations.

Given the performance of Safran's share price, Safran's Board of Directors will consider a new share buyback program when conditions permit."

Medium-term ambitions

At the time of the February 27, 2020 results presentation, Safran also disclosed that its 2022 ambitions as communicated on November 29, 2018 during the Capital Markets Day, were based on assumptions that would need to be updated to reflect the impact of the Boeing 737 MAX grounding. These mid-term ambitions will also be updated once the impacts of the coronavirus pandemic can be measured with sufficient reliability.

Factors with a potential impact on results

Major risk factors that could have an adverse impact on the Group's business, financial position or results of operations are described in chapter 4 of this Universal Registration Document.

2.2 COMMENTS ON THE CONSOLIDATED FINANCIAL STATEMENTS

2.2.1 Consolidated income statement

The simplified consolidated income statement for the year ended December 31, 2019 presented below was taken directly from the consolidated financial statements included in section 3.1.

(in € millions)	2018 ⁽¹⁾	2019	Year-on-year change
Revenue	21,025	25,098	+19.4%
Other operating income and expenses	(18,934)	(21,438)	
Share in profit from joint ventures	189	164	
Recurring operating income	2,280	3,824	+67.7%
Other non-recurring operating income and expenses	(115)	13	
Profit from operations	2,165	3,837	+77.2%
Financial income (loss)	(476)	(363)	
Income tax expense	(348)	(962)	
Profit from continuing operations	1,341	2,512	
Profit for the period attributable to non-controlling interests	(58)	(65)	
PROFIT FOR THE PERIOD ATTRIBUTABLE TO OWNERS OF THE PARENT	1,283	2,447	

(1) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see section 3.1, Note 3.a, "Application of IFRS 16").

Consolidated revenue

Consolidated revenue climbed 19.4% year-on-year to €25,098 million in 2019, from €21,025 million in 2018. Revenue growth includes a favorable scope impact resulting from the contribution of:

- Zodiac Aerospace (the financial statements include 12 months of operations in 2019 compared to only 10 months in 2018); and
- ElectroMechanical Systems acquired from Rockwell Collins.

The difference between adjusted consolidated revenue and consolidated revenue is due to the exclusion of foreign currency derivatives from the adjusted figures (see section 2.1.1). Neutralizing the impact of foreign currency hedging increased consolidated revenue by €458 million in 2019. The year-on-year change in the impact of foreign currency hedging on revenue results from movements in average exchange rates with regard to the effective hedged rates for the period on the portion of foreign-currency denominated flows hedged by the Group. For

example, the hedged EUR/USD rate in 2019 was 1.18, against an annual average rate of 1.12, which explains the impact of netting out hedging from the calculation.

Year-on-year changes in revenue excluding the impact of adjusting items are analyzed below (see section 2.1.2).

Recurring operating income

Recurring operating income was €3,824 million in 2019 versus €2,280 million in 2018. The difference between recurring operating income and adjusted recurring operating income (see section 2.1.2), which came in at €3,820 million, reflects:

- amortization charged against intangible assets measured when allocating the purchase price for business combinations, representing €51 million in relation to the May 2005 Sagem-Snecma business combination;

- amortization charged against intangible assets measured when allocating the purchase price for other business combinations, representing €395 million;
- a positive impact resulting from foreign currency hedging transactions of €(449) million.

Changes in adjusted recurring operating income are analyzed above (see section 2.1.2).

Profit from operations

Profit from operations came in 77.2% higher at €3,837 million for the year, compared to €2,165 million in 2018. Profit from operations includes recurring operating income of €3,824 million (€2,280 million in 2018) and other non-recurring items, representing income of €13 million (expense of €115 million in 2018).

Changes in profit from operations are analyzed above (see section 2.1.2).

Financial income (loss)

The Group reported a financial loss of €363 million in 2019 versus a financial loss of €476 million in 2018.

Two items account for the difference between consolidated and adjusted financial loss for 2019 (see section 2.1.2):

- changes in the fair value of currency instruments hedging future cash flows, which had a negative impact of €175 million in 2019. This amount is recognized in full in financial income

(loss) in the consolidated financial statements. However, the impact of changes in financial instruments hedging future cash flows is neutralized in the adjusted financial statements. These changes relate to volatility in the EUR/USD exchange rate, since the currency hedging portfolio was priced based on a year-end exchange rate of 1.12 at December 31, 2019 and 1.15 at December 31, 2018;

- the impact of foreign currency hedging on the portion of foreign currency denominated flows hedged by the Group, representing a positive €449 million impact in 2019. This impact is recognized in financial income (loss) in the consolidated financial statements and within profit from operations (mostly in revenue) in the adjusted income statement.

Income tax expense

The Group reported income tax expense of €962 million in 2019, compared with income tax expense of €348 million in 2018.

Changes in the tax effect are primarily due to changes in the fair value of currency instruments hedging future cash flows, representing a positive impact of €175 million in 2019 recorded in financial income (loss) (negative impact of €232 million in 2018).

Consolidated profit attributable to owners of the parent

This caption represented profit of €2,447 million for 2019, compared to profit of €1,283 million for 2018.

Changes in adjusted profit are analyzed above (see section 2.1.2).

2.2.2 Simplified consolidated balance sheet

The simplified consolidated balance sheet at December 31, 2019 presented below was taken directly from the consolidated financial statements included in section 3.1.

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
ASSETS		
Goodwill	5,173	5,199
Property, plant and equipment and intangible assets	14,211	13,877
Investments in equity-accounted companies	2,253	2,211
Other non-current assets	811	1,416
Derivatives (positive fair value)	753	707
Inventories and work-in-progress	5,558	6,312
Contract costs	470	471
Trade and other receivables	6,580	7,639
Contract assets	1,544	1,743
Other current assets	937	601
Cash and cash equivalents	2,330	2,632
TOTAL ASSETS	40,620	42,808
EQUITY AND LIABILITIES		
Equity	12,301	12,748
Provisions	2,777	3,083
Borrowings subject to specific conditions	585	505
Interest-bearing financial liabilities	5,605	6,779
Derivatives (negative fair value)	1,262	1,038
Other non-current liabilities	1,664	1,342
Trade and other payables	5,650	6,164
Contract liabilities	10,453	10,923
Other current liabilities	323	226
TOTAL EQUITY AND LIABILITIES	40,620	42,808

2.2.3 Change in consolidated net debt

The year-on-year change in the Group's net debt for 2018 and 2019 can be summarized as follows:

(in € millions)	2018	2019
Cash flow from operations	3,098	4,042
Changes in working capital	(27)	(897)
Acquisitions of property, plant and equipment	(780)	(695)
Acquisitions of intangible assets	(183)	(134)
Capitalization of R&D expenditure	(327)	(333)
Free cash flow	1,781	1,983
Dividends paid	(721)	(817)
Divestments/acquisitions of securities and other	(4,623)	(1,482)
NET CHANGE IN CASH AND CASH EQUIVALENTS	(3,563)	(316)
Net debt at January 1	294	(3,798) ⁽¹⁾
Net debt at December 31	(3,269)	(4,114)

(1) Including €529 million relating to the impact at January 1, 2019 of applying IFRS 16, "Leases" (see section 3.1, Note 3).

Cash flow from operations is calculated by taking profit or loss before tax and adjusting for income and expenses with no cash impact, for example net charges to depreciation, amortization and provisions, and changes in the fair value of financial instruments hedging future cash flows⁽¹⁾. The Group's ability to finance working capital, acquisitions of property, plant and equipment and intangible assets and dividends out of operating activities rose by €944 million over the year, from €3,098 million in 2018 to €4,042 million in 2019.

Operations generated €1,983 million of free cash flow (52% of adjusted recurring operating income in 2019 compared to 59% in 2018), a rise of €202 million compared to the previous year. Free cash flow generation of €1,983 million was driven by cash from operations of €4,042 million and a decrease of €897 million in working capital (related to the growth in business and the ramp-up in LEAP and A320neo production).

Dividends paid in the year correspond to the payment of €1.82 per share in respect of 2018.

Divestments/acquisitions of securities and other primarily relate to purchases of shares under the share buyback program.

The net debt position was €4,114 million at December 31, 2019, compared to €3,269 million at December 31, 2018.

At December 31, 2019, Safran had €2,632 million of cash and cash equivalents and €2,520 million of undrawn, confirmed facilities.

2.3 COMMENTS ON THE PARENT COMPANY FINANCIAL STATEMENTS

2.3.1 Safran income statement

Safran's simplified income statement for the year ended December 31, 2019 presented below was taken directly from the parent company financial statements included in section 3.3.

(in € millions)	2018	2019
Revenue	728	723
Other operating income and expenses	(835)	(790)
Loss from operations	(107)	(67)
Financial income	1,644	1,275
Non-recurring items	4	70
Income tax benefit	164	19
PROFIT FOR THE PERIOD	1,705	1,297

(1) See section 3.1, "Consolidated statement of cash flows".

Revenue came in at €723 million in 2019 versus €728 million in 2018, and chiefly includes billings of general assistance services provided by the parent company to its subsidiaries, as well as specific amounts billed to certain subsidiaries (rent, employees, IT services) and miscellaneous services related to projects (research projects, for example) managed by the parent company on behalf of all of its subsidiaries.

Other operating income and expenses represented a net expense of €790 million in 2019 and a net expense of €835 million in 2018.

Safran reported a loss from operations of €67 million in 2019 and €107 million in 2018.

It reported financial income of €1,275 million in 2019 and €1,644 million in the previous year. Financial income includes dividends received from subsidiaries totaling €1,208 million, compared to €1,865 million in 2018. It also includes net interest

income of €20 million in 2019 (net interest expense of €177 million in 2018) and foreign exchange gains of €30 million (€29 million in foreign exchange losses in 2018).

Safran reported non-recurring income of €70 million in 2019 and €4 million in 2018.

Income tax represented a benefit of €1 million under the Group's tax consolidation regime in 2019 (€211 million in the previous year). A net reversal of the provision for the transfer of the tax saving relating to the French tax group from Safran to its loss-making subsidiaries was recognized in Safran's financial statements in an amount of €18 million in 2019 (net addition amounting to €47 million in 2018).

On account of the above, profit for the period came in at €1,297 million, compared to €1,705 million in 2018.

2.3.2 Simplified balance sheet

Safran's simplified balance sheet at December 31, 2019 presented below was taken directly from the parent company financial statements included in section 3.3.

(in € millions)	2018	2019
ASSETS		
Non-current assets	18,437	18,355
Cash equivalents and marketable securities	2,141	2,568
Other current assets	4,381	4,299
TOTAL ASSETS	24,959	25,222
EQUITY AND LIABILITIES		
Equity	10,625	10,062
Provisions	560	627
Borrowings	5,209	5,673
Other payables	8,565	8,860
TOTAL EQUITY AND LIABILITIES	24,959	25,222

Changes in equity in 2019 reflect profit for the period totaling €1,297 million and dividends paid in 2019 for a total of €785 million. A €1,076 million share capital decrease was carried out by canceling treasury shares.

Changes in borrowings chiefly relate to commercial paper issues for €843 million (see section 3.3, Note 3.9).

2.3.3 Other information

Supplier and customer payment periods

Pursuant to Article D.441-4 of the French Commercial Code (*Code de commerce*), the table below shows outstanding invoices due and past due at the end of the reporting period:

	Article D.441-I.-1: Invoices received but not settled at December 31, 2019						Article D.441-I.-2: Invoices issued but not settled at December 31, 2019					
	0 days (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	More than 90 days	Total (1 or more days)	0 days (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	More than 90 days	Total (1 or more days)
(A) BREAKDOWN OF PAST DUE PAYMENTS												
Number of invoices concerned	-					103	-					457
Total amount of invoices concerned including VAT (€)	-	487,207	(65,537)	29,886	697,264	1,148,821	-	10,089,185	1,015,041	(229,621)	2,147,216	13,021,822
% total purchases in 2019 including VAT	-	0.08%	-0.01%	0.01%	0.11%	0.19%						
% revenue in 2019 including VAT							-	1.15%	0.12%	-0.03%	0.25%	1.49%
(B) INVOICES EXCLUDED FROM (A) RELATING TO DISPUTED OR UNRECOGNIZED PAYABLES AND RECEIVABLES												
Number of invoices excluded						183						13
Total amount of invoices excluded (€)						2,667,403						3,351,580
(C) REFERENCE PAYMENT TERMS USED (CONTRACTUAL OR STATUTORY TERMS PURSUANT TO ARTICLE L.441-6 OR L.443-1 OF THE FRENCH COMMERCIAL CODE)												
Reference payment terms used to calculate past due payments	☒ Contractual terms: <i>CONTRACTUAL TERMS</i> ☐ Statutory terms: (specify)						☒ Contractual terms: <i>CONTRACTUAL TERMS</i> ☐ Statutory terms: (specify)					

Non-deductible expenses

Non-deductible expenses (Article 223 *quater* and Article 39-4 of the French Tax Code [*Code général des impôts*]) amounted to €0.7 million in 2019 (€0.2 million in 2018) and relate to the non-deductible portion of vehicle lease payments and depreciation.

Dividends

Dividends that have not been claimed within five years are time-barred and paid over to the French State in accordance with the applicable legislation.

Future dividends will depend on Safran's ability to generate profits, its financial position and any other factors deemed relevant by the Company's corporate governance bodies.

Details of previous dividend payments are included in the proposed appropriation of profit for 2019 and the five-year financial summary of the Company set out below.

Proposed appropriation of 2019 profit

The Board of Directors recommends appropriating profit for 2019 as follows:

Profit for 2019	€1,296,554,954.50
Retained earnings ⁽¹⁾	€1,361,537,796.44
Profit available for distribution	€2,658,092,750.94
Appropriation:	
Dividend	€0
Retained earnings	€2,658,092,750.94

(1) Including €7,838,268.62 corresponding to the 2018 dividend due on shares held in treasury at the dividend payment date and after allocating the amount of €1,074,034,248.80 representing the difference between the carrying amount of the 8,562,856 treasury shares canceled on December 20, 2019 and their nominal amount.

The dividends paid for the past three years were as follows:

Year	Number of shares carrying dividends rights ⁽¹⁾	Net dividend per share	Total payout
2018	431,474,040	€1.82	€785,282,752.80
2017	434,570,199	€1.60	€695,312,318.40 ⁽³⁾
2016	409,239,433 ⁽²⁾	€1.52	€626,602,111.28 ⁽⁴⁾

(1) Total number of shares carrying dividend rights less the number of Safran shares held in treasury at the dividend payment date.

(2) An interim dividend (€0.69) was paid on 415,845,481 shares and the remainder of the dividend (€0.83) was paid on 409,239,433 shares.

(3) Subject to the flat-rate tax provided for under Article 200 A of the French Tax Code or, on a discretionary basis, tax levied at the progressive rate after the 40% tax relief provided for under Article 158, 3-2° of the French Tax Code.

(4) Fully eligible for the 40% tax relief provided for under Article 158, 3-2° of the French Tax Code.

Five-year financial summary of the Company

(in €)	2015	2016	2017	2018	2019
Capital at December 31					
Share capital	83,405,917	83,405,917	83,405,917	87,153,590.20	85,446,831
Number of ordinary shares outstanding	417,029,585	417,029,585	417,029,585	435,767,951	427,234,155
Financial results					
Profit before tax, statutory employee profit-sharing, depreciation, amortization and provisions	1,564,574,645	767,391,743	1,251,397,582	1,621,981,388	1,382,153,454
Income tax expense	(102,700,757)	(52,805,019)	(33,064,752)	(211,350,763)	(551,456)
Statutory employee profit-sharing for the fiscal year	-	-	-	-	-
Profit after tax, statutory employee profit-sharing, depreciation, amortization and provisions	1,648,209,397	969,870,638	1,359,762,344	1,705,042,464	1,296,554,954
Dividend payment	575,500,827	633,884,969	667,247,336	793,097,671	1,016,817,289
Per share data					
Profit after tax, statutory employee profit-sharing, but before depreciation, amortization and provisions					
■ per ordinary share outstanding	4.00	1.97	3.08	4.21	3.24
Profit after tax, statutory employee profit-sharing, depreciation, amortization and provisions					
■ per ordinary share outstanding	3.95	2.33	3.26	3.91	3.03
Net dividend					
■ per ordinary share outstanding	1.38	1.52	1.60	1.82	0
Employees					
Average number of employees during the fiscal year	1,519	1,577	1,624	1,774	1,813
Total payroll	133,628,961	140,807,877	145,288,974	173,747,142	160,175,869
Social security and other social welfare contributions	88,424,113 ⁽¹⁾	88,550,754 ⁽²⁾	95,952,479 ⁽³⁾	114,279,525 ⁽⁴⁾	137,669,709 ⁽⁵⁾

(1) Including €7.4 million in contributions paid to the insurer that manages the defined benefit pension plan.

(2) Including €5.0 million in contributions paid to the insurer that manages the defined benefit pension plan.

(3) Including €6.6 million in contributions paid to the insurer that manages the defined benefit pension plan.

(4) Including €2.3 million in contributions paid to the insurer that manages the defined benefit pension plan.

(5) Including €4.5 million in contributions paid to the insurer that manages the defined benefit pension plan.



3

FINANCIAL STATEMENTS

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IN ACCORDANCE WITH ARTICLE 28 OF REGULATION (EC) NO. 809/2004 OF THE EUROPEAN COMMISSION, THE FOLLOWING INFORMATION IS INCORPORATED BY REFERENCE IN THIS UNIVERSAL REGISTRATION DOCUMENT:

- The consolidated and parent company financial statements for the year ended December 31, 2017 and the corresponding audit reports as presented in sections 3.2 and 3.4 of the 2017 Registration Document filed with the AMF on March 29, 2018 under number D.18-0225; the consolidated financial statements were prepared in accordance with IFRS as adopted by the European Union.
- The consolidated and parent company financial statements for the year ended December 31, 2018 and the corresponding audit reports as presented in sections 3.2 and 3.4 of the 2018 Registration Document filed with the AMF on March 29, 2019 under number D.19-0227; the consolidated financial statements were prepared in accordance with IFRS as adopted by the European Union.

Those sections of the 2017 and 2018 Registration Documents that are not incorporated by reference in this document are either considered no longer pertinent for investors or are dealt with in another section of the 2019 Universal Registration Document.

3.1 GROUP CONSOLIDATED FINANCIAL STATEMENTS AT DECEMBER 31, 2019

Consolidated income statement

(in € millions)	Note	2018*	2019
Revenue	6	21,025	25,098
Other income	7	321	297
Income from operations		21,346	25,395
Change in inventories of finished goods and work-in-progress		3	453
Capitalized production		447	438
Raw materials and consumables used	7	(12,440)	(14,448)
Personnel costs	7	(5,665)	(6,349)
Taxes		(295)	(388)
Depreciation, amortization and increase in provisions, net of use	7	(1,176)	(1,600)
Asset impairment	7	62	57
Other recurring operating income and expenses	7	(191)	102
Share in profit from joint ventures	16	189	164
Recurring operating income		2,280	3,824
Other non-recurring operating income and expenses	7	(115)	13
Profit from operations		2,165	3,837
Cost of net debt		(67)	(33)
Foreign exchange gain (loss)		(351)	(283)
Other financial income and expense		(58)	(47)
Financial income (loss)	8	(476)	(363)
Profit before tax		1,689	3,474
Income tax expense	9	(348)	(962)
PROFIT FOR THE PERIOD		1,341	2,512
Attributable to:			
■ owners of the parent		1,283	2,447
■ non-controlling interests		58	65
Earnings per share attributable to owners of the parent (in €)	10		
Basic earnings per share		2.98	5.69
Diluted earnings per share		2.94	5.63

(*) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see Note 3.a, "Application of IFRS 16").

Consolidated statement of comprehensive income

(in € millions)	Note	2018	2019
Profit for the period		1,341	2,512
Other comprehensive income			
Items to be reclassified to profit		213	131
Translation adjustments		230	144
Remeasurement of hedging instruments		(47)	(22)
Income tax related to components of other comprehensive income to be reclassified to profit		15	7
Share in other comprehensive income of equity-accounted companies to be reclassified to profit (net of tax)	16	15	2
Items not to be reclassified to profit		35	(119)
Actuarial gains and losses on post-employment benefits	25.c	46	(119)
Income tax related to components of other comprehensive income not to be reclassified to profit		(7)	32
Share in other comprehensive income (expense) of equity-accounted companies not to be reclassified to profit (net of tax)		(4)	(32)
Other comprehensive income for the period		248	12
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD		1,589	2,524
Attributable to:			
■ owners of the parent		1,524	2,461
■ non-controlling interests		65	63

In 2019, other comprehensive income relating to translation adjustments includes:

- €3 million in translation gains (€2 million in translation gains in 2018) arising in the period on long-term financing granted to foreign subsidiaries. This financing meets the criteria for classification as a net investment in a foreign operation, and is treated in accordance with the applicable provisions of IAS 21;
- €141 million in translation gains (€228 million in translation gains in 2018) arising in the period on foreign operations.

In 2019, other comprehensive income resulting from the remeasurement of hedging instruments includes:

- €17 million in translation losses (€47 million in translation losses in 2018) arising in the period on the February 2012 issue by Safran of USD 1.0 billion in senior unsecured notes on the US private placement market, classified as a hedge of the net investment in some of the Group's US operations up to the end of first-quarter 2019. The outstanding balance of the reserve for the discontinued net investment hedge is €5 million (see the consolidated statement of changes in shareholders' equity);

- €5 million in negative fair value adjustments relating to cash flow hedges of interest payments on senior unsecured notes as of the end of first-quarter 2019. The outstanding balance of the ongoing cash flow hedging reserve is a negative €5 million (see the consolidated statement of changes in shareholders' equity).

Other comprehensive income relating to equity-accounted companies (net of tax) includes (see Note 16, "Investments in equity-accounted companies"):

- €9 million in foreign exchange gains arising in the period on foreign joint ventures (€20 million in foreign exchange gains in 2018);
- a negative amount of €7 million relating to cash flow hedges of joint ventures (a negative amount of €5 million in 2018); and
- €32 million in actuarial losses on pension and similar obligations of joint ventures (actuarial losses of €4 million in 2018).

Consolidated balance sheet

Assets

(in € millions)	Note	Dec. 31, 2018*	Dec. 31, 2019
Goodwill	11	5,173	5,199
Intangible assets	12	9,757	9,479
Property, plant and equipment	13	4,454	4,398
Right-of-use assets	14	-	732
Non-current financial assets	15	416	429
Investments in equity-accounted companies	16	2,253	2,211
Non-current derivatives (positive fair value)	31	13	33
Deferred tax assets	9	391	251
Other non-current financial assets		4	4
Non-current assets		22,461	22,736
Current financial assets	15	185	143
Current derivatives (positive fair value)	31	740	674
Inventories and work-in-progress	17	5,558	6,312
Contract costs	18	470	471
Trade and other receivables	19	6,580	7,639
Contract assets	20	1,544	1,743
Tax assets	9	752	458
Cash and cash equivalents	21	2,330	2,632
Current assets		18,159	20,072
TOTAL ASSETS		40,620	42,808

Equity and liabilities

(in € millions)	Note	Dec. 31, 2018*	Dec. 31, 2019
Share capital	23	87	85
Consolidated reserves and retained earnings	23	10,585	9,839
Profit for the period		1,283	2,447
Equity attributable to owners of the parent		11,955	12,371
Non-controlling interests		346	377
Total equity		12,301	12,748
Provisions	24	1,588	2,093
Borrowings subject to specific conditions	26	585	505
Non-current interest-bearing financial liabilities	27	3,384	3,239
Non-current derivatives (negative fair value)	31	7	5
Deferred tax liabilities	9	1,662	1,340
Other non-current financial liabilities	29	2	2
Non-current liabilities		7,228	7,184
Provisions	24	1,189	990
Current interest-bearing financial liabilities	27	2,221	3,540
Trade and other payables	28	5,650	6,164
Contract liabilities	20	10,453	10,923
Tax liabilities	9	210	111
Current derivatives (negative fair value)	31	1,255	1,033
Other current financial liabilities	29	113	115
Current liabilities		21,091	22,876
TOTAL EQUITY AND LIABILITIES		40,620	42,808

(*) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see Note 3.a, "Application of IFRS 16").

Consolidated statement of changes in shareholders' equity

(in € millions)	Share capital	Additional paid-in capital	Treasury shares	Remeasurement of hedging instruments	Translation adjustments	Consolidated reserves and retained earnings	Actuarial gains and losses on post-employment benefits	Profit (loss) for the period	Other	Equity attributable to owners of the parent	Non-controlling interests	Total
At January 1, 2018	83	3,360	(509)	69	9	2,073	(433)	4,550	143	9,345	301	9,646
Comprehensive income (expense) for the period	-	-	-	(47)	243	(5)	42	1,283	8 ⁽¹⁾	1,524	65	1,589
Acquisitions/disposals of treasury shares	-	-	(14)	-	-	-	-	-	-	(14)	-	(14)
Dividends	-	-	-	-	-	(695)	-	-	-	(695)	(26)	(721)
OCÉANE 2018-2023 bonds	-	-	-	-	-	31	-	-	-	31	-	31
OCÉANE 2016-2020 bond redemption	-	-	15	-	-	(113)	-	-	-	(98)	-	(98)
Share buyback programs	(2)	(950)	428	-	-	-	-	-	-	(524)	-	(524)
Acquisition of Zodiac Aerospace ⁽²⁾	6	2,238	-	-	-	162	-	-	-	2,406	-	2,406
Acquisition of non-controlling interests	-	38	-	-	-	(44)	-	-	-	(6)	6	-
Other movements, including appropriation of profit	-	-	-	-	-	4,550	-	(4,550)	(14)	(14)	-	(14)
At December 31, 2018	87	4,686	(80)	22	252	5,959	(391)	1,283	137	11,955	346	12,301
Change in accounting policy (IFRS 16)	-	-	-	-	-	(5)	-	-	-	(5)	-	(5)
At January 1, 2019	87	4,686	(80)	22	252	5,954	(391)	1,283	137	11,950	346	12,296
Comprehensive income (expense) for the period	-	-	-	(22)	153	(7)	(161)	2,447	51 ⁽¹⁾	2,461	63	2,524
Acquisitions/disposals of treasury shares	-	-	(223)	-	-	-	-	-	-	(223)	-	(223)
Dividends	-	-	-	-	-	(785)	-	-	-	(785)	(32)	(817)
Share buyback programs	-	-	(1,076)	-	-	-	-	-	-	(1,076)	-	(1,076)
Increase/decrease in share capital	(2)	2	1,076	-	-	(1,074)	-	-	-	2	-	2
Other movements, including appropriation of profit	-	-	-	-	-	1,283	-	(1,283)	42	42	-	42
At December 31, 2019	85	4,688	(303)	-	405	5,371	(552)	2,447	230	12,371	377	12,748

(1) See table below:

(in € millions)	Tax impact on actuarial gains and losses	Tax impact on foreign exchange differences	Total
Comprehensive income (expense) for 2018 (attributable to owners of the parent)	(7)	15	8
Comprehensive income (expense) for 2019 (attributable to owners of the parent)	44	7	51

(2) Including €2,244 million relating to the public exchange offer (see Note 4, "Scope of consolidation").

Consolidated statement of cash flows

(in € millions)	Note	2018*	2019
I. CASH FLOW FROM OPERATING ACTIVITIES			
Profit attributable to owners of the parent		1,283	2,447
Depreciation, amortization, impairment and provisions ⁽¹⁾		1,235	1,589
Share in profit/loss from equity-accounted companies (net of dividends received)	16	(124)	(87)
Change in fair value of currency and interest rate derivatives ⁽²⁾	31	316	(152)
Capital gains and losses on asset disposals		12	(41)
Profit attributable to non-controlling interests		58	65
Other ⁽³⁾		318	221
Cash flow from operations, before change in working capital		3,098	4,042
Change in inventories and work-in-progress	17	(393)	(590)
Change in operating receivables and payables ⁽⁴⁾	19, 28, 31	(280)	(563)
Change in contract costs	18	2	11
Change in contract assets and liabilities	20	746	218
Change in other receivables and payables	19, 28	(102)	27
Change in working capital		(27)	(897)
TOTAL I		3,071	3,145
II. CASH FLOW USED IN INVESTING ACTIVITIES			
Capitalization of R&D expenditure ⁽⁵⁾	12	(327)	(333)
Payments for the purchase of intangible assets, net ⁽⁶⁾		(183)	(134)
Payments for the purchase of property, plant and equipment, net ⁽⁷⁾		(780)	(695)
Payments for the acquisition of investments or businesses, net ⁽⁸⁾		(4,172)	(29)
Proceeds arising from the sale of investments or businesses, net		18	47
Proceeds (payments) arising from the sale (acquisition) of investments and loans, net ⁽⁹⁾		1,950	39
TOTAL II		(3,494)	(1,105)
III. CASH FLOW USED IN FINANCING ACTIVITIES			
Change in share capital - owners of the parent		-	2
Change in share capital - non-controlling interests		(1)	(9)
Acquisitions and disposals of treasury shares	23.b	(539)	(1,299)
Repayment of borrowings and long-term debt ⁽¹⁰⁾	27	(1,895)	(875)
Increase in borrowings	27	1,480	24
Change in repayable advances	26	(10)	(27)
Change in short-term borrowings	27	(472)	1,261
Dividends and interim dividends paid to owners of the parent	23.e	(695)	(785)
Dividends paid to non-controlling interests		(26)	(32)
TOTAL III		(2,158)	(1,740)
EFFECT OF CHANGES IN FOREIGN EXCHANGE RATES	TOTAL IV	(3)	2
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	I+II+III+IV	(2,584)	302
Cash and cash equivalents at beginning of period		4,914	2,330
Cash and cash equivalents at end of period	21	2,330	2,632
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		(2,584)	302

(*) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see Note 3.a, "Application of IFRS 16").

(1) Including in 2019: depreciation and amortization for €1,463 million (€1,209 million in 2018), impairment for €42 million (€19 million in 2018) and additions to provisions for €168 million (€45 million in 2018).

(2) Including in 2019: a negative €155 million arising on currency derivatives (a positive €274 million in 2018) (see Note 31, "Management of market risks and derivatives").

(3) Including in 2019: cancellation of deferred tax expense arising on changes in the fair value of currency derivatives for a positive €60 million (a negative €80 million in 2018); cancellation of tax expense for €902 million (€428 million in 2018); €887 million in taxes paid (€531 million in 2018); €93 million in interest paid (€87 million in 2018); and €49 million in interest received (€26 million in 2018). Including in 2018: €340 million relating to the remeasurement of inventories.

(4) Including in 2019: no net premiums on currency options (see Note 31, "Management of market risks and derivatives"), shown on the balance sheet under current derivatives with a negative fair value (net premiums for €1 million in 2018).

(5) Including in 2019: capitalized interest of €8 million (€7 million in 2018).

(6) Including in 2019: €133 million in disbursements for acquisitions of intangible assets (€169 million in 2018), no proceeds from disposals (€10 million in 2018), and changes in amounts payable on acquisitions of non-current assets representing a negative €1 million (a negative €24 million in 2018).

(7) Including in 2019: €777 million in disbursements for acquisitions of property, plant and equipment (€797 million in 2018), changes in amounts payable on acquisitions of non-current assets representing a positive €9 million (a negative €5 million in 2018), €73 million in proceeds from disposals (€26 million in 2018), and zero changes in amounts receivable on disposals of non-current assets (changes representing a negative €4 million in 2018).

(8) Including in 2018: the acquisition of Zodiac Aerospace for €4,092 million (amount paid as part of the tender offer net of cash and cash equivalents acquired).

(9) Including in 2018: the transfer to cash and cash equivalents of €2,000 million in money market funds pledged during the tender offer for Zodiac Aerospace and previously classified under other financial assets (see Note 15, "Current and non-current financial assets").

(10) Including in 2018: repayment of the €250 million Zodiac Aerospace hybrid loan (see Note 27, "Interest-bearing financial liabilities").

Notes to the Group consolidated financial statements

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Safran (2, boulevard du Général Martial-Valin – 75724 Paris Cedex 15, France) is a *société anonyme* (joint-stock corporation) incorporated in France and permanently listed on Compartment A of the Euronext Paris Eurolist market.

The consolidated financial statements reflect the accounting position of Safran SA and the subsidiaries it controls, directly or indirectly and jointly or exclusively, as well as entities over which it exercises a significant influence (the “Group”).

The consolidated financial statements are drawn up in euros and all amounts are rounded to the nearest million unless otherwise stated.

The Board of Directors’ meeting of February 26, 2020 adopted and authorized for issue the 2019 consolidated financial statements. The consolidated financial statements will be final once they have been approved by the General Shareholders’ Meeting.

NOTE 1 ACCOUNTING POLICIES

The consolidated financial statements of Safran and its subsidiaries have been prepared in accordance with the International Financial Reporting Standards (IFRS) published by the International Accounting Standards Board (IASB) and adopted by the European Union (available from http://ec.europa.eu/finance/accounting/ias/index_en.htm) at the date the consolidated financial statements were approved by the Board of Directors. They include standards approved by the IASB, namely IFRS, International Accounting Standards (IAS), and interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC) or its predecessor, the Standing Interpretations Committee (SIC).

Changes in accounting policies

New IFRS standards, amendments and interpretations effective as of January 1, 2019

- IFRS 16, “Leases”;
- Amendments to IFRS 9, “Financial Instruments” – Prepayment Features with Negative Compensation;
- Amendments to IAS 19, “Employee Benefits” – Plan Amendment, Curtailment or Settlement;
- Amendments to IAS 28, “Investments in Associates and Joint Ventures” – Long-term Interests in Associates and Joint Ventures;
- Annual Improvements to IFRSs published in December 2017 (2015-2017 cycle);
- IFRIC 23, “Uncertainty over Income Tax Treatments”.

The impacts resulting from the application of IFRS 16 are set out in Note 3, “Change in accounting policy”.

The other standards, amendments and interpretations effective for reporting periods beginning on or after January 1, 2019 do not have a material impact on the Group’s consolidated financial statements.

New published IFRS standards, amendments and interpretations early adopted by the Group as of January 1, 2019

- Amendments to IFRS 9, “Financial Instruments” and IFRS 7, “Financial Instruments: Disclosures” – Interest Rate Benchmark Reform.

In 2019, the Group chose to early adopt the amendments to IFRS 9 and IFRS 7 published by the IASB in September 2019 and adopted by the European Union as part of the interest rate benchmark reform.

The amendments allow the Group to disregard uncertainties about the future of benchmark rates when assessing hedge effectiveness and/or when assessing the highly probable nature of the hedged risk, thereby securing current or future hedging relationships until those uncertainties are resolved.

Interest rate derivatives designated as hedges of borrowings indexed to a benchmark rate are described in Note 31, “Management of market risks and derivatives”.

In addition, the Group is currently analyzing the impacts of future changes to benchmark indices.

New published IFRS standards, amendments and interpretations not yet effective or not early adopted by the Group

- IFRS 17, “Insurance Contracts”;
- Amendments to IAS 1, “Presentation of Financial Statements” – Classification of Liabilities as Current or Non-Current;
- Amendments to IAS 1, “Presentation of Financial Statements” and IAS 8, “Accounting Policies, Changes in Accounting Estimates and Errors” – Definition of Material;
- Amendments to IAS 28, “Investments in Associates and Joint Ventures” and IFRS 10, “Consolidated Financial Statements” – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture;
- Amendments to IFRS 3, “Business Combinations” – Definition of a Business.

Except for the amendments to IAS 1 and IAS 8 – Definition of Material, these new standards, amendments and interpretations have not yet been adopted by the European Union and cannot therefore be applied ahead of their effective date even where early adoption is permitted by the texts concerned.

a) Basis of measurement used to prepare the consolidated financial statements

The consolidated financial statements are prepared on a historical cost basis except for certain assets and liabilities, as allowed by IFRS. The categories of assets and liabilities not measured at historical cost are disclosed in the sections below.

b) Consolidation

Basis of consolidation

Entities over which Safran directly or indirectly exercises permanent de facto or de jure control are fully consolidated when their contribution to certain consolidated indicators is material or when their business is strategic for the Group. These are entities over which the Group has the power to direct the relevant activities in order to earn returns and can affect those returns through its power over the investee. Power generally results from holding a majority of voting rights (including potential voting rights when these are substantive) or contractual rights.

Entities controlled jointly by Safran and another group, known as joint arrangements, are entities for which decisions about the relevant activities (approval of the budget, management appointments, etc.) require the unanimous consent of the parties sharing control. There are two types of joint arrangement:

- joint operations are entities where, based on the structure and legal form of the arrangement, the terms agreed by the parties in the contractual arrangement, or other facts and circumstances, the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Each partner accounts for the assets, liabilities, revenues and expenses relating to its involvement in a joint operation, unless the arrangement specifies otherwise;
- joint ventures are entities where the parties that have joint control of the arrangement have rights to the net assets of the arrangement only. Each partner recognizes its share in the net assets of the venture using the equity method.

Entities over which Safran exercises significant influence (associates) are accounted for under the equity method. Significant influence is presumed to exist when the Group holds at least 20% of the voting rights. However, significant influence must be demonstrated when the Group holds less than 20% of the voting rights. The fact that the Group is represented on its investee's management body (Board of Directors, etc.) indicates that it exercises significant influence over that investee.

A company effectively enters the scope of consolidation at the date on which sole or joint control is acquired or significant influence is exercised.

The removal of a company from the scope of consolidation is effective as of the date sole or joint control or significant influence is relinquished. If the loss of control occurs without any transfer of interest, for example due to dilution, the company's removal from the scope of consolidation is simultaneous with the event that triggers such loss of control or significant influence.

Non-controlling interests represent the portion of profit and net assets not held by owners of the parent, and are presented separately in the income statement, statement of comprehensive income and shareholders' equity.

IFRS 10 states that any changes in the percent interest in a fully consolidated company that do not result in the loss or acquisition of control are to be recognized in equity attributable to owners of the parent. This applies to acquisitions of additional shares in a subsidiary after control has been obtained in a previous acquisition or to sales of shares that do not result in a loss of control.

Sales of shares that result in a loss of control are to be recognized in profit or loss and the gain or loss on disposal is to be calculated on the entire ownership interest at the date of the transaction. Certain other items of comprehensive income attributable to majority shareholders will be reclassified to income. Any residual interest retained is to be remeasured at fair value through profit or loss when control is relinquished.

Acquisitions of shares that give the Group sole control over an entity will be recognized in accordance with the policies governing business combinations described in Note 1.c.

Intragroup transactions

All material transactions between fully consolidated companies are eliminated, as are internally generated Group profits.

When a fully consolidated company carries out a transaction (e.g., sale or transfer of an asset to a joint operation, joint venture or associate), any resulting gains or losses are recognized in the consolidated financial statements solely to the extent of the percentage interest held in the joint operation, joint venture or associate outside the Group.

However, when a fully consolidated company carries out a transaction (e.g., purchase of an asset) with one of its joint operations, joint ventures or associates, the Group's share of the gain or loss is only recognized in the consolidated financial statements when the fully consolidated entity resells that asset to a third party.

Such transactions are not eliminated when the joint operation acts solely as an intermediary (agent) or renders balanced services for the benefit of, or as a direct extension of, the businesses of its various shareholders.

c) Business combinations

The Group applies the revised IFRS 3.

Acquisition method

Business combinations are accounted for using the acquisition method at the date on which control is obtained:

- identifiable assets acquired and liabilities assumed are measured at their acquisition-date fair value;
- where applicable, non-controlling interests in the acquiree are measured either at fair value or at the Group's share in the acquiree's net identifiable assets (including fair value adjustments). This option is available for all business combinations based on a case-by-case analysis of each transaction;
- acquisition-related costs (transaction fees) must be recognized separately from the combination as expenses in the period in which they are incurred;

■ any contingent consideration relating to business combinations (earn-out clauses) is measured at fair value at the acquisition date. After the acquisition date, any adjustments to the consideration are measured at fair value at the end of each reporting period. The cost of the combination, including where appropriate the estimated fair value of any contingent consideration, is finalized within the 12 months following the acquisition (measurement period). Any changes in the fair value of such consideration more than 12 months after the measurement period are recognized in profit or loss. Only items that should have been taken into account at the date of the combination but for which the acquirer did not hold all of the relevant information at that date can give rise to an adjustment in the purchase price consideration.

Any previously held interests in the acquiree are remeasured to fair value, with the resulting gain or loss recognized in profit or loss.

Goodwill

At the acquisition date, goodwill is measured as the difference between:

- the acquisition-date fair value of the consideration transferred, plus the amount of any non-controlling interest in the acquiree, measured based on the share in the net assets acquired (including fair value adjustments), or on the overall value of the acquiree; and
- the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed.

When goodwill arises on the acquisition of fully consolidated companies or interests in joint operations, it is carried under assets in the balance sheet under the heading "Goodwill". Negative goodwill is recorded immediately in profit or loss. However, goodwill arising on the acquisition of interests in joint ventures and associates is recorded on the line "Investments in equity-accounted companies", in accordance with IAS 28.

Goodwill may be adjusted within 12 months of the acquisition to take into account the definitive estimate of the fair value of the assets acquired and liabilities assumed. Only new information about facts and circumstances existing at the date of the combination can give rise to an adjustment against goodwill. Beyond this period, adjustments are recorded in profit or loss.

Goodwill arising as part of a business combination is allocated to cash-generating units (CGUs), as described in Note 1.m. Goodwill is not amortized but is tested for impairment at least annually and whenever there are events or circumstances indicating that it may be impaired, as described in Note 1.m. Impairment is taken to profit or loss and may not be reversed.

d) Discontinued operations and assets (or disposal groups) held for sale

A non-current asset or group of non-current assets and directly associated liabilities are classified as held for sale if their carrying amount is expected to be recovered principally through a sale transaction rather than through continuing use. For this to be the case, the asset (or disposal group) must be available for immediate sale and its sale must be highly probable within a maximum period of one year. Non-current assets or disposal groups held for sale are measured at the lower of their carrying amount and fair value less costs to sell, and are presented on separate lines of the consolidated balance sheet.

In accordance with IFRS 5, a discontinued operation represents a separate major line of business or geographic area of operations for the Group that either has been disposed of, or is classified as held for sale. The income, expenses and cash flows attributable to the operations disposed of or held for sale are presented on separate lines of the consolidated financial statements for all periods presented. The assets and liabilities attributable to the operations disposed of or held for sale are presented on separate lines of the consolidated balance sheet for the last period presented only.

In accordance with IFRS 5, further to classification as discontinued operations or assets held for sale:

- the activities are measured at the lower of their carrying amount and their fair value less estimated costs to sell;
- depreciation/amortization of the non-current assets relating to the activities ceases;
- the non-current assets included in the discontinued operations are no longer tested for impairment;
- symmetrical positions on the balance sheet between continuing operations and discontinued operations continue to be eliminated.

e) Translation methods

The financial statements of subsidiaries with a different functional currency than that used by the Group are translated into euros as follows:

- assets and liabilities are translated at the year-end closing exchange rate, while income statement and cash flow items are translated at the average exchange rate for the year;
- translation gains and losses resulting from the difference between the closing exchange rate at the previous year-end and the closing exchange rate at the end of the current reporting period, and from the difference between the average and closing exchange rates for the period, are recorded in equity as translation adjustments.

On disposal of a foreign operation, cumulative foreign exchange differences are recognized in profit or loss as a component of the gain or loss on disposal. For any disposal, the foreign exchange differences recognized in profit or loss are determined based on direct consolidation of the foreign operation in the Group's financial statements.

In the first quarter of 2019, the Group unwound the net investment hedge that it had set up for some of its foreign operations. A description of this hedge is provided in Note 1.w.

f) Translation of foreign currency transactions and foreign currency derivatives

Transactions denominated in currencies other than the presentation currencies of Group entities are translated into euros at the exchange rate prevailing at the transaction date.

At the end of the reporting period, monetary assets and liabilities denominated in foreign currencies are translated at the closing rate. Any resulting foreign exchange gains and losses are recognized in "Financial income (loss)" for the period, except for translation differences relating to a financial instrument designated as a net investment hedge, which are reported in other comprehensive income (see Note 1.w). Advances and downpayments paid or

received, prepaid expenses and deferred income continue to be recorded on the balance sheet at the initial amount for which they were recognized.

Long-term monetary assets held by a Group entity on a foreign subsidiary for which settlement is neither planned nor likely to occur in the foreseeable future, represent an investment in a foreign operation. In accordance with IAS 21, "The Effects of Changes in Foreign Exchange Rates", foreign exchange differences arising on these items are recorded in other comprehensive income (OCI) up to the date on which the investment is sold, when they are recognized as part of the gain or loss on disposal. If the transaction does not qualify as a net investment in a foreign operation, the corresponding exchange differences are recognized in the income statement.

The Group uses currency derivatives to manage and hedge its exposure to fluctuations in exchange rates which can impact revenue net of foreign-currency denominated purchases. The Group's forex hedging strategy along with the forward currency contracts and options it uses are described in Note 31, "Management of market risks and derivatives".

Pursuant to IFRS 9, these foreign currency derivatives are recognized in the balance sheet at their fair value at the end of the reporting period. In view of the constraints resulting from applying IFRS 3 to the Sagem-Snecma business combination and the fact that most derivative instruments used by Safran do not qualify for hedge accounting under IFRS 9, the Group decided not to apply hedge accounting to any of its foreign currency derivatives. Accordingly, any changes in the fair value of these derivatives are recognized in "Financial income (loss)".

g) Income from operations

The main customer contract types identified within the Group are:

- sales of original equipment engines and spare engines, serial production equipment and spare parts;
- sales of installed base maintenance and support contracts;
- sales of time and materials service contracts;
- sales of contracts with multiple elements ("combined contracts");
- sales of studies.

The IFRS 15 revenue recognition rules applicable to each of these contract types are outlined below.

On rare occasions, the impact of a financing component will also be taken into account in recognizing revenue, when the component is significant relative to the contract transaction price.

Sales of original equipment engines and spare engines, serial production equipment and spare parts

For sales of engines, production equipment and spare parts, the performance obligation is generally defined for each individual product or service and not for a series of products and services.

Development work may be carried out prior to production and be wholly or partly financed by the customer.

Sales of development work primarily concern the Aircraft Equipment, Defense and Aerosystems and Aircraft Interiors sectors.

Development work financed by customers is generally inseparable from serial production and does not therefore represent a separate performance obligation. Accordingly, customer-financed development work will be recognized within contract liabilities in the balance sheet when the funding is received, and subsequently taken to "serial" revenue in full as and when the related products are delivered.

However, financed development work that represents a separate performance obligation is recognized in revenue upon completion of the performance obligation when control is transferred at a point in time, or on a percentage-of-completion basis (cost-to-cost method) if control is transferred over time.

Extended warranties granted in connection with sales of engines or production equipment represent a separate performance obligation when the warranty is an additional service that is not granted to all customers (unlike a standard warranty). In this case, a portion of the transaction price of the engines or production equipment is allocated to this warranty and recognized within contract liabilities.

The contract liability will be reversed against revenue as and when the warranty costs are incurred.

Revenue recognized for each engine, item of production equipment or spare part is net of any discounts granted in any form whatsoever, including guarantees resembling trade discounts (performance bonds, fuel consumption, etc.) and any products or services granted free of charge which do not represent separate performance obligations.

When products or services granted free of charge are transferred to customers before the revenue recognition date, they are recognized in the balance sheet within contract assets until the date revenue is recognized.

Revenue is recognized when control of each product is transferred, which is usually upon delivery (i.e., at a point in time).

Where there is a risk of the transaction being canceled or the receivable not being recovered at the inception of the contract, no revenue is recognized. When the risk no longer exists, revenue is recorded.

When a contract is onerous, the Group recognizes a loss on delivery commitments (see Note 1.s).

Downpayments from customers are included in contract liabilities when they are received and taken to revenue when the products to which they relate are delivered.

Sales of installed base maintenance and support contracts

Certain maintenance and support contracts require a fleet of engines or various equipment to be kept in flying condition. These contracts are billed based on the number of flight hours or landings for the engines/equipment concerned.

The different services provided under each such contract represent a single performance obligation since the services are related when the contracts are fulfilled.

Revenue is recognized if:

- the stage of contract completion can be measured reliably; and
- the costs incurred in respect of the contract and the costs to complete the contract can be measured reliably.

If control is transferred over time, revenue is recognized on a percentage-of-completion basis (cost-to-cost method).

If contract income cannot be measured reliably, revenue is only recognized to the extent of the contract costs incurred.

Forecast contract margins are reviewed on a regular basis. A provision is set aside for any losses on completion as soon as such losses are foreseeable (see Note 1.s).

Contract modifications do not generally result in the addition of separate goods or services to the original contract. Accordingly, the associated revenue adjustment at that date results in an immediate adjustment to profit or loss ("catch-up method").

Amounts billed to customers for which payment has generally been received but which have not yet been recognized in revenue, are included within contract liabilities (deferred income) at the end of the reporting period. In contrast, revenue which has been recognized but which has not yet been billed is recorded within contract assets in the balance sheet at the reporting date.

Sales of time and materials service contracts

These contracts may cover engines or production equipment and are generally entered into on a short-term basis.

They represent a single performance obligation.

Revenue generated on these contracts is recognized once the repair service has been provided (i.e., at a point in time).

Sales of contracts with multiple elements

Contracts with multiple elements are contracts that include the sale of specific development work as well as the sale of both goods and services.

The Group identifies separate performance obligations for each contract and determines the date on which control is transferred.

In general, for these contracts:

- the specific development work or customization assignments for a given contract and customer do not represent a separate performance obligation since the development and customization are inseparable from serial production. Costs associated with the development and installation are initially recognized in assets within contract costs if they are recoverable, and subsequently expensed over the contract term;
- financing received from the customer for the development work or customization assignment is recognized as revenue as and when the various performance obligations under the contract are satisfied;
- revenue generated on the serial production and service portion of the contract is recognized either on delivery of the goods, or on a percentage-of-completion basis (cost-to-cost method), depending on the nature of the performance obligation.

Sales of studies

These types of contract are found in all of the Group's business sectors. Generally speaking, each study represents a separate performance obligation since control of the development work is transferred to the customer, often through the transfer of intellectual property.

Revenue is recognized on a percentage-of-completion basis (cost-to-cost method) when control is transferred over time, or once the performance obligation has been satisfied if control is transferred at a point in time.

IFRS 15 may result in the recognition in the balance sheet of contract assets and liabilities and of contract costs:

- a contract asset denotes Safran's right to consideration in exchange for goods or services that it has transferred, when that right is conditioned on something other than the passage of time. Contract assets mainly include amounts relating to revenue recognized on a percentage-of-completion basis where Safran does not have the right to immediately bill the customer. A contract asset is written down, where appropriate, using the simplified impairment model set out in IFRS 9 (see Note 1.n);
 - a contract liability denotes Safran's obligation to transfer goods or services to a customer for which it has received consideration in cash or in kind.
- Contract liabilities include advances and downpayments received, deferred income and concession liabilities;
- contract costs include costs to fulfill contracts that do not fall within the scope of other standards (IAS 16, IAS 38 and IAS 2 in particular) and costs to obtain contracts paid to third parties (commission, etc.).

h) Current and deferred tax

Tax expense (tax income) is the aggregate of current tax and deferred tax recorded in the income statement.

Current tax expense is the amount of income tax payable for a period, calculated in accordance with the rules established by the relevant tax authorities on the basis of taxable profit for the period. Current tax expense also includes any penalties recognized in respect of tax adjustments recorded in the period. The tax expense is recognized in profit or loss unless it relates to items recognized directly in equity, in which case the tax expense is recognized directly in equity.

Deferred tax assets and liabilities are calculated for each entity on temporary differences arising between the carrying amount of assets and liabilities and their corresponding tax base. The tax base depends on the tax regulations prevailing in the countries where the Group manages its activities. Tax losses and tax credits that can be carried forward are also taken into account.

Deferred tax assets are recognized in the balance sheet if it is likely that they will be recovered in subsequent years. The value of deferred tax assets is reviewed at the end of each annual reporting period.

Deferred tax assets and liabilities are not discounted.

Deferred tax assets and liabilities are offset when tax is levied by the same tax authority and offsetting is permitted by the local tax authorities.

The liability method is applied and the impact of changes in tax rates is recognized in profit or loss for the period in which the corresponding tax law was enacted and the change in tax rate decided, unless the transactions concerned are recognized directly in equity.

Research tax credits in France, or any similar tax arrangements in other jurisdictions, are considered as operating subsidies related to research and development expenditures incurred during the period. Accordingly, they are classified under the heading "Other income" in the income statement, and not as a decrease in income tax expense. The recognition of all or part of research tax credits received in the year as revenue can be deferred over several periods provided the tax credits relate to development expenditures capitalized in the Group's consolidated financial statements.

Up to the end of 2018, the CICE tax credit introduced to boost competitiveness and employment in France was also recognized in "Other income" as it was treated as an operating subsidy.

i) Earnings per share

Basic earnings per share is calculated by dividing attributable profit by the weighted average number of ordinary shares issued and outstanding during the period, less the average number of ordinary shares purchased and held as treasury shares.

Diluted earnings per share is calculated by dividing attributable profit by the weighted average number of shares issued or to be issued at the end of the reporting period, excluding treasury shares and including the impact of all potentially dilutive ordinary shares, particularly those resulting from convertible bonds or an outstanding share buyback program. The dilutive impact of convertible bonds results from the shares that may be created if all bonds issued were to be converted. The dilutive impact of share buyback programs is calculated using the reverse treasury stock method which compares the closing share price with the average share price for the period concerned.

j) Intangible assets

Intangible assets are recognized on the balance sheet at fair value, historical cost or production cost, depending on the method of acquisition. Borrowing costs directly attributable to the acquisition, construction or production of an intangible asset are included in the cost of that asset when a significant period of time is needed to prepare the asset for its intended use or sale (generally more than 12 months). The initial amount recorded on the balance sheet is reduced by accumulated amortization and impairment losses, where appropriate.

Intangible assets acquired in a business combination

These assets are recognized at fair value at the date control was acquired and are amortized on a straight-line basis, as described below:

- intangible assets recognized at the time of the 2005 Sagem-Snecma merger and on the acquisition of Rolls Royce's stake in the RTM322 program and classified under "Aircraft programs" are accounted for by program (the fair value of each recognized aircraft program, covering several types of intangible asset such as technologies, backlogs and customer relations) and are amortized over the residual useful life of the programs, not to exceed 20 years;
- intangible assets acquired as part of a business combination carried out since the Group was established (also including technologies, customer relations and other intangible assets

acquired) are amortized over the estimated useful life of each identified intangible asset (1 to 23 years).

Separately acquired intangible assets

Software is recognized at acquisition cost and amortized on a straight-line basis over its useful life (between one and five years).

Patents are capitalized at acquisition cost and amortized over their useful life, i.e., the shorter of the period of legal protection and their economic life.

Contributions paid to third parties in connection with aircraft programs (participation in certification costs, etc.) are considered as acquired intangible assets and are therefore capitalized unless the program proves unprofitable.

Research and development costs

Research and development costs are recognized as expenses in the period in which they are incurred. However, internally financed development expenditures are capitalized if the entity can demonstrate all of the following:

- the technical feasibility of completing the intangible asset and the intention and ability (availability of technical, financial and other resources) to complete the intangible asset and use or sell it;
- the probability that future economic benefits will flow from the asset;
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

In the Group's businesses, all criteria for capitalizing development expenditures are met when the decision to launch the development concerned is taken by management and program/project profitability as validated by relevant internal or external sources can be demonstrated. Development expenditures cannot be capitalized before this time.

Capitalization of development expenditures ceases as soon as the product to which the expenditures relate is brought into service.

Capitalized development expenditures are stated at production cost and amortized primarily using the straight-line method as from the initial delivery of the product, over a useful life not exceeding 20 years. Certain capitalized development expenditures are amortized based on production units.

Intangible assets are tested for impairment in accordance with the methods set out in Note 1.m.

k) Property, plant and equipment

Property, plant and equipment are recorded in the balance sheet at historical purchase cost or production cost less accumulated depreciation and impairment losses.

The main useful lives applied to calculate the depreciation schedule are as follows:

Buildings	15-40 years
Technical facilities	5-40 years
Equipment, tooling and other	5-15 years

Borrowing costs directly attributable to the acquisition, construction or production of an item of property, plant and equipment are included in the cost of that item when a significant period of time is needed to prepare the asset for its intended use or sale (generally more than 12 months).

Replacement and major overhaul costs are identified as components of property, plant and equipment. Other repair and maintenance costs are expensed as incurred.

Property, plant and equipment are tested for impairment in accordance with the methods set out in Note 1.m.

l) Leases

All property leases together with the Group's main leases of groups of assets (vehicles, handling equipment, etc.) are accounted for in accordance with IFRS 16.

At the commencement of the lease:

- a lease liability is recognized for the present value of the lease payments to be made over the estimated term of the lease (fixed payments, plus variable lease payments that depend on an index or rate plus amounts expected to be payable by the lessee under residual value guarantees plus the exercise price of a purchase or extension option if the lessee is reasonably certain to exercise that option plus payments of penalties for terminating the lease, unless these are unlikely);
- a right-of-use asset is recognized for the amount of the lease liability, plus the amount of any lease payments made at or before the commencement date, any initial direct costs incurred by the lessee (fees and commission) and an estimate of costs to be incurred in dismantling and removing the asset and/or restoring the site on which it is located or restoring the asset to the condition required by the lease.

A deferred tax asset is recognized based on the amount of the lease liability, while a deferred tax liability is recognized based on the carrying amount of the right-of-use asset.

The term of the lease is determined taking into account contractual provisions and provisions resulting from applicable laws and regulations. Generally speaking, a nine-year term is initially adopted for "3/6/9"-type commercial leases in France.

Subsequent measurement:

- the lease liability is measured at amortized cost using the effective interest rate, which is equal to the discount rate initially applied;
- the right-of-use asset is depreciated on a straight-line basis over the term of the lease or over the useful life of the underlying asset if the purchase option is reasonably certain to be exercised. Where appropriate, an impairment loss may be recognized against the right-of-use asset.

In the event of a change in future lease payments resulting from a change in an index or rate used to determine those payments, the lease liability is remeasured using the initial discount rate.

If the lease term is extended following the exercise of an extension option that was not initially taken into account, the lease liability is remeasured using a revised discount rate as determined at the date the option is exercised.

In such cases, the change in the amount of the lease liability is recognized against a matching change in the amount of the right-of-use asset.

In accordance with the practical expedients offered by the standard, the Group has chosen not to apply IFRS 16 to short-term leases or leases of low-value assets. Payments made under such leases are expensed over the term of the lease.

m) Impairment of non-current assets

Non-current assets, and particularly goodwill acquired in a business combination, are allocated to cash-generating units (CGUs)⁽¹⁾. Two types of CGUs are defined within the Group:

- CGUs corresponding to programs, projects, or product families associated with specific assets: development expenditures, property, plant and equipment used in production;
- CGUs to which goodwill is allocated, corresponding to the business segments monitored by Group management and relating chiefly to the Group's main subsidiaries.

In the event of a sale or restructuring of the Group's internal operations which affects the composition of one or more of the CGUs to which goodwill has been allocated, the allocations are revised using a method based on relative value. This method takes the proportion represented by the business sold or transferred in the cash flows and terminal value of the original CGU at the date of sale or transfer.

Impairment tests are performed at least once a year (in the second half of the year) on assets with indefinite useful lives or on non-amortizable assets such as goodwill. Impairment tests are also carried out on amortizable/depreciable assets, where the amortization/depreciation period has not yet begun. Impairment testing is carried out whenever there is an indication of impairment irrespective of whether the assets are amortizable/depreciable.

At the end of each reporting period, the Group's entities assess whether there are events or circumstances indicating that an asset may be impaired. Such events or circumstances notably include material adverse changes which in the long term impact the economic environment (commercial prospects, procurement sources, index or cost movements, etc.) or the Group's assumptions or objectives (medium-term plan, profitability analyses, market share, backlog, regulations, disputes and litigation, etc.).

If such events or circumstances exist, the recoverable amount of the asset is estimated. If the carrying amount of the asset exceeds its recoverable amount, the asset is considered as impaired and its carrying amount is reduced to its recoverable amount by recognizing an impairment loss under "Profit from operations".

Recoverable amount is defined as the higher of an asset's or group of assets' fair value less costs to sell and value in use. Value in use is the present value of expected future cash flows, determined using a benchmark discount rate that reflects the Group's weighted average cost of capital (WACC). This discount rate is a post-tax rate applied to post-tax cash flows, which gives the same result as that which would have been obtained by applying a pre-tax rate to pre-tax cash flows, as required by IAS 36.

(1) A CGU is the smallest identifiable group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets.

Future cash flows are calculated differently depending on the assets tested:

- (i) assets allocated to programs, projects or product families: expected future cash flows are projected over the life of the development programs or projects, capped at 40 years, and are discounted at the benchmark rate. Certain programs or projects are also subject to a specific risk premium. This long timeframe better reflects the characteristics of the Group's operating cycles (aircraft and defense), where assets tend to have a long useful life and slow product development;
- (ii) goodwill: expected future cash flows are calculated based on the medium-term plans established for the next four years and estimated cash flows for years five to ten (or beyond year ten for certain activities with a longer development and production cycle), and are discounted at the benchmark rate. The value in use of the assets is the sum of the present value of these cash flows and the terminal value, calculated based on standardized flows representing long-term activities for years five to ten (or beyond year ten for certain activities), taking into account a perpetual growth rate.

Should a test on a CGU's assets indicate an impairment loss, the Group first establishes the recoverable amount of the assets considered separately. Any impairment loss is initially allocated to goodwill and then to the assets of the CGU pro rata to their carrying amount.

In the event of an identified loss in value, any impairment loss recognized against goodwill cannot be reversed. For other assets, indications of impairment are analyzed at the end of each subsequent reporting period, and if there are favorable changes in the estimates which led to the recognition of the impairment, the impairment loss is reversed through profit or loss.

n) Equity investments, loans and receivables

Equity investments in non-consolidated companies are classified at fair value through profit or loss, since:

- these assets by nature do not generate cash flows that are solely payments of principal and interest on the principal amount outstanding at the dates indicated; and
- Safran did not opt to classify these assets at fair value through equity (OCI) not to be reclassified to profit.

The fair value of listed investments corresponds to their market value. The fair value of unlisted investments corresponds to their cost, provided that this approximates their fair value. If this is not the case, an appropriate valuation technique is used.

Loans to non-consolidated companies are classified at amortized cost. They are written down using the general impairment approach set out in IFRS 9, under which any credit losses expected within the following 12 months are taken into account when initially measuring the loans. In the event of a significant subsequent increase in the loan's credit risk, impairment is calculated based on expected losses through to loan maturity (lifetime expected credit losses).

Trade receivables and contract assets are written down using the IFRS 9 simplified impairment approach, as they generally fall due in the short term. This approach involves calculating impairment at an amount equal to lifetime expected credit losses.

Changes in the credit risk associated with these assets are assessed on both an individual and collective basis.

On a collective assessment basis, the allowance for expected credit losses is calculated for amounts owed by all customers except those rated A3 or A- (depending on the rating agency) or higher, for which no allowance is recognized on a collective basis. This collective assessment is made based on changes in an indicator reflecting airline company profits, since airline companies represent the Group's main risk exposure among customers ranked A3 or A- or below.

On an individual assessment basis, an additional credit loss allowance is recognized if there has been a significant increase in the credit risk associated with a given customer in any sense whatsoever (payment default at maturity, insolvency proceedings, etc.), such that the amount owed by the customer is likely to be written off.

o) Inventories and work-in-progress

Inventories and work-in-progress are measured at the lower of cost determined using the weighted average cost formula, and net realizable value.

Cost is calculated based on normal production capacity and therefore excludes any idle capacity costs.

Net realizable value represents the estimated selling price less the costs required to complete the asset or make the sale.

Borrowing costs incurred during the production phase are included in the value of inventories when the eligibility conditions are met.

p) Cash and cash equivalents

Cash and cash equivalents include available funds, highly liquid short-term investments (three months or less) and term deposits with exit options exercisable at no penalty within less than three months that are readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

These assets are recognized at market value (fair value) or amortized cost, as appropriate. Assets carried at amortized cost are written down using the general impairment approach set out in IFRS 9.

Cash equivalents subject to usage restriction (e.g., pledges) are recorded under other financial assets for the duration of the restriction.

q) Treasury shares

All treasury shares held by the Group are deducted from consolidated equity based on their acquisition price, regardless of whether they were repurchased in connection with a liquidity agreement or under a share buyback program initiated by the Group. Gains and losses on the disposal of treasury shares are recorded directly in equity and do not impact profit or loss for the period.

For share buyback programs outstanding at the end of the reporting period, the firm obligation to repurchase shares is recognized in the form of a liability for the acquisition of shares, against a reduction in consolidated reserves. This liability, which is not included in calculations of the Group's net financial position, is cleared as and when the disbursements relating to the share buybacks are made.

r) Share-based payment

The Group grants various share-based payments to its employees, including free shares, long-term variable compensation in the form of performance shares and leveraged or unleveraged savings plans.

In accordance with IFRS 2, "Share-based Payment", these arrangements are measured at fair value, taking into account any lock-up period for shares granted and less the present value of dividends not received by employees during the vesting period. The fair value of equity-settled instruments is determined at the grant date. The fair value of cash-settled instruments is revised up to the date of payment. For plans that are subject to performance conditions, the external conditions are included in the per-share fair value at the grant date and the internal conditions are reflected in the number of instruments.

These employee benefits represent personnel costs and are recognized on a straight-line basis over the vesting period, with an offsetting entry to consolidated reserves for equity-settled plans and to liabilities for cash-settled plans.

s) Provisions

The Group records provisions when it recognizes a present probable or potential (in the event of a business combination) legal or constructive obligation as a result of a past event for which an outflow of resources will be required to settle the obligation, and a reliable estimate can be made of the amount of that obligation.

For taxes levied by public authorities, the liability is recognized at the date of the obligating event for each levy, such as that defined by applicable local regulations.

Provisions for losses on completion and losses arising on delivery commitments

A provision for losses on completion is recognized for contracts managed on a percentage-of-completion basis, and a provision for losses arising on delivery commitments is recognized for sales contracts, when:

- a contract (or combination of contracts), signed before the end of the reporting period, gives rise to obligations for the Group in the form of the delivery of goods, the provision of services or the payment of termination indemnities;
- the Group's obligation and the expected economic benefits can be measured reliably;
- it is highly probable that the contract (or combination of contracts) will be onerous (the unavoidable costs of meeting the obligations under the contract [or combination of contracts] exceed the expected economic benefits).

Unavoidable costs for which a provision is recognized represent the lower of the net cost of executing the contract (i.e., the forecast loss on the contract) and the cost of failing to execute the contract (e.g., withdrawal costs in the event of early termination).

In the case of original equipment sales contracts, the expected economic benefits correspond to the contract cash flows

associated with the highly probable cash flows from the spare part activities provided under the contracts.

The cash flows used in this analysis are discounted to take into account their spread over time.

Under onerous contracts, losses arising on delivery commitments are recognized primarily as a deduction from inventories and work-in-progress (for the completed portion of the contract and directly related to the contract or combination of contracts), and shown in provisions for work to be completed.

Provisions for financial guarantees on sales

As part of its civil engine sales campaigns, the Group grants two types of guarantees to its customers:

- financial guarantees, under which it provides a guarantee to the lending institutions that finance its customer;
- guarantees covering the value of assets, under which Safran grants the customer an option to return the aircraft at a given date for an agreed price.

These commitments are undertaken by the Group together with its partner General Electric, and form part of financing packages proposed by aircraft manufacturers to airline companies. They generally correspond to the share represented by Group engines in the financing of the aircraft.

Financial commitments are generally granted on signature of the sales agreement, but do not actually take effect until the customer so requests.

These guarantees generate risks. However, the total gross amount of the guarantees does not reflect the net risk to which the Group is exposed, as the commitments are counter-guaranteed by the value of the underlying assets, i.e., the aircraft pledged.

A provision is recognized in respect of these guarantees, reflecting events likely to generate a future outflow of resources for the Group.

Provisions for standard and operating warranties

These provisions are recorded to cover the Group's share of probable future disbursements under standard and operating warranties. They are calculated as appropriate based on technical files or statistics, particularly with respect to the return of parts under warranty and the estimated cost of repairs.

t) Post-employment benefits

In compliance with the laws and practices of each country in which it operates, the Group grants its employees post-employment benefits (pensions, termination payments, early retirement plans, etc.) as well as other long-term benefits including long-service awards, jubilee benefits and loyalty premiums.

For its basic plans and other defined contribution plans, the contribution paid in the period is recognized in expenses when due. No provision is recorded.

Provisions recognized for obligations under defined benefit plans are measured using the projected unit credit method. This determines, for each employee, the present value of the benefits to which the employee's current and past services will grant entitlement on retirement. The actuarial calculations include demographic (retirement date, employee turnover rate, etc.) and financial (discount rate, salary increase rate, etc.) assumptions, and are performed at the end of each reporting period for which accounts are published.

When plans are funded, the plan assets are placed with entities that are responsible for paying the benefits in the countries concerned. These assets are measured at fair value. Provisions are recorded to cover shortfalls in the fair value of plan assets compared with the present value of the Group's obligations.

An asset surplus is only recognized in the balance sheet when it represents future economic benefits effectively available to the Group.

In accordance with the revised IAS 19, changes in actuarial gains and losses arising on defined benefit plans are recognized in "Other comprehensive income" within equity and not subsequently reclassified to profit.

The Group distinguishes between operating components and financial components when presenting defined benefit expense:

- service cost for the period is shown in profit from operations, along with past service costs arising on the introduction of a new plan or curtailments or settlements of an existing plan, which are recognized immediately in this caption;
- the cost relating to unwinding the discount on the net pension liability (asset) is shown in financial income (loss).

u) Borrowings subject to specific conditions

The Group receives public financing in the form of repayable advances to develop aircraft and defense projects. These advances are repaid based on the revenue generated by future sales of engines or equipment.

Repayable advances are treated as sources of financing and are recognized in liabilities in the consolidated balance sheet under the heading "Borrowings subject to specific conditions".

At inception, they are measured at the amount of cash received or, when acquired, at the value of probable future cash flows discounted at market terms at the acquisition date. They are subsequently measured at amortized cost at the end of each reporting period, taking into account the most recent repayment estimations.

The present value of estimated repayments, based on management's best estimates, is regularly compared with the net carrying amount of repayable advances, defined as the sum of amounts received, plus any interest capitalized at the end of the reporting period, less repayments made. If as a result of this analysis the present value of estimated repayments is durably more or less than the carrying amount of the repayable advances over three consecutive years, that unrecognized portion of the present value of the advance which is higher or lower than the carrying amount is taken to profit or loss.

For certain contracts, the Group has to pay a fee based on replacement sales realized under the program once the advance has been fully repaid. This fee is not considered as repayment of an advance but as an operating expense.

v) Interest-bearing financial liabilities

On initial recognition, interest-bearing financial liabilities are measured at the fair value of the amount received, less any directly attributable transaction costs. Besides the specific conditions applicable to hedge accounting (see Note 1.w), interest-bearing financial liabilities are subsequently carried at amortized cost using the effective interest rate method.

w) Derivatives and hedge accounting

The Group uses derivative instruments to hedge potential risks arising from its operating and financial activities. These instruments are primarily used to hedge its exposure to the risk of fluctuations in exchange rates, and more marginally, to risks of changes in interest rates. The derivatives used can include forward currency contracts and currency options or interest rate swaps. The Group's market risk management policy is described in Note 31, "Management of market risks and derivatives".

Most derivatives are traded over-the-counter and no quoted prices are available. Consequently, they are measured using models commonly used by market participants to price such instruments (discounted cash flow method or option pricing models). Counterparty risk and proprietary credit risk are taken into account when measuring derivatives.

For a derivative or non-derivative hedging instrument to be eligible for hedge accounting, the hedging relationship must be formally designated and documented at inception and its effectiveness must be demonstrated throughout the life of the instrument using documented effectiveness tests.

The accounting principles applicable to foreign currency derivatives used to hedge foreign exchange risk are set out in Note 1.f.

A net investment hedge set up by the Group for some of its US operations using USD debt was unwound at the end of the first quarter of 2019. Changes in the fair value of the debt attributable to the hedged foreign exchange risk are recognized within other comprehensive income for the effective portion of the hedge. Changes in fair value attributable to the ineffective portion of the hedge are taken to profit or loss. Amounts carried in equity are taken to profit or loss when the hedged investment is sold or unwound. The interest rate component of the hedging instrument is shown in "Financial income (loss)".

Certain derivatives used to hedge interest rate risk on fixed-rate financial assets and liabilities may be designated as hedging instruments in a fair value hedging relationship. In this case, the borrowings hedged by the interest rate derivatives (mainly interest rate swaps) are adjusted to reflect the change in fair value attributable to the hedged risk. Changes in the fair value of hedged items are taken to profit or loss for the period and offset by symmetrical changes in the fair value of the interest rate swaps (effective portion).

x) Sale of receivables

The Group sells some of its trade receivables to financial institutions, generally within the scope of confirmed factoring facilities. The related assets may only be removed from the balance sheet if the rights to the future cash flows from the receivables are transferred, along with substantially all of the associated risks and rewards (payment default, late-payment risk, etc.).

y) Structure of the consolidated balance sheet

The Group is engaged in a variety of activities, most of which have long operating cycles. Consequently, assets and liabilities generally realized or unwound within the scope of the operating cycle (inventories and work-in-progress, receivables, advances and downpayments received from customers, trade and other payables, and foreign currency derivatives, etc.) are presented with no separation between current and non-current portions. However, other financial assets and liabilities as well as provisions are considered as current if they mature within 12 months of the end of the reporting period. All other financial assets, liabilities and provisions are considered non-current.

z) Recurring operating income

To make the Group's operating performance more transparent, it includes an intermediate operating indicator known as "Recurring operating income" in its reporting.

This sub-total includes the share of profit from joint ventures accounted for under the equity method, since all joint ventures are involved in businesses directly related to the Group's core activities.

This sub-total excludes income and expenses which are largely unpredictable because of their unusual, infrequent and/or material nature, such as:

- impairment losses recognized against goodwill, impairment losses or reversals of impairment losses recognized against intangible assets relating to programs, projects or product families as a result of an event that substantially alters the economic profitability of such programs, projects or product families (e.g., significant decrease in forecast volumes, difficulties encountered during the development phase, renegotiated sales agreements, changes in the production process, etc.);
- capital gains and losses on disposals of operations;
- gains on remeasuring any previously held equity interests in the event of step acquisitions or transfers made to joint ventures;
- other unusual and/or material items not directly related to the Group's ordinary operations.

NOTE 2 MAIN SOURCES OF ESTIMATES

The preparation of consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) described above requires management to make certain estimates and assumptions that affect the reported amounts of consolidated assets, liabilities, income and expenses.

The assumptions used vary from one business to the next, but are considered reasonable and realistic in all cases. The resulting estimates are based on the Group's past experience and factor in the economic conditions prevailing at the end of the reporting period and any information available as of the date of preparation of the financial statements, in particular of a contractual or commercial nature.

Estimates and underlying assumptions are reviewed on an ongoing basis.

When unforeseen developments in events and circumstances occur, particularly as regards global economic trends and the Group's own business environment, actual results may differ from these estimates. In such cases, the assumptions and where appropriate the reported amounts of assets and liabilities concerned, are adjusted accordingly.

The Group also tests its sensitivity to changes in the assumptions underlying its main estimates in order to anticipate the impact of volatility and lack of visibility in the global economic environment and particularly in certain Group segments. These analyses are regularly reviewed by management.

The main accounting policies which require the use of estimates are described below.

a) Estimates relating to programs and contracts

The main material estimates used by the Group to prepare its financial statements relate to forecasts of future cash flows under programs and contracts (business plans). Forecast future total cash flows under programs and contracts represent management's best estimate of the rights and obligations expected to derive from the program or contract.

The assumptions applied and resulting estimates used for programs and contracts cover periods that are sometimes very long (up to several decades), and take into account the technological, commercial and contractual constraints of each such program and contract.

These estimates primarily draw on assumptions about the volumes, output and selling prices of products sold, associated production costs, exchange rates for foreign-currency denominated sales and purchases as well as normal risks and uncertainties in respect of forecast cost overruns and, for discounted future cash flows, the discount rate adopted for each contract. Where such information is available, particularly for major civil aviation programs and contracts, volume and output assumptions used by the Group for products sold are analyzed in light of the assumptions published by major contractors.

Cash flow forecasts, which may or may not be discounted, are used to determine the following:

- ▣ **impairment of non-current assets:** goodwill and assets allocated to programs (aircraft programs, development expenditures and property, plant and equipment used in production) are tested for impairment as described in Note 1.m. The recoverable amount of these assets is generally determined using cash flow forecasts based on the key assumptions described above;
- ▣ **capitalization of development expenditures:** the conditions for capitalizing development expenditures are set out in Note 1.j. Determining whether future economic benefits are expected to flow to the Group is instrumental in deciding whether project costs can be capitalized. This analysis is carried out based on future cash flow forecasts drawing on the key assumptions described above. The Group also uses estimates when determining the useful life of its projects;
- ▣ **profit (loss) on completion of contracts accounted for on a percentage-of-completion basis:** the Group accounts for contracts on a percentage-of-completion basis (cost-to-cost method). Under this method, revenue is recognized based on the percentage of work completed, calculated by reference to the costs incurred. This method requires an estimate of results on completion using future cash flow forecasts that take into account contractual indexes and commitments as well as other factors inherent to the contract based on historical and/or forecast data. This method also requires an estimate of the contract's stage of completion.
When the total costs that are necessary to cover the Group's risks and obligations under the contract are likely to exceed total contract revenue, the expected loss (i) is recognized within provisions for losses on completion or (ii) leads to the write-down of contract fulfillment costs (if any) and to the subsequent recognition of a provision for losses on completion for the remaining amount of the loss;
- ▣ **timing of revenue recognition:** the recognition of revenue under certain contracts is based on delivery volume assumptions. These assumptions therefore influence the timing of revenue recognition;
- ▣ **variable consideration:** the transaction price may be comprised of both a fixed amount and a variable amount. This variable amount may in particular depend on volume assumptions which therefore require the use of estimates;
- ▣ **losses arising on delivery commitments:** sales contracts (or combinations of contracts) may be onerous. For all sales contracts or combinations of contracts, the Group estimates the volume of goods to be delivered as well as spare parts and services directly related to the delivery commitment, which may be contractual or highly probable. Accordingly, the Group recognizes a provision for losses arising on delivery commitments when the combination of contracts is onerous and a loss is likely to be incurred. It uses estimates, notably as regards the volume of goods to be produced and delivered under the sales contracts or combinations of contracts, as well as the volume of directly-related spare parts and services, projected production costs and the expected economic benefits;
- ▣ **repayable advances:** the forecast repayment of advances received from public bodies is based on revenue from future sales of engines, equipment and spare parts, as appropriate. As a result, the forecasts are closely related to the business plans prepared by the operating divisions using the main assumptions discussed above.

Any changes in estimates and assumptions underlying cash flow forecasts for programs and contracts could have a material impact on the Group's future earnings and/or the amounts reported in its balance sheet. Consequently, the sensitivity of key estimates and assumptions to such changes is systematically tested and the results of these tests reviewed by management on a regular basis.

b) Provisions

Provisions reflect management's best estimates using available information, past experience and, in some cases, estimates by independent experts.

When estimating provisions relating to the Group's contractual commitments on timeframes and technical specifications in connection with the development phase, the general stage of development of each of the Group's programs is taken into account, particularly as regards changes made to specifications during the development phase. Contractually defined liability limits are also taken into account.

Contractual provisions relating to performance warranties given by the Group take into account factors such as the estimated cost of repairs and, where appropriate, the discount rate applied to cash flows. The value of these commitments may be based on a statistical assessment.

Provisions relating to financial guarantees given by the Group are based on the estimated value of the underlying assets, the probability that the customers concerned will default, and, where appropriate, the discount rate applied to cash flows.

The costs and penalties actually incurred or paid may differ significantly from these initial estimates when the obligations unwind, and this may have a material impact on the Group's future earnings.

At the date of this report, the Group has no information suggesting that these inputs are not appropriate taken as a whole.

c) Post-employment benefits

The Group uses statistical data and other forward-looking inputs to determine assets and liabilities relating to post-employment benefits. These inputs include actuarial assumptions such as the discount rate, salary increase rate, retirement age, and employee turnover and mortality. Actuarial calculations are performed by independent actuaries. At the date of preparation of the consolidated financial statements, the Group considers that the assumptions used to measure its commitments are appropriate and justified.

However, if circumstances or actuarial assumptions – especially the discount rate – prove significantly different from actual experience, the amount of post-employment liabilities shown in the balance sheet could change significantly, along with equity.

d) Trade and other receivables

The Group estimates any collection risks based on commercial information, prevailing economic trends, and information concerning the solvency of each customer, in order to determine any necessary write-downs on a case-by-case basis. These write-downs are in addition to any allowances recognized for expected losses, which are calculated on a collective basis for all customers with the same credit rating.

The specific nature of any receivables from governments or government-backed entities is taken into account when determining bad debt risk for each receivable and therefore when estimating the amount of any impairment loss.

e) Allocation of the cost of business combinations

Business combinations are recorded using the acquisition (purchase) method. Identifiable assets acquired and liabilities and contingent liabilities assumed are measured at fair value at the date control is acquired.

One of the most important areas in which estimates are used in accounting for a business combination concerns the calculation of fair value and the underlying assumptions applied. The fair value of certain items acquired in a business combination can be measured reliably, for example property, plant and equipment

using market prices. However, the fair value of other items such as intangible assets or contingent liabilities may prove more difficult to establish. These complex measurements are usually performed by independent experts based on a series of assumptions. These experts are generally required to estimate the impact of future events that are uncertain at the date of the combination.

f) Disputes and litigation

Certain Group subsidiaries may be party to regulatory, legal or arbitration proceedings which, because of their inherent uncertainty, could have a material impact on the Group's financial position (see Note 35, "Disputes and litigation").

The Group's management takes stock of any outstanding proceedings and monitors their progress. It also decides whether to book a provision or adjust the amount of any existing provision if events arise during the proceedings that require a reassessment of the risk involved. The Group consults legal experts both within and outside the Group in determining the costs that may be incurred.

The decision to book a provision in respect of a given risk and the amount of any such provisions are based on an assessment of the risk associated with each individual case, management's estimate of the likelihood that an unfavorable decision will be issued in the proceedings in question, and the Group's ability to estimate the amount of the provision reliably.

NOTE 3 CHANGE IN ACCOUNTING POLICY

a) Application of IFRS 16

The Group has applied IFRS 16, "Leases" with effect from January 1, 2019.

a.1) Impact at January 1, 2019

The Group applied the modified retrospective approach to IFRS 16 with effect from January 1, 2019. Accordingly, the impact of IFRS 16 is reflected in equity at that date and the 2018 financial statements are not restated.

The Group has noted the IFRIC decision of December 2019 regarding IFRS 16, specifically concerning the terms of leases with automatic renewal clauses. In light of the decision, the Group will review the terms of the leases concerned in the first half of 2020, to ensure their compliance with the IFRIC clarifications.

At the transition date, the impacts of IFRS 16 essentially relate to property leases.

Restatement of leases previously classified as operating leases (IAS 17)

At the transition date:

- the lease liability is equal to the present value of the residual lease payments due, discounted at an average interest rate of 1.50% at January 1, 2019;
- the gross carrying amount of the right-of-use asset is equal to the lease liability at that date, plus any lease payments made at or before the commencement date.

To the extent permitted by IFRS 16, the Group adopted the following practical expedients in its transition to the standard:

- leases with a residual term of less than 12 months or leases of low-value assets were not restated;
- initial direct costs were not included in measuring the right-of-use asset;
- if a lease includes an extension or early termination option, the term of that lease was determined taking into account the information obtained at the transition date;
- IFRS 16 was applied solely to leases classified as leases under IAS 17 and IFRIC 4.

Restatement of leases previously classified as finance leases (IAS 17)

At the transition date:

- the net carrying amount of the underlying leased assets at December 31, 2018 was reclassified as part of the gross value of right-of-use assets;
- the carrying amount of finance lease liabilities at December 31, 2018 was reclassified within lease liabilities.

The impacts of this change in accounting policy on the balance sheet at January 1, 2019 are shown below.

Consolidated opening balance sheet at January 1, 2019 (excerpt):

ASSETS

(in € millions)	Dec. 31, 2018 (published)	IFRS 16 impact	Jan. 1, 2019
Property, plant and equipment, net	4,454	(208)	4,246
Right-of-use assets		716	716
Non-current and current financial assets	601	19	620
Investments in equity-accounted companies	2,253	(1)	2,252
Deferred tax assets	391	1	392
Trade and other receivables	6,580	(3)	6,577
TOTAL ASSETS		524	

EQUITY AND LIABILITIES

(in € millions)	Dec. 31, 2018 (published)	IFRS 16 impact	Jan. 1, 2019
Equity	12,301	(5)	12,296
Interest-bearing financial liabilities	5,605	529	6,134
Deferred tax liabilities	1,662	-	1,662
TOTAL EQUITY AND LIABILITIES		524	

At January 1, 2019:

■ right-of-use assets totaled €716 million, including €508 million relating to leases previously classified as operating leases and €208 million relating to leases previously classified as finance leases;

■ lease liabilities amounted to €677 million, of which €529 million relating to leases previously classified as operating leases and €148 million relating to leases previously classified as finance leases;

■ lease payments receivable under sub-letting arrangements amounted to €19 million;

■ the change in accounting policy had a negative equity impact of €5 million after tax (negative impact of €6 million before tax).

a.2) Reconciliation with off-balance sheet commitments at December 31, 2018

The table below reconciles operating lease commitments at December 31, 2018 with liabilities under leases previously classified as operating leases at January 1, 2019:

(in € millions)	
Off-balance sheet commitments under operating leases at December 31, 2018	641
Leases signed but not started	(66)
Impact of discounting	(34)
Leases qualifying for IFRS 16 practical expedients (short-term and low-value leases) and other	(12)
LIABILITIES UNDER LEASES PREVIOUSLY CLASSIFIED AS OPERATING LEASES AT JANUARY 1, 2019	529

NOTE 4 SCOPE OF CONSOLIDATION

Main changes in the scope of consolidation in 2019

Acquisition of ElectroMechanical Systems from Collins Aerospace

Upon completion of the clearance procedures, Safran finalized the acquisition of the ElectroMechanical Systems business from Collins Aerospace on February 8, 2019.

The acquisition bolsters the Group's market position and creates synergies in the electrical actuation and flight control segments. Safran thus becomes a major player in pilot controls and also strengthens its electrical actuation product line.

The acquisition expands the business portfolio of Safran Electronics & Defense.

The business has been part of the Aircraft Equipment, Defense and Aerosystems segment since the acquisition date.

The transaction meets the definition of a business combination under IFRS 3.

The allocation of the purchase price to the assets and liabilities measured at fair value generated zero goodwill.

Main changes in the scope of consolidation in 2018

Acquisition of Zodiac Aerospace

Safran filed a Tender Offer for Zodiac Aerospace's shares on December 7, 2017, which was declared compliant by the AMF on December 21, 2017.

The settlement of the initial Offer took place on February 13, 2018 and accordingly:

- an amount of €3,620 million was paid to Zodiac Aerospace shareholders in consideration for the 144,816,396 Zodiac Aerospace shares tendered or carried over to the Principal Tender Offer;

- a total of 26,651,058 Safran preferred shares were issued at a price of €84.18 in consideration for the 88,847,828 Zodiac Aerospace shares effectively tendered to the Subsidiary Exchange Offer.

- Accordingly, Safran's share capital increased by €6 million from €83 million to €89 million, with an issue premium of €2,238 million.

The Offer was reopened from February 19, 2018 to March 2, 2018 to enable Zodiac Aerospace shareholders who had not yet done so to tender their shares to the Offer. In the United States, the Tender Offer was open only to qualified investors. Outside of France, it was not open in any jurisdiction where authorization for the Offer would have been required.

Following the settlement of the subsequent offer, Safran acquired 27,310,744 Zodiac Aerospace shares for €683 million.

The required conditions being fulfilled, Safran made a request to the AMF for a mandatory squeeze-out of Zodiac Aerospace shares, following which it acquired a further 6,809,584 shares.

The mandatory squeeze-out was executed at the same price as that of the Offer, i.e., €25 per Zodiac Aerospace share (net of all expenses), representing a total amount of €171 million.

Upon completion of these operations, Safran held 267,784,552 Zodiac Aerospace shares (i.e., 95.58% of the share capital), while non-controlling shareholders held 4.42% of the remaining share capital.

The date on which Safran acquired Zodiac Aerospace (February 13, 2018) was the date on which Safran took control of Zodiac Aerospace and the date of the first-time consolidation of Zodiac Aerospace in Safran's financial statements. To simplify matters, Zodiac Aerospace's activities were consolidated in Safran's financial statements as of March 1, 2018, except for certain major transactions that were carried out between these two dates to adjust Zodiac's financing structure.

The acquisition balance sheet used to calculate consolidation goodwill was based on Zodiac Aerospace's consolidated balance sheet at March 1, 2018.

Purchase price accounting

Zodiac Aerospace's identifiable assets and liabilities were measured at their fair value on the date on which Safran acquired control of the company.

The allocation of the Zodiac Aerospace purchase price to the assets acquired and liabilities assumed was as follows:

(in € millions)	Fair value at acquisition date
Intangible assets	4,308
Property, plant and equipment	696
Inventories	1,419
Other current and non-current assets and liabilities	(604)
Net debt	(1,289)
Deferred tax liabilities	(924)
Net assets	3,606
Purchase price for 95.58% of shares (A)	6,727
Share of identifiable assets acquired and liabilities assumed (95.58%) (B)	3,447
GOODWILL (A)-(B)	3,280

Goodwill was allocated to cash-generating units (CGUs) as follows:

(in € millions)	
Aerosystems	1,690
Cabin	825
Seats	765

The changes in the presentation of segment information implemented by the Group as of February 1, 2019 led to changes at the level of its operating segments (see Note 5, "Segment information") and CGUs. Goodwill was reallocated among the new CGUs in the second half of 2019 (see Note 11, "Goodwill").

Merger of Zodiac Aerospace into Safran

On October 19, 2018, Safran and Zodiac Aerospace signed a merger agreement regarding the planned merger of Zodiac Aerospace into Safran. This operation represented a further step in the strategy to streamline the new group's structure.

The planned transaction was submitted to and approved by Safran's Extraordinary Shareholders' Meeting on November 27, 2018.

The effective date of the merger was December 1, 2018.

As consideration for the non-controlling shareholders of Zodiac Aerospace, Safran created 3,490,192 ordinary shares with a par value of €0.20. This represented a capital increase of €0.7 million and a merger premium of €38 million, recorded against consolidated other reserves.

Zodiac Aerospace's contribution to the Group's consolidated performance in 2018

Zodiac Aerospace's contribution to the Group's consolidated performance based on its activity in the ten months following the acquisition was as follows:

(in € millions)	2018
Revenue	3,775
Recurring operating loss*	(335)
Recurring operating income excluding the impact of the purchase price allocation	266

(*) Including the negative impact of remeasuring assets at fair value as part of the Zodiac Aerospace purchase price accounting for €601 million.

If the Group had purchased Zodiac Aerospace on January 1, 2018, Zodiac's contribution to the Group's consolidated performance based on its activity in the 12 months following the acquisition would have been:

■ revenue of €4,506 million;

■ a consolidated recurring operating loss of €310 million, including a negative purchase price accounting impact of €601 million, i.e., consolidated recurring operating income of €291 million excluding the impact of purchase price accounting.

NOTE 5 SEGMENT INFORMATION

Segments presented

In accordance with IFRS 8, "Operating Segments", segment information reflects Safran's different businesses.

The Group's operating segments reflect the organization of subsidiaries around tier-one entities ("consolidation sub-groups"), which are based on the type of products and services they sell.

In 2019, Safran changed the presentation of its segment information to accelerate the implementation of the Group's strategy, particularly as regards more electric aircraft and connected cabins. The new operational organization will promote knowledge-sharing by bringing together teams working in similar areas, the development of new customer offerings and the optimization of costs.

As of June 30, 2019 and following the combination of the businesses resulting from the Zodiac Aerospace acquisition in respect of which strategic and commercial synergies were identified, the Group's businesses are classified within three operating segments:

- Aerospace Propulsion, which now includes Safran Transmission Systems given its close relationship with engine activities;
- Aircraft Equipment, Defense and Aerosystems, which combines the former Safran Aircraft Equipment activities with part of the former Zodiac Aerospace Aerosystems and Safran Defense businesses;
- Aircraft Interiors, which includes the former Safran Cabin and Safran Seats activities and which now includes Safran Passenger Solutions, a new consolidation sub-group focused on complex cabin equipment and passenger comfort solutions (onboard water and waste management and in-flight entertainment). These activities complement the Cabin and Seats businesses.

These three operating segments are organized based on the type of products and services they sell and the markets they serve.

Aerospace Propulsion

The Group designs, develops, produces and markets propulsion and mechanical power transmission systems for commercial aircraft, military transport, training and combat aircraft, civil and military helicopters, and drones. This segment also includes maintenance, repair and overhaul (MRO) activities and the sale of spare parts.

Aircraft Equipment, Defense and Aerosystems

Safran covers the full life cycle of systems and equipment for civil and military aircraft and helicopters.

The Group is involved in landing gear and brakes, nacelles and reversers, avionics (flight controls and onboard information systems), security systems (evacuation slides, emergency arresting systems and oxygen masks), onboard computers and fuel systems.

It also operates at the different phases of the electrical cycle and provides electrical power management systems and associated engineering services.

This segment includes all activities serving the naval and land defense markets, including optronic equipment and sights, navigation equipment and sensors, modernized infantry and drones.

This segment also includes maintenance, repair and overhaul (MRO) activities and the sale of spare parts.

Aircraft Interiors

The Aircraft Interiors business, primarily acquired as a result of the acquisition of the former Zodiac Aerospace, includes all operations related to the buyer-furnished equipment (BFE) market, whose direct customers are mostly airline companies. The Group designs, develops, manufactures and markets, for example, aircraft seats for passengers (First, Business and Economy Class) and crew, as well as cabin equipment, overhead bins, class dividers, passenger service units, cabin interior solutions, chilling systems, galleys, electrical inserts and trolleys and cargo equipment.

This segment also includes complex cabin equipment and passenger comfort-focused solutions such as water distribution, lavatories, air systems and in-flight entertainment and connectivity (IFEC).

Holding company and other

In "Holding company and other", the Group includes Safran SA's activities and holding companies in various countries.

Business segment performance indicators

Segment information presented in the tables below is included within the information presented to the Chief Executive Officer who – in accordance with the Group's governance structure – has been designated as the "Chief Operating Decision Maker" for the assessment of the performance of business segments and the allocation of resources between the different businesses.

The assessment of each business segment's performance by the Chief Executive Officer is based on adjusted contribution figures as explained in the Foreword (see section 2.1).

Data for each business segment are prepared in accordance with the same accounting principles as those used for the consolidated financial statements (see Note 1, "Accounting policies"), except for the restatements made in respect of adjusted data (see section 2.1).

Inter-segment sales are performed on an arm's length basis.

Free cash flow represents cash flow from operating activities less any net disbursements relating to acquisitions of property, plant and equipment and intangible assets.

Gross operating working capital represents the gross balance of trade receivables, inventories and trade payables.

Group consolidated financial statements at December 31, 2019

Segment assets represent the sum of goodwill, intangible assets, property, plant and equipment, right-of-use assets, investments in equity-accounted joint ventures and all current assets except cash and cash equivalents and tax assets.

Non-current assets comprise goodwill, property, plant and equipment, intangible assets, right-of-use assets and investments in equity-accounted associates and joint ventures.

Quantified segment information for 2018 and 2019 is presented below.

Segment information

The Group modified its operating segments with effect from January 1, 2019. The new segments are defined in Note 5, along with segment information.

At December 31, 2019

(in € millions)	Aerospace Propulsion	Aircraft Equipment, Defense and Aerosystems	Aircraft Interiors	Total operating segments	Holding company and other	Total adjusted data	Currency hedges	Impacts of business combina- tions	Total consoli- dated data
Revenue	12,045	9,256	3,321	24,622	18	24,640	458	-	25,098
Recurring operating income (loss)⁽¹⁾	2,485	1,209	188	3,882	(62)	3,820	450	(446)	3,824
Other non-recurring operating income and expenses	(7)	(21)	(6)	(34)	47	13	-	-	13
Profit from operations	2,478	1,188	182	3,848	(15)	3,833	450	(446)	3,837
Free cash flow	1,125	706	(1)	1,830	153	1,983	-	-	1,983
Gross operating working capital	(1,786)	1,644	720	578	(135)	443	-	-	443
Segment assets	17,984	13,284	5,658	36,926	2,074	39,000	-	-	39,000
(1) o/w depreciation, amortization and increase in provisions, net of use	(709)	(391)	(4)	(1,104)	(90)	(1,194)	(1)	(405)	(1,600)
o/w asset impairment	(3)	10	48	55	-	55	2	-	57

At December 31, 2018*

(in € millions)	Aerospace Propulsion	Aircraft Equipment, Defense and Aerosystems	Aircraft Interiors	Total operating segments	Holding company and other	Total adjusted data	Currency hedges	Impacts of business combina- tions	Total consoli- dated data
Revenue	10,579	7,942	2,511	21,032	18	21,050	(25)	-	21,025
Recurring operating income (loss)⁽¹⁾	2,030	992	81	3,103	(80)	3,023	(9)	(734)	2,280
Other non-recurring operating income and expenses	(31)	(9)	(39)	(79)	(36)	(115)	-	-	(115)
Profit from operations	1,999	983	42	3,024	(116)	2,908	(9)	(734)	2,165
Free cash flow	1,418	406	(67)	1,757	24	1,781	-	-	1,781
Gross operating working capital	(2,632)	1,521	813	(298)	(164)	(462)	-	-	(462)
Segment assets	16,373	13,544	4,703	34,620	2,092	36,712	-	-	36,712
(1) o/w depreciation, amortization and increase in provisions, net of use	(454)	(316)	1	(769)	(53)	(822)	2	(356)	(1,176)
o/w asset impairment	10	8	44	62	-	62	-	-	62

(*) The data published for 2018 have not been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see Note 3.a, "Application of IFRS 16").

The data published for 2018 have been restated to reflect the change in operating segments (see Note 5, "Segment information").

Revenue (adjusted data)

(in € millions)	2018*	2019
AEROSPACE PROPULSION		
Original equipment and related products and services	4,473	5,081
Services	5,999	6,848
Sales of studies	67	65
Other	40	51
Sub-total	10,579	12,045
AIRCRAFT EQUIPMENT, DEFENSE AND AEROSYSTEMS		
Original equipment and related products and services	5,070	5,857
Services	2,582	3,002
Sales of studies	167	262
Other	123	135
Sub-total	7,942	9,256
AIRCRAFT INTERIORS		
Original equipment and related products and services	1,813	2,352
Services	656	895
Sales of studies	3	63
Other	39	11
Sub-total	2,511	3,321
HOLDING COMPANY AND OTHER		
Sales of studies and other	18	18
Sub-total	18	18
TOTAL	21,050	24,640

(*) The data published for 2018 have been restated to reflect the change in operating segments (see Note 5, "Segment information").

Information by geographic area

At December 31, 2019

(in € millions)	France	Europe (excl. France)	Americas	Asia and Oceania	Africa & Middle East	Total adjusted data	Currency hedges	Total consolidated data
Revenue by location of customers	4,870	5,236	8,617	3,728	2,189	24,640	458	25,098
%	20%	21%	35%	15%	9%			
Non-current assets by location ⁽¹⁾	15,305	1,926	4,322	349	117			22,019
%	70%	9%	19%	1%	1%			

(1) Excluding financial assets, derivatives and deferred tax assets.

Further to changes in the presentation of segment information, technologies and commercial relationships were reallocated among the CGUs.

At December 31, 2018

(in € millions)	France	Europe (excl. France)	Americas	Asia and Oceania	Africa & Middle East	Total adjusted data	Currency hedges	Total consolidated data
Revenue by location of customers	3,314	5,018	7,729	3,472	1,517	21,050	(25)	21,025
%	16%	24%	37%	16%	7%			
Non-current assets by location ⁽¹⁾	16,218	1,717	3,268	327	107			21,637
%	75%	8%	15%	2%	0%			

(1) Excluding financial assets, derivatives and deferred tax assets.

As in the previous year, Safran carried out sales with three major customers during 2019:

1. Airbus group: sales of original equipment engines for aircraft and helicopters for Aerospace Propulsion; landing and braking systems, wiring and electrical connection systems, nacelles, navigation systems, flight control systems, flight-data recording systems and other equipment for Aircraft Equipment, Defense and Aerosystems; and cabin interiors and seats for Aircraft Interiors;
2. Boeing group: sales of original equipment engines for aircraft for Aerospace Propulsion; landing and braking systems and wiring and electrical connection systems for Aircraft Equipment and Aerosystems; and cabin interiors and seats for Aircraft Interiors;
3. General Electric group: sales of fleet maintenance spare parts for Aerospace Propulsion.

NOTE 6 REVENUE

Breakdown of revenue by business

2019

(in € millions)	Aerospace Propulsion	Aircraft Equipment, Defense and Aerosystems	Aircraft Interiors	Holding company and other	Total
DESCRIPTION OF PRODUCTS/SERVICES					
Sales of original equipment and other equipment	5,218	5,934	2,360	-	13,512
Services	7,033	3,042	898	-	10,973
Sales of studies	67	265	63	11	406
Other	52	137	11	7	207
TOTAL REVENUE	12,370	9,378	3,332	18	25,098
TIMING OF REVENUE RECOGNITION					
At a point in time	10,552	8,424	3,266	16	22,258
Over time	1,818	954	66	2	2,840
TOTAL REVENUE	12,370	9,378	3,332	18	25,098

2018

(in € millions)	Aerospace Propulsion	Aircraft Equipment, Defense and Aerosystems	Aircraft Interiors	Holding company and other	Total
DESCRIPTION OF PRODUCTS/SERVICES					
Sales of original equipment and other equipment	4,478	5,051	1,810	-	11,339
Services	6,004	2,572	655	-	9,231
Sales of studies	67	166	3	7	243
Other	40	122	39	11	212
TOTAL REVENUE	10,589	7,911	2,507	18	21,025
TIMING OF REVENUE RECOGNITION					
At a point in time	9,126	7,034	2,403	18	18,581
Over time	1,463	877	104	-	2,444
TOTAL REVENUE	10,589	7,911	2,507	18	21,025

Revenue is broken down into four categories which best reflect the Group's main businesses:

- Sales of original equipment and other equipment
These sales reflect quantities delivered under contracts or aircraft programs as well as contractual financing received from customers to develop these products.
- Services, which include deliveries of spare parts and maintenance contracts
These sales are contingent on repairs and maintenance requested by airline companies and correspond to services and volumes that are less predictable since they depend on the condition of fleets.

- Sales of studies, research and development

Contracts are drawn up for all such development work, which represents separate performance obligations. This category relates to specific work carried out for a given project or program.

- Other

In terms of revenue recognition, it should be noted for each of the business segments that:

- Most revenue within the Group is recognized "at a point in time".
- Revenue recognized on a percentage-of-completion basis ("over time") mainly concerns service and after-sales support contracts in the Propulsion segment and aerospace activities in the Aircraft Equipment, Defense and Aerosystems segment.

In other segments, it concerns contract-related activities accounted for as an overall performance obligation.

Remaining performance obligations

(in € millions)	One year or less	More than one year	Total
Remaining performance obligations at December 31, 2018	12,200	28,362	40,562
Remaining performance obligations at December 31, 2019	13,531	31,937	45,468

These performance obligations relate to firm quantities/products/services still to be delivered and/or performed under contracts in force at the end of the reporting period.

The increase in remaining performance obligations in 2019 versus 2018 chiefly reflects the growing proportion of rate-per-flight-hours (RPFH) contracts.

NOTE 7 BREAKDOWN OF THE OTHER MAIN COMPONENTS OF PROFIT FROM OPERATIONS

Other income

(in € millions)	2018	2019
Research tax credit ⁽¹⁾	151	166
Competitiveness and employment tax credit (CICE) ⁽²⁾	45	-
Other operating subsidies	96	100
Other operating income	29	31
TOTAL	321	297

(1) Including €5 million in connection with additional research tax credits in respect of 2018, included in 2019 income (€5 million in respect of 2017 included in 2018 income).

(2) The competitiveness and employment tax credit (CICE) was replaced by a reduction in social security contributions as of January 1, 2019.

Raw materials and consumables used

This caption breaks down as follows for the period:

(in € millions)	2018	2019
Raw materials, supplies and other	(4,915)	(6,100)
Bought-in goods	(35)	(46)
Changes in inventories	50	137
Contract costs	(2)	(12)
Sub-contracting	(4,582)	(5,153)
Purchases not held in inventory	(424)	(595)
External service expenses	(2,532)	(2,679)
TOTAL	(12,440)	(14,448)

Personnel costs

(in € millions)	2018	2019
Wages and salaries	(3,551)	(4,045)
Social security contributions	(1,460)	(1,551)
Statutory employee profit-sharing	(170)	(218)
Optional employee profit-sharing	(172)	(178)
Additional contributions	(78)	(87)
Corporate social contribution	(84)	(86)
Other employee costs	(150)	(184)
TOTAL	(5,665)	(6,349)

Consolidated companies (excluding jointly controlled companies) had an average of 91,610 full-time equivalent employees in 2019 versus an average of 83,769 in 2018 (average employee numbers in 2018 include employees of the former Zodiac Aerospace over a ten-month period).

Depreciation, amortization and increase in provisions, net of use

(in € millions)	2018	2019
NET DEPRECIATION AND AMORTIZATION EXPENSE		
■ Intangible assets	(654)	(736)
■ Property, plant and equipment	(555)	(615)
■ Right-of-use assets	-	(112)
Total net depreciation and amortization expense⁽¹⁾	(1,209)	(1,463)
Net increase in provisions	33	(137)
DEPRECIATION, AMORTIZATION AND INCREASE IN PROVISIONS, NET OF USE	(1,176)	(1,600)

(1) Of which depreciation and amortization of assets measured at fair value at the time of the Sagem-Snecma merger: €51 million in 2019 and €56 million in 2018; during other acquisitions: €39 million in 2019 and €39 million in 2018; and during the acquisition of the former Zodiac Aerospace: €315 million in 2019 and €261 million in 2018.

Asset impairment

(in € millions)	Impairment expense		Reversals	
	2018	2019	2018	2019
Intangible assets, property, plant and equipment, and right-of-use assets	(19)	(40)	5	9
Financial assets	(8)	(10)	3	5
Contract costs	(1)	(1)	12	10
Inventories and work-in-progress	(605)	(584)	684	664
Receivables	(42)	(49)	40	53
Contract assets	(8)	-	1	-
TOTAL	(683)	(684)	745	741

Other recurring operating income and expenses

(in € millions)	2018	2019
Capital gains and losses on asset disposals	(8)	(15)
Royalties, patents and licenses	(10)	(24)
Cost of financial guarantees	(2)	(7)
Losses on irrecoverable receivables	(13)	(22)
Other operating income and expenses ⁽¹⁾	(158)	170
TOTAL	(191)	102

(1) Of which income of €25 million in 2018 and €74 million in 2019 relating to the revised repayment probability for borrowings subject to specific conditions (see Note 26, "Borrowings subject to specific conditions").
In 2018, this caption notably included an accrued expense in respect of the compensation payable to Dassault Aviation for the termination of the Silvercrest engine program. This expense was offset by the reversal of a provision.

Other non-recurring operating income and expenses

(in € millions)	2018	2019
Capital gains on asset disposals	-	12
Impairment net of reversals on intangible assets	(38)	(11)
Other non-recurring items	(77)	12
TOTAL	(115)	13

Group consolidated financial statements at December 31, 2019

In 2019, the Group wrote down the value of an intangible asset relating to a discontinued program recognized in non-recurring income and expenses for €11 million.

Other non-recurring items include transaction, integration and restructuring costs totaling €25 million and capital gains on the disposal of property for €37 million.

At December 31, 2018, the Group analyzed the situation of assets assigned to the X6 program following the termination of the contract with Airbus Helicopter by mutual agreement.

As a result of its analysis, the Group wrote down the full amount of intangible assets specifically assigned to the development of this engine, representing €34 million. Other impairment losses taken against intangible assets chiefly related to a program in the Aircraft Equipment sector.

Other non-recurring items mainly reflected transaction, integration and restructuring costs for €77 million, relating essentially to the Zodiac Aerospace acquisition.

NOTE 8 FINANCIAL INCOME (LOSS)

(in € millions)	2018	2019
Financial expense on interest-bearing financial liabilities	(95)	(81)
Financial income on cash and cash equivalents	28	48
Cost of net debt	(67)	(33)
Gain (loss) on foreign currency hedging instruments	(232)	175
Foreign exchange gain (loss)	(89)	(445)
Net foreign exchange gain (loss) on provisions	(30)	(13)
Foreign exchange gain (loss)	(351)	(283)
Gain (loss) on interest rate hedging instruments	-	2
Capital gain (loss) on financial asset disposals	-	6
Change in the fair value of assets at fair value through profit or loss	4	(1)
Impairment of loans and other financial receivables	1	(5)
Dividends received	1	3
Other financial provisions	(1)	1
Interest component of IAS 19 expense	(14)	(13)
Impact of unwinding the discount	(26)	(39)
Other	(23)	(1)
Other financial income and expense	(58)	(47)
FINANCIAL INCOME (LOSS)	(476)	(363)
■ of which financial expense	(510)	(598)
■ of which financial income	34	235

In 2019, the €175 million gain on foreign currency hedging instruments reflects changes in the fair value of these instruments attributable to cash flows that will be recognized in profit or loss in future periods.

The €445 million foreign exchange loss includes:

- a €449 million foreign exchange loss, reflecting the loss on unwinding currency derivatives hedging operating cash flows recognized in profit or loss in the period. This foreign exchange loss reflects the difference between the EUR/USD exchange

rate guaranteed by the currency derivatives unwound in the period (USD 1.18 for €1) and the actual EUR/USD exchange rate observed during the period;

- a net foreign exchange gain of €4 million primarily attributable to the remeasurement of monetary items at the closing exchange rate.

NOTE 9 INCOME TAX

Income tax expense

Income tax expense breaks down as follows:

(in € millions)	2018	2019
Current income tax benefit (expense)	(425)	(1,095)
Deferred tax benefit (expense)	77	133
TOTAL TAX BENEFIT (EXPENSE)	(348)	(962)

Effective tax rate

The effective tax rate breaks down as follows:

(in € millions)	2018	2019
Profit before tax (A)	1,689	3,474
Standard tax rate applicable to the parent company	34.43%	34.43%
Tax expense at standard rate	(582)	(1,196)
Impact of permanent differences	9	34
Impact of research and CICE tax credits	64	58
Impact of different tax rates (France/international)	42	94
Impact of unrecognized tax	-	8
Impact of changes in tax rates on deferred taxes	12	(29)
Impact of joint ventures	67	57
Impact of other items	40	12
Current income tax expense recognized in profit or loss (B)	(348)	(962)
EFFECTIVE TAX RATE (B)/(A) (in %)	20.60%	27.69%

The "Public Finance Policy Debate in View of the 2020 French Finance Act" ratified on July 11, 2019 adopted a corporate income tax rate of 33.33% (34.43% including the additional contribution) for groups with over €250 million in revenue for reporting periods ending in 2019.

The 2020 Finance Act provides for a corporate income tax rate of 32.02% for 2020, 28.41% for 2021 and 25.83% for 2022 (including the additional contribution). Deferred tax assets and liabilities have therefore been calculated on this basis.

Tax credits represent €69 million (of which €58 million in research tax credits) and reduce the effective tax rate.

Foreign entities taxed at a different rate than the 34.43% rate applicable to the parent company had a positive €94 million impact on current income tax expense.

Changes in deferred tax rates in 2019 (negative €29 million impact) primarily reflect revised income tax rate assumptions for France.

Deferred tax assets and liabilities

Deferred tax assets (liabilities) in the balance sheet

(in € millions)	Assets	Liabilities	Net
Net deferred tax assets (liabilities) at December 31, 2018	391	1,662	(1,271)
Deferred taxes recognized in profit or loss	16	(117)	133
Deferred taxes recognized directly in equity	41	(11)	52
Reclassifications	(205)	(201)	(4)
First-time application of IFRS 16 at January 1, 2019	1	-	1
Foreign exchange differences	6	5	1
Changes in scope of consolidation	1	2	(1)
NET DEFERRED TAX ASSETS (LIABILITIES) AT DECEMBER 31, 2019	251	1,340	(1,089)

Deferred tax asset bases

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Deferred tax asset bases		
Property, plant and equipment and intangible assets	(8,933)	(8,949)
Inventories	657	606
Current assets/liabilities	1,796	2,241
Financial assets/liabilities	400	163
Provisions	1,264	1,588
Tax adjustments	(615)	(705)
Losses carried forward and tax credits	785	882
TOTAL DEFERRED TAX ASSET BASES	(4,646)	(4,174)
Total gross deferred tax balance (A)	(1,223)	(1,040)
Total unrecognized deferred tax assets (B)	48	49
TOTAL NET DEFERRED TAXES RECOGNIZED (A)-(B)	(1,271)	(1,089)

Current tax assets and liabilities

Current tax assets and liabilities break down as follows:

(in € millions)	Assets	Liabilities	Net
Net tax assets (liabilities) at December 31, 2018	752	210	542
Movements during the period	(199)	12	(211)
Current taxes recognized directly in equity	-	(5)	5
Foreign exchange differences	5	3	2
Other movements	(100)	(109)	9
NET TAX ASSETS (LIABILITIES) AT DECEMBER 31, 2019	458	111	347

NOTE 10 EARNINGS PER SHARE

	Index	2018	2019
Numerator (in € millions)			
Profit for the period attributable to owners of the parent	(a)	1,283	2,447
Denominator (in shares)			
Total number of shares	(b)	435,767,951	427,234,155
Number of treasury shares held	(c)	1,439,723	2,550,082
Number of shares excluding treasury shares	(d)=(b-c)	434,328,228	424,684,073
Weighted average number of shares (excluding treasury shares)	(d')	430,911,810	429,723,372
Potentially dilutive ordinary shares	(e)	5,423,821	5,253,361
Weighted average number of shares after dilution	(f)=(d'+e)	436,335,631	434,976,733
Ratio: earnings per share (in €)			
Basic earnings per share	(g)=(a*1million)/(d')	2.98	5.69
Diluted earnings per share	(h)=(a*1million)/(f)	2.94	5.63

At December 31, 2019, potentially dilutive ordinary shares essentially comprise shares that may be issued if all of the bonds convertible and/or exchangeable for new and/or existing shares issued by the Group (OCÉANE 2018-2023 bonds: see Note 23.d, "Convertible bond issues") are converted.

NOTE 11 GOODWILL

Goodwill breaks down as follows:

(in € millions)	Dec. 31, 2018 Net	Changes in scope of consolidation	Reallocation	Impairment	Effect of changes in foreign exchange rates and other	Dec. 31, 2019 Net
Safran Aircraft Engines	392	-	-	-	-	392
Safran Helicopter Engines	307	-	-	-	-	307
Safran Aero Boosters	47	-	-	-	-	47
Other Propulsion	1	-	-	-	-	1
Safran Electronics & Defense	132	-	214	-	2	348
Safran Nacelles	213	-	-	-	-	213
Safran Engineering Services	76	-	-	-	-	76
Safran Electrical & Power	471	-	221	-	9	701
Safran Landing Systems	190	-	-	-	-	190
Safran Aerosystems	1,690	-	(892)	-	-	798
Safran Seats	765	-	-	-	-	765
Safran Cabin	879	-	(90)	-	16	805
Safran Passenger Solutions	-	(12)	557	-	11	556
Safran Ventilation Systems	10	-	(10)	-	-	-
TOTAL	5,173	(12)	-	-	38	5,199

The changes in the presentation of segment information implemented by the Group as of February 1, 2019 led to changes at the level of its operating segments (see Note 5, "Segment information") and CGUs. Goodwill was reallocated among the

new CGUs in the second half of 2019, based on the value in use calculated in accordance with the applicable accounting standards.

Annual impairment tests

The Group performed annual impairment tests on all cash-generating units (CGUs) presented above, by comparing their value in use with their net carrying amount.

The main assumptions used in determining the value in use of CGUs are described below:

- expected future cash flows are determined over a period consistent with the useful life of the assets included in each CGU. This is generally estimated at ten years but may be extended for businesses with longer development and production cycles;
- operating forecasts used to determine expected future cash flows take into account general economic data, specific inflation rates for each geographic area, a USD exchange rate based on available market information and mid- to long-term macroeconomic assumptions. These projections and assumptions are based on the Group's medium-term plan for the next four years, while projections and assumptions beyond this period are based on management's best estimate of the long-term scenario;
- the value in use of CGUs is equal to the sum of these discounted estimated future cash flows plus a terminal value, calculated by applying the growth rate expected for the relevant businesses to standardized cash flows representing long-term business activity, which usually corresponds to the last year in the long-term plan;

- the growth rate used to calculate terminal value was set at 2% for all CGUs;
- the average USD exchange rate adopted is 1.17 for years 2020 to 2022 and 1.30 thereafter. These exchange rate assumptions were used for forecasting during the second half of the year, and take into account the foreign currency hedging portfolio (see Note 31, "Management of market risks and derivatives");
- the benchmark post-tax discount rate used is 7.5% (unchanged from 2018) and is applied to post-tax cash flows.

Based on these tests, no impairment was deemed necessary in addition to that already recognized against individual assets. Furthermore, the recoverable amount of each CGU wholly justifies the goodwill balances recorded in Group assets. No impairment of goodwill was recognized as a result of the annual impairment tests in 2018.

A sensitivity analysis was carried out in respect of the Group's main goodwill balances, by introducing the following changes to the main assumptions:

- a 5% increase or decrease in the USD/EUR exchange rate;
- a 0.5% increase in the benchmark discount rate;
- a 0.5% decrease in the perpetual growth rate.

In 2019 as in 2018, the above changes in the main assumptions taken individually do not result in values in use lower than the carrying amounts of goodwill balances.

NOTE 12 INTANGIBLE ASSETS

Intangible assets break down as follows:

(in € millions)	Dec. 31, 2018			Dec. 31, 2019		
	Gross	Amortization/ impairment	Net	Gross	Amortization/ impairment	Net
Aircraft programs	2,351	(1,550)	801	2,334	(1,633)	701
Development expenditures	5,981	(2,000)	3,981	6,292	(2,215)	4,077
Commercial agreements	735	(121)	614	784	(151)	633
Software	646	(545)	101	684	(599)	85
Trademarks ⁽¹⁾	703	-	703	703	-	703
Commercial relationships	1,933	(213)	1,720	1,953	(362)	1,591
Technology	1,375	(157)	1,218	1,387	(318)	1,069
Other	806	(187)	619	836	(216)	620
TOTAL	14,530	(4,773)	9,757	14,973	(5,494)	9,479

(1) As trademarks are not amortized, they are tested for impairment based on their respective CGUs.

Movements in intangible assets break down as follows:

<i>(in € millions)</i>	Gross	Amortization/ impairment	Net
At December 31, 2018	14,530	(4,773)	9,757
Capitalization of R&D expenditure ⁽¹⁾	333	-	333
Capitalization of other intangible assets	46	-	46
Acquisitions of other intangible assets	87	-	87
Disposals and retirements	(4)	3	(1)
Amortization	-	(736)	(736)
Impairment losses recognized in profit or loss	-	(41)	(41)
Reclassifications	(72)	69	(3)
Changes in scope of consolidation	(5)	1	(4)
Foreign exchange differences	58	(17)	41
AT DECEMBER 31, 2019	14,973	(5,494)	9,479

(1) Including €8 million in capitalized interest on R&D expenditure at December 31, 2019 (€7 million at December 31, 2018).

Research and development expenditures recognized in recurring operating income for the period totaled €1,282 million including amortization (€1,124 million in 2018). This amount does not include the research tax credit recognized in the income statement within "Other income" (see Note 7, "Breakdown of the other main components of profit from operations").

Amortization recognized in the period includes €287 million relating to the remeasurement of intangible assets within the scope of the acquisition of the former Zodiac Aerospace, €51 million relating to the remeasurement of aircraft programs in connection with the Sagem-Snecma merger, and €39 million relating to assets identified as part of other business combinations.

As a result of the impairment tests carried out at December 31, 2019, intangible assets relating to two programs in the Aircraft Equipment and Aerosystems segment were written down by €41 million.

As a result of the impairment tests carried out at December 31, 2018, the Group wrote down intangible assets assigned to the X6 program in an amount of €34 million, as well as intangible assets relating mainly to an Aircraft Equipment program in an amount of €4 million (see Note 7, "Breakdown of the other main components of profit from operations").

NOTE 13 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment break down as follows:

<i>(in € millions)</i>	Dec. 31, 2018			Dec. 31, 2019		
	Gross	Depreciation/ impairment	Net	Gross	Depreciation/ impairment	Net
Land	247	-	247	231	-	231
Buildings	2,080	(935)	1,145	2,028	(936)	1,092
Technical facilities, equipment and tooling	5,743	(3,647)	2,096	6,231	(4,003)	2,228
Assets in progress, advances	784	(68)	716	656	(57)	599
Site development and preparation costs	60	(33)	27	63	(34)	29
Buildings on land owned by third parties	85	(36)	49	70	(37)	33
Computer hardware and other equipment	637	(463)	174	655	(469)	186
TOTAL	9,636	(5,182)	4,454	9,934	(5,536)	4,398

Movements in property, plant and equipment break down as follows:

(in € millions)	Gross	Depreciation/ impairment	Net
At December 31, 2018	9,636	(5,182)	4,454
First-time application of IFRS 16 at January 1, 2019	(327)	119	(208)
Internally produced assets	68	-	68
Additions	709	-	709
Disposals and retirements	(180)	150	(30)
Depreciation ⁽¹⁾	-	(615)	(615)
Impairment losses recognized in profit or loss	-	-	-
Reclassifications	(59)	37	(22)
Changes in scope of consolidation	(1)	1	-
Foreign exchange differences	88	(46)	42
AT DECEMBER 31, 2019	9,934	(5,536)	4,398

(1) Including €28 million relating to the remeasurement of property, plant and equipment as part of the acquisition of the former Zodiac Aerospace.

NOTE 14 LEASES

a) Right-of-use assets

Right-of-use assets break down as follows:

(in € millions)	Dec. 31, 2019		
	Gross	Depreciation/ impairment	Net
Right-of-use assets relating to property	817	(105)	712
Right-of-use assets relating to transport equipment	6	(2)	4
Right-of-use assets relating to other assets	18	(2)	16
TOTAL	841	(109)	732

Movements in right-of-use assets break down as follows:

(in € millions)	Gross	Depreciation/ impairment	Net
At December 31, 2018	-	-	-
First-time application of IFRS 16 at January 1, 2019	716	-	716
Increases	131	-	131
Disposals and retirements	(13)	3	(10)
Depreciation	-	(112)	(112)
Impairment losses recognized in profit or loss	-	(1)	(1)
Reclassifications	(3)	1	(2)
Changes in scope of consolidation	(1)	-	(1)
Foreign exchange differences	11	-	11
AT DECEMBER 31, 2019	841	(109)	732

b) Lease liabilities

The maturity of lease liabilities can be analyzed as follows at December 31, 2019:

(in € millions)	Dec. 31, 2019
Maturing in:	
1 year or less	121
More than 1 year and less than 5 years	390
Beyond 5 years	218
TOTAL	729

c) Lease items presented in the income statement

In 2019, rental expenses recognized in profit from operations (see Note 7, "Breakdown of the other main components of profit from operations") under "External services" totaled €74 million. These expenses have not been restated due to the application of the practical expedients allowed under IFRS 16 (exemption for short-term leases, leases of low-value assets and licensing agreements, such as for IT equipment), or because they relate to a "service" component identified in the lease.

Interest expense on lease liabilities recognized in financial income (loss) under "Cost of net debt" amounted to €10 million in 2019 (see Note 8, "Financial income (loss)").

d) Lease items presented in the cash flow statement

In 2019, disbursements under leases recognized in the cash flow statement and relating to the repayment of lease liabilities represented €125 million and are shown within "Cash flow used in financing activities". These are increased by payments of interest on lease liabilities, which are included within "Cash flow from operating activities".

NOTE 15 CURRENT AND NON-CURRENT FINANCIAL ASSETS

Financial assets include:

(in € millions)	Dec. 31, 2018			Dec. 31, 2019		
	Gross	Impairment	Net	Gross	Impairment	Net
Non-consolidated investments			300			284
Other financial assets	385	(84)	301	374	(86)	288
TOTAL	N/A	N/A	601	N/A	N/A	572

Equity investments in non-consolidated companies are classified at fair value through profit or loss.

Other financial assets are measured at amortized cost.

The Group reviewed the value of its other financial assets in order to determine whether any items needed to be written down based on available information. No material write-downs were recognized in 2019.

Other financial assets

Other financial assets break down as follows:

(in € millions)	Dec. 31, 2018	2019
Loans to non-consolidated companies	122	150
Loans to employees	33	35
Deposits and guarantees	12	16
Other	134	87
TOTAL	301	288
Non-current	116	145
Current	185	143

Loans to non-consolidated companies correspond to revolving credit agreements.

The table below shows movements in other financial assets:

(in € millions)	
At December 31, 2018	301
First-time application of IFRS 16 at January 1, 2019	19
Increase	87
Decrease	(125)
Effect of changes in foreign exchange rates	1
Reclassifications	5
AT DECEMBER 31, 2019	288

NOTE 16 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES

The Group's share in the net equity of equity-accounted companies breaks down as follows:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
ArianeGroup	1,605	1,559
Other joint ventures	648	652
TOTAL	2,253	2,211

Movements in this caption during the period break down as follows:

(in € millions)	
At December 31, 2018	2,253
Share in profit from ArianeGroup	29
Share in profit from other joint ventures	135
Dividends received from joint ventures	(77)
Changes in scope of consolidation	17
First-time application of IFRS 16 at January 1, 2019	(1)
Foreign exchange differences	13
Other movements	(158)
AT DECEMBER 31, 2019	2,211

The Group's off-balance sheet commitments with joint ventures are described in Note 33, "Related parties".

The Group has interests in the following joint ventures which are accounted for using the equity method:

- ArianeGroup: space launchers and military activities;
- Shannon Engine Support Ltd: leasing of CFM56 and Leap engines, modules, equipment and tooling to airline companies;
- SOFRADIR (now Lynred following the change in corporate name on May 31, 2019): manufacture of cooled infrared detectors;
- ULIS: manufacture of uncooled infrared detectors (merged with SOFRADIR as of January 1, 2019);
- Safran Martin-Baker France: manufacture of ejectable seating;
- A-Pro: repair of landing gear for regional and business jets;
- CFM Materials LP: sale of used CFM56 parts;

- Roxel SAS: holding company;
- Roxel France SA: motors for tactical missiles;
- Roxel Ltd: motors for tactical missiles;
- SAIFEI: electrical wiring;
- Fadec International LLC: digital engine control systems;
- Xi'an Cea Safran Landing Systems Co., Ltd: landing gear maintenance;
- EZ Air Interior Ltd: cabin interiors;
- Initium Aerospace: design and manufacture of auxiliary power units.

ArianeGroup is the Group's sole material joint venture.

Financial information for ArianeGroup can be summarized as follows:

<i>(in € millions)</i>	Dec. 31, 2018	Dec. 31, 2019
Non-current assets	1,303	1,763
Current assets	6,626	6,610
■ of which: cash and cash equivalents	507	828
Non-current liabilities	(688)	(1,067)
■ of which: non-current financial liabilities	(137)	(517)
Current liabilities	(7,513)	(7,601)
■ of which: current financial liabilities	(28)	(57)
Non-controlling interests	(14)	(4)
Net assets of ArianeGroup (excl. goodwill and PPA) – Attributable to owners of the parent (based on a 100% interest)	(286)	(299)
Equity share in net assets of ArianeGroup (excl. goodwill and PPA) (based on a 50% interest)	(143)	(150)
Purchase price allocation, net of deferred taxes	572	532
Safran equity share – Net assets of ArianeGroup	429	383
Goodwill	1,176	1,176
CARRYING AMOUNT OF INVESTMENT IN ARIANEGROUP	1,605	1,559

<i>(in € millions)</i>	2018	2019
Profit for the period attributable to owners of the parent	241	138
Other comprehensive income (expense)	(10)	(74)
Total comprehensive income attributable to owners of the parent	231	64
Safran equity share – Profit for the period	120	69
Amortization of purchase price allocation, net of deferred taxes	(37)	(40)
Safran equity share – Profit of ArianeGroup	83	29
Safran equity share – Other comprehensive income (expense)	(9)	(37)
Safran equity share – Comprehensive income (expense) of ArianeGroup	74	(8)

The contribution of other joint ventures to the Group's comprehensive income was as follows:

(in € millions)	2018	2019
Profit for the period	106	135
Other comprehensive income	20	7
TOTAL COMPREHENSIVE INCOME	126	142

NOTE 17 INVENTORIES AND WORK-IN-PROGRESS

Inventories and work-in-progress break down as follows:

(in € millions)	Dec. 31, 2018 Net	Dec. 31, 2019 Net
Raw materials and supplies	1,221	1,432
Finished goods	2,662	2,970
Work-in-progress	1,608	1,839
Bought-in goods	67	71
TOTAL	5,558	6,312

Movements in inventories and work-in-progress can be analyzed as follows:

(in € millions)	Gross	Impairment	Net
At December 31, 2018	6,610	(1,052)	5,558
Movements during the period	590	-	590
Net impairment expense	-	80	80
Reclassifications	(51)	48	(3)
Changes in scope of consolidation	47	(6)	41
Foreign exchange differences	56	(10)	46
AT DECEMBER 31, 2019	7,252	(940)	6,312

NOTE 18 CONTRACT COSTS

Changes in assets recognized in respect of costs incurred to obtain or fulfill contracts entered into with customers can be analyzed as follows:

(in € millions)	Dec. 31, 2018			Dec. 31, 2019		
	Gross value	Impairment	Net	Gross value	Impairment	Net
Costs to obtain contracts	-	-	-	-	-	-
Costs to fulfill contracts	532	(62)	470	525	(54)	471
CONTRACT COSTS	532	(62)	470	525	(54)	471

NOTE 19 TRADE AND OTHER RECEIVABLES

(in € millions)	Dec. 31, 2018 Net	Movements during the period	Impairment/ reversal	Changes in scope of consolidation	Reclassifications*	Effect of changes in foreign exchange rates	Dec. 31, 2019 Net
Operating receivables	5,849	944	(2)	26	39	21	6,877
Debit balances on trade payables/advance payments to suppliers	472	192	-	-	1	-	665
Trade receivables ⁽¹⁾	5,368	752	(2)	26	38	21	6,203
Operating current accounts	2	-	-	-	-	-	2
Employee-related receivables	7	-	-	-	-	-	7
Other receivables	731	42	-	1	(16)	4	762
Prepayments	89	33	-	-	(14)	1	109
VAT receivables	555	(3)	-	-	-	2	554
Other State receivables	32	(11)	-	-	-	-	21
Other receivables	55	23	-	1	(2)	1	78
TOTAL	6,580	977	(2)	27	32	25	7,639

(*) Including a negative amount of €3 million in connection with the first-time application of IFRS 16 at January 1, 2019.

(1) The year-on-year increase in this caption primarily reflects the grounding of the 737 MAX.

The table below shows changes in trade and other receivables:

(in € millions)	Gross	Impairment	Net
At December 31, 2018	5,621	(253)	5,368
Short-term changes	752	-	752
Net impairment expense	-	(2)	(2)
Reclassifications	37	4	41
First-time application of IFRS 16 at January 1, 2019	(3)	-	(3)
Changes in scope of consolidation	27	(1)	26
Foreign exchange differences	22	(1)	21
AT DECEMBER 31, 2019	6,456	(253)	6,203

Trade and other receivables fall due as shown below:

(in € millions)	Carrying amount at Dec. 31	Not past due	Past due at year-end (in days)					Total past due
			<30	31-90	90-180	181-360	> 360	
At December 31, 2018								
Trade receivables	5,368	4,415	539	198	100	33	83	953
AT DECEMBER 31, 2019								
Trade receivables	6,203	5,525	289	146	86	51	106	678

In both 2019 and 2018, the Group sold trade receivables as part of an agreement described in further detail in Note 27, "Interest-bearing financial liabilities". Under IFRS, these receivables must be removed from the balance sheet.

NOTE 20 CONTRACT ASSETS AND LIABILITIES

Contract assets can be analyzed as follows:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Contract assets, gross	1,555	1,754
Impairment	(11)	(11)
CONTRACT ASSETS, NET	1,544	1,743

Changes in contract assets can be analyzed as follows:

(in € millions)	
At December 31, 2018	1,544
Reclassification of contract assets in trade and other receivables	(492)
Changes relating to revenue recognized over time	597
Other changes	93
Impairment	-
Foreign exchange differences	1
AT DECEMBER 31, 2019	1,743

Contract liabilities can be analyzed as follows:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Advances and downpayments received	5,080	4,970
Deferred income	3,905	4,313
Other contract liabilities	1,468	1,640
TOTAL	10,453	10,923

Changes in contract liabilities can be analyzed as follows:

(in € millions)	
At December 31, 2018	10,453
Increase in amounts received net of revenue recognized in the period	2,698
Revenue recognized in the period and included in the opening balance	(2,288)
Other changes	38
Foreign exchange differences	22
AT DECEMBER 31, 2019	10,923

Deferred income mainly includes funding received for development work and under service contracts based on flight hours or landings that has not yet been recognized in revenue. In 2019,

funding received for development work and under service contracts based on flight hours or landings was €321 million more than the revenue recognized.

NOTE 21 CASH AND CASH EQUIVALENTS

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Money-market funds	5	22
Short-term investments	1,250	1,475
Sight deposits	1,075	1,135
TOTAL	2,330	2,632

Money-market funds are classified within Level 1 of the IFRS 13 fair value hierarchy.

The table below presents changes in cash and cash equivalents:

(in € millions)	
At December 31, 2018	2,330
Movements during the period	300
Foreign exchange differences	2
AT DECEMBER 31, 2019	2,632

NOTE 22 SUMMARY OF FINANCIAL ASSETS

The following table presents the carrying amount of the Group's financial assets at December 31, 2018 and December 31, 2019:

	Carrying amount				Total = A + B + C + D
	At amortized cost	At fair value			
	Amortized cost (A)	Fair value through profit or loss (B)	Fair value through equity (OCI) to be reclassified (C)	Fair value through equity (OCI) not to be reclassified (D)	
At December 31, 2018 (in € millions)					
Non-current financial assets					
Non-consolidated investments		300			300
Non-current derivatives (positive fair value)		13			13
Other non-current financial assets	116				116
Sub-total non-current financial assets	116	313	-	-	429
Other current financial assets	185				185
Current derivatives (positive fair value)		740			740
Trade receivables	5,368				5,368
Operating current accounts and other receivables	57				57
Cash and cash equivalents	2,325	5			2,330
Sub-total current financial assets	7,935	745	-	-	8,680
TOTAL FINANCIAL ASSETS	8,051	1,058	-	-	9,109

At December 31, 2019 (in € millions)	Carrying amount				Total = A + B + C + D
	At amortized cost	At fair value			
	Amortized cost (A)	Fair value through profit or loss (B)	Fair value through equity (OCI) to be reclassified (C)	Fair value through equity (OCI) not to be reclassified (D)	
Non-current financial assets					
Non-consolidated investments		284			284
Non-current derivatives (positive fair value)		33			33
Other non-current financial assets	145				145
Sub-total non-current financial assets	145	317	-	-	462
Other current financial assets	143				143
Current derivatives (positive fair value)		674			674
Trade receivables	6,203				6,203
Operating current accounts and other receivables	80				80
Cash and cash equivalents	2,610	22			2,632
Sub-total current financial assets	9,036	696	-	-	9,732
TOTAL FINANCIAL ASSETS	9,181	1,013	-	-	10,194

Impairment of financial assets/Credit risk exposure

Within financial assets carried at amortized cost, only trade receivables are written down using the simplified impairment approach set out in IFRS 9.

The fair value of financial assets carried at fair value represents their maximum exposure to credit risk.

Reclassification of financial assets

The Group did not reclassify any financial assets between the "amortized cost" and "fair value" categories in either 2019 or 2018.

Fair value of financial assets

The fair value of financial assets recorded at amortized cost is close to their carrying amount.

Safran uses the fair value hierarchy set out in IFRS 13 to determine the classification of financial assets at fair value:

- Level 1: inputs that reflect quoted prices for identical assets or liabilities in active markets;
- Level 2: directly or indirectly observable inputs other than quoted prices for identical assets or liabilities in active markets;
- Level 3: unobservable inputs.

At December 31, 2018, the Group carried the following financial assets at fair value:

(in € millions)	Level 1	Level 2	Level 3	Total
Non-consolidated investments	-	-	300	300
Derivatives (positive fair value)	-	753	-	753
Cash and cash equivalents	5	-	-	5
TOTAL	5	753	300	1,058

At December 31, 2019, the Group carried the following financial assets at fair value:

(in € millions)	Level 1	Level 2	Level 3	Total
Non-consolidated investments	-	-	284	284
Derivatives (positive fair value)	-	707	-	707
Cash and cash equivalents	22	-	-	22
TOTAL	22	707	284	1,013

No items were transferred between Level 1 and Level 2 or to/from Level 3 in either 2019 or 2018.

Offsetting of financial assets and financial liabilities

At December 31, 2018 (in € millions)	Gross carrying amount (A)	Amount offset (B)	Net amount on the balance sheet ⁽¹⁾ (C)	Amount subject to offset agreement but not offset (D)	Net (C) - (D)
Derivatives (positive fair value)	753	-	753	725	28

(1) See Note 31, "Management of market risks and derivatives".

At December 31, 2019 (in € millions)	Gross carrying amount (A)	Amount offset (B)	Net amount on the balance sheet ⁽¹⁾ (C)	Amount subject to offset agreement but not offset (D)	Net (C) - (D)
Derivatives (positive fair value)	707	-	707	614	93

(1) See Note 31, "Management of market risks and derivatives".

The tables above show the financial assets for which an offsetting agreement exists with respect to financial liabilities.

The Group does not offset financial assets against financial liabilities in its balance sheet at December 31, 2019 or December 31, 2018, since the requisite conditions set out in IAS 32 are not met. Master offsetting (netting) agreements governing the subscription of OTC derivatives with bank counterparties provide

for a right of set-off only in the event of default, insolvency or bankruptcy of one of the parties to the agreement.

The amounts subject to an offset agreement but not offset comprise a portion of the Group's derivatives with a negative fair value, since amounts can only be offset if they relate to the same counterparty.

NOTE 23 CONSOLIDATED SHAREHOLDERS' EQUITY

a) Share capital

At December 31, 2019, Safran's share capital was fully paid up and comprised 427,234,155 shares, each with a par value of €0.20.

Safran's equity does not include any equity instruments issued other than its shares.

b) Breakdown of share capital and voting rights

Changes in the breakdown of share capital and voting rights are as follows:

December 31, 2018

Shareholders	Number of shares	% share capital	Number of voting rights ⁽¹⁾	% voting rights ⁽¹⁾
Private investors	356,388,863	81.78%	371,363,962	71.05%
French State	47,983,131	11.01%	95,966,262	18.36%
Employees ⁽²⁾	29,956,234	6.88%	55,338,194	10.59%
Treasury shares	1,439,723	0.33%	-	-
TOTAL	435,767,951	100.00%	522,668,418	100.00%

(1) Exercisable voting rights.

(2) Employee shareholding within the meaning of Article L.225-102 of the French Commercial Code (Code de commerce).

December 31, 2019

Shareholders	Number of shares	% share capital	Number of voting rights ⁽¹⁾	% voting rights ⁽¹⁾
Private investors	347,840,451	81.42%	376,557,055	71.07%
French State	47,983,131	11.23%	95,966,262	18.11%
Employees ⁽²⁾	28,860,491	6.75%	57,301,029	10.82%
Treasury shares	2,550,082	0.60%	-	-
TOTAL	427,234,155	100.00%	529,824,346	100.00%

(1) Exercisable voting rights.

(2) Employee shareholding within the meaning of Article L.225-102 of the French Commercial Code.

Each share carries entitlement to one vote. Shares held in registered form for over two years have double voting rights.

The 2,550,082 treasury shares have no voting rights.

At December 31, 2019, the total number of shares includes 29,060 shares issued throughout the year further to the exercise of stock subscription options resulting from employee commitments undertaken by Zodiac Aerospace, transferred to Safran at the time of the Zodiac Aerospace merger on December 1, 2018 based on the exchange ratio used for the merger. It also reflects the capital decrease carried out on December 20, 2019 by canceling 8,562,856 treasury shares.

Treasury shares

The number of treasury shares has increased since December 31, 2018 following:

- the sale of 84,903 shares under the Group's liquidity agreement, net of shares purchased;
- the purchase of 10,185,797 shares in connection with the implementation of the share buyback programs;
- the delivery of a total of 427,679 shares under employee share ownership plans and a multi-year variable compensation plan;
- the cancellation of 8,562,856 treasury shares.

On May 25, 2018, the Shareholders' Meeting authorized the Board of Directors to buy and sell shares in the Company in accordance with the applicable laws and regulations, at a maximum purchase price of €118 per share. A new authorization to purchase shares was granted by the Shareholders' Meeting of November 27, 2018, providing for a maximum purchase price of €140 per share, in order to reflect changes in the Safran share price since the last authorization was granted. This authorization was renewed by the Shareholders' Meeting of May 23, 2019, which set the maximum purchase price at €155 per share.

Pursuant to these authorizations and to the liquidity agreement signed in 2012 with Oddo BHF, the Company purchased 2,487,628 shares for €321 million, and sold 2,572,531 shares for €321 million. At December 31, 2019, 229,097 shares were held in connection with the liquidity agreement.

On May 24, 2017, Safran announced that it intended to buy back up to €2,300 million in shares over a two-year period, starting as soon as its tender offer for Zodiac Aerospace had been completed. The offer was completed on March 23, 2018 following the mandatory squeeze-out of Zodiac Aerospace shares.

After having launched two buyback tranches in 2018, in 2019 Safran signed:

- a share purchase agreement with an investment services firm on January 10, 2019 for a third buyback tranche of up to €600 million, expiring on May 10, 2019 at the latest;
- a share purchase agreement with a different investment services firm on May 27, 2019 for a fourth buyback tranche of up to €150 million, expiring on June 28, 2019 at the latest;
- a share purchase agreement with an investment services firm on July 1, 2019 for a fifth buyback tranche of up to €400 million, expiring on September 4, 2019 at the latest;
- a share purchase agreement with an investment services firm on September 17, 2019 for a sixth buyback tranche of up to €220 million, expiring on December 13, 2019 at the latest.

At December 31, 2019, the four tranches had been completed, involving the purchase of 8,562,856 shares for €1,076 million.

The entire €2,300 million share buyback program had therefore been completed at December 31, 2019.

As in 2018, the shares purchased in 2019 were subsequently canceled within the scope of the capital decrease of December 20, 2019.

An amendment to the September 17, 2019 share purchase agreement for the sixth buyback tranche was signed on September 20, 2019, setting the expiration date at December 31, 2019. The maximum amount of shares available for purchase was increased to €450 million and a second buyback purpose therefore added, consisting of the allocation or sale of the shares to employees and/or certain corporate officers.

This second purpose was fulfilled, enabling the purchase of 1,622,941 shares for €232 million.

c) Share-based payment

The Board of Directors periodically grants performance shares to Group employees and corporate officers.

The vesting of these performance shares is subject to the achievement of internal and external performance conditions, which are assessed over three full consecutive fiscal years, including the year in which the performance shares are granted. In addition, the shares will only vest if the beneficiaries still form part of the Group at the vesting date (see section 6.6.4.2 of the 2018 Registration Document).

Key details of outstanding performance share plans at December 31, 2019 are shown below:

	2017 performance shares	2018 performance shares	2019 performance shares
Shareholder authorization	May 19, 2016	May 25, 2018	May 25, 2018
Grant date by the Board of Directors	March 23, 2017	July 24, 2018	March 27, 2019
Vesting date	March 25, 2020	July 26, 2021	March 29, 2022
Share price at the grant date	€69.86	€107.05	€116.90
Number of beneficiaries at the grant date	430	440	589
Number of performance shares granted	567,747	574,712	732,130
Number of shares canceled or forfeited	(35,135)	(19,109)	(55,200)
NUMBER OF PERFORMANCE SHARES OUTSTANDING AT DECEMBER 31, 2019	532,612	555,603	676,930

The share-based payment expense for these performance share plans, recognized within personnel expenses under "Other employee costs" (see Note 7, "Breakdown of the other main components of profit from operations") totals €49 million in 2019 compared to €29 million in 2018, excluding the employer contribution.

d) Convertible bond issues

OCÉANE 2018-2023 bonds

On June 21, 2018, Safran issued 4,996,431 bonds convertible and/or exchangeable for new and/or existing shares ("OCÉANE" bonds), each with a par value of €140.10, i.e., representing a total nominal amount of €700 million.

The bonds do not carry any coupon.

Bondholders have the option of converting their bonds into shares. This option can be exercised at any point after the issue date and up to the seventh trading day preceding the standard or early redemption date. Following the 2018 dividend payment (see Note 23.e, "Dividend distribution") and in accordance with the terms and conditions of the bond issue, the bond conversion ratio has been 1.001 shares for 1 bond since May 29, 2019. This adjusted conversion ratio was calculated by the bond calculation agent in accordance with the calculation formula stipulated in the terms and conditions of the bonds based on the following inputs:

- previous bond conversion ratio: 1 share for 1 bond;
- share price: €121.54719;
- dividend per share paid in 2019: €1.82;
- dividend per share threshold for 2019: €1.70.

This bond comes with an early redemption option that the bearer may trigger in the event of a change of control and, from June 21, 2021, that the issuer may trigger if the share price multiplied by the bond conversion ratio exceeds 130% of par value.

Unless converted, redeemed or bought back and canceled prior to maturity, the bonds are redeemable at par on June 21, 2023.

OCÉANE convertible bonds are deemed a hybrid instrument comprising equity and debt.

After deducting issuance fees, a total of €653 million was recognized under interest-bearing financial liabilities, corresponding to the present value of cash flows from a similar bond with no conversion rights (see Note 27, "Interest-bearing financial liabilities").

The effective annual interest rate on the liability component is 1.40% including issuance fees.

The option component recognized in equity was valued at €44 million on the issue date, or €31 million after the deferred tax impact (see the consolidated statement of changes in shareholders' equity).

e) Dividend distribution

A dividend payout of €1.82 per share in respect of 2018 was approved and paid in 2019, representing a total amount of €785 million.

At the Shareholders' Meeting to be held on May 28, 2020 to approve the financial statements for the year ended December 31, 2019, the Board of Directors will recommend a dividend payment of €2.38 per share in respect of 2019, representing a total payout of €1,017 million⁽¹⁾.

⁽¹⁾ However, see section 2.1.4, "Subsequent events".

NOTE 24 PROVISIONS

Provisions break down as follows:

(in € millions)	Dec. 31, 2018	Additions	Reversals			Changes in scope of consolidation	Other	Dec. 31, 2019
			Utilizations ⁽¹⁾	Reclassifications ⁽¹⁾	Surplus			
Performance warranties	1,037	593	(203)	-	(221)	2	6	1,214
Financial guarantees	3	3	(4)	-	-	-	-	2
Post-employment benefits	876	81	(91)	-	(3)	-	127	990
Sales agreements and long-term receivables	266	102	(44)	-	(67)	-	1	258
Provisions for losses on completion and losses arising on delivery commitments	201	137	(71)	(1)	(26)	-	5	245
Disputes and litigation	51	12	(13)	-	(12)	-	1	39
Other	343	164	(130)	(2)	(36)	-	(4)	335
TOTAL	2,777	1,092	(556)	(3)	(365)	2	136	3,083
Non-current	1,588							2,093
Current	1,189							990

(1) These reversals in respect of expenses for the period or reclassifications had no impact on profit for the period.

The impacts on the income statement of overall movements in provisions can be analyzed as follows:

(in € millions)	Dec. 31, 2019
Net additions recognized in profit from operations	(122)
Net additions recognized in financial income (loss)	(46)
TOTAL	(168)

NOTE 25 POST-EMPLOYMENT BENEFITS

The Company has various obligations under defined benefit plans, retirement termination benefits and other commitments, mainly in France, the United States and the United Kingdom. The accounting treatment applied to these commitments is detailed in Note 1.t.

a) Presentation of post-employment benefits

France

Defined benefit pension plans

The Group closed a defined benefit supplementary pension plan at December 31, 2017 and froze all conditional entitlements at December 31, 2016.

The beneficiaries of this closed plan are Group executive managers with five years' service at December 31, 2017.

The closure of this plan was part of a change in supplementary pension arrangements for Group executive managers, with the introduction of an "Article 83" defined contribution supplementary plan (mandatory collective plan) and an "Article 82" defined contribution plan (voluntary collective plan) as from January 1, 2017.

Retirement termination benefits

This heading includes obligations in respect of statutory termination benefits due on retirement and supplementary payments required by the collective bargaining agreement for the metallurgy industry.

Other long-term benefits

In France, other long-term benefits mainly comprise obligations in respect of long-service awards and bonuses.

United Kingdom

Defined benefit pension plans

There are three pension funds in place at Safran Landing Systems UK Ltd/Safran Landing Systems Services UK Ltd, Safran Nacelles Ltd and Safran UK. These pension funds have been contracted out, which means they replace the mandatory supplementary pension plan. The plans are managed by trustees. Beneficiaries no longer accrue any rights under these plans.

Rest of the world

The Group offers its other employees post-employment benefits and long-service bonuses in accordance with local laws and practices. The main regions concerned in relation to continuing operations are:

- Americas: pension funds in the United States (now frozen) and in Canada, retirement termination benefits in Mexico;
- Europe: pension funds in Switzerland, pension funds and retirement termination benefits in Belgium, pension funds and long-service bonuses in Germany, retirement termination benefits and long-service bonuses in Poland.

b) Financial position

(in € millions)	Dec. 31, 2018	Dec. 31, 2019	France	United Kingdom	Rest of the world
Gross obligation	1,554	1,782	794	618	370
Plan assets	691	809	12	598	199
Provision recognized in the accounts	876	990	782	37	171
■ Defined benefit pension plans	180	198	20	37	141
■ Retirement termination benefits	644	735	710	-	25
■ Long-service bonuses and other employee benefits	52	57	52	-	5
RECOGNIZED NET PLAN ASSETS	(13)	(17)	-	(17)	-

(in € millions)	Dec. 31, 2018	Dec. 31, 2019	Defined benefit pension plans	Retirement termination benefits	Long-service bonuses and other long-term benefits
Gross obligation	1,554	1,782	990	735	57
Plan assets	691	809	809	-	-
Provision recognized in the accounts	876	990	198	735	57
RECOGNIZED NET PLAN ASSETS	(13)	(17)	(17)	-	-

The increase in the gross obligation chiefly results from:

- revised financial assumptions (discount and inflation rates) used to determine the benefit obligation in the United Kingdom and the eurozone;
- the appreciation in the pound sterling, generating exchange differences.

The value of plan assets rose during the period due to the return on pension fund assets in the United Kingdom and the appreciation in the pound sterling.

The cost of the Group's pension obligations in 2018 and 2019 can be analyzed as follows:

(in € millions)	2018	2019
Current service cost	(57)	(60)
Actuarial gains and losses recognized (on other long-term benefits)	2	(4)
Plan implementation, amendment and settlement	(4)	-
Plan administration costs	-	(1)
Total operating component of the pension expense	(59)	(65)
Interest cost on the net benefit obligation	(14)	(13)
Total financing component of the pension expense	(14)	(13)
TOTAL	(73)	(78)

The Group expects to pay a total of €20 million into its defined benefit pension plans in 2020.

Group consolidated financial statements at December 31, 2019

Main assumptions used to calculate the gross benefit obligation:

		Eurozone	United Kingdom
Discount rate	2018	1.50%	2.90%
	2019	0.60%	1.95%
Inflation rate	2018	1.75%	3.25%
	2019	1.75%	2.90%
Rate of annuity increases	2018	1.00%	3.25%
	2019	1.00%	2.90%
Rate of future salary increases	2018	1.12%-5.00%	N/A
	2019	1.12%-5.00%	N/A
Retirement age	2018	Managerial: 64/65 years	
		Non-managerial: 62/65 years	65 years
	2019	Managerial: 64/65 years	
		Non-managerial: 62/65 years	65 years

The discount rates are determined by reference to the yield on private investment-grade bonds (AA). The Group refers to the iBoxx index to calculate the benefit obligations in its two main regions (eurozone and United Kingdom).

Sensitivity analysis

An increase or decrease of 0.5% in the main assumptions would have the following impacts on the amount of the gross benefit obligation at December 31, 2019:

<i>(in € millions)</i>		
Sensitivity (basis points)	-0.50%	+0.50%
Discount rate	147	(129)
Inflation rate	(62)	66
Rate of future salary increases	(56)	64

For the purpose of the analysis, it was assumed that all other variables remained the same.

The change in the value of the gross projected benefit obligation would have mainly affected actuarial gains and losses recognized in other comprehensive income.

c) Change in the gross benefit obligation and plan assets
Change in the gross benefit obligation:

(in € millions)	2018	2019	Defined benefit pension plans	Retirement termination benefits	Long-service bonuses and other employee benefits
GROSS BENEFIT OBLIGATION AT BEGINNING OF PERIOD	1,467	1,554	858	644	52
A. PENSION EXPENSE					
Current service cost	57	60	13	43	4
Actuarial gains and losses recognized (on other long-term benefits)	(2)	4	-	-	4
Plan implementation, amendment and settlement	4	-	-	-	-
Interest cost	30	32	21	10	1
Total expense recognized in the income statement	89	96	34	53	9
B. ACTUARIAL GAINS AND LOSSES ARISING IN THE PERIOD ON POST-EMPLOYMENT PLANS					
Actuarial gains and losses resulting from changes in demographic assumptions	(3)	(17)	(17)	-	-
Actuarial gains and losses resulting from changes in financial assumptions	(63)	190	117	73	-
Experience adjustments	6	(1)	(5)	4	-
Total revaluation recognized in other comprehensive income for the period	(60)	172	95	77	-
C. OTHER ITEMS					
Employee contributions	2	3	3	-	-
Benefits paid	(96)	(83)	(40)	(39)	(4)
Changes in scope of consolidation	154	5	5	-	-
Other movements	-	(2)	(2)	-	-
Foreign exchange differences	(2)	37	37	-	-
Total other items	58	(40)	3	(39)	(4)
GROSS BENEFIT OBLIGATION AT END OF PERIOD	1,554	1,782	990	735	57
Average weighted term of pension plans	15	15	18	12	10

Change in the fair value of plan assets:

(in € millions)	2018	2019	Defined benefit pension plans	Retirement termination benefits	Long-service bonuses and other employee benefits
FAIR VALUE OF PLAN ASSETS AT BEGINNING OF PERIOD	665	691	691	-	-
A. INCOME					
Interest income on plan assets	16	19	19	-	-
Plan administration costs	-	(1)	(1)	-	-
Total income recognized in the income statement	16	18	18	-	-
B. ACTUARIAL GAINS AND LOSSES ARISING IN THE PERIOD ON POST-EMPLOYMENT PLANS					
Return on plan assets (excluding interest income component)	(12)	53	53	-	-
Total revaluation recognized in other comprehensive income for the period	(12)	53	53	-	-
C. OTHER ITEMS					
Employee contributions	2	2	2	-	-
Employer contributions	43	49	49	-	-
Benefits paid	(43)	(40)	(40)	-	-
Changes in scope of consolidation	23	-	-	-	-
Other movements	-	3	3	-	-
Foreign exchange differences	(3)	33	33	-	-
Total other items	22	47	47	-	-
FAIR VALUE OF PLAN ASSETS AT END OF PERIOD	691	809	809	-	-

d) Asset allocation

	United Kingdom % allocation at		Other European countries % allocation at	
	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019
Shares	14.47%	14.18%	27.65%	27.55%
Bonds and debt instruments	41.88%	50.77%	58.65%	56.45%
Property	7.56%	6.53%	7.50%	9.78%
Mutual funds and other diversified funds	35.13%	24.78%	0.65%	0.47%
Cash and cash equivalents	0.96%	3.74%	2.15%	4.93%
Other	0.00%	0.00%	3.40%	0.82%

An active market price exists for all plan assets except property.

In the United Kingdom, the Group's long-term aim is to limit its exposure to defined benefit plans and ultimately endeavor to contract out these obligations to insurance firms under favorable market conditions. In the meantime, the Group is committed to ensuring that its pension obligations are adequately funded.

The Group's investment policy for pension funds in the United Kingdom combines safe harbor investments (in monetary funds, government bonds, bond funds), to secure the medium-term funding of obligations, with riskier investments such as in equity funds and real estate funds, whose expected profitability over the long term guarantees the financial stability of the plans.

e) Contributions to defined contribution plans

The expense for 2019 in respect of defined contribution plans amounts to €319 million (€296 million in 2018, including the expense for the former Zodiac Aerospace scope as from March 1, 2018).

These contributions relate to statutory pension plans and defined contribution supplementary pension plans.

NOTE 26 BORROWINGS SUBJECT TO SPECIFIC CONDITIONS

This caption mainly includes repayable advances granted by public bodies.

Movements in this caption break down as follows:

(in € millions)	
At December 31, 2018	585
New advances received	7
Advances repaid	(34)
Sub-total: changes with a cash impact	(27)
Cost of borrowings and discounting	20
Foreign exchange differences	1
Adjustments to the probability of repayment of advances ⁽¹⁾	(74)
Sub-total: changes with no cash impact	(53)
AT DECEMBER 31, 2019	505

(1) See Note 7, "Breakdown of the other main components of profit from operations".

Estimates as to the repayable amounts and the timing of repayments are made regarding borrowings subject to specific conditions.

NOTE 27 INTEREST-BEARING FINANCIAL LIABILITIES

Breakdown of interest-bearing financial liabilities:

(in € millions)	Dec. 31, 2018*	Dec. 31, 2019
Bond issue	1,315	712
OCÉANE convertible bond	657	667
Senior unsecured notes in USD	906	950
Finance lease liabilities	121	-
Lease liabilities	-	608
Long-term borrowings	385	302
Total non-current interest-bearing financial liabilities (portion maturing in more than 1 year at inception)	3,384	3,239
Bond issue	499	601
Senior unsecured notes in USD	135	-
Finance lease liabilities	27	-
Lease liabilities	-	121
Long-term borrowings	322	362
Accrued interest not yet due	19	9
Current interest-bearing financial liabilities, long-term at inception	1,002	1,093
Negotiable European Commercial Paper (NEU CP)	973	1,772
Short-term bank facilities and equivalent	246	675
Current interest-bearing financial liabilities, short-term at inception	1,219	2,447
Total current interest-bearing financial liabilities (less than 1 year)	2,221	3,540
TOTAL INTEREST-BEARING FINANCIAL LIABILITIES⁽¹⁾	5,605	6,779

(*) The data published for 2018 have been restated for the impact of the change in accounting policy resulting from the modified retrospective application of IFRS 16, "Leases" (see Note 14, "Leases").

(1) The fair value of interest-bearing financial liabilities amounts to €6,851 million (€5,698 million at December 31, 2018).

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Movements in this caption break down as follows:

(in € millions)	
At December 31, 2018	5,605
Increase in long-term borrowings at inception (excluding lease liabilities)	24
Decrease in long-term borrowings at inception	(875)
Change in short-term borrowings	1,261
Sub-total: changes with a cash impact	410
First-time application of IFRS 16 at January 1, 2019	529
Net increase in lease liabilities	144
Accrued interest	(10)
Changes in scope of consolidation	22
Foreign exchange differences	30
Change in the fair value of borrowings hedged with interest rate instruments ⁽¹⁾	27
Reclassifications and other	22
Sub-total: changes with no cash impact	764
AT DECEMBER 31, 2019	6,779

(1) See Note 31, "Management of market risks and derivatives".

Analysis by maturity:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Maturing in:		
■ 1 year or less	2,221	3,540
■ More than 1 year and less than 5 years	2,688	3,016
■ Beyond 5 years	696	223
TOTAL	5,605	6,779

Analysis by currency before hedging:

(in millions of currency units)	Dec. 31, 2018		Dec. 31, 2019	
	Currency	EUR	Currency	EUR
EUR	4,502	4,502	5,335	5,335
USD	1,249	1,091	1,431	1,294
CAD	1	1	8	6
GBP	-	-	26	30
Other	N/A	11	N/A	114
TOTAL		5,605		6,779

Analysis by currency after hedging:

(in millions of currency units)	Dec. 31, 2018		Dec. 31, 2019	
	Currency	EUR	Currency	EUR
EUR	4,502	4,502	6,283	6,283
USD	1,249	1,091	386	346
CAD	1	1	8	6
GBP	-	-	26	30
Other	N/A	11	N/A	114
TOTAL		5,605		6,779

Analysis by type of interest rate:

■ Analysis by type of interest rate (fixed/floating), before hedging:

(in € millions)	Total		Non-current				Current			
	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018		Dec. 31, 2019		Dec. 31, 2018		Dec. 31, 2019	
	Base	Base	Base	Average interest rate	Base	Average interest rate	Base	Average interest rate	Base	Average interest rate
Fixed rate	3,320	5,073	2,131	2.75%	2,648	2.77%	1,189	0.30%	2,425	0.04%
Floating rate	2,285	1,706	1,254	0.32%	591	0.37%	1,031	0.20%	1,115	0.45%
TOTAL	5,605	6,779	3,385	1.85%	3,239	2.33%	2,220	0.25%	3,540	0.17%

■ Analysis by type of interest rate (fixed/floating), after hedging:

(in € millions)	Total		Non-current				Current			
	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018		Dec. 31, 2019		Dec. 31, 2018		Dec. 31, 2019	
	Base	Base	Base	Average interest rate	Base	Average interest rate	Base	Average interest rate	Base	Average interest rate
Fixed rate	2,203	4,860	1,014	1.29%	2,435	1.70%	1,189	0.30%	2,425	0.04%
Floating rate	3,402	1,919	2,371	2.09%	804	0.57%	1,031	0.20%	1,115	0.45%
TOTAL	5,605	6,779	3,385	1.85%	3,239	1.42%	2,220	0.25%	3,540	0.17%

The Group's net debt position is as follows:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Cash and cash equivalents (A)	2,330	2,632
Interest-bearing financial liabilities (B)	5,605	6,779
Fair value of interest rate derivatives used as fair value hedges of borrowings (C)	6	33
TOTAL (A) - (B) + (C)	(3,269)	(4,114)

The Group's gearing ratio is shown below:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Net debt	(3,269)	(4,114)
Total equity	12,301	12,748
GEARING RATIO	26.58%	32.27%

Main long-term borrowings at inception

■ US private placement (USPP) set up on February 9, 2012 for a total amount of USD 1.045 billion, including:

- USD 540 million of ten-year notes due February 2022 at a 4.28% fixed-rate coupon (tranche B);
- USD 505 million of 12-year notes due February 2024 at a 4.43% fixed-rate coupon (tranche C).

An interest rate hedge in the form of a cross currency swap (USD floating-rate borrower at inception, followed by EUR fixed-rate borrower from March 2019) was set up on tranches B and C, allowing the USD fixed-rate debt to be fully swapped for EUR fixed-rate debt.

The issue's interest came out at 1.64% in 2019 after taking into account the impact of interest rate derivatives.

This loan for an initial amount of USD 1.2 billion also included USD 155 million of fixed-rate seven-year notes (tranche A) repaid at maturity on February 9, 2019.

- Issuance on April 11, 2014 of ten-year, 2.875% fixed-rate bonds for €200 million (maturing in April 2024). The bonds were issued at 99.529% of par. A floating-rate swap was set up on this issue. The effective coupon in 2019 is 1.11% after taking into account the impact of interest rate derivatives.
- Issuance on June 28, 2017 of four-year floating-rate bonds at 3-month Euribor +57 basis points (coupon floored at 0%) for €500 million (maturing in June 2021). The bonds were issued at 100% of par.

Issuance on June 28, 2017 of two-year floating-rate bonds at 3-month Euribor +30 basis points (coupon floored at 0%) for €500 million (maturing in June 2019). The bonds were issued at 100.059% of par. They were repaid at maturity on June 28, 2019.

- Issuance on July 13, 2018 of two-year floating-rate bonds at 3-month Euribor +33 basis points (coupon floored at 0%) for €500 million (maturing in July 2020). The bonds were issued at 100% of par.
- Bonds convertible and/or exchangeable for new and/or existing shares ("OCÉANE" bonds) on June 21, 2018 for a nominal amount of €700 million. These bonds do not carry a coupon and were offered at an issue price representing 100% of par, or a gross yield to maturity of 0.00%. Unless converted, redeemed or bought back and canceled prior to maturity, the OCÉANE bonds are redeemable at par on June 21, 2023. The effective annual interest rate on the liability component of the OCÉANE bonds is 1.40% including issuance fees (see Note 23.d, "Convertible bond issues").
- Euro private placement ("Euro PP") in the form of a syndicated loan with an original maturity of seven years, contracted by the former Zodiac Aerospace group on March 10, 2016 and falling due on March 10, 2023, on which €180 million was outstanding at December 31, 2019 at an adjustable rate of 2.902%.
- Seven-year, 3.605% fixed-rate *Schuldschein* loan for €99 million set up by the former Zodiac Aerospace group on July 25, 2013 (maturing in July 2020) and restructured on July 25, 2018: €95 million was repaid ahead of maturity by the former Zodiac Aerospace group and simultaneously replaced by a liability in the form of Negotiable European Medium Term Notes taken out by Safran with the same lenders for the same amount, under the same financial conditions and with the same maturity. Following this transaction, only €4 million of the original *Schuldschein* loan remains outstanding.
- European Investment Bank (EIB) floating-rate loan, bearing interest at 3-month Euribor +73.4 basis points and maturing in December 2020. At December 31, 2019, €37.5 million was outstanding.
- Negotiation European Commercial Paper (NEU CP) subscribed by a corporate mutual fund of the Group employee savings plan and amounting to €407 million at December 31, 2019. The average interest rate payable by Safran on this commercial paper was 1.55% at December 31, 2019. The sums managed by

the corporate mutual fund and reinvested in Safran NEU CP are frozen for an initial period of five years. In view of the fund's commitments, this NEU CP is classified within long-term borrowings. At December 31, 2019, 78% of the sums managed by the corporate mutual fund will be available within one year. Accordingly, 78% of the €407 million in NEU CP is classified within the current portion of long-term borrowings.

- Lease liabilities (including former finance lease liabilities) totaling €729 million at December 31, 2019 as a result of the first-time application of IFRS 16.

The Group's other long- and medium-term borrowings are not material taken individually.

Main short-term borrowings

- Negotiable European Commercial Paper (NEU CP): €1,772 million (€973 million at December 31, 2018).

This amount comprises several drawdowns made under market terms and conditions, with maturities of less than one year.

- Financial current accounts with non-consolidated subsidiaries and joint ventures: €263 million (€201 million at December 31, 2018). Interest is indexed to Euribor.

Other short-term borrowings consist mainly of bank overdrafts.

Sale of receivables without recourse

Financial liabilities at December 31, 2019 and December 31, 2018 do not include trade receivables sold without recourse, relating mainly to CFM Inc. (consolidated as a joint operation).

This confirmed USD 2,370 million facility renewed in December 2019 and maturing in December 2021, contracted with a syndicate of six banks led by Crédit Agricole CIB and set to be reduced to USD 1,500 million in mid-January 2020 and subsequently to USD 800 million in December 2020, had been drawn in an amount of USD 1,423 million at December 31, 2019 (USD 712 million based on a 50% interest) versus USD 2,147 million (USD 1,074 million based on a 50% interest) at December 31, 2018.

NOTE 28 TRADE AND OTHER PAYABLES

(in € millions)	Dec. 31, 2018	Movements during the period	Changes in scope of consolidation	Foreign exchange differences	Reclassifications	Dec. 31, 2019
Operating payables	5,099	441	21	19	7	5,587
Credit balances on trade receivables	723	110	-	1	1	835
Trade payables	2,920	234	24	14	6	3,198
Operating current account	1	(1)	-	-	-	-
Employee-related liabilities	1,455	98	(3)	4	-	1,554
Other liabilities	551	13	2	3	8	577
State aid, accrued payables	24	(7)	-	-	-	17
State, other taxes and duties	198	81	-	1	-	280
Deferred income	105	5	-	-	-	110
Other	224	(66)	2	2	8	170
TOTAL	5,650	454	23	22	15	6,164

Trade and other payables fall due as shown below:

(in € millions)	Total	Less than 12 months	More than 12 months
Operating payables	5,587	5,569	18
Other liabilities	577	532	45
TOTAL	6,164	6,101	63

NOTE 29 OTHER CURRENT AND NON-CURRENT FINANCIAL LIABILITIES

(in € millions)	Dec. 31, 2018	Movements during the period	Changes in scope of consolidation	Foreign exchange differences	Reclassifications	Dec. 31, 2019
Payables on purchases of property, plant and equipment and intangible assets	117	8	-	1	(18)	108
Payables on purchases of investments	(2)	-	6	-	5	9
TOTAL	115	8	6	1	(13)	117
Non-current	2					2
Current	113					115

These liabilities are not included in the Group's net financial position at December 31, 2019.

NOTE 30 SUMMARY OF FINANCIAL LIABILITIES

The following table presents the carrying amount of the Group's financial liabilities at December 31, 2018 and December 31, 2019:

At December 31, 2018

(in € millions)	Carrying amount		Total
	Financial liabilities at amortized cost ⁽¹⁾	Financial liabilities at fair value	
Borrowings subject to specific conditions	585		585
Non-current interest-bearing financial liabilities	3,384		3,384
Current interest-bearing financial liabilities	2,221		2,221
Trade payables	2,920		2,920
Payables on purchases of investments	(2)	-	(2)
Payables on purchases of property, plant and equipment and intangible assets	117		117
Operating current accounts	1		1
Non-current derivatives (negative fair value)		7	7
Current derivatives (negative fair value)		1,255	1,255
TOTAL FINANCIAL LIABILITIES	9,226	1,262	10,488

(1) Including financial liabilities hedged by fair value hedging instruments. The adjustment to the fair value of interest-bearing financial liabilities hedged by fair value hedging instruments represented €6 million at December 31, 2018.

At December 31, 2019

(in € millions)	Carrying amount		Total
	Financial liabilities at amortized cost ⁽¹⁾	Financial liabilities at fair value	
Borrowings subject to specific conditions	505		505
Non-current interest-bearing financial liabilities	3,239		3,239
Current interest-bearing financial liabilities	3,540		3,540
Trade payables	3,198		3,198
Payables on purchases of investments	9	-	9
Payables on purchases of property, plant and equipment and intangible assets	108		108
Operating current accounts	-		-
Non-current derivatives (negative fair value)		5	5
Current derivatives (negative fair value)		1,033	1,033
TOTAL FINANCIAL LIABILITIES	10,599	1,038	11,637

(1) Including financial liabilities hedged by fair value hedging instruments. The adjustment to the fair value of interest-bearing financial liabilities hedged by fair value hedging instruments represented €33 million at December 31, 2019.

The fair value of financial liabilities is determined by reference to the future cash flows associated with each liability, discounted at market interest rates at the end of the reporting period, with the exception of borrowings subject to specific conditions, whose fair value cannot be estimated reliably given the uncertainties regarding the amounts to be repaid and the timing of repayment.

In both 2019 and 2018, the fair value of financial liabilities approximates their carrying amount, except in the case of the following items:

(in € millions)	Dec. 31, 2018		Dec. 31, 2019	
	Carrying amount	Fair value	Carrying amount	Fair value
Borrowings subject to specific conditions	585	N/A	505	N/A
Interest-bearing financial liabilities ⁽¹⁾	5,605	5,698	6,779	6,851

(1) This fair value measurement relates to Level 2 in the fair value hierarchy (see Note 22, "Summary of financial assets").

Safran uses the fair value hierarchy described in Note 22, "Summary of financial assets" to determine the classification of financial liabilities at fair value.

The Group carried the following financial liabilities at fair value at December 31, 2018:

(in € millions)	Level 1	Level 2	Level 3	Total
Derivatives (negative fair value)	-	1,262	-	1,262
TOTAL	-	1,262	-	1,262

The Group carried the following financial liabilities at fair value at December 31, 2019:

(in € millions)	Level 1	Level 2	Level 3	Total
Derivatives (negative fair value)	-	1,038	-	1,038
TOTAL	-	1,038	-	1,038

No items were transferred between Level 1 and Level 2 or to/from Level 3 in either 2019 or 2018.

Offsetting of financial liabilities and financial assets

At December 31, 2018

	Gross carrying amount	Amount offset	Net amount on the balance sheet ⁽¹⁾	Amount subject to offset agreement but not offset	Net
(in € millions)	(a)	(b)	(c)	(d)	(c) - (d)
Derivatives (negative fair value)	1,262	-	1,262	725	537

(1) See Note 31, "Management of market risks and derivatives".

At December 31, 2019

	Gross carrying amount	Amount offset	Net amount on the balance sheet ⁽¹⁾	Amount subject to offset agreement but not offset	Net
(in € millions)	(a)	(b)	(c)	(d)	(c) - (d)
Derivatives (negative fair value)	1,038	-	1,038	614	424

(1) See Note 31, "Management of market risks and derivatives".

The tables above show the financial liabilities for which an offsetting agreement exists with respect to financial assets.

The Group does not offset financial assets against financial liabilities in its balance sheet at December 31, 2019 or December 31, 2018, since the requisite conditions set out in IAS 32 are not met. Master offsetting (netting) agreements governing the subscription of OTC derivatives with bank counterparties provide for a right of set-off only in the event of default, insolvency or bankruptcy of one of the parties to the agreement.

The amounts subject to an offsetting agreement but not offset comprise a portion of the Group's derivatives with a positive fair value, since amounts can only be offset if they relate to the same counterparty.

NOTE 31 MANAGEMENT OF MARKET RISKS AND DERIVATIVES

The main market risks to which the Group is exposed are foreign currency risk, interest rate risk, counterparty risk and liquidity risk.

The carrying amount of derivatives used to manage market risks is shown below:

	Dec. 31, 2018		Dec. 31, 2019	
(in € millions)	Assets	Liabilities	Assets	Liabilities
Interest rate risk management	13	(8)	33	(5)
Floating-for-fixed interest rate swaps	-	-	-	(5)
Fixed-for-floating interest rate swaps	13	(8)	33	-
Foreign currency risk management	740	(1,254)	674	(1,033)
Currency swaps	-	-	2	-
Purchase and sale of forward currency contracts	87	(361)	200	(241)
Currency option contracts	653	(893)	472	(792)
TOTAL	753	(1,262)	707	(1,038)

Foreign currency risk management

Most revenue earned in the civil aviation sector is denominated in US dollars, which is the benchmark currency used in the industry. The net excess of revenues over operating expenses for these activities totaled USD 10.9 billion for 2019.

To protect its earnings, the Group implements a hedging policy (see below) with the aim of reducing uncertainty factors affecting operating profitability and allowing it to adapt its cost structure to a volatile monetary environment.

Hedging policy

Three basic principles underscore the foreign currency risk management policy defined by Safran for most of its subsidiaries:

- to protect the Group's economic performance from random fluctuations in the US dollar;
- to optimize the quality of hedging whenever possible, without jeopardizing the Group's economic performance (first principle);
- provide visibility as regards the exchange rate applied in the Group's consolidated financial statements.

Protecting economic performance means setting a minimum USD exchange rate parity over an applicable term. Minimum parity corresponds to a USD exchange rate that allows Safran to meet its operating profit targets. Hedging arrangements have been made accordingly over a timeframe of three to four years.

Management policy

The hedging policy is based on managing the financial instrument portfolio in order to guarantee a predefined minimum parity.

In building up its hedging portfolio, the Group primarily uses forward sales, accumulators and the combination of optional instruments with or without barriers.

Optimization measures are also used with a view to improving the minimum exchange rate parity, and seek to protect the Group's economic performance at all times. They are based on products that allow the Group to take advantage of any improvement in the underlying exchange rate parities, without calling into question the original minimum threshold.

These products consist chiefly of forward purchases, accumulators and the combination of optional instruments with or without barriers.

Foreign currency derivatives

The portfolio of foreign currency derivatives breaks down as follows:

(in millions of currency units)	Dec. 31, 2018				Dec. 31, 2019			
	Fair value ⁽¹⁾	Notional amount ⁽¹⁾	Less than 1 year	1 to 5 years	Fair value ⁽¹⁾	Notional amount ⁽¹⁾	Less than 1 year	1 to 5 years
Forward exchange contracts	(273)				(40)			
Short USD position	(338)	3,911	3,911	-	(238)	2,661	2,661	-
Of which against EUR	(333)	3,861	3,861	-	(238)	2,661	2,661	-
Long USD position	47	(1,201)	(301)	(900)	75	(957)	(957)	-
Of which against EUR	42	(1,151)	(251)	(900)	75	(957)	(957)	-
Short EUR position against GBP	-	(17)	(17)	-	9	107	100	7
Short EUR position against CAD	3	47	(2)	49	7	49	49	-
Long MXN position against EUR	31	(12,176)	(1,872)	(10,304)	107	(13,304)	(4,086)	(9,217)
Long MXN position against USD	(16)	(1,150)	(1,150)	-	-	-	-	-
Currency swaps	-				2			
Cross currency swaps	-	-	-	-	2	1,045	-	1,045
Currency option contracts	(241)				(321)			
USD put purchased	482	22,454	17,454	5,000	275	26,555	26,055	500
USD call purchased	95	(1,700)	(1,700)	-	83	(2,300)	(1,300)	(1,000)
USD call sold	(870)	47,084	37,384	9,700	(718)	45,471	44,471	1,000
USD put sold	(14)	(4,238)	(4,238)	-	(41)	(4,600)	(2,600)	(2,000)
EUR put purchased	18	420	420	-	89	1,690	1,540	150
EUR call sold	(4)	840	840	-	(19)	3,200	2,900	300
Accumulators - sell USD ⁽²⁾	58	1,014	126	888	6	2,539	686	1,853
Accumulators - buy GBP ⁽²⁾	(1)	(400)	(400)	-	2	(520)	(520)	-
Accumulators - buy CAD ⁽²⁾	(5)	(400)	(400)	-	-	-	-	-
Accumulators - buy MXN ⁽²⁾	-	-	-	-	2	(500)	(500)	-
TOTAL	(514)				(359)			

(1) Fair values are expressed in millions of euros; notional amounts are expressed in millions of currency units.

(2) Notional amounts for accumulators represent the maximum cumulative amount until the instrument is unwound.

In the balance sheet, changes in the fair value of unwound currency hedging instruments between December 31, 2018 and December 31, 2019 represent €155 million.

In the income statement, the Group has chosen not to apply hedge accounting to these derivatives. As a result, any changes in the fair value of these instruments are recognized in full in financial income (loss).

Exposure and sensitivity to foreign currency risk

The exposure of the Group's financial instruments to EUR/USD foreign currency risk can be summarized as follows:

(in USD millions)	Dec. 31, 2018	Dec. 31, 2019
Total assets excluding derivatives	2,982	4,158
Total liabilities excluding derivatives	(3,059)	(3,067)
Derivatives hedging balance sheet positions ⁽¹⁾	(1,114)	(1,148)
NET EXPOSURE AFTER THE IMPACT OF DERIVATIVES HEDGING BALANCE SHEET POSITIONS	(1,191)	(57)

(1) Notional amount.

Assets and liabilities excluding derivatives primarily consist of operating receivables and payables denominated in USD in the balance sheets of Group subsidiaries whose functional currency is the euro, and unsecured notes issued by Safran on the US private placement market for USD 1 billion. After setting up the cross currency swap to hedge the foreign currency risk on USD unsecured notes (see "Exposure to USD interest rate risk"), virtually all of these assets and liabilities are hedged by foreign currency hedging derivatives.

In addition to this net exposure, the Group has EUR/USD currency derivatives hedging revenue net of future purchases. These instruments had a negative fair value of USD 558 million, compared to a total negative fair value of USD 627 million for EUR/USD currency derivatives at December 31, 2019 (negative fair value of USD 590 million and USD 617 million, respectively, at December 31, 2018).

The sensitivity of financial instruments to a 5% increase or decrease in the EUR/USD exchange rate is as follows:

Impact on balance sheet positions (in € millions)	Dec. 31, 2018		Dec. 31, 2019	
	USD		USD	
Closing rate	1.15		1.12	
EUR/USD exchange rate change assumptions	-5%	+5%	-5%	+5%
EUR/USD exchange rate used for sensitivity analysis	1.09	1.20	1.07	1.18
Impact recognized through profit or loss (before tax)	(1,653)	633	(2,195)	623
Impact recognized through equity (before tax)	(56)	50	-	-

Interest rate risk management

The Group's exposure to fluctuations in interest rates covers two types of risk:

- fair value risk in respect of fixed-rate financial assets and liabilities. Interest rate fluctuations impact the market value of these assets and liabilities;
- cash flow risks in respect of floating-rate financial assets and liabilities. Interest rate fluctuations have a direct impact on the Group's profit or loss.

Within the framework of its interest rate risk management policy, the Group arbitrates between these two types of risks using financial instruments specific to fixed-income markets (interest rate swaps and options, etc.).

Exposure to EUR interest rate risk

Interest rate swaps were taken out to convert the fixed rate payable on the €200 million bond issue carried out in first-half 2014 and maturing in April 2024 to a floating rate.

These swaps are eligible for fair value hedge accounting.

(in € millions)	Dec. 31, 2018					Dec. 31, 2019				
	Fair value	Notional amount (€)	Less than 1 year	1 to 5 years	More than 5 years	Fair value	Notional amount (€)	Less than 1 year	1 to 5 years	More than 5 years
Interest rate swaps										
Fixed-for-floating	13	200	-	-	200	14	200	-	200	-
TOTAL	13					14				

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For the €200 million bond issue, changes in the fair value of the hedging instrument and the hedged item within the scope of the fair value hedge are recognized in "Financial income (loss)" as follows:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Change in fair value of hedging instrument	-	1
Change in fair value of hedged item	-	(1)
IMPACT OF FAIR VALUE EUR INTEREST RATE HEDGES ON FINANCIAL INCOME (LOSS)	-	-

Exposure to EUR interest rate risk before and after hedging:

Dec. 31, 2018 (in € millions)	Current		Non-current		Total	
	Fixed rate	Floating rate	Fixed rate	Floating rate	Fixed rate	Floating rate
Interest-bearing financial liabilities	1,029	1,003	1,222	1,248	2,251	2,251
Other financial assets	173	7	48	31	221	38
Cash and cash equivalents	125	1,657	-	-	125	1,657
Net exposure before hedging	731	(661)	1,174	1,217	1,905	556
Derivatives ⁽¹⁾	-	-	(200)	200	(200)	200
Net exposure after hedging	731	(661)	974	1,417	1,705	756

(1) Notional amount.

Dec. 31, 2019 (in € millions)	Current		Non-current		Total	
	Fixed rate	Floating rate	Fixed rate	Floating rate	Fixed rate	Floating rate
Interest-bearing financial liabilities	2,280	1,082	1,382	591	3,662	1,673
Other financial assets	45	95	81	29	126	124
Cash and cash equivalents	1,401	4	-	-	1,401	4
Net exposure before hedging	834	983	1,301	562	2,135	1,545
Derivatives ⁽¹⁾	-	-	731	200	731	200
Net exposure after hedging	834	983	2,032	762	2,866	1,745

(1) Notional amount.

Exposure to USD interest rate risk

The interest rate on the Group's February 9, 2012 issue of USD 1.2 billion in senior unsecured notes on the US private placement market (USPP) was partially converted to a floating rate at inception. Floating-rate borrower/fixed-rate lender USD swaps were set up on the 10-year and 12-year tranches for USD 540 million and USD 505 million, respectively. These swaps are eligible for fair value hedge accounting. The seven-year tranche for USD 155 million was kept at a fixed rate and repaid in February 2019.

In March 2019, the two 10-year and 12-year tranches for USD 540 million and USD 505 million, respectively, were reset to euros by means of a cross currency swap (USD floating-rate lender/EUR fixed-rate borrower).

The interest rate portion of the cross currency swap was eligible for hedge accounting.

Fixed-rate borrower/floating-rate lender swaps were set up in connection with the sale of trade receivables without recourse. The swaps are for a nominal amount of USD 1,250 million and a term of up to 12 months, and were taken out on behalf of a joint arrangement 50%-owned by the Group. This transaction gives rise to a floating-rate borrower/fixed-rate lender swap for a nominal amount of USD 625 million after elimination of intragroup items. These swaps are not eligible for hedge accounting. The aim of these transactions is to fix the borrowing cost applicable to the customer.

(in € millions)	Dec. 31, 2018					Dec. 31, 2019				
	Fair value	Notional amount (USD)	Less than 1 year	1 to 5 years	More than 5 years	Fair value	Notional amount (USD)	Less than 1 year	1 to 5 years	More than 5 years
USD interest rate swaps										
Fixed-for-floating	(6)	2,133	1,088	540	505	19	1,670	625	1,045	-
Floating-for-fixed	(2)	2,335	2,335	-	-	(5)	2,295	1,250	1,045	-
TOTAL	(8)					14				

For the senior unsecured notes issued on the US market, changes in the fair value of the hedging instrument and the hedged item within the scope of the fair value hedge are recognized in "Financial income (loss)" as follows:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Change in fair value of hedging instrument	(11)	26
Change in fair value of hedged item	11	(26)
IMPACT OF FAIR VALUE USD INTEREST RATE HEDGES ON FINANCIAL INCOME (LOSS)	-	-

Exposure to USD interest rate risk before and after hedging:

Dec. 31, 2018 (in USD millions)	Current		Non-current		Total	
	Fixed rate	Floating rate	Fixed rate	Floating rate	Fixed rate	Floating rate
Interest-bearing financial liabilities	180	28	1,041	-	1,221	28
Other financial assets	-	1	44	-	44	1
Cash and cash equivalents	79	362	-	-	79	362
Net exposure before hedging	101	(335)	997	-	1,098	(335)
Derivatives ⁽¹⁾	1,247	(1,247)	(1,045)	1,045	202	(202)
Net exposure after hedging	1,348	(1,582)	(48)	1,045	1,300	(537)

(1) Notional amount.

Dec. 31, 2019 (in USD millions)	Current		Non-current		Total	
	Fixed rate	Floating rate	Fixed rate	Floating rate	Fixed rate	Floating rate
Interest-bearing financial liabilities	136	33	1,262	-	1,398	33
Other financial assets	-	2	42	-	42	2
Cash and cash equivalents	287	736	-	-	287	736
Net exposure before hedging	(151)	(705)	1,220	-	1,069	(705)
Derivatives ⁽¹⁾	625	(625)	(1,045)	-	(420)	(625)
Net exposure after hedging	474	(1,330)	175	-	649	(1,330)

(1) Notional amount.

Sensitivity to interest rate risk

The aggregate sensitivity of net exposures to EUR and USD interest rate risk after the impact of hedging is shown below:

Impact of changes in interest rates (in € millions)	Dec. 31, 2018	Dec. 31, 2019
Interest rate change assumptions	+1%	+1%
Impact on profit or loss (before tax)	(3)	(6)
Impact on equity (before tax)	-	-

Counterparty risk management

The Group is exposed to counterparty risk on the following:

- short-term financial investments;
- derivatives;
- trade receivables;
- financial guarantees granted to customers.

Financial investments are diversified and consist of blue-chip securities that are traded with top-tier banks.

The sole purpose of the Group's derivative transactions is to reduce the overall exposure to foreign currency and interest rate risks resulting from its ordinary business activities. Transactions are either carried out on organized markets or over-the-counter with top-tier intermediaries.

Counterparty risk related to trade receivables is limited due to the large number of customers in the portfolio and their wide geographic spread.

Within the scope of its civil and military aviation businesses, the Group may be exposed to late payments from its customers, particularly sovereign customers, and this could affect its ability to meet its free cash flow targets.

Note 19, "Trade and other receivables" provides a breakdown of trade receivables by maturity.

Liquidity risk management

Treasury management is centralized within the Group. Where permitted by local legislation, all surplus cash is invested with, and financing requirements of subsidiaries met by, the parent company on an arm's length basis. The central cash team manages the Group's current and forecast financing requirements, and ensures it has the ability to meet its financial commitments while maintaining a level of available cash funds and confirmed credit facilities commensurate with its scale and debt repayment profile.

Since the Group has an undrawn, confirmed liquidity line at December 31, 2019, it is relatively insensitive to liquidity risk. This €2,520 million line was set up in December 2015 and expires in December 2020. It includes two successive one-year extension options. Both these options have been exercised, meaning that the line is currently set to expire in December 2022. This line is not subject to any financial covenants.

A number of financial covenants apply to the EIB borrowings set up in 2010 (see Note 27, "Interest-bearing financial liabilities").

The following two ratios apply:

- net debt/EBITDA <2.5;
- net debt/total equity <1.

The "net debt/EBITDA <2.5" covenant also applies to the senior unsecured notes issued on the US private placement market (USPP) (see Note 27, "Interest-bearing financial liabilities").

The following covenant applies to the euro private placement ("Euro PP") in the form of a syndicated loan, set up by the former Zodiac Aerospace on March 10, 2016 and with an original maturity of seven years (see Note 27, "Interest-bearing financial liabilities"):

- net debt/EBITDA <3.5.

The terms "net debt", "EBITDA" and "total equity" used in the aforementioned covenants are defined as follows:

- net debt: interest-bearing borrowings (excluding borrowings subject to specific conditions) less marketable securities and cash and cash equivalents;
- EBITDA: the sum of profit (loss) from operations and the net charge to depreciation, amortization and provisions for impairment of assets (calculated based on adjusted data);
- total equity: equity attributable to owners of the parent and non-controlling interests.

NOTE 32 INTERESTS IN JOINT OPERATIONS

The Group has interests in a number of joint operations whose contribution is recognized line-by-line in the financial statements. The joint operations are:

- CFM International Inc. and CFM International SA: coordination of the CFM56 and LEAP engine programs with General Electric and program marketing;
- Famat: manufacture of large casings subcontracted by Safran Aircraft Engines and General Electric;

■ Matis: manufacture of aircraft wiring;

■ CFAN: production of composite fan blades for turbo engines;

■ Propulsion Technologies International: engine repair and maintenance.

The table below shows the Group's share in the various financial indicators of these joint operations, which is included in the consolidated financial statements:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Current assets	109	126
Non-current assets	171	182
Current liabilities	165	180
Non-current liabilities	22	18
Operating income	102	91
Operating expenses	(70)	(68)
Financial income (loss)	(13)	(1)
Income tax expense	(1)	(5)
Profit for the period	18	17
Other comprehensive income	3	2
Comprehensive income	21	19
Cash flow from operating activities ⁽¹⁾	17	41
Cash flow used in investing activities	(10)	(13)
Cash flow used in financing activities ⁽¹⁾	(1)	(7)

(1) See Note 27, "Interest-bearing financial liabilities" - trade receivables factoring programs at CFM Inc.

NOTE 33 RELATED PARTIES

In accordance with IAS 24, the Group's related parties are considered to be its owners (including the French State), companies in which these owners hold equity interests, associates, joint ventures and management executives.

The French State also holds a golden share in Safran Ceramics allowing it to veto any change in control of the company or sale of company assets.

The following transactions were carried out with related parties other than joint ventures:

(in € millions)	2018	2019
Sales to related parties other than joint ventures	4,246	5,413
Purchases from related parties other than joint ventures	(82)	(135)

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Amounts receivable from related parties other than joint ventures	2,153	1,930
Amounts payable to related parties other than joint ventures	3,082	2,639

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Commitments given to related parties other than joint ventures ⁽¹⁾	2,073	2,110

(1) See Note 34.a, "Off-balance sheet commitments and contingent liabilities relating to the Group's operating activities".

Transactions with related parties other than joint ventures primarily concern the delivery of aviation products to Airbus and the French Directorate General of Weapons Procurement (DGA).

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The following transactions were carried out with joint ventures:

(in € millions)	2018	2019
Sales to joint ventures ⁽¹⁾	269	380
Purchases from joint ventures	(82)	(101)

(1) Mainly with Shannon Engine Support Limited.

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Amounts receivable from joint ventures	173	180
Amounts payable to joint ventures	42	57

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Commitments given to joint ventures ⁽²⁾	152	367

(2) See Note 16, "Investments in equity-accounted companies".

Management compensation

Management executives comprise members of the Board of Directors and Executive Management, as well as any persons with the power to take management decisions with regard to Safran's strategy and future development, or with regular access to inside information directly or indirectly concerning the Group.

Management executives comprise the 17 members of the Board of Directors, including the Chairman of the Board and the Chief Executive Officer, as well as the officers considered as having

the power to take management decisions with regard to Safran's strategy and future development, or with regular access to inside information concerning Safran (five directors meeting these criteria between January 1, 2018 and October 31, 2018, and four directors between November 1, 2018 and December 31, 2019).

All compensation and benefits awarded to members of the Board of Directors and to members of Executive Management are shown on a gross basis, including the fixed portion of compensation and the provision for the variable portion to be paid in the subsequent year.

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Short-term benefits ⁽¹⁾	11.1	10.9
Post-employment benefits	1.2	0.8
Other long-term benefits	-	-
Termination benefits	-	-
Share-based payment	3.5	4.3

(1) Compensation, social security contributions, attendance fees and benefit payments, where applicable.

The Company's total post-employment benefit commitments and other long-term benefit commitments in respect of management executives as recorded in the balance sheet amounted to €12.0 million at December 31, 2019 and €12.5 million at December 31, 2018.

NOTE 34 OFF-BALANCE SHEET COMMITMENTS AND CONTINGENT LIABILITIES

a) Off-balance sheet commitments and contingent liabilities relating to the Group's operating activities

Commitments given and contingent liabilities

The Group granted the following commitments in connection with its operating activities:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Purchase commitments on intangible assets	55	38
Purchase commitments on property, plant and equipment	346	250
Guarantees given in connection with the performance of operating agreements	5,364	5,476
Lease commitments	641	98
Financial guarantees granted on the sale of Group products	30	23
Other commitments given	421	636
TOTAL	6,857	6,521

Guarantees given in connection with the performance of operating agreements

These guarantees relate mainly to guarantees granted by Safran to customers and principals (essentially aircraft manufacturers) in which Safran or the subsidiary provide a joint and several guarantee that its subsidiaries will perform their duties under their contractual obligations. These guarantees are given in respect of research, design, development, manufacturing, marketing and product support programs in place at Group subsidiaries. They are generally granted for the term of the program concerned, and are capped at a certain amount.

Guarantees granted to Airbus are shown within "Guarantees granted to related parties" in Note 33, "Related parties".

Lease commitments

As of January 1, 2019, lease commitments given concern leases qualifying for the IFRS 16 exemption criteria (short-term leases or leases of low-value assets), as well as leases signed but not yet started.

Financial guarantees granted on the sale of Group products

The financial guarantees shown in this table concern aerospace financing arrangements in place at the end of the period, granted to support sales of civil engines. These arrangements take the form of aircraft financing or guarantees covering the value of assets.

The Group's gross exposure in respect of these financing commitments in their transaction currency represents USD 26 million at December 31, 2019 (USD 35 million at December 31, 2018), or €23 million (€29 million at December 31, 2018). However, these amounts do not reflect the actual risk to which Safran is exposed. In view of the value of the underlying assets pledged as security,

the net exposure represents USD 4 million at December 31, 2019 (USD 12 million at December 31, 2018), for which a provision, based on an assessment of the risk, is booked in the financial statements (see Note 24, "Provisions").

Financing commitments granted in principle to clients alongside aircraft manufacturers in connection with certain civil engine sales campaigns form part of financing packages proposed by aircraft manufacturers to airline companies and generally correspond to the share represented by Group engines in the financing of the aircraft concerned. These commitments are not included in the gross exposure since (i) the probability that they will be called by the airline companies is too uncertain because the deliveries are too far in the future, and (ii) in the past, few commitments have been called due to their dissuasive conditions and to the fact that they represent a "last recourse" after the active banking, credit insurance and investor markets.

Contingent liabilities arising on ordinary activities

As part of their ordinary activities, Safran, some of its subsidiaries, or certain joint arrangements or consortia in which they are shareholders or members, may be subject to various claims from customers. These claims usually consist of compensation claims for failing to meet technical specifications, a delay in the development phase, late completion and/or for additional work in connection with product performance and reliability falling outside the scope of the warranties and commitments provisioned or included within contract costs (see Note 2.b, "Provisions", and Note 24, "Provisions"). While the initial amount of any such claim may be material in certain cases, it does not necessarily have any bearing on the costs that may be ultimately incurred to satisfy the customer. As these claims represent contingent liabilities, no provision has been recognized beyond contractual liability limits, if any.

In the absence of an agreement between the parties, some of these claims may give rise to litigation, the most significant of which are indicated in Note 35, "Disputes and litigation".

Commitments received

The Group was granted the following commitments in connection with its operating activities:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Commitments received from banks on behalf of suppliers	13	9
Completion warranties	17	10
Endorsements and guarantees received	21	1
Other commitments received	157	85
TOTAL	208	105

b) Off-balance sheet commitments and contingent liabilities relating to the Group's scope of consolidation

Vendor warranties are given or received on the acquisition or sale of companies.

Vendor warranties given

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Vendor warranties given ⁽¹⁾	331	331

(1) Vendor warranties, the amount of which may be fixed or determinable.

Vendor warranties received

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Vendor warranties received	-	-

Vendor warranties granted in connection with the disposal of the Security businesses

In connection with the sale of the identity and security businesses on May 31, 2017, Safran granted Advent International a vendor warranty valued at €180 million at December 31, 2019, as well as a specific indemnity capped at BRL 200 million (€44 million at December 31, 2019) to cover any financial consequences arising from the dispute between Morpho do Brasil and the Brazilian tax authorities concerning the calculation method for value added tax on certain products.

In connection with the sale of the detection businesses on April 7, 2017, Safran granted Smiths Group PLC a vendor warranty valued at USD 73 million (€65 million at December 31, 2019).

In connection with the sale of Structil on October 2, 2017, Safran Ceramics granted the Hexcel group a vendor warranty valued at €37 million at December 31, 2019.

c) Off-balance sheet commitments and contingent liabilities relating to the Group's financing

Commitments received in respect of financing relate to:

- the unused portion of the trade receivables factoring facility requiring deconsolidation of the receivables concerned (see Note 27, "Interest-bearing financial liabilities"); and
- the confirmed, undrawn syndicated credit line (see Note 31, "Management of market risks and derivatives").

NOTE 35 DISPUTES AND LITIGATION

Safran and certain Group subsidiaries are party to regulatory, legal or arbitration proceedings arising in the ordinary course of their operations. Safran and certain Group subsidiaries are also party to claims, investigations, legal action and regulatory proceedings outside the scope of their ordinary operations.

The amount of the provisions booked is based on the level of risk for each case, as assessed by Safran and its subsidiaries and largely depends on their assessment of the merits of the claims and defensive arguments, bearing in mind that the occurrence of events during the proceedings can lead to a reassessment of the risk at any time.

A provision is only booked to cover the expenses that may result from such proceedings when the expenses are probable and their amount can be either quantified or reasonably estimated.

Safran considers that the provisions booked are adequate to cover the risks it incurs.

The most important proceedings are described below.

■ A number of civil and/or criminal lawsuits have been filed against certain Safran subsidiaries in connection with aviation accidents. The Group's insurance policy would cover any civil damages payable by Safran or its subsidiaries under these proceedings.

■ On April 2, 2014, Safran was fined by the European Commission relating to the activities of Silec Cable, a former subsidiary of Sagem SA which was sold to General Cable at the end of 2005. General Cable, which was also fined, filed a claim against Safran under the sale agreement in order to protect its rights. Safran paid the €8.5 million fine in 2014. Relying on the European Commission's findings, a number of cable buyers have initiated proceedings claiming damages against the companies fined by the Commission. Safran's joint and several liability with other suppliers has been alleged in one such legal action, and the Group could be at risk of further claims in Europe. The lawsuits are still in progress. Upon the Court's authorization, the claimant notified the joint defendants at the end of 2018 of its intention to broaden the scope of its action. The joint defendants submitted a response in 2019. The procedural timetable provides for the exchange of the independent expert reports in the first half of 2020, followed by preliminary hearings. Final hearings should begin in late 2020.

At the date of this report, it is not possible to evaluate any potential financial risk.

To the best of Safran's knowledge and that of its subsidiaries, there are no other ongoing regulatory, legal or arbitration proceedings that could have a material impact on the financial position of the Company and/or Group.

NOTE 36 SUBSEQUENT EVENTS

None.

NOTE 37 LIST OF CONSOLIDATED COMPANIES

	Country	2018		2019	
		Consolidation method	% interest	Consolidation method	% interest
Safran SA	France			Parent company	
Aerospace Propulsion					
Safran Aircraft Engines	France	FC	100.00	FC	100.00
CFAN	United States	JO	50.00	JO	50.00
CFM International SA	France	JO	50.00	JO	50.00
CFM International, Inc.	United States	JO	50.00	JO	50.00
CFM Materials LP	United States	EQ	50.00	EQ	50.00
Famat	France	JO	50.00	JO	50.00
Fan Blade Associates, Inc.	United States	FC	100.00	FC	100.00
Safran Aero Composite	France	FC	100.00	FC	100.00
Safran Aerospace Composites, LLC	United States	FC	100.00	FC	100.00
Shannon Engine Support Limited	Ireland	EQ	50.00	EQ	50.00
Safran Aircraft Engines Mexico	Mexico	FC	100.00	FC	100.00
Safran Aircraft Engines Poland	Poland	FC	100.00	FC	100.00
Safran Aircraft Engine Services Americas	Mexico	FC	100.00	FC	100.00
Safran Aircraft Engine Services Morocco	Morocco	FC	51.00	FC	51.00
Safran MDS, S.A. de C.V.	Mexico	FC	100.00	FC	100.00
Snecma Participations	France	FC	100.00	FC	100.00
Snecma Participations, Inc.	United States	FC	100.00	FC	100.00
Safran Aircraft Engine Services Brussels	Belgium	FC	100.00	FC	100.00
Safran Aircraft Engines Suzhou Co, Ltd	China	FC	100.00	FC	100.00
Safran Aircraft Engines Guiyang	China	FC	90.00	FC	100.00
Propulsion Technologies International, LLC	United States	JO	50.00	JO	50.00
Safran Aero Boosters	Belgium	FC	67.19	FC	67.19
Safran Test Cells, Inc.	United States	FC	67.19	FC	67.19
Safran Aero Boosters Programs, LLC	United States	FC	67.19	FC	67.19
Safran Aero Boosters, Inc.	United States	FC	67.19	FC	67.19
Safran Helicopter Engines	France	FC	100.00	FC	100.00
Safran Power Units	France	FC	100.00	FC	100.00
Safran Power Units San Diego, LLC	United States	FC	100.00	FC	100.00
Safran Power Units USA ⁽¹⁾	United States	-	-	FC	100.00
Initium Aerospace, LLC ⁽¹⁾	United States	-	-	EQ	50.00
Safran Helicopter Engines Asia Pte. Ltd	Singapore	FC	100.00	FC	100.00
Safran Helicopter Engines Australia Pty Ltd	Australia	FC	100.00	FC	100.00
Safran Moteurs d'Hélicoptères Canada Inc.	Canada	FC	100.00	FC	100.00
Safran Helicopter Engines Brasil Industria e Comercio do Brasil Ltda	Brazil	FC	100.00	FC	100.00
Safran Helicopter Engines Germany GmbH	Germany	FC	100.00	FC	100.00
Safran Helicopter Engines Tianjin Co. Ltd	China	FC	100.00	FC	100.00
Safran Helicopter Engines UK Limited	United Kingdom	FC	100.00	FC	100.00
Safran Helicopter Engines USA, Inc.	United States	FC	100.00	FC	100.00
Safran Helicopter Engines Mexico	Mexico	FC	100.00	FC	100.00
Safran Helicopter Engines South Africa	South Africa	FC	100.00	FC	100.00
Roxel France	France	EQ	50.00	EQ	50.00
Roxel Limited	United Kingdom	EQ	50.00	EQ	50.00
Roxel	France	EQ	50.00	EQ	50.00
Safran Transmission Systems	France	FC	100.00	FC	100.00
Safran Transmission Systems Poland S.p. Z.o.o.	Poland	FC	100.00	FC	100.00
ArianeGroup Holding	France	EQ	50.00	EQ	50.00

FC: Full consolidation. JO: Joint operation. EQ: Equity method.

(1) Consolidated in 2019.

	Country	2018		2019	
		Consolidation method	% interest	Consolidation method	% interest
Aircraft Equipment, Defense and Aerosystems					
Safran Nacelles	France	FC	100.00	FC	100.00
Safran Nacelles Limited	United Kingdom	FC	100.00	FC	100.00
Safran Nacelles Morocco	Morocco	FC	100.00	FC	100.00
Safran System Aerostructures ⁽¹⁾	France	FC	100.00	-	-
Safran Landing Systems	France	FC	100.00	FC	100.00
Aero Precision Repair & Overhaul Company, Inc.	United States	EQ	50.00	EQ	50.00
Safran Landing Systems Services Dinard	France	FC	100.00	FC	100.00
Safran Landing Systems Kentucky, LLC	United States	FC	100.00	FC	100.00
Safran Landing Systems Wheel & Brake Services, LLC	United States	FC	100.00	FC	100.00
Safran Landing Systems Malaysia Sdn. Bhd.	Malaysia	FC	100.00	FC	100.00
Safran Landing Systems Canada Inc.	Canada	FC	100.00	FC	100.00
Safran Landing Systems UK Ltd	United Kingdom	FC	100.00	FC	100.00
Safran Landing Systems México S.A. de C.V.	Mexico	FC	100.00	FC	100.00
Safran Landing Systems Services Américas S.A. de C.V.	Mexico	FC	100.00	FC	100.00
Safran Landing Systems Services Singapore Pte. Ltd	Singapore	FC	60.00	FC	60.00
Safran Landing Systems Services Miami, Inc.	United States	FC	100.00	FC	100.00
Safran Landing Systems Services UK Ltd	United Kingdom	FC	100.00	FC	100.00
Safran Landing Systems Services Querétaro S.A. de C.V.	Mexico	FC	100.00	FC	100.00
Safran Landing Systems Holdings Singapore Pte. Ltd	Singapore	FC	100.00	FC	100.00
Xi'an Cea Safran Landing Systems Co., Ltd	China	EQ	50.00	EQ	50.00
Safran Filtration Systems	France	FC	100.00	FC	100.00
Safran Landing Systems Suzhou Co., Ltd	China	FC	100.00	FC	100.00
Safran Electrical & Power	France	FC	100.00	FC	100.00
Aerosource Inc.	United States	FC	100.00	FC	100.00
Safran Electrical & Power Chihuahua SA de CV	Mexico	FC	100.00	FC	100.00
Safran Engineering Services GmbH	Germany	FC	100.00	FC	100.00
Labinal Investments, LLC	United States	FC	100.00	FC	100.00
Safran Electrical & Power USA, LLC	United States	FC	100.00	FC	100.00
Safran Electrical & Power Morocco SA	Morocco	FC	100.00	FC	100.00
Safran Electrical & Power Mexico SA de CV	Mexico	FC	100.00	FC	100.00
Safran Electrical & Power India Private Limited	India	FC	100.00	FC	100.00
Matis Aerospace	Morocco	JO	50.00	JO	50.00
Safran Engineering Services	France	FC	100.00	FC	100.00
Safran Engineering Services India Pvt Ltd	India	FC	100.00	FC	100.00
Safran Engineering Services Maroc	Morocco	FC	100.00	FC	100.00
Safran Engineering Services UK Ltd	United Kingdom	FC	100.00	FC	100.00
Safran Electrical & Power UK Ltd	United Kingdom	FC	100.00	FC	100.00
Safran Power USA, LLC	United States	FC	100.00	FC	100.00
Shanghai SAIFEI Aviation EWIS Manufacturing Co., Ltd	China	EQ	49.00	EQ	49.00
Cantwell Cullen & Company, Inc.	Canada	FC	100.00	FC	100.00
Innovative Power Solutions LLC	United States	FC	100.00	FC	100.00
Zodiac Interconnect UK Limited	United Kingdom	FC	100.00	FC	100.00
Icore International, Inc.	United States	FC	100.00	FC	100.00
Zodiac Aerospace Maroc	Morocco	FC	100.00	FC	100.00
Zodiac Aero Electric	France	FC	100.00	FC	100.00
Safran Martin-Baker France	France	EQ	50.00	EQ	50.00

FC: Full consolidation. JO: Joint operation. EQ: Equity method.

(1) Merged into Safran Nacelles on August 31, 2019.

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	Country	2018		2019	
		Consolidation method	% interest	Consolidation method	% interest
Safran Electronics & Defense	France	FC	100.00	FC	100.00
Optics 1, Inc.	United States	FC	100.00	FC	100.00
Safran Electronics & Defense Services Asia Pte Ltd	Singapore	FC	60.00	FC	60.00
Safran Electronics & Defense Canada Inc.	Canada	FC	100.00	FC	100.00
Safran Electronics & Defense Avionics USA, LLC	United States	FC	100.00	FC	100.00
Safran Electronics & Defense Germany GmbH	Germany	FC	100.00	FC	100.00
Lynred (formerly Sofradir)	France	EQ	50.00	EQ	50.00
ULIS ⁽¹⁾	France	EQ	50.00	-	-
Safran Vectronix AG	Switzerland	FC	100.00	FC	100.00
Sagem USA, Inc.	United States	FC	100.00	FC	100.00
Fadec International, LLC	United States	EQ	50.00	EQ	50.00
Safran Reosc	France	FC	100.00	FC	100.00
Safran Colibrys SA	Switzerland	FC	100.00	FC	100.00
Zodiac Actuation Systems	France	FC	100.00	FC	100.00
Pioneer Aerospace Corporation	United States	FC	100.00	FC	100.00
Zodiac Data Systems Investment	France	FC	100.00	FC	100.00
Zodiac Data Systems Inc.	United States	FC	100.00	FC	100.00
Zodiac Data Systems GmbH	Germany	FC	100.00	FC	100.00
Zodiac Data Systems	France	FC	100.00	FC	100.00
IDD Aerospace Corp.	United States	FC	100.00	FC	100.00
Zodiac Aerotechnics	France	FC	100.00	FC	100.00
Safran Aerosystems Hydraulics	France	FC	100.00	FC	100.00
Safran Aerosystems Fluid	France	FC	100.00	FC	100.00
Zodiac Equipments Tunisie	Tunisia	FC	100.00	FC	100.00
Pacific Precision Products Mfg.	United States	FC	100.00	FC	100.00
Avox Systems Inc.	United States	FC	100.00	FC	100.00
Air Cruisers Company, LLC	United States	FC	100.00	FC	100.00
Safran Aerosystems	France	FC	100.00	FC	100.00
Engineered Arresting Systems Corporation	United States	FC	100.00	FC	100.00
Safran Aerosystems Ducts	France	FC	100.00	FC	100.00
Zodiac Services Americas LLC	United States	FC	100.00	FC	100.00
Zodiac Aerospace Services Asia	Singapore	FC	100.00	FC	100.00
Zodiac Aerospace Services UK Limited	United Kingdom	FC	100.00	FC	100.00
Zodiac Aerospace Services Europe	France	FC	100.00	FC	100.00
Zodiac Aerospace Services Middle East - DWC - LLC	United Arab Emirates	FC	100.00	FC	100.00
IN-Services Asia Limited	Hong Kong	FC	100.00	FC	100.00

FC: Full consolidation. JO: Joint operation. EQ: Equity method.

(1) Merged into Sofradir (now Lynred) on January 1, 2019.

	Country	2018		2019	
		Consolidation method	% interest	Consolidation method	% interest
Aircraft Interiors					
Safran Cabin France	France	FC	100.00	FC	100.00
Safran Cabin Investment GmbH	Germany	FC	100.00	FC	100.00
Safran Cabin Sterling, Inc.	United States	FC	100.00	FC	100.00
Safran Cabin Germany GmbH	Germany	FC	100.00	FC	100.00
Safran Cabin Netherlands N.V.	Netherlands	FC	100.00	FC	100.00
Safran Cabin Galleys US, Inc.	United States	FC	100.00	FC	100.00
Safran Cabin CZ s.r.o.	Czech Republic	FC	100.00	FC	100.00
EZ Air Interior Limited	Ireland	EQ	50.00	EQ	50.00
Safran Cabin Materials, LLC	United States	FC	100.00	FC	100.00
Zodiac Composite Monuments Tunisie	Tunisia	FC	100.00	FC	100.00
Safran Cabin, Inc.	United States	FC	100.00	FC	100.00
Safran Cabin Tijuana S.A de C.V.	Mexico	FC	100.00	FC	100.00
Safran Cabin Canada Co.	Canada	FC	100.00	FC	100.00
Safran Cabin Brazil Ltda.	Brazil	FC	100.00	FC	100.00
Safran Cabin Catering, Inc.	United States	FC	100.00	FC	100.00
Safran Cabin Lamphun Ltd.	Thailand	FC	100.00	FC	100.00
Safran Cabin Catering B.V.	Netherlands	FC	100.00	FC	100.00
Safran Cabin Bangkok Ltd.	Thailand	FC	100.00	FC	100.00
Safran Cabin Cargo B.V.	Netherlands	FC	100.00	FC	100.00
Safran Cabin Bellingham, Inc.	United States	FC	100.00	FC	100.00
Safran Seats	France	FC	100.00	FC	100.00
Safran Seats GB Investment Limited	United Kingdom	FC	100.00	FC	100.00
Seats California LLC	United States	FC	100.00	FC	100.00
Zodiac Aerospace Equipo de Mexico	Mexico	FC	100.00	FC	100.00
Safran Seats USA LLC	United States	FC	100.00	FC	100.00
Zodiac Seats Tunisie	Tunisia	FC	100.00	FC	100.00
Safran Seats Santa Maria LLC	United States	FC	100.00	FC	100.00
Safran Seats GB Limited	United Kingdom	FC	100.00	FC	100.00
Safran Ventilation Systems	France	FC	100.00	FC	100.00
Safran Ventilation Systems USA, LLC	United States	FC	100.00	FC	100.00
Northwest Aerospace Technologies, Inc.	United States	FC	100.00	FC	100.00
Greenpoint Technologies, Inc.	United States	FC	100.00	FC	100.00
Evac GmbH	Germany	FC	100.00	FC	100.00
Enviro Systems, Inc.	United States	FC	100.00	FC	100.00
TriaGnoSys GmbH	Germany	FC	100.00	FC	100.00
Systems And Software Enterprises, LLC	United States	FC	100.00	FC	100.00
Mag Aerospace Industries, LLC	United States	FC	100.00	FC	100.00
JBR Technologies, LLC ⁽¹⁾	United States	FC	100.00	-	-
Holding company and other					
Établissements Vallaroche	France	FC	100.00	FC	100.00
Safran Ceramics	France	FC	100.00	FC	100.00
Safran UK Ltd	United Kingdom	FC	100.00	FC	100.00
Safran USA Inc.	United States	FC	100.00	FC	100.00
Société de réassurance Vallaroche SA	Luxembourg	FC	100.00	FC	100.00
Zodiac US Corporation	United States	FC	100.00	FC	100.00
Zodiac Aerospace Information Systems ⁽²⁾	France	FC	100.00	-	-
Zodiac Engineering ⁽³⁾	France	FC	100.00	-	-
Galli Participations	France	FC	100.00	FC	100.00

FC: Full consolidation. JO: Joint operation. EQ: Equity method.

(1) Sold in December 2019.

(2) Dissolved in January 2019.

(3) Merged into Safran on August 3, 2019.

NOTE 38 AUDIT FEES

Pursuant to Standard No. 2016-09 issued on December 2, 2016 by the French accounting standards-setter (*Autorité des normes comptables* - ANC), the following table shows the amount of fees paid to the Group's Statutory Auditors as included on the consolidated income statement for the year, a distinction

being made between fees charged for the statutory audit of the consolidated financial statements and those charged for other services, where applicable. The fees shown for subsidiaries are those consolidated according to the full consolidation method.

(in € millions)	Ernst & Young				Mazars				Total			
	Amount (excl. VAT)		%		Amount (excl. VAT)		%		Amount (excl. VAT)		%	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
A) Statutory audit services												
A.1) Safran (issuer)	2.22	0.92	29%	15%	0.89	0.74	18%	13%	3.11	1.66	25%	14%
A.2) Subsidiaries	5.26	4.49	67%	75%	3.39	4.41	70%	79%	8.65	8.90	68%	77%
Sub-total	7.48	5.41	96%	90%	4.28	5.15	88%	92%	11.76	10.56	93%	91%
B) Other services												
B.1) Safran (issuer)	0.10	0.18	1%	3%	0.31	0.26	7%	5%	0.41	0.44	3%	4%
B.2) Subsidiaries	0.22	0.39	3%	7%	0.25	0.17	5%	3%	0.47	0.56	4%	5%
Sub-total	0.32	0.57	4%	10%	0.56	0.43	12%	8%	0.88	1.00	7%	9%
TOTAL	7.80	5.98	100%	100%	4.84	5.58	100%	100%	12.64	11.56	100%	100%

Statutory audit fees

These are payable for all work that is an integral part of the statutory audit, i.e., all work necessary to produce audit reports or any other reports or representations to be made available to the Ordinary Shareholders' Meeting called to approve the financial statements.

Services are provided by the Statutory Auditors and other persons responsible for audits, members of their networks, certifying the parent company and consolidated financial statements of the parent company and fully consolidated subsidiaries in France and other countries.

Fees for other services

These services concern work falling within the scope of services usually rendered in conjunction with the statutory audit engagement (drafting of specific reports and statements, due diligence procedures) or any other specific engagement, generally representing one-off or agreed-on services.

3.2 STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

Year ended December 31, 2019

This is a free translation into English of the Statutory Auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.

This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the management report and other documents provided to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Shareholders of Safran SA,

Opinion

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying consolidated financial statements of Safran SA for the year ended December 31, 2019. These financial statements were approved by the Board of Directors on February 26, 2020, based on information available at that date and in the evolving context of the Covid-19 health crisis.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2019 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Risk Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from January 1, 2019 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No. 537/2014 or in the French Code of Ethics (*Code de déontologie*) for Statutory Auditors.

Emphasis of matter

Without qualifying our opinion, we draw your attention to Note 1 to the consolidated financial statements regarding the new IFRS standards, amendments and interpretations effective as of January 1, 2019 and, in particular, the change in accounting policy resulting from the application of IFRS 16, "Leases", whose impacts at January 1, 2019 are described in Note 3 to the consolidated financial statements.

Justification of Assessments – Key audit matters

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed as part of our audit of the consolidated financial statements as a whole, approved in the context described above, and therefore contributed to the opinion we formed as expressed above, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Recognition of revenue and margins under support-by-the-hour contracts

Notes 1.g, 2.a and 6 to the consolidated financial statements

Risk identified

The Group has entered into support-by-the-hour engine maintenance contracts with certain customers spanning several years.

As described in Notes 1.g and 2.a to the consolidated financial statements, revenue on these contracts is recognized over time, based on the costs incurred to date as a percentage of the total estimated costs. A provision is set aside for any losses as soon as such losses are foreseeable.

Forecast contract margins are regularly revised by management. This method requires an estimate of results on completion using future cash flow forecasts that take into account contractual inputs and commitments as well as other factors inherent to the contract based on historical and/or forecast data. This method also requires the use of estimates used to determine the contract's stage of completion.

We deemed the recognition of revenue and margins on support-by-the-hour contracts to be a key audit matter given the sensitivity of margins on completion to the estimates and assumptions used by management.

Statutory Auditors' report on the consolidated financial statements

How our audit addressed this risk

In Group subsidiary Safran Aircraft Engines (Aerospace Propulsion segment), which accounts for the most significant support-per-flight-hour contracts, we:

- analyzed the procedures for forecasting contract revenue and contract costs on completion;
- tested the key controls relating to costs incurred on contracts and to revenue recognition;
- reviewed the consistency of the technical and economic model enabling the in-flight behavior of the engine to be assessed and the engine servicing schedule to be determined, based on historical data;
- for each major contract, met with the management controllers responsible for monitoring the contract business plans, and assessed estimates of contract revenue and costs on completion, including the degree of uncertainty applied, in particular by comparing the costs incurred to date with previous estimates;
- for the most significant contracts, analyzed any changes in contracts and the reflection of those changes in the business plans;
- reviewed, on a test basis, the existence of costs incurred used as the basis to calculate the percentage of completion of these significant contracts;
- reviewed the consistency of the accounting treatment used to record revenue with the applicable accounting standards.

Contract liabilities: performance warranties and provisions for sales contracts

Notes 1.s, 2.a, 2.b and 24 to the consolidated financial statements

Risk identified

As part of its contractual relations, the Group may recognize liabilities for contractual guarantee commitments given in respect of warranties or claims received from customers:

- Provisions for performance warranties recognized under liabilities cover probable future payments under the various performance warranties granted by the Group to its customers in respect of equipment sold. They are calculated based on technical files and on a statistical basis taking into account the estimated frequency and probable cost of repairs.
- Provisions for sales contracts correspond to provisions booked further to customer claims or when the Group is exposed to contractual penalties. Provisions are calculated by management using available information, past experience and, in some cases, estimates by independent experts.

We deemed this issue to be a key audit matter given the significance of the amounts in question, the complexity of the assumptions underlying the estimates, and the degree of judgment required of management in calculating these provisions.

How our audit addressed this risk

We reviewed the procedures implemented by management to identify and list all risks relating to contractual commitments.

For each material risk identified, we reviewed the analysis of the risk by management, along with the corresponding documentation and any written consultations from external advisors, where appropriate. Our work involved:

- meeting with managers of the main programs to assess the exhaustiveness of provisions recognized in light of the known quality risks; and
- for material risks, reviewing with management the main causes and planned corrections for the technical issues identified;
- assessing the appropriateness of the approach used by management to estimate the amount of provisions to be recognized in respect of these risks;
- reconciling the assumptions used to determine warranty commitments with the technical files and historical data;
- reconciling the estimated cost of repairs used to estimate warranty commitments with observed historical data;
- analyzing the arithmetic accuracy of the calculations made and reconciling the input data with contractual data, where appropriate;
- reviewing the consistency with IFRS 15 of the accounting treatment used to record identified contractual liabilities;
- reconciling the amounts recognized with respect to customer claims with the requests made by those customers, and the estimates made by management.

We also analyzed the appropriateness of the disclosures concerning contract liabilities provided in the notes to the consolidated financial statements.

Measurement and completeness of foreign currency derivatives

Notes 1.f, 1.w and 31 to the consolidated financial statements

Risk identified

Most of the revenue generated in the aerospace segment is denominated in US dollars. The net excess of revenues over expenses for these activities totaled USD 10.9 billion for 2019. To protect its operating profitability against fluctuations in the EUR/USD exchange rate, the Group's policy is to hedge its USD exposure using foreign currency derivatives and to maintain the exchange rate above a guaranteed hedged rate over a period of four years.

The main derivatives used in this respect are forward sales and foreign currency options (accumulators and a combination of optional instruments with or without barriers). Options are used to improve the guaranteed hedged rate with a view to protecting the Group's economic performance.

In the balance sheet, the derivatives portfolio is carried at fair value in accordance with IFRS 9, and represented an amount of €674 million in assets and €1,033 million in liabilities at December 31, 2019. Most derivatives are traded over-the-counter and no quoted prices are available. Consequently, they are measured using models commonly used by pricing services.

In the income statement, the Group does not apply hedge accounting as defined by IFRS 9 given the nature of the instruments used. Consequently, all changes in the fair value of foreign currency derivatives during the year are included in financial income (loss). In 2019, the amount recorded in financial income (loss) was €175 million.

We deemed the measurement and completeness of foreign currency derivatives to be a key audit matter given the material impacts on the Group's consolidated financial statements, the complexity of the valuation models used and the volume of instruments negotiated.

How our audit addressed this risk

We reviewed the Group's forex strategy and assessed whether the information given in this regard in Note 31 to the consolidated financial statements was appropriate.

As part of our familiarization with the Group's internal control procedures, we analyzed the procedures put in place by management for approving, contracting and booking market transactions. We also tested the effectiveness of key IT controls for the applications used by the Cash Management department, including the interface with the accounting teams.

In order to assess the appropriate accounting for foreign currency derivatives, we:

- examined the reconciliation performed by Safran between the Group's derivatives portfolio and information received from bank counterparties, in order to ensure that all transactions were documented;
- checked that there was no material discrepancy between the value of the derivatives estimated by the Group and the values sent by the bank counterparties;
- carried out a counter-valuation of the derivatives portfolio.

Intangible asset impairment tests (goodwill and other intangible assets)

Notes 1.c, 1.j, 1.m, 2.a, 11 and 12 to the consolidated financial statements

Risk identified

In the context of its creation and development, the Group has carried out acquisitions resulting in the recognition of goodwill and intangible assets relating to aerospace programs. The Group also capitalizes development costs when it can be demonstrated that they meet the requisite criteria, as described in Note 1.j to the consolidated financial statements.

Goodwill is tested for impairment at the level of each cash-generating unit (CGU) at least annually and whenever there is an indication that it may be impaired. At the end of each annual reporting period, management also performs impairment tests on assets allocated to programs (aerospace programs and capitalized development costs) before they begin to be depreciated/amortized, or if events or circumstances indicate a risk of impairment.

The recoverable amounts of these assets are chiefly determined by discounting the future cash flows expected to arise from the CGUs, projects or programs to which the assets tested relate.

At December 31, 2019, the carrying amount of goodwill was €5,199 million, while total intangible assets represented €9,479 million, including €701 million relating to aerospace programs and €4,077 million relating to capitalized development costs.

We deemed intangible asset impairment tests to be a key audit matter given the significance of intangible assets in the consolidated financial statements and because the calculation of their recoverable amount requires management to use major estimates and assumptions.

How our audit addressed this risk

We reviewed the basis for implementing these impairment tests. In particular, our work consisted in:

- reconciling the elements included in the carrying amount of each cash-generating unit (CGU) and each program with the net assets recognized in the balance sheet;
- analyzing the appropriateness of the assumptions underlying the estimates used by management to forecast its future cash flows, in particular by reconciling:
 - the volumes and production rates associated with the products sold in light of information and forecasts provided by the main contractors and management's long-term market analyses,
 - the EUR/USD exchange rate assumptions with market data,
 - the growth rates used to forecast future cash flows with available independent analyses,
 - the various inputs used to calculate the weighted average cost of capital of each CGU with the rate of return demanded by market participants for similar activities;
- comparing the analyses performed by management to ascertain the sensitivity of value in use to reasonably possible changes in the main assumptions used;
- comparing the consistency of past and future cash flows with management's most recent estimates, as presented to the Board of Directors during the budget process.

We also ensured that the disclosures provided in Notes 1.c, 1.j, 1.m, 2.a, 11 and 12 to the consolidated financial statements were appropriate.

Statutory Auditors' report on the consolidated financial statements

Specific verifications

As required by legal and regulatory provisions and in accordance with professional standards applicable in France, we have also verified the information pertaining to the Group presented in the Board of Directors' management report approved on March 26, 2020. Management has confirmed that events that have occurred and information that has come to light relating to the Covid-19 crisis since the financial statements were closed will be reported to the Annual General Meeting called to approve these financial statements.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the information pertaining to the Group provided in the management report includes the consolidated non-financial information statement required under Article L.225-102-1 of the French Commercial Code. However, in accordance with Article L.823-10 of the French Commercial Code, we have not verified the fair presentation and consistency with the consolidated financial statements of the information given in that statement, which will be the subject of a report by an independent third party.

Report on Other Legal and Regulatory Requirements**Appointment of the Statutory Auditors**

We were appointed as Statutory Auditors of Safran SA by the Annual General Meeting held on May 28, 2008 for Mazars and on May 27, 2010 for ERNST & YOUNG et Autres.

At December 31, 2019, MAZARS and ERNST & YOUNG et Autres were in the 12th year and 10th year of total uninterrupted engagement respectively.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Risk Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements**Objectives and audit approach**

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L.823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit, and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion; The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;

Statutory Auditors' report on the consolidated financial statements

■ obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The Statutory Auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit and Risk Committee

We submit a report to the Audit and Risk Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Risk Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L.822-10 to L.822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*Code de déontologie*) for Statutory Auditors. Where appropriate, we discuss with the Audit and Risk Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense and Courbevoie, March 26, 2020

The Statutory Auditors
French original signed by

ERNST & YOUNG et Autres

Jean-Roch Varon

Nicolas Macé

MAZARS

Gaël Lamant

Christophe Berrard

3.3 PARENT COMPANY FINANCIAL STATEMENTS AT DECEMBER 31, 2019

Parent company income statement at December 31, 2019

(in € millions)	Note	2018	2019
OPERATING INCOME			
Revenue	4.1	728	723
Operating expense transfers	4.2	20	31
Reversal of depreciation, amortization and provisions		17	35
Other income		26	88
Operating income (1)		791	877
OPERATING EXPENSES			
Cost of goods sold in the year:			
■ Raw materials		(1)	-
■ Sub-contracting purchases		(12)	(17)
■ Purchases not held in inventory and supplies		(19)	(20)
■ External service expenses		(455)	(414)
Taxes and duties other than income tax		(24)	(24)
Payroll costs:			
■ Wages and salaries		(174)	(160)
■ Social security contributions		(114)	(138)
Charges to depreciation, amortization, provisions and impairment:			
■ Charges to depreciation, amortization and impairment of non-current assets		(38)	(39)
■ Charges to provisions for contingencies and losses		(59)	(119)
Other expenses		(2)	(13)
Operating expenses (2)		(898)	(944)
Loss from operations (1)-(2)		(107)	(67)
Financial income		1,943	1,347
Financial expenses		(299)	(72)
Financial income	4.3	1,644	1,275
Profit from ordinary activities before tax		1,537	1,208
Non-recurring income		31	110
Non-recurring expenses		(27)	(40)
Non-recurring income	4.4	4	70
Income tax benefit	4.6	211	1
Movements in provisions set aside to cover income taxes of loss-making subsidiaries	4.6	(47)	18
PROFIT FOR THE PERIOD		1,705	1,297

Parent company balance sheet at December 31, 2019

Assets

(in € millions)	Note	Dec. 31, 2018	Dec. 31, 2019		
			Gross carrying amount	Depreciation, amortization and impairment	Net
Intangible assets	3.1	28	171	138	33
■ Other intangible assets		28	171	138	33
Property, plant and equipment	3.1	112	245	132	113
Financial assets	3.1	18,297	18,330	120	18,210
■ Equity investments		17,936	17,989	43	17,946
■ Other financial assets		361	341	77	264
Total non-current assets		18,437	18,746	390	18,356
Payments on account	3.2	3	1	-	1
Trade receivables	3.2	73	162	-	162
Other receivables	3.2	604	461	1	460
Group current accounts	3.2	3,463	3,401	17	3,384
Marketable securities	3.3	1,331	1,768	-	1,768
Cash at bank and in hand	3.3	810	800	-	800
Prepayments	3.5	19	27	-	27
Total current assets		6,303	6,620	18	6,602
Unrealized foreign exchange losses	3.6	219	264	-	264
TOTAL ASSETS		24,959	25,630	408	25,222

Equity and liabilities

(in € millions)	Note	Dec. 31, 2018	Dec. 31, 2019
Share capital	3.7	87	85
Other equity	3.7	8,811	8,660
Tax-driven provisions	3.7	22	20
Profit for the period	3.7	1,705	1,297
Total equity		10,625	10,062
Provisions for contingencies and losses	3.8	560	627
Bond issue	3.9	2,400	1,900
USD senior unsecured notes issue	3.9	1,048	930
Other loans and borrowings	3.9	1,761	2,842
Group current accounts	3.9	7,380	7,877
Advances and downpayments received	3.9	6	7
Trade payables	3.9	188	203
Other liabilities	3.9	830	595
Deferred income	3.11	4	2
Financial liabilities, operating payables and miscellaneous liabilities		13,617	14,356
Unrealized foreign exchange gains	3.12	157	177
TOTAL EQUITY AND LIABILITIES		24,959	25,222

Parent company statement of cash flows

(in € millions)	2018	2019
I. CASH FLOW FROM OPERATING ACTIVITIES		
Profit for the period	1,705	1,297
Non-cash income and expenses		
Depreciation, amortization, impairment and provisions	128	86
Capital gains and losses on asset disposals	14	(59)
Cash flow from operations, before change in working capital	1,847	1,324
Net change in current accounts ⁽¹⁾	65	574
Net change in other receivables and payables	(202)	(196)
Change in working capital	(137)	378
TOTAL I	1,710	1,702
II. CASH FLOW USED IN INVESTING ACTIVITIES		
Payments for purchases of intangible assets and property, plant and equipment, net of proceeds	(23)	16
Payments for purchases of equity investments and other financial assets, net of proceeds ⁽²⁾	(3,128)	(972)
TOTAL II	(3,151)	(956)
III. CASH FLOW USED IN FINANCING ACTIVITIES		
Dividends paid to shareholders	(695)	(785)
Increase in borrowings	95	-
Repayment of borrowings and long-term debt	(708)	(223)
New bond issue	1,200	-
Bond redemption	(637)	(500)
Change in long-term borrowings ⁽³⁾	47	18
Change in short-term borrowings	(955)	1,169
Changes in scope of consolidation	5	-
Change in share capital	-	2
TOTAL III	(1,648)	(319)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	I+II+III (3,089)	427
Cash and cash equivalents at beginning of period	4,829	2,141
Cash contributed in connection with the Zodiac Aerospace merger	401	-
Cash and cash equivalents at end of period	2,141	2,568
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(3,089)	427

(1) Classified in operating items in view of the nature of the Company's operations.

(2) Including €1,076 million in treasury shares acquired in view of their subsequent cancellation.

(3) Impact resulting from the translation into euros of USD senior unsecured notes at the closing exchange rate.

Notes to the parent company financial statements

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FOREWORD

The data set out below are an integral part of the parent company financial statements. They are expressed in millions of euros unless otherwise indicated.

The 2019 financial year spans 12 months.

Safran may also be referred to as “the Company” in these notes.

The total balance sheet at December 31, 2019 prior to the appropriation of profit represents €25,222,488,161.16.

Accounting profit for 2019 represents €1,296,554,954.50.

NOTE 1 ACTIVITY OF THE COMPANY AND 2019 HIGHLIGHTS

1.1 Activity of the Company

As the Group's parent company, Safran performs the following functions for the Group companies:

- it holds and manages shares in the main Group subsidiaries;
- it steers and develops the Group, determining: Group strategy; research and technology (R&T) policy; sales policy; legal and financial policy; human resources policy; personnel training, retraining and skills matching by Safran University; communications; and oversight of operations;
- it provides:
 - support on legal, taxation and financial matters, essentially in the following areas: cash pooling as part of the management of advances and investments between Safran and each Group company; currency risk management policy as part of efforts to protect companies and reduce uncertainty regarding the economic performance of operating subsidiaries resulting from fluctuations in exchange rates (mainly USD); and tax consolidation in jurisdictions where Safran is liable for the entire income tax charge, additional income tax contributions and the annual minimum tax charge due by the tax group comprising itself and its tax-consolidated subsidiaries, and
 - services within the scope of Shared Services Centers in the following areas: payroll administration and management, recruitment, non-production purchases, IT, and some accounting services.

1.2 2019 highlights

On May 24, 2017, Safran announced that it intended to buy back up to €2,300 million in shares over a two-year period, starting as soon as its tender offer for Zodiac Aerospace had been completed. The offer was completed on March 23, 2018 following the mandatory squeeze-out of Zodiac Aerospace shares.

After having launched two buyback tranches in 2018, in 2019 Safran signed:

- a share purchase agreement with an investment services firm on January 10, 2019 for a third buyback tranche of up to €600 million, expiring on May 10, 2019 at the latest;
- a share purchase agreement with a different investment services firm on May 27, 2019 for a fourth buyback tranche of up to €150 million, expiring on June 28, 2019 at the latest;
- a share purchase agreement with an investment services firm on July 1, 2019 for a fifth buyback tranche of up to €400 million, expiring on September 4, 2019 at the latest;
- a share purchase agreement with an investment services firm on September 17, 2019 for a sixth buyback tranche of up to €220 million, expiring on December 13, 2019 at the latest.

At December 31, 2019, the four tranches had been completed, involving the purchase of 8,562,856 shares for €1,076 million.

The entire €2,300 million share buyback program had therefore been completed at December 31, 2019.

As in 2018, the shares purchased in 2019 were subsequently canceled within the scope of the capital decrease of December 20, 2019.

An amendment to the September 17, 2019 share purchase agreement for the sixth buyback tranche was signed on September 20, 2019, setting the expiration date at December 31, 2019. The maximum amount of shares available for purchase was increased to €450 million and a second buyback purpose therefore added, consisting of the allocation or sale of the shares to employees and/or certain corporate officers.

NOTE 2 ACCOUNTING POLICIES

2.1 Accounting rules and methods

Standards applied

The parent company financial statements for the year ended December 31, 2019 have been prepared in accordance with the rules and regulations applicable in France as set out in the French General Chart of Accounts (*Plan comptable général*) and defined in Regulation 2014-03 issued by the French accounting standards-setter (*Autorité des normes comptables* - ANC) (consolidated version of January 1, 2019).

The financial statements have been prepared on a going concern basis using the accrual and consistency methods, in accordance with the basic principle of prudence and with the general rules for preparing and presenting parent company financial statements, in order to provide a true and fair view of the Company.

Unless otherwise stated, accounting items are carried at historical cost.

For reporting periods beginning on or after January 1, 2018, the Company applies ANC Regulation 2017-01 on mergers and similar transactions.

2.2 Intangible assets

All intangible assets are valued at purchase cost.

The gross cost of intangible asset items is amortized over the expected useful life of these assets using the straight-line method:

- patents and licenses are amortized over the shorter of the period of legal protection and period of effective use;
- application software is carried at purchase cost plus any development costs incurred in order to bring it into operation, and is amortized on a straight-line basis over a period of one to five years.

Research and development costs are recorded as expenses in the period in which they are incurred.

2.3 Property, plant and equipment

As required by the applicable accounting regulations (CRC Regulation 2004-06 issued by the Accounting Standards Committee), since January 1, 2005 property, plant and equipment have been depreciated over their useful lives.

Property, plant and equipment are recorded in the balance sheet at historical purchase cost less accumulated depreciation and impairment losses.

Purchase cost comprises the purchase price, ancillary fees and all costs directly attributable to bringing the asset to the location and condition ready for its intended use.

Assets purchased in a foreign currency are translated into euros at the exchange rate prevailing on the transaction date.

Assets produced by the Company are recorded at production cost.

In compliance with CRC Regulation 2004-06, significant components of certain assets such as buildings whose useful lives differ from that of the asset as a whole are recognized and depreciated separately. Interest accrued on borrowings during the development and construction phases is not included as part of the cost of the assets concerned.

Depreciation

The main useful lives applied to property, plant and equipment are as follows:

■ buildings	15 to 40 years
■ building improvements, fixtures and fittings	10 years
■ office furniture	6 years and 8 months
■ office equipment	6 years and 8 months
■ vehicles	4 years
■ technical installations, equipment, industrial tools and other	3 to 10 years

Property, plant and equipment are depreciated on a straight-line or declining-balance basis.

Impairment

If there is evidence that an asset may be impaired at year-end, the Company performs an impairment test. The Company considers external indications of impairment such as events or changes in the market environment with an adverse impact on the entity that occurred during the reporting period or will occur in the near future, along with internal indications of impairment such as obsolescence or significant changes in the way in which an asset is used.

Impairment is recognized in the income statement when the recoverable amount of the asset falls below its carrying amount. Recoverable amount is the higher of fair value and value in use.

Fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction, less costs to sell. Value in use is based on the present value of expected future cash flows, calculated using a benchmark discount rate which reflects the Group's weighted average cost of capital.

2.4 Financial assets

Financial assets are recorded at purchase price.

Treasury shares

Within the scope of the share buyback program set up for purposes other than for remittance to employees, the treasury shares purchased are included in other financial assets.

Impairment is recognized when the carrying amount (average share price over the 20 last trading days of the month of the year-end) is lower than the purchase price.

However, if the shares purchased are intended to be canceled, no impairment is charged against the securities included in financial assets.

Equity investments

The 2007 French Finance Act introduced a tax treatment for equity investment acquisition expenses requiring their capitalization (inclusion in the cost price of securities) and amortization over a period of five years by way of accelerated tax depreciation.

Therefore, in accordance with the opinion issued by the CNC Urgent Issues Taskforce (*Comité d'urgence*) on June 15, 2007, the Company elected for a change in tax option from January 1, 2007, whereby the gross carrying amount of equity investments purchased after this date corresponds to the purchase price of the securities plus acquisition expenses. These acquisition expenses are then subject to accelerated tax depreciation over a period of five years.

Where the recoverable amount of equity investments is less than their carrying amount, impairment is recognized for the amount of the difference.

The fair value of equity investments is calculated:

- based on their average stock market price for the month preceding the year-end for listed investments;
- based on their share in net equity, adjusted where appropriate for significant unrealized capital gains net of taxes; or
- based on the intrinsic value of equity, reflecting the present value of the expected future cash flows (enterprise value), less debt where appropriate, for other equity investments.

Provisions are recorded in respect of loans and other financial assets when their recovery is uncertain.

For reporting periods beginning on or after January 1, 2016, the Company applies ANC Regulation 2015-06 of November 23, 2015 on the accounting treatment of technical merger deficits.

The merger deficit is tested annually for impairment. In the event that any of the underlying equity investments are sold, the portion of the deficit allocated to the investment concerned will be released to the income statement.

2.5 Receivables and payables

Receivables and payables are recorded at nominal value.

Impairment in value is recognized on receivables where their recoverable amount is less than their carrying amount.

Foreign currency transactions

Foreign currency transactions are recorded at the exchange rate prevailing at the transaction date.

Receivables and payables in foreign currencies are translated into euros at the exchange rate prevailing at year-end, while any resulting translation gains or losses are recorded under unrealized foreign exchange gains or losses. A provision is set aside for any unrealized foreign exchange losses at December 31, unless the losses are offset by potential gains in the same currency and over the same period.

2.6 Marketable securities

Marketable securities are measured as described below:

- the gross value of marketable securities reflects their purchase price excluding ancillary fees;
- when the fair value of marketable securities, determined based on their value in use and their probable trading value, is less than their gross carrying value, impairment is recognized for

the amount of the difference. The fair value of listed securities is determined based on their average stock market price for the month preceding the year-end.

Treasury shares

Treasury shares are recorded at purchase cost. Fair value is equal to the lower of purchase cost and the average stock market price for the month preceding the year-end. Impairment is recorded when the purchase cost exceeds the average stock market price. However, the following specific accounting rules apply for stock option and free share plans or any other type of employee share ownership plan:

- when shares are earmarked for a specific stock option plan whose exercise is considered probable, an additional calculation is performed for each plan. A contingency provision is recorded when the option exercise price is less than the fair value;
- when shares are allocated to a specific free share plan, their carrying amount corresponds to either (i) the purchase price of the shares if they were allocated to the plan as from its inception, or (ii) the carrying amount of the shares at the date they are reclassified if they are allocated to the plan subsequent to their acquisition. These shares are not measured at fair value due to the underlying commitment to grant them to employees, which is covered by a provision recorded under liabilities in the balance sheet.

2.7 Cash at bank and in hand

This caption consists mainly of bank accounts held by the Company.

Foreign-currency denominated liquid assets held at year-end are translated into euros at the exchange rate prevailing at December 31.

Any resulting translation gains or losses are recorded in financial income and expenses.

2.8 Tax-driven provisions

Increases in standard depreciation and amortization rates for intangible assets and/or property, plant and equipment, as permitted by the tax authorities to encourage investment, are considered as "accelerated tax depreciation/amortization" and are recorded in tax-driven provisions in equity.

Provisions for accelerated tax depreciation/amortization are also recorded in respect of equity investment acquisition expenses.

2.9 Provisions for contingencies and losses

A provision is recognized when the Company has a present obligation and it is likely or certain that this obligation will give rise to an outflow of economic resources with no equivalent consideration in return.

Provisions for contingencies and losses are recognized as described below:

- provisions for contingencies are set aside based on the risk known at the end of the current reporting period. The amount of the provision reflects the amount of any damages claimed or estimated based on the progress of proceedings and on the opinion of the Company's legal counsel;
- provisions for losses relate mainly to:
 - the expense relating to the refund of tax savings made on loss-making subsidiaries,
 - employee benefit obligations.

Employee benefit obligations

The Company has various obligations under defined benefit plans, the most important of which are described below.

The Company's obligations for end-of-career bonuses payable pursuant to the metallurgy industry collective bargaining agreement or company agreements are covered by provisions.

Managerial-grade staff are also covered by a supplementary defined contribution plan as well as a defined benefit retirement plan.

These obligations are recognized and measured in accordance with ANC Recommendation 2013-02 on the recognition and measurement of employee benefit obligations. All obligations under defined benefit plans are measured by an independent actuary.

Where appropriate, the impact of changes in actuarial assumptions underlying the calculation of post-employment benefits (end-of-career bonuses and top-hat retirement plans) is spread over the expected average remaining working lives of employees in accordance with the corridor method. Any liabilities not covered by a provision (actuarial differences and unrecognized past service costs) are recorded in off-balance sheet commitments.

All components of the net periodic pension cost (service cost, amortization of actuarial gains and losses, impacts of plan amendments, interest cost and return on plan assets) are recorded in the income statement.

2.10 Financial instruments

Foreign currency hedges

Given the high number of foreign-currency denominated transactions carried out by certain subsidiaries, Safran manages foreign currency risk on behalf of these companies by hedging forecast commercial transactions using forwards and options.

The fair value of financial instruments set up by Safran to hedge the net position of foreign-currency denominated operating receivables and payables of subsidiaries covered by a Safran foreign exchange guarantee is recorded in the balance sheet.

The fair value of financial instruments used to hedge future transactions denominated in foreign currencies is not recorded in the balance sheet.

Premiums paid and received on options are initially recorded in the balance sheet and then released to the income statement on maturity or expiration of the options.

Foreign currency gains and losses arising on these transactions along with hedging gains and losses transferred to subsidiaries are recorded as foreign exchange gains and losses.

Interest rate hedges

The Company may use interest rate swaps to hedge its exposure to changes in interest rates.

2.11 Revenue

Revenue recognized by the Company mainly arises from the provision of services and general assistance provided to the Group's subsidiaries.

Recurring services are billed on a monthly basis.

2.12 Non-recurring income

The Company uses the definition of non-recurring items laid down in the French General Chart of Accounts as defined by ANC Regulation 2016-07 of November 4, 2016.

In particular, non-recurring items include capital gains and losses arising on the sale of non-current assets.

2.13 Income tax and tax consolidation in France

The Company elected for the Group tax consolidation regime set out in Articles 223-A to 223-Q of the French Tax Code (*Code général des impôts*), and a tax consolidation group was set up by Safran SA, registered in Paris under number RCS 562 082 909 on January 1, 2005.

In fiscal 2019, the tax consolidation group included the following companies:

- Safran (head of the tax group)
- Établissements Vallaroche
- Galli Participations
- Lexvall 22
- Lexvall 24
- Lexvall 25
- Lexvall 26
- Safran Additive Manufacturing Campus
- Safran Aero Composite
- Safran Aerosystems
- Safran Aerosystems Ducts
- Safran Aerosystems Fluid
- Safran Aerosystems Hydraulics
- Safran Aircraft Engines
- Safran Cabin France
- Safran Ceramics
- Safran Corporate Ventures
- Safran Electrical & Power
- Safran Electronics & Defense
- Safran Engineering Services
- Safran Filtration Systems
- Safran Helicopter Engines
- Safran International Resources
- Safran Landing Systems
- Safran Landing Systems Services Dinard
- Safran Nacelles
- Safran Power Units
- Safran Reosc
- Safran Seats;
- Safran Transmission Systems

- Safran Ventilation Systems
- Snecma Participations
- SSI
- Vallaroché Conseil
- Zodiac Actuation Systems
- Zodiac Aero Electric
- Zodiac Aerospace Services Europe
- Zodiac Aerotechnics
- Zodiac Data Systems
- Zodiac Data Systems Investment

In accordance with the tax consolidation agreements entered into between Safran and its subsidiaries, each subsidiary in the tax group records in its accounts the amount of tax that it would have paid on a stand-alone basis. Any tax savings or additional liabilities arising as a result of tax consolidation are recorded by Safran in its capacity as head of the tax group.

Any tax savings arising on the use of tax losses of subsidiaries in the tax consolidation group are recorded in Safran's income statement and neutralized by way of a provision. This provision is released to profit or loss when prior year losses are used by the consolidated subsidiary or when they become time-barred and may no longer be used by the subsidiary concerned.

NOTE 3 NOTES TO THE BALANCE SHEET

3.1 Intangible assets, property, plant and equipment and financial assets

Gross carrying amount

Movements in non-current assets break down as follows:

(in € millions)	Dec. 31, 2018	Acquisitions, contributions, creations, increases	Reclassifications	Sales, spin-offs, decreases	Dec. 31, 2019
Concessions, patents, licenses, software and similar rights	146	12	1	-	159
Intangible assets in progress	3	11	(2)	-	12
Intangible assets	149	23	(1)	-	171
Land	7	-	-	(2)	5
Buildings	112	4	4	(10)	110
Installations, equipment and tools	29	4	5	-	38
Other property, plant and equipment	78	6	4	(15)	73
Property, plant and equipment in progress	20	10	(12)	-	18
Payments on account	2	-	-	(1)	1
Property, plant and equipment	248	24	1	(28)	245
Financial investments ⁽¹⁾⁽²⁾	17,991	10	-	(12)	17,989
Loans to equity investments ⁽³⁾	271	11	-	(63)	219
Other long-term investments	78	-	-	-	78
Loans	13	-	-	(1)	12
Other financial assets ⁽⁴⁾	96	1,084	-	(1,148)	32
Financial assets	18,449	1,105	-	(1,224)	18,330
TOTAL NON-CURRENT ASSETS	18,846	1,152	-	(1,252)	18,746

(1) In accordance with ANC Regulation 2015-06, the merger deficit has been classified within financial investments as a result of its allocation to unrealized capital gains on equity investments for an amount of €9,064 million. The merger deficit breaks down as follows:
- the Snecma/Sagem merger for €3,069 million, including Safran Nacelles (€185 million), Safran Landing Systems (€172 million), Safran Electronics & Defense (€31 million), Safran Electrical & Power and Safran Engineering Services (€214 million), Safran Aircraft Engines (€2,098 million), Safran Aero Boosters (€164 million), Safran Helicopter Engines and Safran Power Units (€205 million);
- the Safran/Zodiac Aerospace merger for an amount of €5,995 million, allocated to Galli Participations shares.

(2) The increase in financial investments is attributable to the acquisition of shares and the capital increase at Safran Additive Manufacturing Campus for a total amount of €10 million. Decreases primarily concern the capital redemption at Aerofund 3 for €11 million.

(3) Changes in this caption solely reflect grants and repayments of intragroup loans.

(4) The increase in this caption is chiefly attributable to the acquisition of treasury shares for €1,076 million. The decrease corresponds to the cancellation of treasury shares as part of a capital decrease for €1,076 million, and to the redemption of investments with maturities of more than three months for €72 million.

Depreciation and amortization

<i>(in € millions)</i>	Dec. 31, 2018	Additions	Reversals	Dec. 31, 2019
Concessions, patents, licenses, software and similar rights	121	17	-	138
TOTAL INTANGIBLE ASSETS	121	17	-	138
Land	1	-	-	1
Buildings	62	8	(10)	60
Installations, equipment and tools	12	4	-	16
Other property, plant and equipment	61	9	(15)	55
TOTAL PROPERTY, PLANT AND EQUIPMENT	136	21	(25)	132

Asset impairment

<i>(in € millions)</i>	Dec. 31, 2018	Additions	Reversals	Dec. 31, 2019
Impairment of financial assets	152	1	(33)	120
Impairment of current assets	4	14	-	18
TOTAL	156	15	(33)	138

List of subsidiaries and investments

Disclosures provided in accordance with Article R.123-197.2 of the French Commercial Code

(in € millions) ⁽¹⁾ Company	Business line	Share capital	Equity other than share capital and profit	% voting rights	% share capital held
A. DETAILED INFORMATION ON SUBSIDIARIES AND ASSOCIATES WHOSE GROSS CARRYING AMOUNT EXCEEDS 1% OF SAFRAN'S SHARE CAPITAL (I.E., €0.8 MILLION)					
1. Subsidiaries (more than 50%-owned)					
a) French companies					
■ ArianeGroup Holding (SIREN: 519032171, Paris, France)	Holding company	374.1	3,167.8	50.0	50.0
■ Établissements Vallaroche (SIREN: 542028154, Paris, France)	Holding company	15.6	(3.6)	100.0	100.0
■ Galli Participations (SIREN: 402112403, Paris, France)	Holding company	334.0	1,527.8	100.0	100.0
■ Safran Additive Manufacturing Campus (SIREN: 815255773, Paris, France)	Holding company	10.0	0.0	100.0	100.0
■ Safran Aircraft Engines (SIREN: 414815217, Paris, France)	Propulsion	154.1	359.7	97.4	97.4
■ Safran Ceramics (SIREN: 440513059, Le Haillan, France)	Propulsion	0.1	18.0	100.0	100.0
■ Safran Electrical & Power (SIREN: 301501391, Blagnac, France)	Aircraft Equipment	13.5	54.5	96.8	89.2
■ Safran Electronics & Defense (SIREN: 480107911, Boulogne-Billancourt, France)	Defense	39.2	517.6	95.5	95.5
■ Safran Helicopter Engines (SIREN: 338481955, Bordes, France)	Propulsion	38.8	(0.3)	100.0	100.0
■ Safran Landing Systems (SIREN: 712019538, Vélizy-Villacoublay, France)	Aircraft Equipment	83.7	402.2	100.0	100.0
■ Safran Nacelles (SIREN: 352050512, Gonfreville-l'Orcher, France)	Aircraft Equipment	56.7	42.1	88.5	88.5
■ Safran Transmission Systems (SIREN: 692015217, Colombes, France)	Aircraft Equipment	36.8	16.8	100.0	100.0
■ Safran Ventilation Systems (SIREN: 710802547, Blagnac, France)	Aircraft Equipment	1.3	10.1	100.0	100.0
b) Foreign companies					
■ Safran Aero Boosters	Propulsion	54.9	413.9	67.2	67.2
■ Safran China ⁽³⁾	Holding company	0.3	1.6	100.0	100.0
■ Safran Electrical Power UK Ltd	Aircraft Equipment	270.0	(75.8)	100.0	100.0
■ Safran Maroc ⁽³⁾	Holding company	1.8	(0.3)	100.0	100.0
■ Safran Serviços de Suporte de Programas Aeronauticos ⁽³⁾	Aircraft Equipment	0.2	0.0	100.0	100.0
■ Safran UK Ltd	Holding company	19.1	7.6	100.0	100.0
■ Safran USA Inc.	Holding company	0.0	1,751.0	100.0	100.0
2. Investments (10%- to 50%-owned)					
a) French companies					
■ Corse Composites Aéronautiques ⁽³⁾	Aircraft Equipment	1.7	43.5	24.8	24.8
■ Eurotradia International ⁽³⁾	Aircraft Equipment	3.0	24.5	11.2	11.2
■ FCPR Aerofund II	Investment fund	75.0		16.6	16.6
■ FCPR Aerofund III	Investment fund	167.0		18.0	18.0
■ Mobiwire ⁽³⁾	Communications	2.0	0.5	10.6	0.0
B. SUMMARY INFORMATION CONCERNING OTHER SUBSIDIARIES AND INVESTMENTS					
1. Subsidiaries (more than 50%-owned)					
(a) French companies					
(b) Foreign companies					
2. Investments (10%- to 50%-owned)					
(a) French companies					
(b) Foreign companies					

(1) For foreign companies, share capital, equity, revenue and profit amounts were translated into euros at the exchange rate prevailing at December 31, 2019.

(2) Additional paid-in capital of US-based entities is shown under "Equity other than share capital and profit".

(3) Situation at December 31, 2018.

Carrying amount of investments		Outstanding loans and advances granted	Guarantees and endorsements given by the Company	2019 revenue	2019 profit	Dividends received by Safran in 2019	Receivables	Payables
Gross	Net							
1,510.9	1,510.9			25.5	107.9	37.5		211.0
62.8	33.8				2.1		25.1	
1,856.1	1,856.1		5.1	4.0	50.8	6.6	1.8	41.6
10.0	10.0							10.0
195.4	195.4		8.6	11,432.2	1,092.3	651.4	29.4	3,487.5
40.3	40.3		0.1	33.0	2.1		96.6	34.1
185.6	185.6		433.3	667.1	61.7	55.4	26.1	6.5
595.0	595.0		128.2	1,385.6	31.3	35.6	68.3	156.6
539.0	539.0		0.2	1,265.2	51.0		74.2	48.8
560.5	560.5		0.2	2,264.2	242.0	211.6	256.9	17.2
924.2	924.2		845.7	1,790.9	98.3	42.7	215.0	10.0
163.8	163.8		103.4	543.2	116.8	96.3	4.7	41.3
41.2	41.2			137.0	16.1	12.9	0.9	27.8
115.6	115.6			851.1	179.4	54.2	1.8	741.2
2.5	2.5			16.1	0.7			0.4
275.1	275.1		35.6	174.4	5.9		0.2	53.7
1.8	1.4			1.5	(0.2)			0.1
1.5	1.0			0.1				0.2
40.0	26.2			7.6	2.2			1.8
1,774.3	1,774.3		161.6	13.2	72.4			1,216.1
1.0	1.0			73.9	1.7			
2.1	2.1			14.3	0.1			
4.8	4.8							
17.2	17.2							
1.0	0.0			103.4	1.1			
0.0	0.0							
2.6	1.5						25.9	1.3
0.5	0.5					4.1		
0.0	0.0							

3.2 Receivables

Receivables break down as follows at December 31, 2019:

(in € millions)	Gross carrying amount at Dec. 31, 2019	Less than 1 year	Between 1 and 5 years	More than 5 years
Payments on account made on outstanding orders	1	1	-	-
Trade receivables	162	63	99	-
Operating receivables	163	64	99	-
Miscellaneous receivables	461	461	-	-
Group current accounts	3,401	3,401	-	-
Prepayments	27	27	-	-
Unrealized foreign exchange losses	264	103	-	161
Other receivables	4,153	3,992	-	161
Impairment	(1)	(1)	-	-
TOTAL	4,315	4,055	99	161

3.3 Marketable securities, cash at bank and in hand

This caption breaks down as follows:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Marketable securities	1,331	1,768
Cash at bank and in hand	810	800
MARKETABLE SECURITIES, CASH AT BANK AND IN HAND	2,141	2,568

Marketable securities comprise:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Treasury shares	84	296
Other securities	1,247	1,472
TOTAL	1,331	1,768

Treasury shares

	Dec. 31, 2018	Purchase	Sale	Dec. 31, 2019
Number of shares	1,426,523	4,110,569	(3,000,210)	2,536,882*
Gross value (in € millions)	84	553	(341)	296
Impairment (in € millions)	-	-	-	-
NET VALUE (in € millions)	84	-	-	296
(*) Including				
■ Shares earmarked for employees				2,307,785
■ Shares held under a liquidity agreement				229,097

The Company's trading in its own shares was carried out under the liquidity agreement managed by Oddo Corporate Finance.

Other securities

Other securities include short-term money market investments and term deposits with liquid exit options exercisable at no cost within three months, readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

3.4 Accrued income

In accordance with the accrual principle, accrued income is recorded in the following asset headings:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Loans to equity investments	1	-
Trade receivables	61	124
Other receivables	5	3
TOTAL	67	127

3.5 Prepayments

Prepayments amounted to €27 million at December 31, 2019 and chiefly concerned expenses on IT maintenance agreements and insurance costs.

3.6 Unrealized foreign exchange losses and redemption premiums

Unrealized foreign exchange losses represented €264 million at December 31, 2019, and primarily result from the translation into euros of foreign currency borrowings, loans and current accounts at the 2019 year-end exchange rate.

3.7 Equity

Share capital

At December 31, 2019, Safran's share capital was fully paid up and comprised 427,234,155 shares, each with a par value of €0.20, including:

- 400,583,097 ordinary shares with a par value of €0.20;
- 26,651,058 preferred shares with a par value of €0.20.

The Safran share (ISIN code: FR0000073272/Ticker symbol: SAF) is listed continuously on Compartment A of the Eurolist market of Euronext Paris and is eligible for the deferred settlement service.

Changes in the breakdown of share capital and voting rights are as follows:

December 31, 2018

Shareholders	Number of shares	% share capital	Number of voting rights ⁽¹⁾	% voting rights ⁽¹⁾
Private investors	356,388,863	81.78%	371,363,962	71.05%
French State	47,983,131	11.01%	95,966,262	18.36%
Employees ⁽²⁾	29,956,234	6.88%	55,338,194	10.59%
Treasury shares	1,439,723	0.33%	-	-
TOTAL	435,767,951	100.00%	522,668,418	100.00%

(1) Exercisable voting rights.

(2) Employee shareholding within the meaning of Article L.225-102 of the French Commercial Code.

December 31, 2019

Shareholders	Number of shares	% share capital	Number of voting rights ⁽¹⁾	% voting rights ⁽¹⁾
Private investors	347,840,451	81.42%	376,557,055	71.07%
French State	47,983,131	11.23%	95,966,262	18.11%
Employees ⁽²⁾	28,860,491	6.75%	57,301,029	10.82%
Treasury shares	2,550,082	0.60%	-	-
TOTAL	427,234,155	100.00%	529,824,346	100.00%

(1) Exercisable voting rights.

(2) Employee shareholding within the meaning of Article L.225-102 of the French Commercial Code.

Each share carries entitlement to one vote. Shares held in registered form for over two years have double voting rights.

The 2,550,082 treasury shares have no voting rights.

Changes in shareholders' equity

(in € millions)	Dec. 31, 2018	Appropriation of 2018 profit	Increase	Decrease	Dec. 31, 2019
Share capital ⁽¹⁾	87	-	-	(2)	85
Additional paid-in capital ⁽²⁾	5,564	-	2	-	5,566
Legal reserve	9	-	-	-	9
Tax-driven reserves	302	-	-	-	302
Other reserves ⁽⁴⁾	1,421	-	-	-	1,421
Retained earnings ⁽¹⁾	1,516	920	-	(1,074)	1,362
Tax-driven provisions	22	-	2	(4)	20
2018 profit	1,705	(1,705)	-	-	-
2019 profit	-	-	1,297	-	1,297
TOTAL	10,626	(785)⁽³⁾	1,301	(1,080)	10,062

(1) Decrease of €1,076 million further to the capital reduction carried out by canceling treasury shares.

(2) Increase of €2 million in additional paid-in capital (the amount of the capital increase being non-material).

(3) 2018 dividends paid in 2019.

(4) Including €297 million in reserves hedging treasury shares held at December 31, 2019.

3.8 Tax-driven provisions and provisions for contingencies and losses

Movements in tax-driven provisions can be analyzed as follows:

(in € millions)	Dec. 31, 2018	Additions	Reversals		Dec. 31, 2019
			Surplus	Utilized	
Accelerated tax depreciation/amortization	10	2	-	(4)	8
Accelerated tax depreciation/amortization (share acquisition fees)	12	-	-	-	12
TOTAL TAX-DRIVEN PROVISIONS	22	2	-	(4)	20

Provisions for contingencies and losses can be analyzed as follows:

(in € millions)	Dec. 31, 2018	Additions	Reversals		Dec. 31, 2019
			Surplus	Utilized	
Foreign exchange losses	9	9	-	(9)	9
Disputes and litigation	19	2	(3)	(5)	13
Contingency provisions	28	11	(3)	(14)	22
Retirement benefits and similar obligations	24	8	-	(7)	25
Income tax - loss-making subsidiaries, under-capitalization ⁽¹⁾	442	15	(7)	(26)	424
Other	66	109	-	(19)	156
Loss provisions	532	132	(7)	(52)	605
TOTAL	560	143	(10)	(66)	627
Loss from operations		119	(3)	(31)	
Financial income		9	-	(9)	
Non-recurring income		15	(7)	(26)	
TOTAL		143	(10)	(66)	

(1) See Note 4.6, "Income tax expense".

Employee benefit obligations

The main assumptions used to calculate the Company's employee benefit obligations were as follows:

	Dec. 31, 2018	Dec. 31, 2019
Discount rate	1.50%	0.60%
Inflation rate	1.75%	1.75%
Expected return on plan assets	1.50%	0.60%
Rate of future salary increases	1.12%-5.00%	1.12%-5.00%
Probable retirement age of managerial-grade staff	64 years	64 years
Probable retirement age of non managerial-grade staff	62 years	62 years
Mortality tables used	INSEE 2013-2015/TGHF05	INSEE 2013-2015/TGHF05

The table below shows movements in employee benefit obligations:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019	Defined benefit pension plans	Retirement termination benefits
Present value of obligation	56	62	23	39
Fair value of plan assets	(9)	(8)	(8)	-
Funding shortfall	47	54	15	39
■ o/w provision	56	62	23	39
■ o/w plan assets	9	(8)	(8)	-
Unrecognized actuarial gains and losses and past service costs	(34)	(37)	(19)	(18)
Benefit obligations covered by a provision in the balance sheet	13	17	(4)	21
Current service cost	4	3	1	2
Interest cost	-	-	-	-
Amortization of actuarial gains and losses	4	4	3	1
Special events	2	-	-	-
Expense	10	7	4	3
Benefits paid	(15)	(3)	-	(3)
PROVISION CHARGE/(REVERSAL)	(5)	4	4	-

Defined benefit pension plans

The Group closed a defined benefit supplementary pension plan at December 31, 2017 and froze all conditional entitlements at December 31, 2016.

The beneficiaries of this closed plan are Group executive managers with five years' service at December 31, 2017.

The closure of this plan was part of a change in supplementary pension arrangements for Group executive managers, with the introduction of an "Article 83" defined contribution supplementary

plan (mandatory collective plan) and an "Article 82" defined contribution plan (voluntary collective plan) as from January 1, 2017.

Retirement termination benefits

This heading includes obligations in respect of statutory termination benefits due on retirement and supplementary payments required by the collective bargaining agreement for the metallurgy industry.

3.9 Financial liabilities, operating payables and other liabilities

Movements in these items can be analyzed as follows:

(in € millions)	Total at Dec. 31, 2019	Less than 1 year	Between 1 and 5 years	More than 5 years
Bond issue	1,900	500	1,400	-
USD senior unsecured notes issue	930	-	930	-
Miscellaneous loans and borrowings				
■ Deposits and guarantees received	2	-	-	2
■ Other loans and borrowings	2,831	2,560	271	-
■ Accrued interest	9	9	-	-
Financial liabilities	5,672	3,069	2,601	2
Group current accounts	7,877	7,877	-	-
Payments on account received	7	7	-	-
Trade payables	181	181	-	-
Amounts payable on non-current assets	22	10	12	-
Other liabilities	595	593	2	-
Deferred income	2	1	1	-
Unrealized foreign exchange gains	177	177	-	-
Operating payables and miscellaneous liabilities	8,861	8,846	15	-

Financial liabilities

Bond issue

- On April 11, 2014, Safran issued €200 million worth of ten-year bonds to French investors, maturing on April 11, 2024. The interest rate on these bonds was hedged by a floating-rate swap on 3-month Euribor.

The issue's initial fixed-rate interest came out at 1.11% in 2019 after taking account of interest rate derivatives.

- On June 28, 2017, Safran issued floating-rate bonds for a total amount of €1 billion in two tranches:

- €500 million of two-year bonds (maturing in June 2019) paying a fixed coupon set at 3-month Euribor +30 basis points (0% floor), comprising tranche 1. These bonds were issued at 100.059% of par and were repaid at maturity on June 28, 2019.
- €500 million of four-year bonds (maturing in June 2021) paying a fixed coupon set at 3-month Euribor +57 basis points (0% floor), comprising tranche 2. These bonds were issued at 100% of par.

- On July 13, 2018, Safran issued €500 million of two-year bonds (maturing in July 2020) paying a floating-rate coupon set at 3-month Euribor +33 basis points (0% floor). The bonds were issued at 100% of par.

OCÉANE bonds

On June 21, 2018, Safran issued 4,996,431 bonds convertible and/or exchangeable for new and/or existing shares ("OCÉANE" bonds), each with a par value of €140.10, i.e., representing a total nominal amount of €700 million.

The bonds do not carry any coupon.

Bondholders have the option of converting their bonds into shares. This option can be exercised at any point after the issue date and up to the seventh trading day preceding the standard or early redemption date. Following the 2018 dividend payment and in accordance with the terms and conditions of the bond

issue, the bond conversion ratio has been 1.001 shares for 1 bond since May 29, 2019. This adjusted conversion ratio was calculated by the bond calculation agent in accordance with the calculation formula stipulated in the terms and conditions of the bonds based on the following inputs:

- previous bond conversion ratio: 1 share for 1 bond;
- share price: €121.54719;
- dividend per share paid in 2019: €1.82;
- dividend per share threshold for 2019: €1.70.

This bond comes with an early redemption option that the bearer may trigger in the event of a change of control and, from June 21, 2021, that the issuer may trigger if the share price multiplied by the bond conversion ratio exceeds 130% of par value.

Unless converted, redeemed or bought back and canceled prior to maturity, the bonds are redeemable at par on June 21, 2023.

USD senior unsecured notes issue

On February 9, 2012, Safran issued USD 1.2 billion in senior unsecured notes on the US private placement market, which included:

- USD 155 million of notes due February 2019 (tranche A);
- USD 540 million of notes due February 2022 at a 4.28% coupon (tranche B);
- USD 505 million of notes due February 2024 at a 4.43% coupon (tranche C).

The fixed-rate seven-year tranche A for USD 155 million was repaid at maturity on February 9, 2019.

A USD interest rate hedge in the form of a cross currency swap (USD floating-rate borrower followed in March 2019 by a EUR fixed-rate borrower) was originally taken out in respect of tranches B and C, issued at 10 and 12 years, respectively, allowing the USD fixed-rate debt to be synthetically swapped for EUR fixed-rate debt.

The issue's initial fixed-rate interest came out at 1.64% in 2019 after taking account of interest rate derivatives.

Other borrowings

- On March 10, 2016, Zodiac Aerospace set up a placement in the form of a syndicated loan with an original maturity of seven years, falling due on March 10, 2023, on which €180 million was outstanding at December 31, 2019 at an adjustable rate of 2.902%.
- On July 25, 2013, the former Zodiac Aerospace group set up a seven-year, 3.605% fixed-rate *Schuldschein* loan for €99 million

(maturing in July 2020) and restructured on July 25, 2018. €95 million was repaid ahead of maturity by the former Zodiac Aerospace group and simultaneously replaced by a liability in the form of Negotiable European Medium Term Notes taken out by Safran with the same lenders for the same amount, under the same financial conditions and with the same residual maturity. Following this transaction, only €4 million of the original *Schuldschein* loan remains outstanding.

3.10 Accrued expenses

Accrued expenses are included in the following liability headings:

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Other bond issues	15	6
Bank borrowings	3	3
Miscellaneous loans and borrowings	-	1
Trade payables	117	127
Taxes and payroll costs	84	85
Amounts payable on non-current assets	12	6
Other liabilities	7	4
TOTAL	238	232

3.11 Deferred income

Deferred income amounted to €2 million at December 31, 2019.

Deferred income included rent-free periods to be recognized on a straight-line basis over the terms of the leases until 2021.

3.12 Unrealized foreign exchange gains

Unrealized foreign exchange gains amounted to €177 million at December 31, 2019.

They primarily resulted from the translation into euros of foreign currency loans and current accounts at the 2019 year-end exchange rate.

NOTE 4 NOTES TO THE INCOME STATEMENT

4.1 Revenue

(in € millions)	2018	2019
General assistance	260	213
Administrative and financial services	106	73
R&T services	167	209
Group projects	2	2
IT services	130	176
Seconded employees	9	11
Real estate income	16	18
Other	38	21
TOTAL	728	723

4.2 Expense transfers

Expense transfers in the period amounted to €31 million and mainly concerned expenses rebilled to Group subsidiaries.

4.3 Financial income and expenses

Financial income and expenses break down as follows:

(in € millions)	2018	2019
Dividends received and other investment income	1,865	1,208
Interest and similar income	68	68
Impairment of equity investments	2	12
Other reversals of provisions for financial items	8	29
Foreign exchange gains	-	30
Financial income	1,943	1,347
Impairment of equity investments	(6)	(1)
Other charges to provisions for financial items	(19)	(23)
Interest and similar expenses	(245)	(48)
Foreign exchange losses	(29)	-
Financial expenses	(299)	(72)
FINANCIAL INCOME	1,644	1,275

A breakdown of dividends is provided in the table of subsidiaries and investments.

Other movements in provisions for financial items mainly relate to the provision for foreign exchange losses.

For the purpose of providing a meaningful comparison, foreign exchange gains and losses are presented on a single line of the income statement for the same fiscal year.

4.4 Non-recurring items

Non-recurring items can be analyzed as follows:

(in € millions)	2018	2019
Change in tax-driven provisions	3	1
Income from non-capital transactions	1	2
Income from capital transactions	11	80
Expenses on non-capital transactions	(5)	(4)
Expenses on capital transactions	(19)	(33)
Net charges to provisions and expense transfers	13	24
NON-RECURRING INCOME	4	70

Net non-recurring income chiefly comprises the gain on the disposal of a tertiary building complex in the greater Paris area, for €60 million.

■ a tax expense of €723 million resulting from the consolidated tax expense of €886 million, partially offset by €163 million in tax credits.

4.5 Statutory employee profit-sharing

No employee profit-sharing expenses were recognized in either 2019 or 2018.

4.6 Income tax expense

2019 Group relief

The application of tax consolidation in France led to the recognition of a net tax benefit totaling €1 million in the 2019 parent company financial statements (2018: net tax benefit of €211 million).

This breaks down as:

■ tax income of €724 million arising on the payment of tax by consolidated subsidiaries as though they had been taxed on a stand-alone basis; and

Provisions set aside to cover income taxes of loss-making subsidiaries

Safran refunds the tax savings arising due to the use of tax losses of subsidiaries when the subsidiaries return to profit. A provision is set aside in the Company's financial statements in this respect.

Net income of €18 million was recognized in respect of this provision in 2019.

Other

Non-deductible expenses (Article 223 *quater* and Article 39.4 of the French Tax Code) amounted to €0.7 million in 2019 (€0.2 million in 2018) and relate to the non-deductible portion of vehicle lease payments and depreciation.

NOTE 5 OTHER INFORMATION

5.1 Off-balance sheet commitments and contingent liabilities

Commitments given

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Commitments given by Safran to third parties on behalf of its subsidiaries	3,216	3,269
Commitments given by Safran to customs authorities on behalf of its subsidiaries	12	8
Vendor warranties given	288	289
Actuarial gains and losses	35	37
Other commitments given	165	115
TOTAL⁽¹⁾	3,716	3,718
(1) Of which related parties.	3,527	3,557

Commitments given to third parties relate mainly to guarantees granted by Safran to customers and principals (essentially aircraft manufacturers), in which Safran provides a joint and several guarantee that its subsidiaries will perform their duties under their contractual obligations. These guarantees are given in respect of research, design, development, manufacturing, marketing and product support programs in place at Group subsidiaries. They are generally granted for the term of the program concerned, and are capped at a certain amount.

In connection with the sale of the identity and security businesses, on May 31, 2017, Safran granted Advent International a vendor

warranty valued at €180 million at December 31, 2019, as well as a specific indemnity capped at BRL 200 million (€44 million at December 31, 2019) to cover any financial consequences arising from the dispute between Morpho do Brasil and the Brazilian tax authorities concerning the calculation method for value added tax on certain products.

In connection with the sale of the detection businesses on April 7, 2017, Safran granted Smiths Group PLC a vendor warranty valued at USD 73 million (€65 million at December 31, 2019).

Commitments received

(in € millions)	Dec. 31, 2018	Dec. 31, 2019
Other commitments received	129	65
TOTAL	129	65

Commitments received primarily relate to commitments for the financing of civil programs.

Finance lease liabilities

The Company entered into two real estate finance leases for the Safran University campus and for the Safran Tech site in 2014.

(in € millions)	Value at inception	Carrying amount at Dec. 31, 2016	Theoretical charges to depreciation		Net
			Current period	Cumulative	
Land	9	9	-	-	9
Buildings	97	94	3	20	74
TOTAL	106	103	3	20	83

(in € millions)	Lease payments made		Lease payments outstanding			Residual purchase price (as per the lease)
	Current period	Cumulative	Less than 1 year	Between 1 and 5 years	More than 5 years	
Land	-	-	-	-	9	n/m
Buildings	10	48	10	38	6	-
TOTAL	10	48	10	38	15	-

Financial and hedging instruments

Safran holds derivative financial instruments including forward contracts, swaps and options which are used for the purposes of all Group companies to hedge (i) highly probable future transactions, determined on the basis of the order backlog and budget forecasts, and (ii) the net balance sheet position of foreign-currency denominated trade receivables and payables of subsidiaries.

As part of the cash pooling agreement entered into between Safran and its subsidiaries, Safran grants its subsidiaries a foreign exchange guarantee under which it commits to buying or selling net foreign currency surpluses or requirements at a guaranteed annual exchange rate. The guaranteed rates are based on worst-case scenarios and Safran undertakes to repay its subsidiaries any gain resulting from the difference between the actual traded rates and the communicated guaranteed rates, based on the currency and net volumes. These exchange rate gains are repaid at least annually.

The portfolio of foreign currency derivatives breaks down as follows:

(in millions of currency units)	Dec. 31, 2018				Dec. 31, 2019			
	Fair value ⁽¹⁾	Notional amount ⁽¹⁾	Less than 1 year	1 to 5 years	Fair value ⁽¹⁾	Notional amount ⁽¹⁾	Less than 1 year	1 to 5 years
Forward exchange contracts	(273)				(40)			
Short USD position	(338)	3,911	3,911	-	(238)	2,661	2,661	-
■ Of which against EUR	(333)	3,861	3,861	-	(238)	2,661	2,661	-
Long USD position	47	(1,201)	(301)	(900)	75	(957)	(957)	-
■ Of which against EUR	42	(1,151)	(251)	(900)	75	(957)	(957)	-
Short EUR position against GBP	-	(17)	(17)	-	9	107	100	7
Short EUR position against CAD	3	47	(2)	49	7	49	49	-
Long MXN position against EUR	31	(12,176)	(1,872)	(10,304)	107	(13,304)	(4,086)	(9,217)
Long MXN position against USD	(16)	(1,150)	(1,150)	-	-	-	-	-
Currency swaps	-				2			
Cross currency swaps	-	-	-	-	2	1,045	-	1,045
Currency option contracts	(241)				(321)			
USD put purchased	482	22,454	17,454	5,000	275	26,555	26,055	500
USD call purchased	95	(1,700)	(1,700)	-	83	(2,300)	(1,300)	(1,000)
USD call sold	(870)	47,084	37,384	9,700	(718)	45,471	44,471	1,000
USD put sold	(14)	(4,238)	(4,238)	-	(41)	(4,600)	(2,600)	(2,000)
EUR put purchased	18	420	420	-	89	1,690	1,540	150
EUR call sold	(4)	840	840	-	(19)	3,200	2,900	300
Accumulators - sell USD ⁽²⁾	58	1,014	126	888	6	2,539	686	1,853
Accumulators - buy GBP ⁽²⁾	(1)	(400)	(400)	-	2	(520)	(520)	-
Accumulators - buy CAD ⁽²⁾	(5)	(400)	(400)	-	-	-	-	-
Accumulators - buy MXN ⁽²⁾	-	-	-	-	2	(500)	(500)	-
TOTAL	(514)				(359)			

(1) Fair values are expressed in millions of euros; notional amounts are expressed in millions of currency units.

(2) Notional amounts for accumulators represent the maximum cumulative amount until the instrument is unwound.

As mentioned in Note 2 on accounting policies, only premiums paid and received on options are recorded in Safran's balance sheet. The Company does not recognize the fair value of derivative instruments in its balance sheet, except for those set up to hedge the net position of foreign-currency denominated operating receivables and payables of subsidiaries covered by a Safran SA foreign exchange guarantee.

EUR interest rate risk management

Interest rate swaps were taken out to convert the fixed rate payable on the €200 million bond issue carried out in first-half 2014 and maturing in April 2024 to a floating rate.

These swaps had a fair value of €14 million at December 31, 2019.

USD interest rate risk management

The interest rate on the Group's February 9, 2012 issue of USD 1.2 billion in senior unsecured notes on the US private placement market (USPP) has also been partially converted to a floating rate. At their inception, floating-rate borrower/fixed-rate lender USD swaps were set up on the 10-year and 12-year tranches, for USD 540 million and USD 505 million, respectively. The seven-year tranche for USD 155 million was kept at a fixed rate and repaid in February 2019.

These swaps had a fair value of €19 million at December 31, 2019.

As of the end of first-quarter 2019, the two 10-year and 12-year tranches for USD 540 million and USD 505 million, respectively, were converted to euros by means of a cross currency swap (USD floating-rate lender/EUR fixed-rate borrower).

These cross currency swaps had a negative fair value of €3 million at December 31, 2019.

Fixed-rate borrower/floating-rate lender swaps were set up in connection with the sale of trade receivables without recourse. The swaps are for a nominal amount of USD 1,250 million and a term of up to 12 months, and were taken out on behalf of an entity 50%-owned by Safran. Consequently, Safran took out an interest rate swap with the entity for the same nominal amount on the same date to convert the fixed rate to a floating rate. Accordingly, Safran has no exposure to interest rate risk on these swaps, as their fair values, which were not material at December 31, 2019, cancel each other out.

Liquidity risk management

Since the Group has an unused, confirmed liquidity line at December 31, 2019, it is relatively insensitive to liquidity risk.

At December 31, 2019, the unused, confirmed liquidity line amounted to €2,520 million. It was set up in December 2015 and matures in December 2020, with two successive one-year extension options. As both these options have been exercised, the line is currently set to expire in December 2022. This line is not subject to any financial covenants.

A number of financial covenants apply to the EIB borrowings set up in 2010.

The following two ratios apply:

- net debt/EBITDA <2.5;
- net debt/total equity <1.

The “net debt/EBITDA <2.5” covenant also applies to the senior unsecured notes issued on the US private placement market.

The terms “net debt”, “EBITDA” and “total equity” used in connection with the EIB borrowings and senior unsecured notes issued on the US private placement market and applied in respect of consolidated data relating to Safran and its subsidiaries, are defined as follows:

- net debt: borrowings (excluding borrowings subject to specific conditions) less marketable securities and cash and cash equivalents;
- EBITDA: the sum of profit (loss) from operations and the net charge to depreciation, amortization and provisions for impairment of assets (calculated based on adjusted data);
- total equity: equity attributable to owners of the parent and non-controlling interests.

5.3 Average headcount

Safran's headcount can be analyzed as follows:

	2018	2019
Engineers and managerial-grade staff	1,502	1,545
Technicians, administrative personnel and supervisors	272	268
TOTAL HEADCOUNT	1,774	1,813

5.2 Disputes and litigation

Safran is party to regulatory, legal or arbitration proceedings arising in the ordinary course of its operations. Safran is also party to claims, investigations, legal action and regulatory proceedings outside the scope of its ordinary operations.

The amount of the provisions booked is based on the level of risk for each case as assessed by Safran, and largely depends on the assessment of the merits of the claims and opposing arguments. However, it should be noted that the occurrence of events during the proceedings can lead to a reassessment of the risk at any time.

A provision is only booked to cover the expenses that may result from such proceedings when the expenses are probable and their amount can be either quantified or reasonably estimated.

Safran considers that the provisions booked are adequate to cover the risks it incurs.

The most important proceeding is described below.

On April 2, 2014, Safran was fined by the European Commission relating to the activities of Silec Cable, a former subsidiary of Sagem SA which was sold to General Cable at the end of 2005. General Cable, which was also fined, filed a claim with Safran under the sale agreement in order to protect its rights. Safran paid the €8.5 million fine in 2014. Relying on the European Commission's findings, a number of cable buyers have initiated proceedings for reimbursement of overcharges against the companies fined by the Commission. Safran's joint and several liability with other suppliers has been alleged in one such legal action, and the Group could be at risk of further claims in Europe. The lawsuits are still in progress. Upon the Court's authorization, the claimant notified the joint defendants at the end of 2018 of its intention to broaden the scope of its action. The joint defendants submitted a response in 2019. The procedural timetable provides for the exchange of the independent expert reports in the first half of 2020, followed by preliminary hearings. Final hearings should begin in late 2020.

Accordingly, at the date of this report, it is not possible to evaluate the potential financial risk.

To the best of Safran's knowledge, there are no other ongoing regulatory, legal or arbitration proceedings that could have a material impact on the financial position of the Company.

5.4 Management compensation

Management executives comprise members of the Board of Directors and Executive Management, as well as any persons with the power to take management decisions with regard to Safran's strategy and future development, or with regular access to inside information directly or indirectly concerning the Group.

Management executives comprise the 17 members of the Board of Directors, including the Chairman of the Board and the Chief Executive Officer, as well as the officers considered as having

the power to take management decisions with regard to Safran's strategy and future development, or with regular access to inside information concerning Safran (five directors meeting these criteria between January 1, 2018 and October 31, 2018, and four directors between November 1, 2018 and December 31, 2019).

All compensation and benefits awarded to members of the Board of Directors and to members of Executive Management are shown on a gross basis, including the fixed portion of compensation and the provision for the variable portion to be paid in the subsequent year.

(in € millions)	2018	2019
Short-term benefits	11.1	10.9
Post-employment benefits ⁽¹⁾	1.5	2.7
Termination benefits	-	-
Other long-term benefits	5.2	10.9
TOTAL	17.8	24.5

(1) Data measured in accordance with CNC Recommendation 2003-R-01 authorizing the application of the corridor method (see Note 2.9) which differs from the measurement method used in the IFRS consolidated financial statements subsequent to the mandatory application of the revised IAS 19 from January 1, 2013 (the corridor method is no longer permitted under IFRS).

The Company's total post-employment commitments in respect of management executives amounted to €12.0 million at December 31, 2019 and €12.5 million at December 31, 2018.

5.5 Statutory Auditors' fees

In accordance with the disclosure requirement set out in Decree no. 208-1487 of December 30, 2008, fees billed by the Company's Statutory Auditors for their audit of the 2019 financial statements totaled €1,656,000, while fees billed for other work came to €441,000.

5.6 Subsequent events

None.

3.4 STATUTORY AUDITORS' REPORT ON THE FINANCIAL STATEMENTS

Year ended December 31, 2019

This is a free translation into English of the Statutory Auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.

This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the management report and other documents provided to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Shareholders of Safran SA,

Opinion

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying financial statements of Safran SA for the year ended December 31, 2019. These financial statements were approved by the Board of Directors on February 26, 2020, based on information available at that date and in the evolving context of the Covid-19 health crisis.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as of December 31, 2019 and the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit and Risk Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from January 1, 2019 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No. 537/2014 or in the French Code of Ethics (*Code de déontologie*) for Statutory Auditors.

Justification of Assessments – Key audit matters

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed as part of our audit of the financial statements as a whole, approved in the context described above, and therefore contributed to the opinion we formed as expressed above. We do not provide a separate opinion on specific items of the financial statements.

Measurement of equity investments

Note 2.4 to the financial statements

At December 31, 2019, equity investments carried in the balance sheet represented a net amount of €17,946 million, the largest balance sheet item.

Equity investments are carried at cost on initial recognition and may be impaired based on their fair value. The fair value of equity investments is calculated:

- based on their average stock market price for the month preceding the year-end for listed investments;
- based on their share in net equity, adjusted where appropriate for significant unrealized capital gains net of taxes; or
- based on the intrinsic value of equity, reflecting the present value of the expected future cash flows (enterprise value), less debt where appropriate, for unlisted investments.

We deemed the measurement of equity investments to be a key audit matter, due to the inherent uncertainties and in particular, the likelihood of achieving the forecasts included in the fair value measurement.

How our audit addressed this risk

Our work involved reviewing the measurement approach adopted by management along with any quantitative inputs, as well as the assumptions on which management's estimates were based.

In particular:

- for approaches based on the share in net equity, adjusted where appropriate for significant unrealized capital gains net of taxes, we reconciled the net equity used in the calculation with the net equity recorded in the financial statements of the entities concerned, and analyzed any adjustments made to equity;
- for approaches based on the intrinsic value of equity, we obtained the cash flow forecasts for the investments concerned and assessed their consistency with the business plans drawn up by management, reviewed the growth rate used to calculate forecast cash flows, and analyzed the discount rate applied to the estimated future cash flows.

We also reviewed the arithmetic accuracy of any calculations made to determine the fair value of the equity investments.

Specific verifications

In accordance with professional standards applicable in France, we have also performed the specific verifications required by French legal and regulatory provisions.

Information given in the management report and in the other documents provided to shareholders with respect to the financial position and the financial statements

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the Board of Directors' management report approved on March 26, 2020 and in the other documents provided to shareholders with respect to the financial position and the financial statements. Management has confirmed that events that have occurred and information that has come to light relating to the Covid-19 crisis since the financial statements were closed will be reported to the Annual General Meeting called to approve these financial statements.

We attest to the fair presentation and the consistency with the financial statements of the information given with respect to the payment terms referred to in Article D.441-4 of the French Commercial Code.

Information on corporate governance

We attest that the section of the Board of Directors' management report on corporate governance sets out the information required by Articles L.225-37-3 and L.225-37-4 of the French Commercial Code.

Concerning the information given in accordance with the requirements of Article L.225-37-3 of the French Commercial Code (*Code de commerce*) relating to compensation and benefits received by or allocated to the Directors and any other commitments made in their favor, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from controlled consolidated companies. Based on this work, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a takeover or exchange offer, provided pursuant to Article L.225-37-5 of the French Commercial Code (*Code de commerce*), we have verified their compliance with the source documents communicated to us. Based on our work, we have no observation to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the identity of the shareholders or holders of the voting rights has been properly disclosed in the management report.

Report on Other Legal and Regulatory Requirements

Appointment of the Statutory Auditors

We were appointed as statutory auditors of Safran SA by the Annual General Meeting held on May 28, 2008 for Mazars and on May 27, 2010 for ERNST & YOUNG et Autres.

At December 31, 2019, MAZARS and ERNST & YOUNG et Autres were in the 12th year and 10th year of total uninterrupted engagement respectively.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Risk Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Financial Statements

Objectives and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L.823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit, and furthermore:

- identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the financial statements;

- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern; This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit and Risk Committee

We submit a report to the Audit and Risk Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Risk Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L.822-10 to L.822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*Code de déontologie*) for Statutory Auditors. Where appropriate, we discuss with the Audit and Risk Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense and Courbevoie, March 26, 2020

The Statutory Auditors
French original signed by

ERNST & YOUNG et Autres

Jean-Roch Varon

Nicolas Macé

MAZARS

Gaël Lamant

Christophe Berrard





4

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FOREWORD

■ RISK MANAGEMENT

The diversity of the Group's businesses and its many sites across the globe expose Safran to risks that could have a material impact on its earnings, image and share price. These risks are managed via the Group Enterprise Risk Management set up.

Safran's internal control system rounds out this approach. It is designed to provide reasonable assurance that the Group's business sectors comply with the applicable requirements and that risks are adequately managed.

■ RISK FACTORS

This chapter presents the main risks that could impact the Group's businesses and financial position as at the date this Universal Registration Document was filed. The risks identified by Safran as material are grouped into a limited number of categories and ranked by their degree of criticality. Criticality of risks is assessed in terms of likelihood of occurrence and potential impact. The features of the main action plans deployed to manage these risks are also disclosed.

■ RISKS RELATING TO THE ENVIRONMENT IN WHICH THE GROUP OPERATES

Risks relating to changes in the competitive landscape

Financial market risks

Legal and regulatory risks

Risk of negative media coverage

Environmental risks related to climate change

■ RISKS RELATING TO GROUP OPERATING ACTIVITIES

Risks relating to the Group's strategic development

Other risks not yet identified or risks whose occurrence the Group believes will not have a material adverse impact could also exist at the date of this Universal Registration Document.

The information set out below is based on assumptions and forecasts that may, by nature, prove inaccurate.

■ INSURANCE

Key accident risks are covered by worldwide multi-risk policies, usually spanning several years, negotiated with leading insurance companies.

Local insurance programs are subscribed across the globe either to cover specific risks or in response to local regulatory insurance requirements.

4.1 RISK MANAGEMENT

4.1.1 Methodology

The safety of aerospace operations that involve Safran's products and services is the key overriding imperative for the Group, as it is for any player operating in the industry. From a historical perspective, it is this imperative that drove the development of the highly-demanding and robust Enterprise Risk Management (ERM) set-up that has been deployed across all Safran Group entities. This risk management culture is now firmly embedded throughout the Company's processes and it is widely shared by all of the teams, in all entities and at all levels of the organization. It contributes to the efficient management of the programs in which the Group is involved, which are generally based on long cycles involving major research efforts, costly development and related capital expenditure, with useful lives of up to 40 years and profitability measured in the medium or long term. The Group's ERM system now makes it possible to systematically handle all of the operational and strategic challenges the Group faces in all of its businesses and at all of its sites across the globe. ERM has become one of the Group's performance drivers.

The system is now sufficiently mature to be able to identify the Group's major risk exposures, quantify their impact on the achievement of objectives, ensure that adequate measures are implemented to bring exposure to an acceptable level and thus contribute directly to the Group's strategic objectives.

Moreover, the principles of the Group's ERM policy are consistent with the recommendations of the French financial markets authority (*Autorité des marchés financiers* - AMF), the provisions of the AFEF-MEDEF Corporate Governance Code and professional standards (COSO ERM), which have been transposed into exhaustive guidelines adapted to Safran's risk profile that cover all of its activities.

The ERM system is deployed at all levels of the organization throughout all tier-one entities (see section 1.1.4) and corporate departments and then consolidated at Group level, in accordance with the governance rules. The risk management policy is the responsibility of all stakeholders and is embedded in all of Safran's organizational processes.

4.1.2 Organization

The Risk and Insurance Department reports to the Group Chief Financial Officer. It comprises a Risk and Insurance Department director, Corporate Risk Managers, as well as a dedicated team of insurance experts, and is responsible for implementing the Group's risk management policy. The Risk and Insurance Department develops methodological techniques and processes to ensure effective and consistent handling of risks by companies and the central corporate departments. All people involved in risk management within the Group have the same risk manual organized by process, level of impact, frequency, probability and control solution. Detailed guidance is also prepared for the analysis of certain risks.

The Risk and Insurance Department ensures that processes are effectively deployed and sets risk management maturity objectives for tier-one entities. Risk management in newly created or newly acquired entities forms part of the action plans that the Risk and Insurance Department requires tier-one entities to set up within the context of the integration plan.

Each risk factor identified is analyzed and forms the basis for various risk scenarios charted along three axes: impact, probability of occurrence and level of control.

The impact and probability of each risk are assessed in terms of their direct and indirect potential impact on the Group's businesses based on the most realistic, worst-case scenario allocated to the risk. The level of control, essential in characterizing the risk and the way it is to be managed, is then determined. Risks are managed through action plans that may include steps to be taken, additional controls to be implemented or investigations into financial transfers or transfers of liability, particularly involving regularly updated insurance policies.

An owner is designated for each risk identified and is responsible for drafting action plans and ensuring their implementation. The objective is to provide continuous risk oversight to ensure optimum treatment - in other words, achieve a defined target.

The entire risk management approach is periodically reviewed and events that occurred within the Group over a given period are systematically compared with analyses and risk maps for the same period. This back-testing enables Safran to ensure that risks have been identified, assessed and managed in an exhaustive and effective manner and to enhance and strengthen the process if necessary.

Lastly, the ERM system also has a prevention and crisis management component that enables the Group to anticipate and handle any "abnormal" situation affecting one or a number of its business oversight parameters. Regardless of the component affected, it seeks to provide the Group with the means for reacting in a pragmatic way by delivering the solutions needed to deal with the crisis. The crises in question may range from serious accidents to people of technical, human or natural origin to long-term unavailability of industrial facilities that jeopardizes Safran's capacity to honor certain commitments to customers and partners. As such, business contingency planning is an integral part of crisis management.

The Risk and Insurance Department also coordinates the tier-one entity risk manager network. Each tier-one entity (see sections 1.1.3 and 1.1.4) has a risk manager who prepares a risk map and organizes for it to be reviewed by their Risk Committee at least twice a year. The Risk and Insurance Department is involved in this work. Monthly meetings between the Risk and Insurance Department and the risk manager network are used to exchange information and best practices and identify and manage all of the Group's risks, including new and emerging risks. Task forces are set up on the basis of needs and priorities approved by the Group Risk Committee.

Risk managers of tier-one entities liaise constantly with the Risk and Insurance Department to which they submit a series of half-yearly indicators (major risk mapping with the corresponding level of control, and maturity of the risk management process). Once a year, the risk managers also submit a report on the organization and maturity of the risk management process within their respective operational scope. The Risk and Insurance

Risk management

Department also meets regularly with the risk manager of each tier-one entity in order to discuss his/her work and risk metrics.

Tier-one entity risk managers are tasked with implementing the risk management process for their entire operational scope, i.e., throughout tier-one entities, as well as in their subsidiaries and investments. They appoint a network of risk representatives as appropriate to ensure coverage of the entire scope of their operations.

Each of Safran's central corporate departments also prepares a map of the main risks in its scope. They all have a risk representative who ensures that the appropriate risk management approach is respected and who verifies the consistency of the department's risk mapping and the associated action plans with those submitted by the corresponding corporate departments within the tier-one entities falling under his/her responsibility. The Risk and Insurance Department is also directly involved in this work.

Lastly, the Risk and Insurance Department prepares a consolidated map of the Group's major risks and the associated action plans based on this mapping process, detailed analyses and plans for handling the major risks facing tier-one entities, together with risk maps, analyses and plans submitted by the risk representatives of the central corporate departments.

The Group's risk mapping therefore guarantees the overall consistency of risk assessments and the associated action plans.

All the work associated with risk mapping and the preparation and deployment of the associated action plans is updated and validated by the Group Risk Committee, which meets twice a year at the end of June and December. The Risk and Insurance Department then presents this risk mapping and the associated action plans to the Board of Directors' Audit and Risk Committee.

4.1.3 Risk management bodies

The following bodies coordinate the integrated risk management system:

- the risk committees of tier-one entities;
- the Group Risk Committee;
- the Board of Directors' Audit and Risk Committee.

Internal procedures require regular meetings of tier-one entity and Group Risk Committees.

Risk committees of tier-one entities

Each tier-one entity has a risk committee comprising the entity's legal representative, who acts as the chair, and its main senior managers, and is led by its risk manager.

Tier-one entity risk committees are responsible for:

- rolling out the Group's risk management policy within their operational scope;
- validating the risk map for this reporting scope and the corresponding control measures;
- providing reasonable assurance of the risk management process's effectiveness and maturity;
- validating the crisis prevention, crisis alert and crisis management system.

Group Risk Committee

The Group Risk Committee is composed of the Chief Executive Officer, who acts as the chair, and the directors of the central corporate departments, and is led by the Group Risk and Insurance Department director.

The Committee regularly reviews risk identification, assessment and treatment, and therefore the control of major risks.

More specifically, its duties include:

- approving the risk management policy;
- validating the Group risk map and the corresponding control measures;
- providing reasonable assurance that the risk management process is effective;
- validating the crisis prevention, crisis alert and crisis management system.

Board of Directors' Audit and Risk Committee

The composition and duties of this Committee are set out in section 6.3.4 of this Universal Registration Document.

In terms of risk management, the Board of Directors' Audit and Risk Committee reviews the risk mapping and the work related to the main risks faced by the Group, together with any developments and risk mitigation measures, as presented to it twice a year by the Risk and Insurance Department.

The Committee reports to the Board of Directors on its risk management work at the same intervals.

4.2 INTERNAL CONTROL SYSTEM

4.2.1 Methodology

Definition and objectives

Safran implements its internal control system on the basis of the general principles advocated by the AMF. Internal control is defined as a process implemented by the Board of Directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- compliance with laws and regulations;
- application of instructions and strategies set by Executive Management;
- proper functioning of Safran's internal processes, particularly those contributing to the protection of its assets;
- reliability of financial information.

Internal control thus contributes to the safeguarding of the Company's assets, the management of its activities, the effectiveness of its operations, the efficient use of its resources and the prevention of any organizational dysfunctions. Nevertheless, as with all control systems, it can only provide reasonable assurance that the objectives described above will be achieved.

Internal control framework

The Audit and Internal Control Department has defined an internal control framework structured around 13 areas termed internal control cycles:

- one cycle relating to the control environment;
- ten operating cycles;
- two IT cycles (general IT and IT system security controls);

plus cycles adapted to Shared Services Centers' risks.

For each cycle, the Audit and Internal Control Department and Group specialists in each of these areas has drawn up a list of control points and tests aimed at measuring for each entity:

- the conformity of its internal control procedures and control activities with the framework's requirements; and
- the operational effectiveness of these procedures and activities.

Around 200 control points have been listed, which serve to ensure the integrity and security of financial and accounting information. Every year, internal control tests are performed, based on objectives related to scope, content, and the timeframes for carrying out action plans.

The internal control framework is reviewed every year to reflect risk and any organizational changes identified. This review also factors in recommendations made in the course of internal audits or by the Statutory Auditors together with proposals submitted by the internal control network and central corporate departments.

Appraisal principle

The Group has upheld the principle whereby each entity appraises its own internal control arrangements in relation to the framework (conformity and effectiveness). A test program (effectiveness) is devised annually; it investigates all of the cycles over two years in tier-one entities and over three years in tier-two entities. A set of rules and guidelines with around 50 control points – formally tested annually – applies for small entities.

This annual assessment process is rounded out with ongoing controls, which are currently being deployed throughout the Group that process a full range of data concerning specific points throughout the year and significantly enhance internal control.

Each year, the Group's audit plan includes Internal Audits aimed at verifying that the assessments carried out by the subsidiaries comply with the rules and principles it has put in place.

Any disparity relative to the requirements of the internal control framework in the assessment of the conformity and effectiveness of procedures generates an action plan, with a project leader designated and a deadline established. The progress of such action plans is monitored on a monthly basis.

Scope

The internal control system has been rolled out in 173 companies, representing 99.9% of the Group's consolidated revenue.

Internal control quality assurance

Every year, executives of tier-one entities send a representation letter to Safran's Chief Executive Officer on the internal control system put in place in their entity and their subsidiaries, in which they set out the work carried out during the year in the internal control domain and commit to a progress plan for the upcoming year.

Also every year, the Statutory Auditors examine the adequacy of the internal control procedures related to a selection of cycles that contribute to the preparation of financial and accounting information.

As part of the audits they perform, the internal auditors (i) assess the adequacy and appropriateness of the internal control procedures within the audit scope, (ii) verify that the relevant processes have been properly applied, and (iii) check the accuracy and reliability of the related test results.

Awareness-raising and training

A training course on internal control has been set up within Safran University (classroom and e-learning) with a view to raising awareness of internal control issues among both finance and operations staff.

4.2.2 Organization

Duties of the Audit and Internal Control Department

The Audit and Internal Control Department, which reports to the Corporate Secretary, contributes to the management of the Group's activities, the effectiveness of its operations, the efficient use of its resources and the appropriate consideration of material risks. Its main responsibilities are to:

- define and implement the annual audit plan;
- define, organize and coordinate the internal control system.

Taken together, these responsibilities aim at ensuring compliance with applicable laws and regulations, the application of instructions and strategies set by Executive Management, the proper functioning of internal processes, particularly those contributing to the safeguarding of the Group's assets and the reliability of financial information.

Internal Audit

The Internal Audit plan takes into account the Group's risk map. It is drawn up on an annual basis and revised whenever necessary. The internal auditors from the Audit and Internal Control Department conduct compliance work and other work aimed at identifying ways to improve the efficiency of the Group and of its entities, programs, projects and processes, by addressing four types of major risks: strategic, financial, non-compliance and operational.

The Internal Audit function therefore contributes to:

- identifying, assessing and dealing with risks, via analyses and observations made in relation to the audited entities, as well as the ensuing recommendations issued and the follow-up of action plans;
- continuously improving the internal control system, thanks to internal control compliance audits aimed at ensuring that the organizational structures and procedures in place are adequate and efficient;
- continuously assessing that compliance rules are respected by carrying out audits on the management, compliance and performance of subsidiaries and other entities included in the yearly audit plan.

The Group's Internal Audit function has been certified compliant with the international standards of the Institute of Internal Auditors.

Internal Control

The central team that manages the internal control system is assisted by a network of internal control managers in each tier-one entity, with those managers supported by representatives in each of the entities within their operational scope.

At least once a year, the central team brings together internal control managers to conduct a review of obstacles encountered, suggest enhancements to the framework and define areas in

which progress can still be made. These meetings also serve as a forum for sharing best practices about monitoring internal control.

For 2020, the main areas for progress identified by Safran concern both continuously improving the internal control system, which includes ensuring that processes are adequate and part of operational managers' best practices. They include the continued deployment of a project designed to round out the annual assessment process with ongoing controls that use operational indicators to process a full range of selected data throughout the year.

Group companies use the same reporting system for the results and conclusions of their internal control appraisals. Some 400 stakeholders contribute to this system, which allows:

- direct access to the Group framework, methodology and practical operating procedures;
- monitoring of rectifications of disparities identified in relation to the framework.

Other key players in the internal control system

Group Finance Department

The Group Finance Department centralizes and coordinates financing, treasury, taxation, the budget process, reporting, accounts consolidation and risk management. It ensures compliance with the internal control procedures falling within the scope of its responsibilities.

Operational departments

Each operational department is responsible for ensuring that its activities are carried out in compliance with the applicable laws, regulations and procedures. The purpose of the internal control framework is to check compliance with a number of control points using a risk-based approach.

Statutory Auditors

As part of the audit and certification of the parent company and consolidated financial statements, the Statutory Auditors examine the procedures of a certain number of Safran's processes that contribute to the preparation of financial and accounting information. In particular, they base the work they conduct at selected entities on the Group's internal control framework.

They present their findings to the Audit and Risk Committee.

The Statutory Auditors carry out the following as part of their work in this domain:

- review of documentation on controls carried out by companies;
- tests to verify the operational effectiveness of the procedures implemented;
- review of completed action plans;
- review of results of tests performed by the entities.

4.2.3 Risk management bodies

The internal control system is overseen by the following bodies:

Board of Directors

The Board of Directors defines the primary features of the internal control system, based on the opinions and recommendations of the Audit and Risk Committee.

The executives of the tier-one entities assume full responsibility for the internal control systems implemented in the entities for which they have operational responsibility; the system implemented must comply with the internal control principles determined by the Group.

Board of Directors' Audit and Risk Committee

The composition and duties of this Committee are set out in section 6.3.4 of this Universal Registration Document.

In terms of internal control, the Committee reviews the following:

- the findings of audits and other work related to internal control procedures presented by the Audit and Internal Control Department;
- the results of the work carried out by the Statutory Auditors, whose independence it also verifies.

The Group's Internal Control Guidelines are approved by the Chair of the Audit and Risk Committee.

Internal control committees

Each tier-one entity has an internal control committee for all of the entities within its operational scope, as does each French and international Shared Services Center. These committees track the progress and conclusions of internal control appraisals. The Audit and Internal Control Department systematically participates in all meetings of these committees.

4.3 RISK FACTORS

The main risks identified that could impact the Group's businesses and financial position as of the date this Universal Registration Document was filed are outlined below. The risks identified by Safran as material are grouped into a limited number of categories and ranked by their degree of criticality. Safran carries out its business in a fast-changing environment that exposes it to risks and uncertainties in addition to those associated with its activities and strategic focuses.

If the risks described below were to materialize, this could have a negative impact on Safran's businesses, financial position, earnings, outlook or share price.

Other risks not yet identified or risks whose occurrence the Group believes will not have a material adverse impact could also exist at the date of this Universal Registration Document.

The information set out below is based on assumptions and forecasts that may prove inaccurate owing to their very nature.

The environment in which the Group operates generates:

- risks relating to changes in the competitive landscape;
- financial market risks;
- legal and regulatory risks;
- risks of negative media coverage;
- environmental risks related to climate change.

Both Safran's operating activities and its strategic development ultimately generate risks that are specific to the Group.

4.3.1 Risks relating to the environment in which the Group operates

4.3.1.1 Risks relating to changes in the competitive landscape

Political and geopolitical uncertainties

In the aerospace industry, certain contracts are closed to foreign competition or are awarded based on strategic national security and independence considerations. Moreover, the transfer and/or export of defense equipment is prohibited by law in several countries, including France, and may only take place further to special governmental authorizations that require strict compliance with export regulations.

The development of Safran's activities and sites worldwide exposes the Group to political risks specific to certain countries that could impact its activities and earnings. Safran also has to

contend with a shifting geopolitical balance and, in particular, the new bilateral dimension of certain relationships that add to or replace pre-existing multilateral relations.

To deal with these political and geopolitical uncertainties, Safran has a Group International and Public Affairs Department that coordinates any measures that need to be taken, particularly in the fields of country risk, trade compliance and export and customs controls. Together with other central corporate departments, it coordinates dedicated processes for dealing with potential ethical issues (see section 5.3).

For example, in preparation for Brexit, Safran worked out scenarios for a hard Brexit (a no-deal Brexit), including a contingency plan to tackle the main difficulties the Group could be confronted with, such as supply chain and airline certification issues. The plan was rolled out across all Group entities concerned by Brexit.

Risk factors

Buffer stocks were built up to contend with supply chain issues and specific measures, including safety lead-times, were negotiated with certain critical suppliers. The Group also took the necessary steps with the relevant certification authorities to safeguard its future operations. Particular attention was paid to supplier accreditation and what Group customers will need from UK MRO shops. This plan is being left in place, although inventories have been reduced to take into account the positive effects of these preparations and the evolving schedule. It is regularly updated and will be adjusted, if necessary, to reflect the future relationship between the United Kingdom and the European Union.

Changes in economic conditions

The macroeconomic and aircraft program assumptions determined by the Group take into consideration the economic conditions observed at the date of this Universal Registration Document and are taken into account when preparing the budget and the medium-term business development plan.

Action plans are developed on the basis of these assumptions and approved by the Group Risk Committee according to the approach set out in section 4.1.

Changes in the global economy have a direct impact on demand for air transportation and freight, which in turn directly affects market demand for commercial aircraft. To meet the fluctuations in aircraft demand from airline companies, aircraft manufacturers may adjust their output rates, which would have a direct impact on the original equipment business of suppliers of engines and aircraft parts like Safran. Similarly, a decrease in air traffic as a result of a deteriorating economic, geopolitical, climatic or health environment could also impact the volume of Group sales and services, including maintenance, repair and overhaul (MRO) and spare part sales.

From a general perspective, should the economic climate deteriorate, Safran's assumptions and action plans will be adjusted accordingly. In order to deal with these risks, periodic specific steering committees have been set up within the Group (see sections 1.2, 1.4, 1.5 and 1.8).

The actions implemented since December 2019 in response to Boeing's decision to shut down the Boeing 737 MAX assembly line have been enhanced to take into account the Covid-19 crisis described below. Very significant measures are implemented such as a pause in Capex, the definition of new objectives for R&D and the reduction of direct and indirect costs.

Health risks – Covid-19 pandemic

The Covid-19 pandemic that began in China in December 2019 is impacting the Group's activities gradually and successively by geographic area, through the reduced availability of its employees, malfunctions in the supply chain, and restricted operational capacity. Its businesses are also impacted by the deterioration of the financial position of airline customers and by a drop in air traffic, particularly with regard to domestic flights.

Safran has taken steps to mitigate potential disruptions to its operations. A Group crisis management unit has been set up and tasked with anticipating, containing and limiting the impact

of the crisis. It is particularly focused on providing the best possible protection for all employees, especially of their health, and securing and adapting supply chain flows, while preserving industrial facilities and maintaining business continuity. Safran will also use all schemes set up by governments, particularly short-time working. In addition, all of the Group's tier-one companies are monitoring their environment, notably customer demand, in order to adjust their business forecasts and adapt their costs.

Accordingly, the Group regularly and proactively coordinates the efforts of all subsidiaries and sites in all countries in order to ensure priorities in reaction to the crisis:

- Protection of employees through specific organization of working practices;
- Response to customer needs, particularly for delivery schedules;
- Resilience and flexibility of the supply chain;
- Managing the Group's cash and liquidity, while low debt is already an asset.

Executive Management welcomes the mobilization and responsiveness of all employees, giving confidence in the Company's ability to meet current challenges.

Amid this uncertain context, at its meeting on March 26, 2020, the Board of Directors decided to withdraw the proposed dividend for 2019 as well as its 2020 guidance. Furthermore, the adaptation plan implemented early in the year in response to Boeing's decision to shut down the Boeing 737 MAX assembly line has now been enhanced (see section 4.3.2.2, "Delays, program development and industrialization"), and measures to preserve the Group's liquidity have been taken.

Very significant measures are engaged, such as a pause in Capex, the definition of new objectives for R&D and the reduction of direct and indirect costs.

Impact of the civil aviation cycle

Commercial aircraft orders tend to be cyclical in nature, owing mainly to:

- changes in air traffic;
- the rate at which aircraft fleets age and are replaced;
- airline companies' investment decisions and financial capacity.

Exceptional events such as terrorism, pandemics, aviation disasters and adverse environmental or geophysical conditions could also cause a temporary drop in air traffic and hence impact the civil aircraft engine, aircraft equipment, maintenance and services markets.

In 2019, civil aviation activities accounted for approximately 75% of the Group's adjusted consolidated revenue. Safran is still enjoying sustained cyclical demand, primarily as a result of many airline companies replacing their aircraft fleets.

Safran has a large fleet of engines in service, including over 33,500 CFM56 engines which have equipped most of the 100+ seater single-aisle aircraft delivered to airlines in the last 30 years. The increase in the age of the installed base of engines and associated equipment enables the Group to generate service revenue representing around 44% of revenue.

Safran's ability to successfully ramp up production to fulfill recent orders, particularly for the LEAP program with 1,736 engines delivered in 2019, largely depend on its ability to manage its internal and external supply chain (see section 4.3.2.1). Robust investment programs and action plans have been deployed for this very purpose and in order to limit any malfunctions that could arise. Safran also seeks to ensure that its production resources are adapted to long-term trends in demand.

Competition

Safran faces fierce competition in all of its businesses, from both global and international players and from players in certain niche markets. To face down its competitors, the Group strives to satisfy its customers with innovative, reliable, safe and competitive products. Operational excellence and continuous competitive performance enhancement are vital levers for the Group. Safran also seeks to maintain and sharpen its technological edge at all times, thanks to sustained R&D spending with a particular focus on segments where the product development cycle is unusually long.

To limit the impact of competition risk, Safran deploys its strategy with a view to diversifying its portfolio of businesses across all segments and all aircraft components (see section 1.2), with a focus on its different types of customers (i.e., aircraft manufacturers, airlines or governments), and the different stages of its products' life cycle (original equipment and aftermarket service, in particular). The Group continues to make targeted investments in R&D (see section 1.4) and in selected external growth transactions. It also develops partnerships on a number of programs (see sections 1.3 and 4.3.2.4, "Supplier and partner risks"). These partnerships and minority stakes may take the form of joint ventures set up in full compliance with the anti-trust laws applicable in all markets and countries in which they operate.

4.3.1.2 Financial market risks

The main market risks to which the Group is exposed are foreign currency risk, interest rate risk, counterparty risk and liquidity risk.

Foreign currency risk

The Group is exposed to foreign currency risk, defined as the impact on its balance sheet and income statement of fluctuations in exchange rates in the course of its operating and financial activities.

Most revenue earned in the civil aviation sector is denominated in US dollars, which is the benchmark currency used in the industry. The net excess of revenues over expenses for these activities totaled USD 11 billion for 2019.

To protect its earnings, the Group implements a hedging policy with the aim of reducing uncertainty factors affecting operating profitability and allowing it to adapt its cost structure to a volatile monetary environment.

The Group's earnings are exposed to the risk of fluctuations in the EUR/USD exchange rate as a result of its US dollar-denominated financial assets and liabilities, which are set out in section 3.1, Note 31, "Management of market risks and derivatives" of this Universal Registration Document.

Shareholders' equity is also exposed to the risk of fluctuations in the EUR/USD exchange rate on the Group's investments in US businesses, which are disclosed in section 3.1, Note 37, "List of consolidated companies" of this Universal Registration Document.

Hedging policy

Three basic principles underscore the foreign currency risk management policy defined by Safran for most of its subsidiaries:

- protect the Group's economic performance from random fluctuations in the US dollar;
- optimize the quality of hedging whenever possible, without jeopardizing the Group's economic performance (first principle);
- provide Group entities with visibility regarding the applicable exchange rate.

Protecting economic performance means setting a minimum USD exchange rate parity over an applicable term. Minimum parity corresponds to a USD exchange rate that allows Safran to meet its operating profit targets. Hedging arrangements have been made accordingly over a three-to-four-year timeframe.

Management policy

The hedging policy is based on managing the financial instrument portfolio in order to guarantee a pre-defined minimum parity.

In building up its hedging portfolio, the Group primarily uses forward sales, accumulators and the combination of instruments with or without knock-in or knock-out barrier options.

The knock-out barrier option "kicks out" if the spot exchange rate climbs above the knock-out rate during the window in which the option is active and the value of the hedging portfolio is then reduced by the notional value of the disabled option, exposing the Group to under-hedging risk.

Conversely, the knock-in barrier option "kicks in" if the spot exchange rate falls below the knock-in rate during the window in which the option is active, and the value of the hedging portfolio is then increased by the notional value of the disabled option, exposing the Group to over-hedging risk.

Optimization measures are also used with a view to improving the minimum exchange rate parity, and seek to protect the Group's economic performance at all times. They are based on products that allow the Group to take advantage of any improvement in the underlying exchange rate parities, without calling into question the original minimum threshold.

These products consist chiefly of forward purchases, accumulators and a combination of barrier options and other options.

Hedging portfolio

The Group's hedging portfolio is described in section 3.1, Note 31, "Management of market risks and derivatives" of this Universal Registration Document.

In 2019, the Group continued to deploy its exposure hedging strategy, using a timeframe of three to four years. Net estimated annual exposure depends on sales figures budgeted at the beginning of the year. It is currently USD 11 billion, for 2020 to 2023 and is regularly reviewed for each year covered by the foreign currency risk hedging policy.

Risk factors

As of February 18, 2020:

- The Group has hedged its entire USD exposure for 2020 at a rate of USD 1.16 to the euro. Certain options include knock-out barriers set at various levels between 1.17 and 1.28.
- The Group has hedged its entire USD exposure for 2021 at a target hedging rate of between USD 1.14 and USD 1.16 to the euro. Certain options include knock-out barriers set at various levels between 1.18 and 1.33 with maturities of up to one year.
- The Group has also continued its exposure hedging strategy for 2022. The hedging portfolio for 2022 amounts to USD 10.7 billion. Certain options include knock-out barriers set at various levels between 1.18 and 1.22 with maturities through end-2020. The estimated target hedging rate for 2022 is between 1.12 and 1.14.
- The Group has begun to hedge its projected net exposure for 2023. The hedging portfolio for 2023 amounts to USD 4 billion in options with knock-out barriers set at various levels between 1.17 and 1.18. The target hedging rate for 2023 should be between 1.10 and 1.12.

A one-cent change in the EUR/USD exchange rate parity on the hedged rate has an impact of around €70 million on adjusted recurring operating income.

Sensitivity

The following tables present the sensitivity of the main income statement aggregates to a 5% increase or decrease in the EUR/USD exchange rate (average and closing exchange rates). The first table shows adjusted data, the second consolidated data. The sensitivity analysis takes account of:

- the translation effect, i.e., the impact of changes in the EUR/USD exchange rate on the translation into euros of the results of entities whose functional currency is the US dollar;
- the transaction effect, i.e., the impact of changes in the EUR/USD exchange rate on USD transactions carried out by entities whose functional currency is the euro, and on the value of the EUR/USD hedging portfolio.

The sensitivity of equity to a 5% increase or decrease in the EUR/USD closing exchange rate affecting the net investment hedge of some of its US entities is presented in section 3.1, Note 31, "Management of market risks and derivatives" of this Universal Registration Document.

Adjusted data (in € millions)	2018		2019	
EUR/USD exchange rate change assumptions	-5%	+5%	-5%	+5%
Average exchange rate	1.18		1.12	
Average exchange rate used for sensitivity analysis	1.12	1.24	1.06	1.18
Closing exchange rate	1.15		1.12	
Closing exchange rate used for sensitivity analysis	1.09	1.20	1.07	1.18
Revenue	541	(489)	698	(631)
Profit from operations	20	(18)	31	(28)
Financial income (loss)	26	(24)	20	(18)
Profit before tax	46	(42)	51	(46)

Non-adjusted consolidated data (in € millions)	2018		2019	
EUR/USD exchange rate change assumptions	-5%	-5%	-5%	+5%
Average exchange rate	1.18		1.12	
Average exchange rate used for sensitivity analysis	1.12	1.24	1.06	1.18
Closing exchange rate	1.15		1.12	
Closing exchange rate used for sensitivity analysis	1.09	1.20	1.07	1.18
Revenue	965	(873)	1,178	(1,066)
Profit from operations	445	(402)	503	(456)
Financial income (loss)	(2,077)	1,018	(2,675)	1,057
Profit before tax	(1,633)	(63)	(2,172)	602

Interest rate risk

The Group's exposure to fluctuations in interest rates covers two types of risk:

- fair value risk in respect of fixed-rate financial assets and liabilities. Interest rate fluctuations impact the market value of these assets and liabilities;
- cash flow risk in respect of floating-rate financial assets and liabilities. Interest rate fluctuations have a direct impact on the Group's earnings.

Within the framework of its interest rate risk management policy, the Group arbitrates between these two types of risk using financial instruments specific to fixed-income markets (interest rate swaps and options, etc.).

EUR interest rate risk

An interest rate swap was taken out to convert the fixed rate payable on the €200 million bond issue carried out in first-half 2014 and maturing in April 2024 to a floating rate.

The Group's hedging portfolio is described in section 3.1, Note 31, "Management of market risks and derivatives" of this Universal Registration Document.

USD interest rate risk

The interest rate on the Group's February 9, 2012 issue of USD 1.2 billion in senior unsecured notes on the US private placement market has also been partially converted to a floating rate. At their inception, floating-rate borrower/fixed-rate lender USD swaps were set up on the 10-year and 12-year tranches, for USD 540 million and USD 505 million, respectively. The seven-year tranche for USD 155 million was kept at a fixed rate and repaid in February 2019.

As of the end of first-quarter 2019, the two 10-year and 12-year tranches for USD 540 million and USD 505 million, respectively, were switched to euros by means of a cross currency swap (USD floating-rate lender/EUR fixed-rate borrower). The interest rate portion of the cross currency swap was eligible for hedge accounting.

Fixed-rate borrower/floating-rate lender swaps were set up in connection with the sale of trade receivables without recourse. The swaps are for a nominal amount of USD 1,250 million and a term of up to 12 months, and were taken out on behalf of a joint arrangement 50%-owned by the Group. This transaction gives rise to a floating-rate borrower/fixed-rate lender swap for a nominal amount of USD 625 million after elimination of intragroup items. These swaps are not eligible for hedge accounting. The aim of these transactions is to fix the borrowing cost applicable to the customer.

The Group's hedging portfolio is described in section 3.1, Note 31, "Management of market risks and derivatives" of this Universal Registration Document.

Sensitivity

A 1% (100 basis point) increase in euro or US dollar interest rates would increase the Group's cost of net debt by €6 million (compared with a €3 million increase in the cost of net debt in 2018).

Counterparty risk

The Group is exposed to counterparty risk on the following:

- short-term financial investments;
- derivatives;
- trade receivables;
- financial guarantees granted to customers.

Financial investments are diversified and consist of blue-chip securities that are traded with top-tier banks.

The sole purpose of the Group's derivative transactions is to reduce the overall exposure to foreign currency and interest rate risks resulting from its ordinary business activities. Transactions are either carried out on organized markets or over the counter with top-tier intermediaries.

The counterparty risk taken into account in pricing derivatives is not material (section 3.1, Note 1.w, "Derivatives and hedge accounting" of this Universal Registration Document).

Counterparty risk related to trade receivables is limited due to the large number of customers in the portfolio and their geographical diversity.

Within the scope of its civil and military aviation businesses, the Group may be exposed to late payments from its customers, particularly sovereign customers, and this could affect its ability to meet its free cash flow targets.

The maturity schedule for trade and other receivables is set out in section 3.1, Note 19, "Trade and other receivables" of this Universal Registration Document.

Liquidity risk

The Group looks to ensure that it has broad access to liquidity in order to meet its obligations as they fall due. To do this, it borrows from banks and capital markets, thereby exposing it to liquidity risk if all or part of these markets were to dry up.

Safran's business requires it to have access to external sources of financing and the availability of such financing depends on a variety of factors such as market conditions and the macroeconomic environment. A deterioration in the financial markets (capital or bank debt markets) could lead to an increase in borrowing costs or even restricted access to financing for both Safran and for its competitors.

Furthermore, lenders and/or investors could develop a negative view of the Group's short- to medium-term financial prospects, particularly if it were to incur losses, which could also affect its future financing capacity.

Treasury management is centralized within the Group. Where permitted by local legislation, all surplus cash is invested with, and the financing requirements of subsidiaries met by, the parent company on an arm's length basis. The central cash team manages the Group's current and forecast financing requirements, and ensures it has the ability to meet its financial commitments while maintaining a level of available cash funds and confirmed credit facilities commensurate with its scale and debt repayment profile.

Surplus cash is managed with two principles in mind:

- safeguarding the amounts invested at all times;
- optimizing investment yields whenever possible, without jeopardizing the investments themselves.

Since the Group has an undrawn, confirmed liquidity line at December 31, 2019, it is relatively insensitive to liquidity risk. This €2,520 million line was set up in December 2015 and expires in December 2020. It includes two successive one-year extension options. Both these options have been exercised, meaning that the line is currently set to expire in December 2022. This line is not subject to any financial covenants.

A number of financial covenants apply to the European Investment Bank (EIB) borrowings set up in 2010. The following two ratios apply:

- net debt/EBITDA <2.5;
- net debt/total equity <1.

The "net debt/EBITDA <2.5" covenant also applies to the senior unsecured notes issued on the US private placement market (USPP).

The following covenant applies to the euro private placement ("Euro PP") in the form of a syndicated loan, set up by the former Zodiac Aerospace on March 10, 2016:

- net debt/EBITDA <3.5.

The terms "net debt", "EBITDA" and "total equity" used in the covenants referred to above are defined as follows:

- net debt: interest-bearing borrowings (excluding borrowings subject to specific conditions) less marketable securities and cash and cash equivalents;
- EBITDA: the sum of profit (loss) from operations and the net charge to depreciation, amortization and provisions for impairment of assets (calculated based on adjusted data);
- total equity: equity attributable to owners of the parent and non-controlling interests.

Risk factors

The maturity schedule for financial liabilities (excluding derivatives with a negative fair value) is set out in section 3.1, Note 27, "Interest-bearing financial liabilities" of this Universal Registration Document.

4.3.1.3 Legal and regulatory risks

From a legal standpoint, Safran is exposed to the risk of claims resulting from alleged non-compliance with certain contractual obligations in its relations with third parties (see section 4.3.2.2). If any such claims are made, they are examined by the Legal Department so that it can best defend the Group's interests.

Aside from the main legal risks identified and disclosed in the "Contingent liabilities arising on ordinary activities" section of the note on off-balance sheet commitments (see section 3.1, Note 34) and in the note on disputes and litigation (see section 3.1, Note 35) of this Universal Registration Document, based on an analysis of the legal risks to which the Group is exposed, no other probable or material risks were identified.

The Group is also exposed to the risk that it fails to comply with applicable regulations. Regarding anti-trust law, anti-corruption regulations, customs and export controls, and any embargoes and sanctions taken against countries in which it does business, the Group is bound by legislation and regulations issued by French and international authorities, particularly the European Union and the United States.

To ensure that it complies with French and international regulations, Safran has put in place action plans outlined in section 5.3 of this Universal Registration Document. These action plans are designed to ensure that Group companies report all claims or any potential cases of non-compliance with applicable regulations, inform the authorities concerned of any such cases identified, and take all the necessary precautions to prevent similar cases arising in the future. To date, the very few instances of non-compliance with export rules voluntarily brought to the attention of the authorities have either been closed after investigation without damages or are currently being addressed, with the exception of non-material customs penalties. Concerning embargoes and sanctions, particularly in the United States, the Group has taken all adequate and necessary measures to comply with all such rules affecting its operations.

Pursuant to Regulation (EU) 2016/679 of April 27, 2016, known as the General Data Protection Regulation, the Group has deployed new measures to guarantee the protection of personal data.

4.3.2 Risks relating to Group operations

4.3.2.1 Aircraft accidents

Safran products are integrated in high-tech equipment with a high unit price, especially civil and military aircraft and helicopters. Safran may be held liable, for example, for the malfunction, loss or accident of an aircraft, the death of passengers, or the loss of operating capability by an airline or helicopter operator. As part of its risk management policy, Safran adopts a variety of measures to limit risks relating to aircraft accidents.

The regulations governing Safran's activities stipulate the quality, reliability and, above all, safety standards that apply for civil aviation flights and the related products and services. These rules apply throughout the life of the aircraft for its design,

4.3.1.4 Risk of negative media coverage

The Group is exposed to the risk of negative media coverage arising from its products or services, or its people – either its own employees or third parties – acting intentionally or unintentionally. To mitigate this risk, which could have a long-term reputational impact, Safran has drawn up a number of in-house rules and guidelines for sharing best practices, backed up by regular awareness campaigns and tailored training initiatives. Separate guidelines apply for specific risks arising from social media. As mentioned in section 4.1.1, Group crisis management processes have been devised to deal with these new risks and include the use of "reflex tip sheets".

4.3.1.5 Environmental risks related to climate change

Safran groups the climate change-related environmental risks to which it is exposed into three main sub-categories:

- the natural, technological and environmental hazards to which the Group's sites are exposed: Safran has devised a HSE strategy and governance framework to guarantee a high level of protection for all its employees and assets. Rigorous standards have been introduced at all sites and a range of training, prevention, transition and streamlining initiatives have been deployed to contain and control the Group's overall risk exposure;
- risks related to stakeholder expectations that the Group attempts to meet through commitments to cutting greenhouse gas emissions in its production processes: Safran is rolling out a "low-carbon" program at all of its sites, designed to place all of its operational activities on a sustainable footing; and
- risks related to stakeholder expectations that the Group attempts to meet through commitments to reducing the environmental footprint of its products: Safran has totally committed to the ambitious objectives set by the aviation industry – particularly the Air Transport Action Group (ATAG) and the International Civil Aviation Organization (ICAO) – by adopting a proactive strategy.

Both these key challenges and the strategy that has underpinned the design and implementation of the related prevention and treatment plans, are detailed in section 5.5 hereinafter.

manufacture, operation, airworthiness and maintenance. All aircraft components must be designed, manufactured and maintained or repaired in a suitable and controlled environment, using approved data, carefully calibrated tools and trained operators. The entire process must be certified by accredited personnel and traceability must be clearly documented and recorded. The requirements that Safran strictly complies with are issued by the International Civil Aviation Organization (ICAO) and transposed into European regulations by the European Aviation Safety Agency (EASA), which delivers Design (part21J), Production (part21F or G) and Maintenance (part145) Organization Approvals. The EASA oversees the work of national organizations like the French Directorate General for Civil Aviation (DGAC). Similar rules and approvals are applied by other authorities such as

the Federal Aviation Administration (FAA) in the United States and the Civil Aviation Administration of China (CAAC). Bilateral agreements exist between the different authorities to coordinate their efforts.

To comply with these requirements, each Safran entity concerned deploys a Safety Management System that meets the international standard published on October 3, 2018 by the Aerospace & Defence Industries Association of Europe (ASD), based on four key principles:

- safety policy and objectives: commitment by Executive Management of the entity concerned;
- management of flight safety risks at different levels: engineering, program, quality, flight safety;
- incident reporting/monitoring: detection (including alerts), analysis and processing of all airworthiness events (tracking suppliers, reporting abnormal employee behavior, reporting shopfloor incidents, analyzing the related feedback) and creation of a Group Airworthiness Committee in 2018, structured around the airworthiness teams in the entities concerned; and
- deployment/promotion of the Safety Management System: promotion of the system, sharing of information (mandatory training for all employees, training in "Human Factors" for all personnel who may be exposed, personnel clearance by the aviation authorities, regular distribution of information and feedback).

Safran also deploys specific initiatives that provide enhanced project management maturity and reduce the consequences of aggravating – human – factors. As indicated in section 1.7, the "One Safran" quality management system provides project teams with a framework known as "PROMPT" as well as methods and applications for enhancing program management processes. PROMPT is based on five "golden rules":

- keeping the Program Management Plan (PMP) up to date;
- meeting expectations of all stakeholders;
- planning and meeting technical objectives;
- steering performance; and
- managing risks.

It has been rounded out with a Program Management guide of best practices and rules to be respected, charted on a maturity grid that enables program managers to conduct an annual self-assessment of their risks and the measures in place, and to implement the requisite action plans. Safran is also deploying a range of quality-focused initiatives such as systematic targeted audits and a single Quality Audit Tool for the entire Group. In addition, dedicated progress plans, which include rollout of the Quick Response Quality Control (QRQC) method, allow any quality issues to be dealt with swiftly, close to source, and the appropriate remedies to be applied. Program oversight and development has been stepped up as part of the "One Safran" quality management system, resulting in more detailed risk analysis (product and process risk analyses).

The effectiveness of this state-of-the-art system and the related action plans have made it possible for Safran to obtain airworthiness agreements (or renew such agreements) and EN 9100-certification for the tier-one entities concerned, while constantly reducing the number of possible incidents in a context of sustained growth in air traffic.

4.3.2.2 Delays, program development and industrialization

Aircraft manufacturers may encounter difficulties in meeting their program schedules or even keeping programs going. Delays in production schedules for new aircraft may lead to the postponement of deliveries, including Safran equipment deliveries, and impact the timing of the Group's revenue. In certain cases, delays specific to developments under Safran's responsibility can lead it to pay damages to the stakeholders concerned. The Group may be held liable for these delays. Delays can also lead to Safran collecting cash later than forecast, thereby impacting the Group's cash and potentially its profitability. It may also culminate in Safran having to write off assets.

Safran is exposed to the consequences of the Boeing 737 MAX flight ban in effect since March 2019. It creates a number of potential risks for the Group, including cash flow problems, more complex supply chain management due to changes in production schedules or a temporary halt in production by the airframer, difficulties with re-certification or loss of interest in the aircraft, as well as a whole host of other longer-term consequences for this program. Safran has taken specific action to manage these scenarios, however, uncertainties remain in relation to the communication of key information by the airframer.

The cancellation of the A380 program by Airbus was one of the risk scenarios anticipated by Safran and has not had a material impact on the Group's operating performance.

At the end of 2019, Airbus decided to end its involvement in the "e-taxiing" project (see section 1.2.2.1), which it was partnering alongside Safran. Nevertheless, Safran has decided to push ahead with R&T with a view to developing this technology for future generations of aircraft.

Textron Inc. discontinued its future large-cabin Citation Hemisphere premium business jet for which the Silvercrest engine had been chosen. Therefore, the initial agreement negotiated between Cessna (Textron Aviation) and Safran Aircraft Engines – which is developing the engine – has been terminated, with no financial impact for either party. Safran Aircraft Engines will continue to use Silvercrest as an R&T platform.

A Patroller aircraft accident occurred in December 2019 during an industrial reception flight conducted as part of the Tactical Drone System Program at the Istres flight test center. Investigations are underway to determine the causes of the incident and Safran has taken specific steps to deal with the potential consequences.

Back-testing conducted on these events has not identified any failure in the Group's ERM system.

In the space industry, the ArianeGroup joint venture (Safran and Airbus both have a 50% stake, see section 4.3.2.3) exposes Safran to possible delays in the design and production of the Ariane 6 program or to a failure to provide adequate solutions to current challenges in the civil space launcher market. This market is currently having to contend with fierce competition, especially from operators receiving government aid, falling prices and the changing needs of satellite operators. In the transition phase between the future Ariane 6 and the current Ariane 5 launcher, ArianeGroup must take the necessary steps to transform its industrial design, ramp up developments and deploy pro-proactive solutions in the quest for competitiveness.

Risk factors

4.3.2.3 Products and services

The Group applies very strict environmental, quality and safety standards in the design and manufacture of its high-tech products and associated services.

Thanks to robust processes and high-level oversight of certain key aspects (such as ramp-up), program management enables the Group to ensure a smooth transition between the different programs (see section 4.3.2.2, “Delays, program development and industrialization”). The CFM56/LEAP transition plan was subject to this high level oversight and the markets were kept informed of its progress (see section 1.2.1.1).

Quality failures or shortcomings in Safran’s equipment, systems or technology could result in costly claims for damages from customers, partners or third parties (product recalls, upgrade campaigns or retrofits), lost revenue and/or a loss of its commercial standing. Safran’s image may also be affected.

In order to manage the impact of this risk as effectively as possible, Safran has deployed a range of quality-focused initiatives such as systematic targeted audits and a Group quality audit tool, as indicated in section 1.9 of this Universal Registration Document and in “Aircraft accidents” above.

4.3.2.4 Supplier and partner risks

Generally speaking, Safran works in cooperation with partners and suppliers in the majority of its businesses. Events likely to affect its partners and suppliers could have an impact on Safran’s business activities.

Supplier risks

Supplier difficulties or default, even when robustness and business contingency planning is one of the key criteria for selection, could impact the supply chain, resulting in additional costs or production delays that would affect the Group. In 2019, Safran purchased goods and services worth €14.2 billion, i.e., more than 57% of its revenue, and managing this risk is one of the Group’s key challenges.

The Group Purchasing Department conducts a monthly review of pre-identified potentially sensitive suppliers with a designated manager and associated action plans. For these sensitive suppliers, it also tracks their own in-house risk analyses. For non-production purchases, Safran has put in place a central purchasing strategy (see section 1.7) in the form of pooled facilities at a Shared Services Center in line with the Group’s objectives of excellence, competitiveness and sustainable development. Safran has also deployed a responsible purchasing and duty of care plan (see section 5.2.2).

The Group is exposed to commodity availability and price volatility risks for certain metals and alloys, composite fibers and resins, cobalt, vanadium and oil. To limit the impact of these risks, the Group negotiates medium- and long-term procurement contracts with its suppliers for titanium, super alloys, steel, aluminum and materials for composite parts, setting up multiple-source supply streams or building up appropriate inventories wherever possible.

The volume of commitments undertaken by Group entities corresponds to the planned increase in production over the coming years. To protect its LEAP program and its supply chain in particular, Safran has built up buffer stocks of specific components and set up a multiple-source supply approach organized around the related criticality, by sourcing new suppliers and deploying other target initiatives. To that end, Safran and Albany (United States) now have three plants, in Rochester (New Hampshire, United States), Commercy (Meuse, France) and Querétaro (Mexico), that manufacture composite parts for new-generation aircraft engines.

Partner risks

Safran is involved in several major strategic partnerships. If any of these partnerships were not renewed, or if there were governance or financing issues with a partner, for example, Safran’s businesses could be affected.

A substantial proportion of Safran’s revenue is derived from certain civil aircraft engine programs developed and manufactured in cooperation with the joint venture CFM International. This civil aerospace propulsion agreement has been renewed through 2040 and includes operational maintenance services.

Safran is also involved in several other major strategic partnerships, taking care to ensure that its stakes and decision-making capabilities are closely aligned with its strategy. In particular these partnerships include (see section 1.2.1.4): Airbus (ArianeGroup) for space launchers, Air France Industries KLM Engineering & Maintenance (Airfoils Advanced Solutions) for repairs to high-pressure compressor blades and variable stator vanes, AVIC Aircraft Corp., Boeing (Initium Aerospace) for designing, manufacturing and servicing auxiliary power units, Boeing (MATIS Aerospace “Morocco Aero-Technical Interconnect Systems”) for the manufacture of electrical harnesses and interconnection of electrical networks, China Eastern (Xi’an Eastern Safran Landing Systems Services) for landing gear repair and maintenance, MTU (Aerospace Embedded Solutions) for critical software and infrastructure for military and civil applications, Rolls-Royce (Aero Gearbox International) for power transmission systems for all future Rolls-Royce civil aircraft engines, Thales (Lynred and Optrolead) for infrared detection and marketing optronics systems and UEC Saturn (PowerJet) for developing and manufacturing the SaM146 engine for regional aircraft.

These partnerships are set up in full compliance with the anti-trust laws applicable in all markets and countries in which they operate (see section 1.2).

4.3.2.5 Health, safety and environmental risks

All industrial activities generate risks, particularly health, safety and environmental (HSE) risks. More specifically, these risks concern production sites, fire, explosions, waste discharges, liquids and gases as well as risks related to the management and use of chemical substances. The potential impacts include water and soil pollution and damage to human health. Safran's HSE policy is implemented within the framework of a continuous improvement drive which aims to bolster its strategy of anticipating and preventing potential risks in all of its activities. It is also underpinned by HSE guidelines that cover all sites (see section 5.6.3), reflecting the investments needed to safeguard the health, safety and environment of all stakeholders. These challenges are detailed in section 5.6.1 hereinafter.

4.3.2.6 Personal safety risks

The Group's international scope may generate certain safety risks. The Safety Department has set up a specific oversight organization for each country to address these risks. The Group is constantly assessing the risks of terrorism, armed conflict and confrontation with criminal organizations as well as other consequences of geopolitical instability. The regions in which the Group operates are classified according to risk, each of which is associated with a series of specific prevention and protection measures. The Group is assisted in this initiative by the governments of France and other countries as well as by specialist service providers. A dedicated structure, such as an emergency operations center, may be set up in response to a specific situation and provided with exceptional resources in order to repatriate operating staff, for example.

4.3.3 Risks relating to the Group's strategic development

4.3.3.1 Technological risks

The Group's markets typically undergo far-reaching technological changes. Safran designs, develops and manufactures products and services renowned for their advanced technological innovations. The Group is exposed to the risk of competitors developing products that offer a better technical performance, are more competitive or are marketed earlier than those it develops. This could affect Safran's activities or financial position.

The actions taken by the Group to limit the impact of such risks are outlined in section 1.4, "Research and development".

The Group draws on the complementary scientific and technical expertise provided by its partners (see sections 1.4.2 and 4.3.2.4, "Supplier and partner risks").

The Group has also created Safran Corporate Ventures (see section 1.4.4), an investment vehicle for start-ups aimed at supporting the upstream development of innovative, high-potential technologies and capturing benefits for the applications used by the Group.

Safran has set up a pooled research unit focusing on upstream, cross-functional technologies within Safran Tech, the Group's research and technology center. Safran Tech is home to nearly 500 scientists and technologists working in research sites and

4.3.2.7 Data confidentiality risks

Safran is exposed to the risk of breaches of security in relation to its industrial premises or data processing systems.

Data owned by the Group are critical in terms of technological innovation, as well as strategy and key assets. Safran therefore needs to have reasonable assurance that its intangible assets (data, knowledge and expertise in particular) are adequately protected.

Faced with risks of unlawful attempts to gain access to confidential data and threats to the security of installations, cyber threat prevention is essential to ensure that the Group can continue in operation.

These cyber risks could lead to disruptions in IT services, causing, for example, the loss of connection on internal and external network exchange platforms and the unavailability of messaging services, or even breaches in the confidentiality or integrity of data hosted by or transiting through the Group's information systems (loss, destruction, theft and corruption).

In order to limit the impact of this risk, Safran has defined an information system security policy which sets down a series of organizational, technical and governance guiding principles. This policy notably meets requirements set out in French regulations on the protection of intangible assets contained in information systems. Under the policy, awareness-raising initiatives for all Group employees are organized on a regular basis. Lastly, to respond to emerging threats, Safran continually invests as needed in information system protection, incident detection and event response, and security warnings and alerts, and in regular reviews of their effectiveness.

hubs, including the facilities at Safran Composites and Safran Ceramics. Around a hundred specialists in organic and ceramic matrix composites and organic chemistry work in these two facilities. Moreover, the Gennevilliers plant experiments in forging and casting to give Safran a cutting edge in the technologies involved in machining aircraft engine parts. Lastly, building on the Group's new "campus factory" in Bordeaux is underway. Named "Campus Safran Additive", the site will be home to all of the Group's additive manufacturing expertise and resources upon completion in 2021.

For Safran, intellectual/industrial property (IP) is an intangible asset of increasing importance in a context of globalized markets and ever-fiercer competition. The Group has overhauled its IP governance and set up the Center for Intellectual Property Excellence (CEPI), a more effective, centrally coordinated structure involving specialists that now work for all Group entities. CEPI now provides all of Safran's IP-related assistance and consulting services and oversees the related risks, notably those concerning the protection of know-how and inventions, developing and pro-actively managing patent portfolios, dealing with litigation and maintaining up-to-date strategic and technological intelligence, and promoting the Group's innovation to secure its competitive advantage and help it to meet customer needs as effectively as possible.

Risk factors

The IP team's mission is underpinned by a Group charter setting out the importance of maintaining strategic and technological intelligence, respecting the rights of third parties, protecting the Group's IP portfolio and defending its rights and its capacity to gain a competitive advantage through innovation.

Streamlined governance, skills pooling and deploying processes for operational excellence are now being used by the Group to both assess and control its exposure to IP risks.

4.3.3.2 Uncertainty regarding returns on investments

Safran's R&D activities require investments that only produce returns in the medium to long term. The market and profitability assumptions determined by the Group may not prove accurate, and the products resulting from these investments may not enjoy sufficient commercial success to ensure a return on the initial investment (drop in demand, shut-down of a program). Capitalized R&D assets (excluding goodwill and programs) recognized in the balance sheet at December 31, 2019 totaled more than €4.0 billion (see section 3.1, Note 12), and property, plant and equipment (mainly industrial investments) amounted to approximately €4.4 billion (see section 3.1, Note 13). These amounts are net of accumulated depreciation, amortization and impairment losses.

Investment decisions are coordinated at Group level, based on tried and tested guidelines and numerous evaluation criteria. In addition, the Safran Innovation Department is tasked with overseeing the phase between technological demonstrations and marketing (see sections 1.4 and 1.5).

4.3.3.3 Dependence on state procurement contracts

Safran conducts part of its business with governments, especially in defense markets in Europe, North America, Asia and the Middle East. Government spending in these markets is subject to trade-offs that are contingent on the geopolitical environment

and strict budgetary constraints. Budget cuts affecting many of the Group's public customers can not only lead to delays in orders placed or curtailments, postponements or cancellations in the fulfillment of such orders and the related financing, but also to a deterioration in advance payment plans. This could affect Safran's businesses or financial position.

Safran's strategy is based on a balanced portfolio of civil aviation and defense businesses. In 2019, approximately 16% of the Group's adjusted consolidated revenue was derived from government contracts. The broad geographic diversity of the Group's businesses, particularly through its international sites, reflects its customer diversification strategy which helps create a robust business portfolio. This global strategy is also a means of reducing the risk of dependency on government business.

4.3.3.4 Acquisition and restructuring risks

As part of its growth strategy and disciplined approach, Safran may conduct targeted acquisitions of businesses or companies, merge and/or set up companies, enter into strategic arrangements, or divest select non-core businesses. The Group has devised procedures and controls to limit the risks inherent in such transactions. Processes have been put in place to ensure that these transactions meet the Group's strict financial criteria (debt, return on capital employed, etc.). These may have a negative impact on the Group's business, expected earnings or image should Safran fail to integrate the businesses and employees of the acquired entities, achieve the business plans, unlock the expected synergies and cost savings, or maintain good trade or labor relations within the acquired entities following changes in management or control. The Performance and Competitiveness Department has put in place strict oversight processes for these transactions to ensure that the synergies and earnings obtained are in line with those forecast.

Safran applied these processes when it acquired Zodiac Aerospace in first-quarter 2018. The integration plan was deployed nominally through end-2019 and has made it possible to manage the operational risks related to these new businesses more effectively and to unlock planned synergies and raise objectives to €250 million by 2022.

4.3.4 Human resources risks

The Group's different activities harness a wide range of employee expertise and skills across many different sectors. As a result Safran is exposed to the risk of failing to find the appropriate skills at the right time and in the right place that it needs to deploy its strategy and complete its programs effectively.

In order to limit this risk, the Group continually strives to acquire, retain, redeploy, bolster and renew the skills that it currently needs and will need in the future, notably to replace the very high portion of employees expected to retire over the coming years, and to deal with the rapid changes occurring in the Group's businesses. It is developing partnership strategies with top graduate schools and scientific universities to recruit employees for its current core and future businesses. The Group also actively promotes the Safran employer brand together

with the attractiveness of its career opportunities. In addition, professional and geographic mobility programs, talent identification systems, succession planning for key posts and skills, training, monitoring and career development are all used to manage these risks. Initiatives to boost the Group's attractiveness as an employer and to prepare for the future, and tailored training programs designed to facilitate integration and transmit the Group's know-how and values to new hires are also deployed. To strengthen and coordinate all of these actions, the Group has reorganized its Human Resources division into a single "Skills and Training" division. Safran also continues to offer employee bonus, profit-sharing and equity and savings incentive schemes that foster employee buy-in and loyalty. These programs are described in more detail in section 5.7.2 hereinafter.

4.4 INSURANCE

The Risk and Insurance Department identifies the accident risks to which Group entities and businesses are exposed and puts in place the appropriate insurance policies. This does not include personal risk insurance or credit insurance.

The key accident risks are covered by worldwide multi-risk policies spanning several years, negotiated with leading insurance companies. They include:

- a “property damage and business interruption” policy providing coverage for damage to industrial installations (buildings, machines, inventories, etc.). The maximum payout under the policy is €300 million, or up to €1.3 billion for certain individual sites, excluding market-imposed sub-limits for certain risks such as flooding, earthquakes and natural disasters;
- “product third-party liability” policies covering the Group in the event it is held liable for damages to third parties as a result of an accident attributable to a delivered product no longer owned or controlled by a Group entity:
 - aviation products:
 - the policies provide coverage totaling USD 2.5 billion per annum that can be used during the year for aviation products. Coverage for helicopter products is capped at USD 1 billion, while coverage for terrorism totals USD 1 billion;

- “land” products (excluding aviation businesses):
 - the policies provide coverage of €350 million per annum that can be used during the year.

The Group’s captive reinsurance company participates in the operational risk coverage scheme within the framework of “civil aviation liability” and “property damage and business interruption” insurance policies.

Local insurance programs are subscribed across the globe either to cover specific risks or in response to local legal or regulatory insurance requirements.



5

NON-FINANCIAL PERFORMANCE

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Organization and management of non-financial performance

French government *ordonnance* (order) 2017-1180 of July 19, 2017 and decree no. 2017-1265 of August 9, 2017 transpose into national law the European directive of October 22, 2014 on the disclosure of non-financial information by companies, thereby modifying Articles L.225-102-1 and R.225-104 to R.225-105-2 of the French Commercial Code (*Code de commerce*). The “non-financial information statement” discloses “information on the way in which the company takes into account the social and environmental consequences of its activity” as well as “the effects of this activity as regards respect for human rights and the fight against corruption”.

This chapter takes into account these modifications to French law, as well as law 2017-399 on the duty of care of parent companies and contracting companies.

Safran’s non-financial information statement (NFIS) has been prepared against the backdrop of significant international expansion for the Group, which operates in more than 30 countries, with the refocusing of its activities on the aerospace, space and defense markets.

The extract from the Integrated Report in the introduction to this Universal Registration Document includes a presentation of Safran’s business model together with the materiality matrix and the integration of the United Nations Sustainable Development Goals into the Group’s strategy.

For more details on risk factors, see chapter 4 of this Universal Registration Document on risks.

5.1 ORGANIZATION AND MANAGEMENT OF NON-FINANCIAL PERFORMANCE

5.1.1 Safran’s CSR approach is integral to its core purpose

Safran defined its core purpose (*raison d’être*) in early 2020: “Thanks to the commitment of our employees, proven innovation and operational excellence, Safran designs, builds and supports high-tech solutions to contribute to a safer, more sustainable world, where air transport is more environmentally friendly, comfortable and accessible. We also apply our skills to develop solutions that meet strategic needs, such as defense and access to space.” The commitment to corporate social responsibility (CSR), inherent to Safran’s corporate culture, is built on three strategic assets described in the section of this Universal Registration Document devoted to the business model:

- sustainable technological innovation in the aerospace, defense and space markets allowing Safran to maintain and strengthen its position as a world leader while taking its environmental, social and societal impacts into account;
- operational excellence positioning Safran as the benchmark supplier for its clients thanks to the quality standards of its products and services throughout the value chain, with ever greater accountability in respect of employees, customers, partners and end users;
- responsible conduct showing regard for internal and external stakeholders at all of Safran’s sites. Safran aims to go beyond simple compliance with the law by being proactive in the face of social and environmental developments.

It wishes to create shared value with its ecosystem and to embrace a sustainable performance perspective.

Appropriate governance

The CSR approach is led by the Executive Vice President, Human Resources (Group HR Director), supported by the CSR Department, which is tasked with setting out the CSR policy and implementing it Group-wide, as well as working closely with all Group entities and corporate departments to ensure its consistency and the involvement of all.

The Group’s commitment is reflected by the involvement of the Company’s upper management. The CSR challenges are integrated into the work of the Executive Committee, chaired by the Chief Executive Officer. They are also taken into account in the work of the Board of Directors and, where applicable, its committees (see section 6.3.3 of this Universal Registration Document).

Performance assessment

There are regular interactions between the CSR Department, all Safran companies and the cross-functional departments.

Each of the Safran entities resulting from the reorganization of activities in 2019 has already adopted a large part of the Group’s standards. The scope of most of the indicators is therefore global and shared by all entities. Work to integrate and harmonize practices will continue in 2020.

As an assurance of transparency and openness, particularly in respect of investors and shareholders, the Group regularly responds to requests bearing on its non-financial information.

In 2019, Safran topped the industry ranking of independent ESG rating agency Vigeo-Eiris from among a panel of 44 aerospace and defense groups. Its score increased from 49/100 to 55/100 between 2017 and 2019. The score of 55/100 obtained in 2019 is a robust level in the Vigeo-Eiris classification, rewarding the Group for its responsible management. The improvement in its score attests to the importance that Safran places on environmental, social and governance criteria (ESG) in its strategy. Safran

accordingly features in the Euronext Vigeo Eurozone 120 and Euronext Vigeo Europe 120 indices.

Safran is also ranked by other international non-financial ratings agencies, such as MSCI, SAM (Corporate Sustainability Assessment) and Sustainalytics. It also responds to the CDP questionnaire on climate change and other surveys conducted by major players in the field of socially responsible investment.

5.1.2 Materiality matrix of non-financial challenges

Safran responded to mounting expectations among its internal and external stakeholders as regards economic, environmental, human resources and social responsibilities by updating the materiality matrix of its non-financial challenges in early 2020. The purpose of the matrix is to present the main non-financial challenges to which the Group is exposed, by order of importance.

An in-depth analysis was conducted on the basis of the reference guidelines (United Nations Sustainable Development Goals, non-financial reporting obligations and recommendations, and international frameworks such as the Sustainability Accounting Standards Board [SASB] and Global Reporting Initiative [GRI]), and recent studies on the challenges facing the aerospace industry. This analysis resulted in the identification of 37 challenges to be tested.

These challenges were subsequently submitted to more than 600 internal stakeholders, including employees working in all Group companies at sites located worldwide (Executive Committee members, business and activity directors, managers), and a panel of 70 external stakeholders from each major category (business community, financial community, public partners and civil society).

A total of 330 people participated in the consultation, either by interview or via an online survey. The matrix shows:

- on the X-axis, challenges classified according to their importance for internal participants (importance for Safran employees);
- on the Y-axis, challenges classified according to their importance for external participants (importance for external stakeholders);

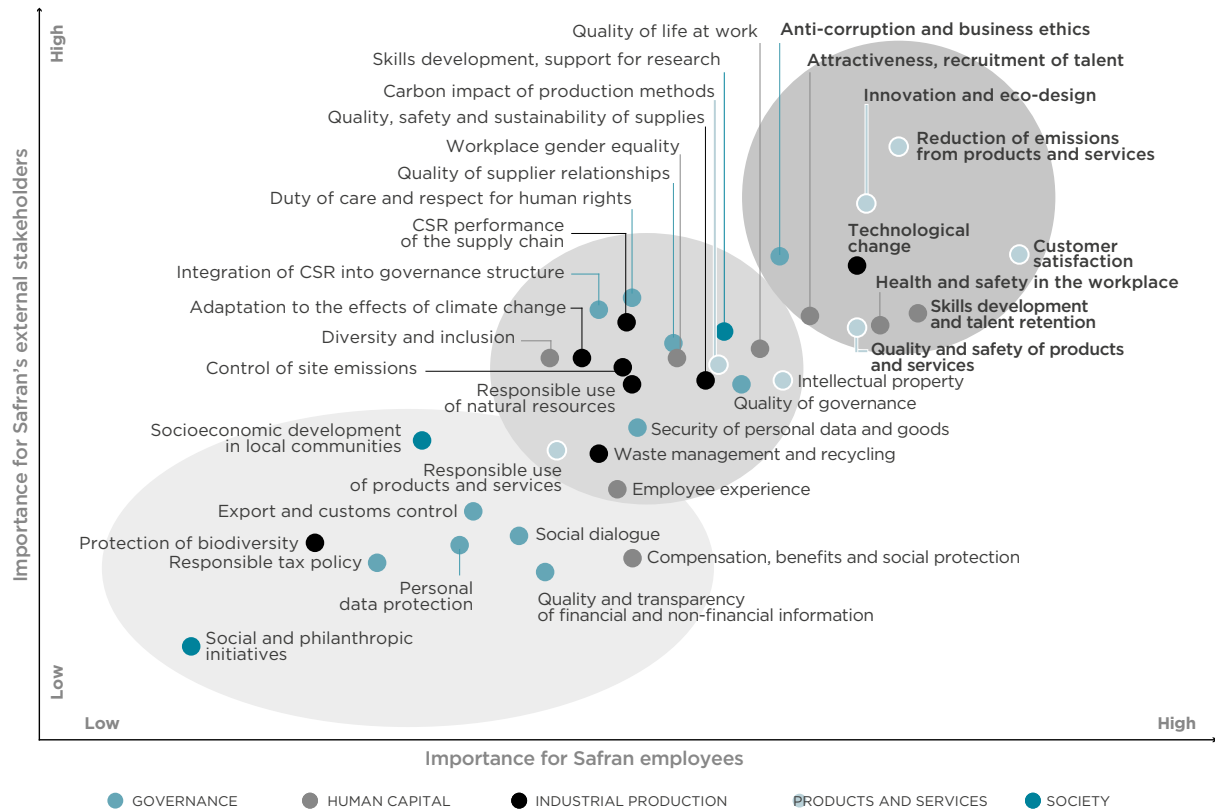
The consultation brought to light the underlying opinions and perceptions of respondents at that given time, while the updated matrix reflects a relatively clear consensus both internally and externally on Safran's priority challenges and the change in its stakeholders' expectations. The results have already helped enrich and better structure the CSR approach, in a quest for greater consistency with the main challenges identified by the consultation, in particular those appearing in the circle in the upper right-hand corner of the map:

- **customer satisfaction and trust;**
- **business ethics and the fight against corruption;**
- **reduction of atmospheric emissions and the carbon impact linked to the use of products and services;**
- **innovation and eco-design of products and services;**
- **technological developments;**
- **attractiveness of Safran and recruitment of talent;**
- **skills development and talent retention;**
- **health and safety in the workplace;**
- **quality and safety of products and services.**

The consultation also enabled Safran to consolidate its relationships with its stakeholders, and raise its CSR and sustainability challenges with them. Exchanges of this type nurture the understanding of specific expectations on these aspects among its business community (customers, industrial partners, suppliers and subcontractors, etc.), the world of research (laboratories, universities, etc.), public authorities, the financial community (investors, shareholders, analysts, bankers, etc.) and internally with Safran employees and their representatives.

Organization and management of non-financial performance

MATERIALITY MATRIX OF NON-FINANCIAL CHALLENGES



The map shows the nine priority challenges cited by the stakeholders surveyed in the circle in the upper right-hand corner.

5.1.3 Safran, a responsible player

External commitments

Safran became a signatory to the United Nations Global Compact in 2014. The Global Compact comprises 10 principles relating to respect for human rights, international labor standards, the environment and the fight against corruption. Safran has willingly undertaken to adhere to and promote these universal principles in its practices. The Group's Chief Executive Officer assumes direct responsibility for this commitment.

Safran certifies the effective implementation of these principles by posting a Communication on Progress (CoP) on the United Nations Global Compact website each year. It takes the form of the Non-financial Performance chapter of this Universal Registration Document, which is validated by the Board of Directors. Safran is classified as Advanced, the highest standard in terms of CSR performance. The Group aims to highlight its commitments and contributions in the above areas, demonstrate the consistency of its initiatives and make its approach to social responsibility a strategic factor in its growth.

Through its actions, Safran is part of global efforts in support of the 17 Sustainable Development Goals for 2030.

Internal commitments

Among internal commitments concerning human resources, social and environmental responsibility, Safran signed a global five-year CSR framework agreement with the IndustriALL Global Union and representatives of the metallurgy federations of the French CFE-CGC, CFTD, CGT and CGT-FO unions on October 18, 2017. It covers the entire scope of Safran's activities and applies to all of its employees.

The agreement is designed to:

- provide a formal framework for the Group's social responsibility policy, notably in compliance with ILO (International Labour Organization) Conventions. It confirms Safran's pledge to prohibit any form of forced or child labor. The Group also recognizes the legitimate role of employee representatives and trade unions in a dialogue aimed at maximizing the Company's social value. The deployment of Safran's culture of prevention is built around its Health, Safety, and Environment (HSE) standards, which cover 800 performance criteria for safety and working conditions, ergonomics and environmental protection. They are also aligned with international standards, such as those issued by the International Organization for Standardization (ISO);
- continue to deploy the Group's human resources policies, which nurture talent and skills, support quality of worklife and well-being, promote diversity and ensure equal opportunity. The

agreement bans any form of discrimination, with a particular emphasis on fostering gender equality in the workplace. In this way, all employees are offered the same career opportunities, supported as needed by training. The right of all employees to respect and recognition has been reaffirmed;

- enhance recognition of Safran by both customers and suppliers for its outstanding compliance with business ethics. Safran is committed to fighting against corruption in all its forms and regularly sharpens employee awareness through appropriate communication resources and/or training. To this end, it applies a risk prevention policy with respect to tax evasion;
- guarantee fundamental union rights, including freedom of association, collective bargaining and social dialogue. The agreement affirms a commitment to promoting "open and constructive social dialogue on a global scale, in order to continuously improve and develop best practices at all Safran facilities". It specifies that any change in working hours must be prepared and planned with employee representatives;
- implement Safran's commitment, through its subsidiaries, suppliers and subcontractors, to measures promoting sustainable development in response to international challenges, within the framework of the Sustainable Development Goals adopted by the United Nations in 2015;
- protect the environment, and in particular preserve natural resources, fight global warming, reduce the amount of waste and reuse it, and prevent the risk of pollution in order to minimize the impact of the Group's activities on the environment;
- take into account the impact of the business on the local environment, so that in each host country it focuses on hiring locally to fill available positions.

Addressing stakeholder relations, the agreement provides that fundamental rights will be upheld both in Group subsidiaries and in the selection and assessment of suppliers, subcontractors and service providers.

An international monitoring committee was set up in 2018 to track and assess implementation of the agreement and its commitments. Two meetings were held, one at the worldwide corporate level and the other in Morocco at a unit that has earned CSR certification from the CGEM business federation. These meetings led to the publication of a guidebook to help Group units to self-assess their performance in fulfilling the agreement's nine commitments and to recommend up to three improvement initiatives for the years ahead. The draft guidebook was tested in Morocco during a second meeting of the international monitoring committee. Ninety-three Safran entities accordingly conducted self-assessments resulting in action plans targeting such issues as professional equality between women and men, relations with suppliers, non-discrimination, the environment and the impact of activities in local communities.

5.2 KEY NON-FINANCIAL RISKS

Chapters 4 and 5 are closely linked, and respective cross-references are provided. While the analysis and treatment of the main risk factors are presented in chapter 4, chapter 5 is dedicated to the presentation of the main non-financial risks and the indication and explanation of the related performance criteria.

5.2.1 Summary of key risks and related performance indicators

Safran's key non-financial risks are presented in the table below. The indicators presented serve to show the effectiveness of the policies implemented in response to these challenges. All of the indicators mentioned below relate to a Group scope unless otherwise stated.

Risk	Policies	Indicators	2018	2019	Change
CORRUPTION RISK					
Corruption risk is assessed on the basis of scenarios relating to:	Trade compliance program Anti-fraud policy Code of Ethics Duty of care plan	Number of employees trained under trade compliance programs (anti-corruption) More than 20,000 trained since 2010	4,600	4,900	+6.5%
- non-compliance with laws on anti-corruption and influence peddling: potential breaches related to the Group's international exposure, transactions with third parties (customers, suppliers, intermediaries) or transactions with public officials; - non-compliance with the Safran Code of Ethics and trade compliance program.					
ENVIRONMENTAL RISKS RELATED TO CLIMATE CHANGE					
Risks related to the expectations of our stakeholders:	Low-carbon project Duty of care plan	CO ₂ emissions in metric tons of CO ₂ equivalent:			
These so-called "transition" risks stem from changes in the economic and regulatory environment linked to adaptation to climate change. The expectations of Safran's stakeholders cover production processes, as well as product design and final use. Potential impacts could include new financial taxes or could affect market share or attractiveness for investors.		- Scope 1 - Scope 2	218,906 374,691	219,745 386,495	+0.3% +3.1%
Risks resulting from damage directly caused by weather and climate phenomena:					
The risks induced by climate change, such as earthquakes, hurricanes, cyclones, strong winds and floods, could cause damage to the Group's sites and endanger the safety of employees. The exposure of Safran's sites and its value chain depends on their location. The frequency and intensity of climate events, aggravated by the rise in global temperatures makes it necessary to take them into account when choosing new Safran sites.					
See section 4.3.1.5					

Risk	Policies	Indicators	2018	2019	Change
HEALTH, SAFETY AND ENVIRONMENT RISK					
Risks related to industrial activities:	HSE policy	Frequency rate of lost-time work accidents	2.9	3.2% ⁽¹⁾	+10%
■ Risks inherent to industrial activities, such as fire, explosion or the discharge of liquids and gases.	HSE standards	Severity rate	0.07 ⁽²⁾	0.07	stable
■ Risks related to the management of chemicals on the production sites.	Duty of care plan	Reported accident frequency rate	22.7	18.8	-17%
■ Exposure of employees to the risks inherent to industrial activities, such as the use of production equipment, load handling, shift work, working at heights, etc.					
Risks related to new regulations:					
■ Local and international health, safety and environmental protection regulations and standards applicable to Safran's activities are diverse, shifting and increasingly stringent. As such, non-compliance with regulations is a risk for the Group.					
See section 4.3.2.5					
Health risk associated with pandemics (see section 4.3.1.1)		Pandemic plan			
RISKS RELATED TO SUPPLIER RELATIONSHIPS					
Safran purchased goods and services worth €14.2 billion in 2019, i.e., more than 57% of its revenue, from more than 15,000 suppliers. Controlling the full range of risks linked to supplier activities is a priority challenge. Suppliers must comply with Safran's Responsible Purchasing Charter, which imposes respect for human rights and compliance with HSE regulations.	Responsible purchasing charter	% of buyers trained in responsible purchasing	N/A	40.1%	N/A
See section 4.3.2.4	Duty of care plan				
	Group purchasing policy				
RISKS RELATED TO SKILLS AND KNOW-HOW					
Situations liable to cause a loss of skills and know-how in the medium term are as follows:	Medium-term plan	% of Group employees to have completed at least one training course	87% ⁽²⁾	83%	+4.6%
■ faster change in the business, stemming either from the broad impact of the digital transformation or the Group's shift towards more electric products with less carbon impact;	Duty of care plan				
■ more than 11,000 departures per year over the next four years worldwide;					
■ tension in the job market and high turnover in certain geographies.					
See section 4.3.4					
RISK OF INSUFFICIENT OR LOSS OF ATTRACTIVENESS					
The risk of loss or lack of attractiveness for the Group covers three issues:	Talent retention policy	Permanent departure replacement index	1.1	1.2	+9%
■ recruitment times for certain specific profiles (materials, special processes, electrical, power electronics) and in new professions for Safran (data analyst, etc.);	Duty of care plan				
■ the high concentration of industrial companies in certain international basins, generating intense competition to attract skills and talents, if Safran is not sufficiently differentiating;	Compensation policy	Absenteeism rate	N/A	2.8%	N/A
■ insufficient representation of women in the Company, especially in senior positions, generating a risk in terms of image and attractiveness.					
See section 4.3.4					

Scope 1: direct greenhouse gas emissions linked to the combustion of energy sources such as gas, liquefied petroleum gas and aviation fuel during the production phases at Safran sites.

Scope 2: indirect emissions linked to the consumption of energy, electrical power or heating/cooling at Safran sites.

Scope 3: other emissions indirectly produced by Safran's activities and not accounted for in Scopes 1 and 2, but linked to the overall value chain (source: Ademe).

(1) The frequency rate shows a deterioration, even though more than 800 reported accidents were avoided in 2019. Particular attention will be paid to the prevention of lost-time accidents in 2020.

(2) Excluding activities derived from the former Zodiac Aerospace.

5.2.2 Duty of care plan

5.2.2.1 Duty of care plan – Context and commitments of the Group

French law 2017-399 of March 27, 2017 on the duty of care of parent companies and ordering companies obliges certain companies, including Safran SA, to prepare and implement a duty of care plan including reasonable measures for identifying risks and preventing serious breaches of human rights and fundamental freedoms in fields including human health and safety, as well as the environment resulting from the activities of the Company and its subsidiaries and the activities of subcontractors or suppliers with which there are established business relationships. These challenges are a major concern within the Group.

The Safran duty of care plan covers all Group companies, and as such includes the activities of its various subsidiaries. It also covers the activities of suppliers and subcontractors with which there are established business relationships when such activities are related to the Group.

The methodology used in developing the plan was devised by Safran on the basis of contributions from representatives of the CSR, Legal, Purchasing, Trade Compliance and other departments.

Safran sees the plan as a means of consolidation and reinforcement in the implementation of its risk prevention and management processes. It is also an opportunity to improve its approach towards its subcontractors and suppliers, in a process of continuous progress (see section 4.3.2.1).

The duty of care plan is presented and monitored by the Safran Executive Committee annually; a broader approach has been adopted to factor in the response to the Sapin II Act, promulgated in 2016.

Safran continued its efforts to promote its duty of care towards its suppliers in 2019. The plan expands on the information contained in the Group's fundamental documents, such as the general purchasing conditions, the Responsible Purchasing Charter, the Ethical Guidelines, the Code of Conduct, and the HSE policy. The Group has defined the standards of compliance that were reaffirmed in its global framework agreement on "working conditions, social responsibility and sustainable development", which meet and exceed the standards prevailing in its host countries. When country legislation is less strict, the Group insists on compliance with its own HSE and human rights standards.

Safran has committed to implementing a CSR strategy that involves its suppliers and partners. It expects its suppliers and subcontractors to commit to the same principles in turn. The following chapters describe the aspects of the duty of care plan in greater detail.

5.2.2.2 Identification of health, safety and environment risks

Using the methodology applied to the activities of subsidiaries and suppliers, as presented in chapter 4, HSE risks have been identified, analyzed and prioritized on the basis of their severity. The results are as follows:

- nine types of supplier risk have been identified among the 30 HSE standards applicable to Safran sites. The following table sets out the nine types:

Risk types from HSE standards

Toxicological
Aqueous discharges
Gaseous discharges
Fire protection and prevention
Explosions
Radiation
Waste
Accidents
Regulation

- supplier businesses have been broken down into 26 representative activities;
- each "activity/type of risk" pair is assessed in terms of its impact from 1 (low) to 5 (critical);
- the most critical activities are those that have an impact equal to 5 on at least once count, namely waste removal, chemical product development, surface treatments with baths, paint application, additive manufacturing, thermal spraying, buildings and public works and radiation control.

5.2.2.3 Respect for human rights and compliance with anti-corruption rules⁽¹⁾

Through its commitment to respect the 10 principles of the United Nations Global Compact and through its Code of Ethics, Safran highlights the obligation for its employees, suppliers and subcontractors to respect the principles related to human rights, labor standards, the environment and the fight against corruption.

Based on the criteria published by the Danish Institute for Human Rights, the Group characterizes the risk of infringing human rights by refusing child labor and forced labor, respecting freedom of association and collective bargaining, preventing discrimination and promoting decent working conditions and a living wage.

Drawing on a map drawn up by British company Verisk Maplecroft, which rates the level of country risk in terms of respect for human rights from lowest to highest, suppliers are listed by country.

The Group also verifies suppliers' compliance with international sanctions and embargoes using a dedicated Visual Compliance screening solution.

⁽¹⁾ In the duty of care plan (supplier scope) that is being implemented, Safran has chosen to take a broader approach by incorporating its responses to the Sapin II Act (promulgated in 2016) that also provides for the implementation of a duty of care plan (risk of corruption and influence peddling).

5.2.2.4 Deployment of the duty of care plan externally (subcontractors and suppliers)

Suppliers affected by HSE challenges

A first list covers suppliers from the Safran global panel affected by the eight critical activities, namely waste removal, chemical product development, surface treatments with baths, paint application, additive manufacturing, thermal spraying, buildings and public works and radiation control.

Among these suppliers, some:

- are considered a priority when their activity is subject (totally or partially) to the REACH regulation (see section 5.5.3);
- are not selected when they belong to a group with an HSE policy in place.

A first panel of 975 suppliers was selected on that basis. Those of Safran Seats, Safran Cabin and Safran Passenger Solutions will be brought into the scope of the duty of care plan from 2020.

Suppliers affected by the protection of human rights

Ninety-one suppliers (excluding intra-group companies and those belonging to international groups whose CSR policies have been made public) located in countries in the most exposed areas were identified in this manner.

A performance based mainly on:

The responsible purchasing charter

First, the responsible purchasing charter is submitted to suppliers for their approval.

The purpose of the Safran GRF-0164 responsible purchasing charter is to obtain suppliers' commitment and contribution in respect of the Group's CSR requirements. It demonstrates Safran's determination to permanently embed CSR criteria into the selection process, with the same importance as cost, quality, service, innovation and risk management. In 2019, the responsible purchasing charter dating from 2016 was revised. The charter is currently available on the Group's supplier portal in French and English⁽¹⁾. Its nine key principles are:

- promotion of and respect for human rights;
- development of human potential;
- maintenance of a culture of integrity within the Group;
- compliance with international import and export controls;
- accurate and reliable data archiving;
- protection of information;
- continuous efforts to achieve excellence in the security and protection of people and property;
- development of innovative products and processes with a lower environmental impact (CO₂, energy, chemicals, waste);
- involvement of our suppliers and partners in the implementation of the CSR strategy.

The Group's responsible purchasing charter incorporates the terms of the IFBEC Supplier Model Code of Conduct.

HSE challenges

Three hundred and thirty suppliers whose activities are deemed to represent the greatest risk among the 975 initially identified received a request for self-assessment on the basis of the International Aerospace Environmental Group (IAEG) HSE questionnaire. Analysis of the response to the HSE questionnaire was used to rate suppliers.

Respect for human rights and compliance with anti-corruption rules

For the human rights section, the suppliers of Safran companies located in at-risk countries (see section 5.2.2.3) are covered. Those of Safran Seats, Safran Cabin, Safran Aerosystems and Safran Passenger Solutions will be addressed from 2020.

As such, 91 suppliers in the panel identified received a self-assessment request (based on the human rights questionnaire validated by the IndustriALL Global Union, a stakeholder with which Safran has signed a global framework agreement on "working conditions, social responsibility and sustainable development") bearing on 10 issues spanning human rights and corruption. The approach is shared with the Group International and Public Affairs Department. The supplier base is regularly run through using the Visual Compliance solution to verify suppliers' compliance with international sanctions and embargoes, and with respect to fraud and corruption.

Performance indicators and targeted management of actions

These actions apply, in whole or in part, to all suppliers obtaining an insufficient score on the HSE questionnaire or whose responses to the human rights questionnaire reveal areas of non-compliance.

The duty of care plan covers the following steps:

- additional information from other stakeholders where necessary, and requests for explanations from the supplier;
- specific analysis with the supplier;
- corrective action plans to reduce risks, under the supervision of the lead buyer of a Safran company, with monthly follow-up;
- bimonthly reviews with the Purchasing Departments to oversee the deployment plan, track action plans and make adjustments where necessary, potentially resulting in action to raise the supplier's awareness or even in the termination of the business relationship;
- a decision by the Group Purchasing Committee, which may decide to terminate the relationship if the non-compliance is not remedied quickly.

In 2019, 41 suppliers were subject to specific action plans following feedback and analysis of the HSE and human rights questionnaires deemed unsatisfactory.

5.2.2.5 Deployment of the Safran duty of care plan internally

Measures taken to implement the duty of care plan within the Group serve to identify, prevent and mitigate the main risks in terms of human rights, health, personal safety and the environment:

- the protection of personal data (see section 4.3.1.3), whether it concerns Safran employees or third parties, is subject to a specific organization and a program designed to ensure compliance with the provisions of the European Union's new General Data Protection Regulation (GDPR), which came into force in May 2018, as detailed in section 5.3.6;

(1) <https://www.safran-group.com/suppliers/working-safran/Travailler%20avec%20Safran>

Key non-financial risks

- employee safety (see section 4.3.2) is ensured through a dedicated organization, both internationally and in France. The workplace safety policy is reflected in the implementation of oversight, analysis, training and monitoring of employees and partners in sensitive geographies;
- HSE risk management (see section 4.3.2) is described in sections 5.5 and 5.6;
- risk management in the purchasing process.

Several systems have been established for risk management in respect of the purchasing process, including buyer training, application of the principles of the CSR strategy through purchasing procedures, and development of the skills of all purchasing function stakeholders. All buyers must therefore complete responsible purchasing training.

The responsible purchasing training indicator tracks the application of the duty of care plan.

Responsible purchasing training	2018	2019
France		
% of buyers to have completed the responsible purchasing training module in face-to-face format and/or by e-learning	43%*	56%
World		
% of buyers to have completed the responsible purchasing training module in face-to-face format and/or by e-learning, all companies	N/A	40.1%

(*) Excluding Safran Passenger Solutions, Safran Aerosystems, Safran Cabin, Safran Seats.

The implementation of this plan makes the purchasing process (see "One Safran", section 1.7) more robust by more thoroughly embedding CSR criteria into each phase:

- development of purchasing strategies by group, supplier selection, supplier approval (including mandatory signing of Safran's responsible purchasing charter), contracting and contract management, supplier monitoring and supplier performance measurement;
- a specific communication kit on duty of care was created for buyers in 2019 in order to improve their knowledge of the law and the existing system; it has been given to all buyers. Another communication kit on duty of care was created for suppliers in 2019, enabling buyers to raise awareness among their suppliers;
- a Buyer's Memo distributed to the purchasing community sets out the mandatory training in a buyer's career path, including Responsible Purchasing;
- actions to permanently fine-tune the purchasing process and make it more robust, with the introduction into our operational standards of practices reflecting CSR principles, and as such to perpetuate the implementation of the duty of care system:
 - GRP-0087, known as the responsible purchasing charter, has been revised to incorporate CSR provisions,
 - a guide for developing the supplier duty of care plan is being developed,
 - an ethical clause is included in the general purchasing terms and conditions negotiated with the Group's suppliers, particularly for one-off contracts or small contracts (volume

and duration). They aim to provide suppliers with a balanced contractual framework taking into account the specific nature of each situation. The general purchasing terms and conditions also provide a basis for the framework agreements negotiated with suppliers that have a more long-standing relationship with Safran. They were updated in 2017,

- the integration into the operational processes of a continuous improvement approach to CSR and appropriate training for the main actors in the approach.

5.2.2.6 Conflict minerals

Safran complies with applicable laws and regulations regarding the supply of ores (such as tin, tungsten, tantalum and gold) from conflict zones, in particular the American regulations resulting from the Dodd-Frank Act, and already applies the European regulations due to come into force in 2021.

To that end, Safran identifies suppliers liable to use such minerals and requires them to undertake to comply with applicable laws and regulations, and to establish an internal policy enabling them to ensure that the minerals contained in the products they manufacture are not used to finance, directly or indirectly, armed groups whose activities are contrary to human rights.

Safran's suppliers must also, as may be required by law, exercise due diligence in choosing the source and traceability of minerals, inform Safran of the origin of the minerals used, and in turn impose the same conditions on their own suppliers.

5.2.3 The internal whistleblowing system

In 2019, the Group reinforced its whistleblowing system for ethics violations by providing its employees, its external or occasional employees, its customers and its suppliers with a secure and multilingual email address: safran@alertethic.com. Whistleblowers can use this address to file, anonymously or openly, any good faith report of a breach of the principles enshrined in the Group's Code of Ethics.

Items that may be reported are:

- any fraud or attempted fraud;
- any conduct or situation contrary to Safran's Code of Conduct as regards the "prevention and detection of acts of corruption";

- more broadly, any serious and manifest violation of applicable laws and regulations, notably those bearing on human rights and fundamental freedoms, health, personal safety and the environment, as well as any relating to the duty of care in respect of suppliers or a threat or serious prejudice to the general interest.

5.3 BUSINESS ETHICS, EXPORT AND CUSTOMS CONTROLS

5.3.1 Preventing corruption

Ethics is a cardinal value at Safran, one shared by all employees. The program for preventing and detecting corruption risks is built on a policy of “zero tolerance” of any practice contrary to the fight against corruption, influence peddling, facilitating payments⁽¹⁾, embezzlement, undue advantage, misuse of public funds or favoritism. The generic term “corruption” is hereafter used to refer to these dishonest and immoral violations of the Group’s standards, which are prohibited by Safran.

Safran was the first CAC 40 company to be “anti-corruption” certified by the French Agency for the Diffusion of Technological Information (ADIT), in 2012. Its certification was renewed in April 2017 until March 2020. This highlights the efforts made in recent years to put together a robust anti-corruption program consistent with the highest level of international standards: America’s Foreign Corrupt Practices Act, the UK Bribery Act, the OECD Convention, France’s Sapin II Act, the tenth principle of United Nations Global Compact and ISO 37001.

5.3.1.1 Zero tolerance of corruption

The importance of ethical values in shaping Safran’s policies and operations has been clearly and continuously articulated by Chief Executive Officer Philippe Petitcolin, who has expressed this special commitment in his introductory message to trade compliance courses: **“Our strength, our pride, is to show zero tolerance for any violation of our business integrity. By practicing impeccable business ethics, we will remain faithful to our values and drive continued success for our Group. I firmly believe that we must lead by example in this area.”**

5.3.1.2 Ethical and social engagement

Safran ensures that its activities are conducted in accordance with high standards of honesty, integrity and professional standards consistent with the best international standards of business ethics promoted by the International Forum of Business Ethical Conduct (IFBEC) combining the major international aerospace and defense companies. This is a major challenge for Safran (see section 5.3). The Group has a duty of care, which is an integral part of all of the Company’s functions, including the purchasing function (see section 5.2.2), reflected in the seven values shared by all of its employees. These values are described in the Safran leadership model:

- focus on customers;
- meeting the commitments set out in the Ethical Guidelines;
- innovation;
- responsiveness;
- teamwork;
- people development and recognition;
- good corporate citizenship.

Safran bases its work on the Ethical Guidelines⁽²⁾, which specify the shared principles and standards that every employee is expected to apply in all circumstances. The Guidelines are not intended to replace or revise the laws and regulations in force, but to provide employees with points of reference and guidance in conducting their business activities. The purpose of the rules and the Ethical Guidelines is to enable Safran to fully live up to the trust placed in the Group by all of its stakeholders. Party to numerous international initiatives, Safran is in the front ranks of the fight against corruption.

The Compliance, Ethics and Anti-Fraud Committee

The permanent members of the Compliance, Ethics and Anti-Fraud Committee are the Corporate Secretary, the Chief Financial Officer, the Senior Executive Vice President, International and Public Affairs, the Executive Vice President, Human Resources, the Chief Legal Advisor, the Senior Vice President, Trade Compliance, Export Control and Customs, the Group Chief Security and Fraud Officer, the Head of Audit and Internal Control and the Head of Group Internal Control.

The Committee is responsible for supervising compliance with the rules defined in the Ethical Guidelines (upholding the law, engaging in proper business practices, protecting people and assets, etc.), as well as for managing any updates and revisions to the process. This approach is sponsored by the Corporate Secretary, with the responsibilities handled by the departments concerned (for example, trade compliance and export control within the Group International and Public Affairs Department). The Group’s resources mainly include the Ethical Guidelines, anti-fraud policies, internal control procedures, processes and standards, and a fraud prevention, awareness, detection and assessment program. In particular, a system is in place to report cases of fraud or attempted fraud identified in Group companies. In response, appropriate remedial action is taken by the companies, the operating departments concerned and, as necessary, by the Group Audit and Internal Control Department and the Group Security Department. The fraud officer is tasked, among other things, with defining internal investigative procedures and, when applicable, conducting the investigations. He reports to the Compliance, Ethics and Anti-Fraud Committee, which met twice in 2019.

Anti-fraud policies

Employees who suspect that a practice or incident may be illegal or in violation of the Group’s rules of business conduct have the right to notify or request guidance from their managers, the Head of Internal Control, the Head of IT Security, the Security Officer, the Human Resources Manager, the Legal Department, the Finance Department, the Quality Department, the Audit and Internal Control Department or the Compliance, Ethics and Anti-Fraud Committee, etc.

The internal whistleblowing system is described in section 5.2.3.

(1) Facilitating payments: unofficial payments of moderate sums made to expedite or ensure the smooth progress of straightforward procedures or necessary services to which the payer is entitled, whether in accordance with the law or another founding principle.

(2) Available on www.safrangroup.com.

5.3.1.3 A robust trade compliance program

Safran's trade compliance program integrates all the requirements of international conventions and national regulations applying to its activities, including the requirements of the law of December 9, 2016 on transparency, the fight against corruption and the modernization of economic life, known as "Sapin II".

Its goal is to instill the culture of honesty put forward in the ethical guidelines across the organization and to encourage every employee to embrace the imperative of demonstrating exemplary behavior in this regard.

It comprises a series of standard operating procedures applied by each subsidiary in accordance with local legislation applicable to its organization, products and markets. It is also proposed to the Group's minority-owned affiliates.

It is run by a dedicated organization, the Trade Compliance, Export Control and Customs Department, which is led by the Group Compliance Officer, who reports to the Senior Executive Vice President, International and Public Affairs, who in turn reports to the Chief Executive Officer.

It is accordingly designed both to empower employees and to safeguard corporate assets with a disciplined risk management process based on eight pillars:

- setting the example at the highest level: "Tone at the Top";
- dedicated corruption risk mapping;
- a Code of Conduct;
- a dedicated organization;
- appropriate procedures;
- an information and training program;
- a procedure control and monitoring system;
- an internal alert system.

In addition, Safran is deeply involved in a wide range of collective, industry or thematic initiatives dedicated to strengthening and sharing best business integrity practices. A member of the Compliance, Ethics and Anti-Fraud Committee, the Group Compliance Officer steers the entire process of preventing the risk of corruption, conducting exchanges and promoting good practices with businesses, national and international authorities and civil society. He or she also participates in or contributes to initiatives led by national and international professional organizations, such as (i) the French Aeronautical and Space Industries Group (GIFAS), whose ethics and corporate responsibility committee is chaired by Safran; (ii) the AeroSpace and Defence Industries Association of Europe (ASD); (iii) the International Chamber of Commerce, the International Forum of Business Ethical Conduct (IFBEC); (iv) French employers' federation MEDEF, in which Safran chairs the International Ethics Committee; (v) the Business and Industry Advisory Committee (BIAC) to the OECD, of which Safran is Vice-Chair of the anti-corruption task force; (vi) the B20 Germany, acting as Vice-President of the Responsible Business Conduct & Anti-Corruption Cross-thematic Group; (vii) the Ethics Circle of the European Business Ethics Network (EBEN), with Safran sitting on the Board; and (viii) the association of European Compliance & Integrity Officers.

Setting the example at the highest level: "Tone at the Top"

The Board of Directors, the Chairman, the Chief Executive Officer and all Safran subsidiary chief executives have emphasized the need to lead by example. Maintaining business integrity and

refusing all forms of corruption are non-negotiable, even if it means losing contracts and revenue. This is the only way for the Group to secure its sound, sustainable growth and retain the trust of its stakeholders. This commitment is reflected in a representation letter signed every year by all of the chief executives of the Group's tier-one companies. The chief executives sign for their own companies and ensure that this letter is also signed by their subsidiaries.

Twice a year, the Group Compliance Officer reviews trade compliance issues in a presentation to the Executive Committee. Trade compliance in the tier-one companies is also periodically reviewed with their chairmen.

A dedicated corruption risk map

Safran's compliance program is informed by a corruption risk map, integrated into the Group's risk map (see section 4.1.1), that tracks all of the companies' specific corruption-related issues and risks (see section 4.3.1.3), with a focus on:

- market trends in the Group's host countries;
- applicable changes in legislation and standards;
- each company's situation, based on the maturity of its corruption risk prevention program, the results of internal and external audits performed during the year, and the completed or ongoing improvements in its procedures and organization.

Twice a year, all of the tier-one companies update their dedicated corruption risk maps, which the companies and Group management use as their primary tool for mutually defining pathways to improvement, resource requirements and the training plan.

A Code of Conduct

In compliance with the Sapin II Act, the Code of Conduct reaffirms the engagement of the Group and its executive management in a corruption prevention and detection process. The Code of Conduct makes reference to the Safran leadership model and the ethical guidelines. It defines and illustrates the types of behavior that are prohibited because they could be construed as corruption, based on the risks identified in the risk mapping exercise.

The Code of Conduct was finalized on January 22, 2018, following the issuance of recommendations by the French Anti-Corruption Agency (*Agence française anticorruption* - AFA) on December 21, 2017. In 2019, the Code of Conduct was integrated into each facility's operating procedures manual, after consultation with employee representatives, and is now applicable to all Group employees.

A dedicated organization

The Group Compliance Officer is assisted by a network of 28 Trade Compliance Officers (TCOs) appointed in all companies that are independent from a trade compliance perspective. Delegated by their Chairman or Chief Executive Officer, the TCOs are responsible for guaranteeing that their company's business transactions fully comply with Group anti-corruption procedures. They report to the Group Compliance Officer, who provides them with all of the support and useful information they need to perform their duties.

TCOs work with a network of 199 Trade Compliance Managers or Correspondents (TCMs or TCCs) who ensure that the measures taken by the TCOs are applied in each of their company's subsidiaries or divisions. They also lead training courses, after being accredited as trainers by the Group Compliance Officer.

The number of TCOs rose to 28 at the end of 2019, from 22 in 2018, due to the ongoing integration of the activities of the former Zodiac Aerospace. Similarly, the number of TCCs and TCMs increased from 147 in 2018 to 199 in 2019.

TCOs and TCMs/TCCs are expected to ensure that people at risk or concerned in their sales, marketing, legal, financial, human resources or purchasing organizations regularly receive information and appropriate training. They also meet regularly to share their knowledge, discuss best practices and help to improve the trade compliance program and its procedures.

In addition, they are empowered to conduct trade compliance reviews in their units to ensure compliance with the procedures. Lastly, TCOs and TCMs/TCCs must notify the Group Compliance Officer of any failure to follow procedures as soon as it is detected.

Appropriate procedures

These procedures clearly and precisely describe the roles of employees and the rules that they are expected to apply in performing their duties. They are regularly updated and improved, and are widely distributed among managers and employees. The Group's external partners are also informed about these procedures:

- **the international trade compliance procedure** specifies strict rules for the centralized, independent control and management of contractual relations with business partners, as well as partners involved in offset agreements or in acquisitions, disposals or the creation of joint ventures by Group companies (such as consultants, service providers, distributors or other partners in investment transactions). It was amended in 2016 and updated in 2018 to reflect the latest changes in legislation (particularly "Sapin II") and best practices. It describes the tight controls governing the selection and approval of business partners, the assessment of their ethical performance, their monitoring and their compensation. Internal and external due diligence is systematically performed for every business partner. The procedure also covers the approval, management and monitoring of lobbyists, who must also comply with Safran's responsible lobbying guidelines, which were updated in 2017;
- **the procedures for gifts and hospitality** and other sponsorship expenses given to or received from customers, suppliers and other stakeholders, as well as the corporate patronage directive, are designed to avoid any violation of current legislation or any potential conflict of interest.

As concerns purchasing:

- an ethics clause, updated in 2017, is included in Safran's general purchasing conditions, which must be signed by every supplier;
- the written opinion of the Trade Compliance Officer is required for the use of advice or intellectual services outside France in order to assess the need to validate the partner in accordance with the international trade compliance procedure described above;
- the Group's responsible purchasing charter, also updated in 2019, incorporates the terms of the IFBEC Supplier Model Code of Conduct⁽¹⁾ (see section 5.2.2.4).

An information and training program

Members of the Executive Committee, company senior executives and Group employees who are either directly or indirectly concerned with preventing the risk of corruption are regularly provided with appropriate information, in the form of such documents as a bimonthly anti-corruption review, a weekly business ethics newsletter, country legislation reviews and analysis and dedicated intranet web pages. In all, 84 information memos were issued in 2019.

An on-site trade compliance training course was developed for Group companies worldwide. Preventing and detecting corruption was a topic incorporated into several Safran University training programs, aimed specifically at staff involved in sales, marketing, purchasing, human resources, financial resources and programs. As part of the Massive Online Open Courses (MOOCs) and other online learning systems, the interactive module on preventing the risk of corruption or the infringement of export control legislation that was deployed in late 2014 was updated in 2018. More than 20,900 people concerned by these issues have attended dedicated training courses since 2010, including more than 4,900 in 2019.

Subsidiary executive committees are also briefed at least once a year. These courses are designed to give every employee concerned adequate knowledge of regulations applicable to his or her activities and a full understanding of Group procedures and how to apply them in performing his or her duties. The program is led by the Group's trade compliance team, as well as by the companies' Trade Compliance Officers, who have been accredited internally as trainers.

A communication campaign on integrity in business transactions rolled out in late 2015 with the slogan "Adopt the Compliance Attitude" continued apace in 2019, helping to raise employee awareness of how to respond appropriately in different situations at risk.

A procedure control and monitoring system

In 2019, 40 trade compliance reviews were conducted by the Group Compliance Officer on all of Safran's tier-one and tier-two companies. The Audit and Internal Control Department also performs audits integrating trade compliance, based on specific control points. In 2019, anti-corruption certification audits carried out by ADIT, whose guidelines are based on the prevention of corruption risk requirements resulting from Sapin II, the FCPA and ISO 37001, were successfully carried out at Safran Electrical & Power and Safran Transmission Systems. The renewal of anti-corruption certifications issued by ADIT was also obtained for Safran Electronics & Defense, Safran Aircraft Engines, Safran Helicopter Engines and Safran Landing Systems.

The internal whistleblowing system, a fundamental element of the Sapin II Act and the duty of care is described in section 5.2.3.

(1) Available on www.safrangroup.com.

5.3.2 Complying with export control laws

Group companies buy and sell components, equipment and technologies that can be used for civil, military or so-called dual-use (civil and military) applications. Risks related to the export control process have been included in legal and regulatory risks (see section 4.3.1.3). To manage them, Safran has implemented procedures to ensure strict compliance with export control regulations and laws in all Group companies, with specific adjustments for Safran subsidiaries in the United States.

In France, this robust system has enabled Safran Electronics & Defense and Safran Aircraft Engines to obtain certification issued by the French Directorate General of Weapons Procurement (DGA) following application of the French law transposing the European Directive on transfers of defense-related products within the EU. In 2019, Safran Aircraft Engines was in the process of renewing its certification.

Safran's export control compliance standard is structured around nine areas:

- establishment of the export control organization: overseen by the Senior Executive Vice President, International and Public Affairs, the Group Export Control Department is supported by a global network of 434 experts and correspondents. Their job is to ensure that the compliance standard is consistently applied across the Group's global business base, which is subject to more than 22 regulatory frameworks. A Group Export Control Committee also meets four times a year. Safran participates in a variety of working groups with public authorities and trade associations, such as the French Aeronautical and Space Industries Group (GIFAS), the AeroSpace and Defence Industries Association of Europe (ASD), French employers' federation MEDEF and Business Europe. Safran chairs the GIFAS working group on French export control regulations, and co-chairs with the DGA the working group on international regulations;
- identification of export restrictions on products: Safran ensures the compliance of all operations of Group companies with the countries and companies subject to sanctions or embargoes, in collaboration with the Group Finance Department. It

provides all Group employees with an application to assess export sales to countries, companies or individuals subject to sanctions or embargoes and to gain a better understanding of applicable legislation;

- management of export authorization and license applications;
- compliance with the terms and conditions of the licenses granted;
- identification and protection of controlled technologies;
- training, exchanges of good practices and awareness-raising for the employees concerned: training and awareness-raising initiatives are organized by the Group companies and departments concerned and by Safran University, both face-to-face and via a MOOC updated in 2018. In addition, 130 information notes were released in 2019. A total of more than 11,600 people took part in awareness-raising initiatives in 2019, more than 6,100 of whom in face-to-face settings, bringing the total to more than 43,000 employees since 2010. An intranet site is also dedicated to export control for all Safran personnel worldwide. It provides them with the directory of correspondents within the export control network;
- monitoring of improvement action plans by the Group Export Control Department and maturity reviews every two years of the control program of the relevant Group companies and departments, with the help of an external service provider. These reviews allow the risk map to be updated twice a year;
- treatment of non-compliance with applicable regulations: Safran ensures that its companies detect, assess and report any cases of non-compliance. The companies inform the relevant authorities of each identified case and take every precaution to prevent similar cases from recurring in the future. To date, none of the cases closed by authorities have been subject to penalties;
- application of the compliance standard by each company. Each tier-one company is responsible for ensuring the implementation and effectiveness of the control program in its own subsidiaries.

5.3.3 Complying with customs regulations

Safran complies with all applicable customs legislation by deploying suitable, effective systems to ensure seamless compliance in all of its international business transactions.

The Group Customs Department is actively partnering with the French customs administration and now liaises with the Customs Directorate's Key Accounts Office, which provides dedicated expertise and ensures that the Group's customs transactions are consistently and quickly expedited.

In 2019, the Group Customs Department and the subsidiaries' customs officers focused on further updating their procedures and authorizations so as to comply with the new requirements of the regulatory directives implemented in 2019 and thereby benefit as soon as possible from easier administrative procedures and lower customs duties. In addition, planning for the impact of a possible Brexit is described in section 4.3.1.1 of this Universal Registration Document.

To ensure compliance with applicable customs legislation and the seamlessness of international operations, the Group compliance standard is structured around 11 areas:

- a customs organization: the Group Customs Department, created in 2016 as part of the Group International and Public Affairs Department, is supported by a worldwide network of internal experts with Empowered Officials, who are management committee members appointed in each Group company, a Customs Officer in each company, tasked by the chief executive officer with assisting the Empowered Officials, and a Group Customs Committee, primarily comprising the Group Trade Compliance Officer, the Group Customs Officer and the tier-one company customs officers. Meeting quarterly, the Committee is responsible for enhancing the maturity of the Group's compliance with national and international laws and regulations, with appropriate, actionable practices; and implementing continuous improvement plans;
- operating procedures: customs authorizations, tariff classification, customs procedures, origin, value, guarantees, proof of export, etc.;

- recording, storage and archiving;
- outsourcing customs declarations;
- monitoring and auditing the compliance program;
- information, awareness-raising initiatives and training for the relevant people in Group companies: in 2019, 48 regulatory intelligence initiatives (meetings, instructions, communications) were carried out by Group Customs management, and 1,470 people were trained or took part in awareness-raising initiatives. Awareness-raising modules in MOOC format are planned for 2020;
- subsidiary reporting procedure to the Group Customs Department;
- managing cases of non-compliance;
- certification as an Authorized Economic Operator (AEO) or equivalent issued by internationally recognized customs administrations. SEP, Safran Aerobusters and Zodiac Aerotechnics obtained their AEO certification in 2019;

- relations with customs authorities;
- application of the compliance program, based notably on bi-annual assessments of the maturity of customs compliance processes for tier-one companies, carried out by an external service provider. The assessments also help to identify potential difficulties and risks, so as to provide operational support as needed. Based on their findings, the Group Customs Department updates the risk map twice a year and prepares improvement plans.

The Group Customs Department participates in a large number of working groups, including those conducted as part of the customs commissions of the French Aeronautical and Space Industries Group (GIFAS), the French Federation of Electrical, Electronic and Communication Industries (FIEEC), French employers' federation MEDEF and the Aerospace and Defence Industries Association of Europe (ASD). Their primary focus is the pan-European application of the Union Customs Code and its new regulations impacting dematerialization of trade, customs clearance and self-assessment by 2025.

5.3.4 Trade compliance, export control, customs indicators

All of the indicators mentioned below relate to a Group scope unless otherwise stated.

	2017	2018	2019
TRADE COMPLIANCE			
Number of representation letters signed in the tier-one companies	100%	100%	100%
Tier-one companies that have prepared a dedicated anti-corruption risk map and submitted it to the GCO	100%	100%	100%
Number of Trade Compliance Correspondents in Group companies	136	169	227
Number of on-site compliance training courses for employees concerned	144	148	216
Number of people trained ⁽¹⁾	>3,300	>4,600	>4,900
Number of trade compliance reviews	25	40	40
Number of tier-one companies with anti-corruption certifications issued by ADIT	9	9	9
EXPORT CONTROL			
Number of Export Control correspondents in tier-one and tier-two companies	370	427	434
Number of people trained	More than 3,900	>4,400	>11,600 ⁽²⁾
Number of information memos issued to employees concerned	70	83	130
CUSTOMS			
Number of information memos issued to employees concerned	52	107	48
Number of people trained	527	1,429	1,470
Number of companies certified as Authorized Economic Operator (OEA) or equivalent certifications	0	11	15 ⁽³⁾

(1) More than 20,000 in all since 2010.

(2) More than 43,000 in all since 2010.

(3) 15 companies have OEA or equivalent certifications: nine tier-one companies and six tier-two companies.

5.3.5 Supporting the Group's business over time with a responsible tax policy

Safran undertakes to comply with all applicable laws, rules and regulations with regard to tax compliance and the fight against tax evasion in all jurisdictions where the Group operates. It has therefore established a Group-wide tax policy and created a tax team dedicated to Group operations. Safran fully and openly cooperates with tax authorities and discloses all the information they need to perform their reviews. It works with tax authorities proactively and professionally, requesting prior clarifications and

explanations whenever necessary. In the event of disagreement on a given tax issue, the Group strives, to the greatest possible extent, to build consensus and find a solution.

For example, Safran has deployed an internal organization capable of timely country-by-country reporting (CBCR), in line with action 13 of the Base Erosion and Profit Shift (BEPS) plan. Furthermore, on March 14, 2019, Safran signed a tax

Responsible purchasing

partnership agreement with the French State, based above all on transparency in the exchange of information with the French tax authorities. This personalized support offer set up by the French Minister for the Budget aims to establish a long-term working relationship between Safran and a dedicated correspondent designated within the French tax authorities. The principles of this cooperation are as follows:

- transparency and clarity in the exchange of information;
- availability and speed;
- pragmatism and consideration of the constraints of each party.

The aim is to confirm the tax treatment of issues and/or risks contemporaneously. Within this framework, all questions relating

to the taxes managed and collected by the Directorate General of Public Finance (DGFiP) can be addressed. The administration undertakes to give a written opinion in the form of a ruling on the tax issues raised between the administration and Safran. Opinions are to be issued at the earliest possible date and at most within three months depending on the Company's deadlines and the complexity of the issues raised. Rulings issued within the framework of the fiscal partnership are binding on the DGFiP.

Safran believes that its industrial and commercial business must be supported over the long term by a fair and sustainable corporate tax policy. Safran's tax policy is public and can be accessed on the SafranGroup.com website, in the media section, under Group tax policy.

5.3.6 Protecting personal data and privacy

Safran is strengthening its internal organization, which was modified in 2018 and comprises a Group Data Protection Officer and data protection officers (DPO) in tier-one companies, with the appointment of local DPOs. The local officers located in the geographic areas where the Group has substantial operations will bring their local expertise, thereby guaranteeing that the processing of the personal data of our employees, customers, suppliers, applicants and partners is compliant within the various entities.

Safran has undertaken, in consultation with the European personal data control authorities, to update its binding corporate rules (BCR) to facilitate the transfer of personal data between the Group's subsidiaries internationally. By widely circulating the internal policy and procedures, the DPOs have helped build awareness among all players within the Group about the protection of personal data, which is now taken into account from the personal data processing design phase.

The Group is continuing to develop its compliance system with a view to continuous improvement:

- continued efforts to build awareness and develop knowledge among as many employees as possible within the Group. In 2018, an e-learning course was launched on the Intranet

explaining the need to comply with the five key processing principles (purpose, proportionality of data, retention periods, security and confidentiality, and rights of data subjects). In 2019, the Group rolled out a program of regular registration campaigns to encourage employees to complete this training;

- strengthening of culture and adoption of the right reflexes. Circulation of personalized practical sheets intended for the various businesses (HR, CIO, purchasing and trade, legal) in all tier-one companies to reiterate the proper responses for all employees on a day-to-day basis;
- strengthening of control points with the creation of each internal IT project and from the design phase of customer products to ensure privacy by design and by default;
- implementation of the Group application for analyzing personal data processing projects and keeping of the register of processing activities subject to regulations requiring such a register to be kept within all subsidiaries.

Actors from each department are accordingly mobilized to integrate the challenges of personal data protection into the working methods of employees in a sustainable manner and as closely as possible to the ground, with the objective of ensuring respect for human rights and fundamental freedoms.

5.4 RESPONSIBLE PURCHASING

5.4.1 Group purchasing policy

Safran's purchasing policy is designed to meet its objectives of excellence and competitive performance, in seamless alignment with both its manufacturing strategy and its CSR commitment.

Both the policy and the Group's purchasing procedures apply to all suppliers and subcontractors. The policy awards business to suppliers that are capable of meeting the Group's standards, its competitiveness criteria and the demands of the aerospace, defense and space markets. Suppliers must be prepared to work with Safran over the long term in a fair, mutually beneficial relationship.

Safran's purchasing policy accordingly aims to work with a base of efficient, reliable suppliers that strictly comply with the domestic and international laws and regulations applicable to them. They are subject to compliance with international trade rules (including those relating to export controls), as well as environmental, health and safety, ethical and social obligations.

The supplier panel must:

- meet Safran's present and future performance requirements (cost, quality, leadtime and innovation);
- enable Safran to provide its customers with innovative, value-creating solutions;
- guarantee that Safran's CSR commitments will be cascaded down through the whole supplier chain.

To that end, Safran:

- involves its suppliers in product development, enabling them to put forward their innovations and contribute their expertise and thereby effectively meet the expectations of the Group and its customers;

- promotes shared methods, management standards and metrics across all Group companies so as to improve Safran's supplier performance management and at the same time ensure good supplier relations;
- provides support to key Safran suppliers, helping them strengthen their industrial organization and, by extension, their performance in the Group's programs.

5.4.2 Purchasing governance

Safran's purchasing organization comprises three entities:

- a Group Purchasing Department: a centralized department that defines the purchasing strategy for all product families common to several Safran entities. It applies the purchasing policy in accordance with the specificities of Safran's various markets. It guarantees constant cooperation between companies, seamless coordination among all Group players in contact with suppliers and the involvement of purchasing teams across the product life cycle. It is also responsible for defining, improving and ensuring respect of the purchasing process;
- a centralized Safran Purchasing Department in charge of non-product related (NPR) purchases and materials purchases on behalf of Group companies, as part of the Safran Performance and Competitiveness Department;
- a purchasing department in each company, in charge of bill of materials (BOM) procurement.

These entities are the main vectors of Safran's commitments to subcontractors and suppliers.

Safran purchased goods and services worth €14.2 billion in 2019 (representing 57.2% of Group revenue) from approximately 15,000 suppliers breaking down into three main families:

- raw materials purchases;
- product-related purchases;
- non-product related purchases.

5.4.3 A commitment to responsible purchasing

The responsible purchasing policy draws on the ten responsible purchasing practices listed in the responsible supplier relations charter (available on the economie.gouv.fr website under *Médiateur des Entreprises > Charte Relations Fournisseurs Responsables* [French only]), to which Safran has been a signatory since 2010. The charter aims to develop a balanced relationship of trust between suppliers and customers in the knowledge and respect of their respective rights and duties. The Group has accordingly appointed an internal mediator to whom suppliers can refer matters, with the aim of avoiding or resolving any potential conflicts as quickly as possible. The Safran mediator also takes action within the framework of initiatives led by the GIFAS aerospace and space mediator.

Confirming its commitments since 2017, the Group has been awarded the "Responsible Supplier Relations Label" by Business Mediation and the National Purchasing Council for a period of three years in France. This label recognizes companies that are committed to building lasting collaborative relationships. Obtaining it requires a external audit of purchasing procedures and action plans. Various annual review audits (2014, 2015

Highlights in 2019

- Rollout of the Group's purchasing policy and its procedures in the four new companies: Safran Cabin, Safran Seats, Safran Aerosystems and Safran Passenger Solutions.
- Completion of 22 "One Safran" projects (see section 1.7) in companies for the purchasing process and the ramp-up of "One Safran" applications allowing the implementation of best practices.
- Rollout of a supply-chain duty of care plan on corruption prevention, human rights, HSE requirements, as described above, and CSR challenges with our suppliers.

In deploying its purchasing governance, Safran relies on:

- a shared Group-wide procurement process, supported by maturity assessment applications used to devise and deploy continuous improvement plans designed to enhance proficiency in best practices;
- internal improvement plans reflecting assessments from Safran's various stakeholder organizations;
- a training system accessible to each buyer to guarantee within the Group the implementation of professional and responsible purchasing practices including e-learning and classroom training programs dedicated to integrating CSR issues into the purchasing process;
- a process to map, prioritize and manage risks (including the risks identified in the duty of care plan), with monthly reviews of both the map and the related action plans;
- an annual internal control audit of the purchasing cycle in all companies, based on 36 control points covering product-related (PUR) and non-product related (CS PUR) purchases. Each company is audited (15 control points per company) to establish the purchasing compliance rate by company, and action plans are implemented if necessary. A total of 210 points have been checked and 361 action plans implemented;
- the Procure to Pay (P2P) approach for the hourly payment of suppliers and subcontractors.

and 2018, 2019) and three-year renewal audits (2017) have all confirmed the award of the label. The procedures and mechanisms implemented to fight corruption and improve payment terms were praised for their rigor.

Safran's purchasing strategy also involves a collaborative innovation approach with its suppliers via the "Management and Operation of Collaborative Innovation" approach, which goes by its French acronym, MaGIC. It is a network of open innovation experts from Group entities who collaborate and exchange information to facilitate the search for innovative partnerships. Employees also contribute to the MaGIC platform by highlighting a co-innovator (startup, SME, etc.) with which they have already worked.

Since 2010, Safran has been a member of the *Pacte PME* association and sits on its Board, in a commitment to strengthening ties between SMEs and large accounts, and to supporting the development of French SMEs, and particularly to helping innovative companies get off the ground and grow. Note that 47% of Safran's purchasing volume was sourced

from French-based suppliers in 2019, with French SMEs and intermediate-sized enterprises representing 83% of this volume. Safran participates in *Destination ETI* and the *Pacte PME* barometer on the quality of supplier relationships. In 2019, Safran hosted the second edition of the *Pacte PME Innovathon*, which is geared towards sharing good practices between key accounts and SMEs in order to improve relations between those two types of players and spread innovation as widely as possible. Nearly 80 people representing 68 SMEs and industrial groups took part. Safran contributed to the establishment of an “accelerator” to support 30 SMEs in the aerospace industry, providing 1.5 days of support a month for 15 months. The aim is to foster lasting and comprehensive partnerships between the SMEs supported and major ordering accounts, and to bolster the growth and competitiveness of member SMEs through advice, workshops and feedback.

Safran also works with the French Ministry of the Armed Forces through a bilateral convention known as *Pacte Défense PME*, whose purpose is to facilitate access for SMEs to defense markets and to establish balanced partnerships. An annual review is conducted with the various players in the French Directorate General of Weapons Procurement (DGA). In addition, a quarterly meeting with the DGA's Industrial Affairs and Economic Intelligence Service provides a forum for a discussion of the possibilities of support from Safran for the most critical SMEs.

Safran is a member of the steering committee of the “Industrial Performance 1 and 2” and “Industry of the Future” programs (national programs to improve the performance of the aerospace supply chain) of the French Aeronautical and Space Industries Group (GIFAS). The aim of these programs is to increase operational performance in terms of quality and on-time delivery in the supply chain, to improve the customer/supplier relationship, to strengthen the competitiveness of companies while improving working conditions, and to develop jobs in the sector and take them up the value chain.

The provisional assessment of phase 2 of the Industrial Performance program (2017-2020), which ends in March 2020, shows a reduction of more than 30% in non-performance. As a reminder, phase 1 (2014-2016) helped drive a reduction of some 50% in non-performance events flagged for quality and the supply chain in the participating companies.

A total of 186 Safran suppliers took part in phase 2 of the Industrial Performance program (2017-2020), 256 having participated in phase 1.

Safran is involved in the development of a GIFAS “Industry of the Future” program aimed at strengthening the competitiveness of the sector by introducing new 4.0 technologies and supporting the sector's transformation. This program, which targets 300 French SMEs for the 2019-2022 period, was launched at the 2019 Paris Air Show. It has four objectives: improve the competitiveness of the sector, increase the attractiveness of SMEs, strengthen collaboration in the sector and increase the flexibility and responsiveness of industry applications. Between now and 2021, nearly 60 groups of five to six SMEs will receive help in building their digital roadmaps, with support the first time they run the process.

Safran is a founding member of Space, an association created in 2007, and plays an active role in its operations by contributing its proven methodologies each year and assisting in the implementation of new tools for SMEs by hosting round tables and theme-based webinars. Space seeks to improve the performance of French SMEs by leading individual supplier development projects and offering a panel of 31 training courses developed specifically for aerospace SMEs. Space is also prime contractor for the GIFAS aerospace supply chain performance programs, covering such areas as PMO-based project management, methodologies and the hiring/managing/training of consultants.

Safran has invested in Aerofund III (a venture capital fund run by Ace Management), following on from the investment initiatives undertaken since 2004 by Aerofund I and Aerofund II. The Group actively participates in the restructuring and consolidation of the industrial fabric of the French aerospace sector and contributes to the financing of SMEs in phases of strong growth. Strengthening its suppliers' financial structures is a means for the Group to secure its supply chain while promoting the emergence of more robust intermediate-sized companies that can expand in the global marketplace.

Lastly, the Group pays special attention to sheltered workshops and disabled-staffed companies. Where possible, purchasers are required to call upon disabled-staffed companies and organizations and services providing assistance through work. Under the terms of the disability agreement, a Safran representative participates in the biannual commissions monitoring the agreement to discuss achievements and prospects in this area. In France, the Group's purchases from sheltered workshops and disabled-staffed companies represented an indirect employment rate of nearly 0.7% in 2019. The aim is to increase this level each year. Mapping has identified possible areas of collaboration with sheltered workshops for non-product related purchases and thereby to develop partnerships either directly or by co-contracting with disabled-staffed companies and organizations and services providing assistance through work.

5.5 CLIMATE AND ENVIRONMENT

5.5.1 Global warming, a major challenge

Set by the 2015 Paris Climate Agreement within the framework of the United Nations, the objective of keeping the average increase in global temperatures to below 2°C above pre-industrial levels and limiting it as much as possible to 1.5°C is a collective challenge. Carbon dioxide (CO₂) accounts for 77% of greenhouse gas (GHG) emissions of human origin. It is one of the causes of the rise in global temperatures.

Air transportation generates only 2% to 3% of global CO₂ emissions, but the projected annual growth of around 4% in air traffic in the years to 2050 obliges the aerospace industry

to prioritize work aimed at reducing its emissions, which will inevitably increase going forward. This figure represents the impact of the combustion of aviation fuel in the world's civil aircraft fleet, and does not include the carbon footprint of aircraft construction and dismantling.

Through the Air Transport Action Group (ATAG) and in agreement with the International Civil Aviation Organization (ICAO), the aerospace industry is the first sector in the world to have set itself such an ambitious target: to halve CO₂ emissions compared with 2005 levels by 2050. Based on projected growth in air traffic,

this is equivalent to a 90% reduction in average emissions per passenger-kilometer. In addition, certifications of new aircraft launched from 2020 and aircraft built after 2028 will be linked to the volume of their CO₂ emissions. These objectives are consistent with the Paris Agreements. They are also credible. It is now up to all players in the aerospace sector (industry, airlines, air traffic control, airports, public authorities) to commit to them.

As an equipment supplier in the aerospace sector, Safran has its part to play in the sector's global objective and ambitious commitment by striving to limit the CO₂ emissions from the use of its products and from its manufacturing process. Civil aviation products and operations are the biggest emitters of CO₂ through the combustion of fuel in the global aircraft fleet. Their reduction is a strategic challenge for Safran, which is making a major effort in terms of R&T, with a targeted €600 million in expenditure by 2022 (see section 1.4). It is a top priority for the Board of Directors and the Executive Committee. Safran accordingly signed the Climate Pledge for the first time in 2019, for the 2020-2023 period, thereby committing alongside 99 other French companies to invest in industry and R&T in order to reduce CO₂ emissions.

In August 2019, Philippe Petitcolin, Safran's Chief Executive Officer, confirmed the Group's commitment: "Alongside the other stakeholders in the sector, Safran, a civic-minded company, is doing all it can to honor its part of the ecological contract to which it is committed."

Mobilization of the ecosystem

Major progress can only be made with the collaboration of all global players in the aerospace sector. Safran is a driving force

in the challenge represented by climate change, notably with the development of the CFM International LEAP engine. In partnership with customers, Safran is developing more environmentally friendly products by actively taking part in large-scale French and European programs such as the Clean Sky research program financed by the European Commission and manufacturers, the Single European Sky ATM Research (SESAR) joint undertaking and the French national council for civil aviation research (*Conseil pour la recherche aéronautique civile* - CORAC). CORAC was created within the framework of the French environmental summit (also referred to as the Grenelle process) to coordinate research efforts in France. It is a forum for exchanges between the government and the air transport industry as a whole. The CORAC steering committee, which meets monthly, was chaired by Safran for two years. The large-scale operations implemented through CORAC are preparing the future of the entire sector. In particular, they promote collaboration between contractors and all major players in the equipment chain, and more than 300 SME or intermediate partners, some of which were not initially qualified as aerospace suppliers.

Moreover, Safran is pursuing its involvement in a variety of strategic bodies in order to work with the entire aerospace ecosystem to build joint solutions such as:

- the Air Transport Action Group (ATAG);
- the Advisory Council for Aeronautics Research in Europe (ACARE);
- the International Aerospace Environmental Group (IAEG);
- the Aerospace and Defence Industries Association of Europe (ASD);
- the French Aeronautical and Space Industries Group (GIFAS).

5.5.2 Strategy

Greenhouse gas emissions are divided into three categories, in accordance with international standards:

- Scope 1⁽¹⁾: direct emissions such as consumption of fossil fuels at our production sites;
- Scope 2⁽²⁾: indirect energy-related emissions such as electricity consumption;
- Scope 3⁽³⁾: other emissions indirectly produced and related to the entire value chain.

Emissions related to production methods (Scopes 1 and 2) represent only a small percentage of emissions in the life cycle of an aircraft. Emissions attributable to the operation of products - aircraft in flight in other words - constitute the majority of Scope 3 emissions and approximately 95% of the total.

Identifying the challenges of climate change

In 2019, Safran sought to structure its policy for managing the challenges of climate change by undertaking a dynamic overall assessment of the risks related to climate change on its production sites, its main industrial processes and its logistics (see section 4.3.1.5). The aim is to objectify and quantify the

potential consequences of this risk for Safran, then to identify the appropriate means of addressing them. It should serve to secure or even improve the Group's overall performance by gradually adapting its choices and its operating procedures.

The assessment was conducted on 208 industrial and tertiary sites across 15 countries in Europe, Asia, America and Africa. It covers the following challenges in the years to 2050:

- "physical" challenges: rising sea levels and extreme weather events such as heatwaves, droughts generating fire and water shortage risks, extreme rain generating floods and landslides, storms, cyclones, etc.;
- "transition" challenges:
 - impact of public policies, such as the regulation of certain energy-consuming manufacturing processes, taxes or restrictions on the use of certain fossil fuels or certain technologies, development of carbon markets and carbon taxes and the rise in their prices, etc.;
 - changes (excluding taxes) in energy prices (oil, gas, electricity);
 - shortages, limited access to or increased costs of certain raw materials.

(1) Scope 1: direct greenhouse gas emissions linked to the combustion of energy sources such as gas, liquefied petroleum gas and aviation fuel during the production phases at Safran sites.

(2) Scope 2: indirect emissions linked to the consumption of energy, electrical power or heating/cooling at Safran sites.

(3) Scope 3: other emissions indirectly produced by Safran's activities and which are not accounted for in Scopes 1 and 2 but which are linked to the overall value chain (source: Ademe).

Climate and environment

The materiality of these challenges was assessed in the light of a range of reference scenarios for climate change and global trends in the fields of energy and technology (section 4.3.2.1).

The initial results of the assessment on sites directly exposed to risks related to climate change (see section 4.3.1.5) show that approximately 95% of Safran's sites are not subject to any significant climate risk. The main climate impacts likely to affect Safran's sites are the greater intensity of cyclones in tropical zones and the increased frequency of extreme heatwaves. The Group already has projected scenarios (construction standards, equipment) and action plans to limit their impact. Rising sea levels and associated tidal phenomena could also potentially affect certain sites. Preventive scenarios are either under study or in place.

Safran will continue its analysis of "physical" climate challenges in 2020.

The analysis of "transition" challenges has led Safran to implement ambitious roadmaps in order not only to anticipate changes related to climate change, but also and above all to keep the rise in global temperatures to below 2°C above pre-industrial levels.

Safran aims to be at the forefront of decarbonization in the aerospace sector and to focus its work on two priority challenges: (i) reducing the carbon footprint of its production methods and (ii) reducing that of its products.

Action plan and objectives to reduce the CO₂ footprint of Safran's production methods: low-carbon project (Scopes 1, 2 and 3)

This project concerns Scopes 1, 2 and 3.

To draw up this strategy, the Group HSE Department has been piloting a "low-carbon" project since the end of 2018. A steering committee comprising several representatives from the Safran Executive Committee has been set up, and a project manager has been appointed in each tier-one company. "Business line" liaison officers have also been identified.

First stage: The trajectory and objectives for reducing greenhouse gas emissions have been defined with:

- the implementation of a new method for calculating GHG emissions to accurately measure Safran's emissions. Carbon accounting is now standardized, common to all companies and based on international standards (Greenhouse Gas Protocol, International Energy Agency, ISO 14064-1-2016, ADEME). More than 150 indicators are necessary to establish the Group's carbon footprint;
- the reporting tool has been updated to allow the consolidation of data from over 200 sites with more than 50 employees, which together form the footprint of Safran's operations;
- an "Energy" standard, largely inspired by ISO 50001, has also been developed to optimize energy consumption. The new energy management system was adopted in 2018, and 2019 was its first year of implementation. The standard is integrated into the HSE Guidelines (see section 5.6.3) and is audited in accordance with a clearly defined schedule;

- a feasibility study of achieving the objectives set, taking into account all the measures known to reduce GHGs, with their associated costs.

This work, presented to the Safran Executive Committee at the end of 2019, confirms that all Group companies will have to reduce their Scope 1 emissions by 8% and their Scope 2 emissions by 18% compared with the 2018 baseline by 2025. These reductions are the minimum needed to meet the objective set by the Paris Agreement of limiting global warming to below 2°C above pre-industrial levels. Companies will need to prepare very ambitious action plans if they are to meet this target.

Second stage: From 2020, the project will enter an operational phase, with the implementation and monitoring of GHG reduction initiatives. It is up to each company to start making investments to launch initiatives according to the following principles:

- reduce sites' energy consumption, chiefly by improving the energy efficiency of buildings;
- develop breakthrough solutions for heat generation at the sites, by conversions such as replacing gas boilers with biomass boilers;
- choose low-carbon energy sources, as the Group's industrial and tertiary sites in Querétaro and Chihuahua in Mexico have done for electricity by signing a solar power energy contract.

Safran is also working on setting an internal carbon price for its investment projects.

An internal price could be factored into the investment profitability calculation, and would be applicable to projects such as extensions or new buildings, energy efficiency investments and logistics.

Action plan and objectives for reducing the CO₂ footprint from the use of Safran's products (Scope 3)

Safran's response to the climate challenge is perfectly in line with the ambitious commitment of the global aviation sector set through the ATAG and the ICAO. A mix of complementary measures, each one presenting different advantages, challenges and timeframes, will be needed to achieve this systemic transformation of air transportation. Safran is only one of the players in the transformation of the entire sector, and its contribution alone will not solve the problem. However, its broad positioning on a large part of aircraft systems, and specifically on all energy systems, makes Safran central to the technological component of this transformation drive. The Group devotes 75% of its research and technology budget to improving the direct and indirect impact of air transportation on the environment.

Safran's strategy to face the climate challenge is as follows:

In the short term, the use of sustainable fuels which offer a considerably reduced carbon footprint compared to conventional aviation fuel. Of the various sustainable fuels available, the global aviation sector still makes very little use of biofuels (0.1% of total fuels used in 2019). It is clear that meeting its commitments will require the sector to increase their use even further. Therefore, the entire industry will need to strengthen its work on the range of potential sustainable fuels and to explore

alternatives to biomass-based synthetic fuels. Technical barriers on engines and fuel-management systems will also need to be lifted across the board if sustainable fuels are ultimately to reach the level of 100%.

Out of all the different fuel types, “drop-in” fuels⁽¹⁾, which can be blended with aviation fuel, are already usable in existing aircraft. Biofuels (already used in other transportation and energy sectors) are a readily accessible drop-in fuel solution that can reduce CO₂ emissions, on the condition that the carbon footprint is rigorously monitored over the entire life cycle. Other medium-term solutions are also being studied, such as so-called “power-to-liquid” drop-in fuels obtained from renewable hydrogen and captured CO₂. Safran’s engines (planes and helicopters) are already certified as able to incorporate up to 50% of drop-in fuels. Safran is working to increase this share in its engines.

In the medium term:

■ electrification and hybridization: this involves purely electric propulsion (battery + electric motor driving a propeller) or thermal/electric combination (hybridization) based on different architectures and in variable proportions. Based on the Group’s various architectural studies of all-electric and hybrid aircraft, and discussions with its customers, Safran has come to the conclusion that the potential gain associated with electrification and hybridization would initially be confined to low-capacity short-haul flights (small shuttles to start with, regional jets in a second phase). The biggest factor in terms of size is the mass represented by electrical systems, and above all the energy density of batteries (currently 60 times

lower than aviation fuel), which significantly limits the distance that can be covered by an all-electric aircraft (currently a few hundred kilometers, perhaps 1,000 km in the long term for an aircraft flying at low speed). The other limiting factor requiring significant research effort is the management of high-voltage systems at altitude;

■ ultra-optimized thermal propulsion: advanced or disruptive architectures and engine technologies (e.g., open rotor) and the advanced integration of the propeller in the aircraft (disruptive aircraft architecture and concept studies). Safran will have to develop disruptive technologies for a new generation of aircraft coming into service between 2030 and 2035, allowing a gain of “two generations in one”. This will notably involve working on new engine architecture offering substantial savings in consumption compared with LEAP, technologies for lightening equipment (aircraft and cabin) and electrification solutions.

In the longer term, Safran is working on the use of “non drop-in” fuels: new fuels that cannot be blended with aviation fuel and require more substantial changes in aircraft architecture. Options include cryogenic fuels such as liquid methane, or hydrogen.

In addition to the initiatives described above, aircraft fuel consumption can be reduced by optimizing the mass and efficiency of the aircraft and improving flight operations.

Safran also promotes eco-design so that environmental impacts are reduced from the product design phase and throughout the life cycle.

5.5.3 Taking environmental impacts into account in the product life cycle

Through the HSE Guidelines (see section 5.6.3), Safran asks each of its tier-one companies to set up an organization dedicated to eco-design: skills, training, design rules, control process, etc. This internal eco-design standard guides companies in reducing the environmental footprint of their products during the main stages of their life cycle. The standard is integrated into the HSE Guidelines (see section 5.6.3) and is characterized by requirements classified by level of maturity, bronze, silver or gold. The standard is audited over a three-year cycle. In addition to this standard, Safran is systematically designing environmental stewardship into its new programs and technological building blocks. As an example of innovation and achievement, the CFM International LEAP engine, which entered service in mid-2016, reduces CO₂ emissions by 15% compared with the previous generation of equivalent engines. In addition to enhanced performance, the new Arrano and Aneto helicopter engines have a smaller environmental footprint, delivering 10% to 15% better fuel economy, generating less noise (ACARE 2020 compliant) and using more environmentally friendly materials and manufacturing processes.

Safran takes into account environmental challenges other than climate-related challenges by promoting eco-design so that environmental impacts are reduced from the product design phase and throughout the life cycle.

With a view to ensuring continuous improvement, the objectives of eco-design are to:

- limit impacts on the environment and human health, notably by restricting the use of dangerous chemical substances;
- proactively address changing legislation and customer/stakeholder expectations by anticipating, among other things, obsolescence of chemicals or processes;
- anticipate applicable ICAO standards;
- stimulate technological innovation;
- foster synergies within the Group;
- stand out from the competition and strengthen the Group’s brand image.

To do so, Safran has chosen to focus on four areas of meaningful improvement for its businesses:

- chemical risk (limiting the use of dangerous substances);
- noise (limitation of noise pollution);
- non-renewable natural resources (reduction in the use of natural resources, product recycling, reduction and treatment of waste);
- energy consumption (see section 5.5.4).

(1) Drop-in fuels are fuels that can replace all or some of conventional kerosene without any operational impact, i.e., without requiring modification to infrastructures (at airports, for example) or to aircraft or engines, whether existing or under development.

Limiting the use of dangerous substances

Managing the risks associated with hazardous chemicals is an issue addressed by a number of internal stakeholders in the Group. Objectives are focused chiefly on risk reduction during the qualification of materials and processes and when substances are used on industrial sites. Safran accordingly anticipates the potential obsolescence of chemicals that could impact production.

In designing new programs or technological bricks, guidelines for chemicals selection and use are defined through an internal process. This has resulted in a list of substances, materials and processes that can be used, with or without restrictions, and others that are banned. In addition, before being approved for use in a production facility, each new chemical is analyzed in depth by a panel of stakeholders.

To make existing programs compliant with the regulations in force, in particular REACH (European regulation governing the production and use of chemical substances), the substitution of the substances of highest concern calls for a dedicated organization, made up of different actors from Group companies and coordinated by the Group HSE Department. The Materials and Processes teams provide technical support for research, and identify substitutes for the most dangerous substances. The engineering, production and quality teams work to introduce the substitutions in accordance with the rules applicable to guarantee flight safety. The purchasing teams participate in the search for partners capable of aligning their working methods across the value chain.

Building on the work already conducted by teams to substitute chromium VI and cadmium, companies must now establish a roadmap identifying other substances whose substitution will be prioritized in the years to 2022.

Lastly, the use of chemicals at manufacturing facilities is a daily concern for the production teams and the HSE risk prevention officers. Although programs deployed in the product cycle upstream can attenuate workstation hazards, residual risks remain and must be managed. One of the 30 standards in the HSE Guidelines is dedicated to this process. A network of more than 120 chemical risk correspondents are specially trained on major sites and the Group HSE Department monitors technological and regulatory developments, carries out scientific and technical studies and issues recommendations for controlling chemical risks.

Safran is actively involved in controlling chemical risks and the associated regulations with French and European associations representing the aerospace profession, such as the French Aeronautical and Space Industries Group (GIFAS), Aerospace Space Defense (ASD) and the International Aerospace Environment Group (IAEG) aimed at finding solutions for the management and substitution of hazardous substances.

Reducing noise pollution

Aircraft noise standards have been becoming increasingly stringent for decades. They primarily reflect environmental and quality of life concerns: aircraft noise is bad for residents, ground staff and

passengers. To anticipate the objectives set by ACARE1 (50% reduction in perceived noise by 2020 compared with 2000) and the standards issued by ICAO2, Group companies are working together to reduce noise emissions from their equipment.

At Safran, dedicated teams play a central role in the main aeroacoustic programs. They are developing research partnerships with aircraft manufacturers, helicopter manufacturers and the largest French and European laboratories, notably Onera and DLR4.

Propulsion systems are the main source of noise pollution during takeoff, and the exclusive focus of research efforts. In engines, the increase in the dilution rate (ratio between the flow of hot air and the flow of cold air) obtained by widening the diameter of the ducted fan has greatly contributed to progress achieved over the last 40 years. This reduced the gas ejection speed and the associated noise. Today, Safran's efforts are turning to reducing the noise caused by the fan itself. The solution is to optimize the shape of the blades, using modeling based on the physics of the noise-generating mechanisms, and to improve the efficiency of the absorbent materials placed on the walls of the nacelles and the motor casings. Aerodynamic blading, new acoustically absorbent materials and chevron nozzles are just some of the key areas of work that have served to reduce the acoustic footprint of aircraft on the ground by an estimated 75% in four decades. An average improvement of 12 decibels was obtained between the CFM56 engine, which came to the market in the 1980s, and the new LEAP engine.

The nacelles also offer increased performance by trapping the residual engine noise at the source. The A320 nacelles have honeycomb composite skins that absorb some of the noise. New technologies currently in the research phase will further improve their efficiency by producing a counter-noise from miniaturized speakers to neutralize the motors' sound waves.

Advances are such that noises until now deemed "inaudible", as they are masked by engine noises, are now among the chief concerns being addressed by acoustics experts. This is the case for those generated by landing systems. Not very aerodynamic in nature, the solutions being studied relate to the design of the undercarriages and the addition of fairings, while taking into account the constraints of space, weight, flight safety and maintenance.

Reducing the use of natural resources

In a long-cycle industry like aerospace, marked by extreme technical complexity and uncompromising safety standards, technological progress can mobilize many players and take decades to come to fruition. Safran pays particular attention to the issue of non-renewable natural resources. The Group therefore places great importance on the reparability of its products, offering MRO (maintenance, repair and overhaul) solutions worldwide. Each year, Safran experts develop and perform several hundred new repairs on an industrial scale and offer a comprehensive range of services including performance restoration, replacement of parts with a limited life, and inspection and maintenance of all equipment.

Advocating a structured and consummate sustainability model, Safran even offers the reuse of used parts through a circular economy approach. CFM Materials, a joint venture between GE and Safran specializing in second-hand parts for CFM56 engines, offers its customers access to large stocks of spare parts with guaranteed quality and traceability, in a real-time response to the needs of maintenance workshops around the world.

In this way, the solutions offered by Safran help reduce the use of non-renewable natural resources. Due to its long life cycles, the high technicality of the products and the high added value of its services, Safran applies a responsible management approach in its operations.

Product recycling

Safran has partnered with two other leading players (Airbus and Suez) to create Tarmac Aerosave. Created in 2007 and based in Tarbes (Hautes-Pyrénées), Tarmac Aerosave today ranks as the European benchmark for the storage and dismantling of military and civil aircraft manufactured by Airbus, Boeing, ATR, Bombardier and Embraer. Safran has been involved since the very beginning of this project, which is at the heart of its environmental responsibility approach. A site for storing aircraft and equipment, Tarmac Aerosave offers the largest aircraft deconstruction capacity in Europe at its three sites in Tarbes-Lourdes, Toulouse-Francazal and Teruel in Spain. Since 2007, it has dismantled and recycled 170 aircraft and 135 engines, with a recovery rate of over 92%. For example, 75% of Airbus A340s recycled worldwide have been recycled by Tarmac Aerosave.

Waste reduction and treatment

Safran is also committed to reducing and treating waste in order to improve waste management at its production sites and thereby reduce its impact on resources and the environment. Waste is broken down into seven categories (plastics, paper/cardboard, wood, composite, metallic, hazardous and other non-hazardous waste). Several treatments are possible for each type: material recycling, incineration with energy recovery,

incineration without energy recovery and landfilling for final and hazardous waste. Depending on the type of waste, the maturity of existing channels and the countries in which Safran operates, recovery rates (material and energy) can vary from 100% for metallic waste to 42% for composite waste, for which treatment channels are only now taking shape.

In addition, water from industrial processes that could represent a risk is discharged into surface water via continuously monitored treatment facilities or treated off-site by a service provider. Several French facilities are subject to national legislation and additional local regulations concerning the discharge of hazardous substances into water. The Group has commissioned independent experts to perform studies and analyses to assess any potential risk of soil and groundwater contamination at its industrial facilities. Preventive or remediation measures have been implemented wherever necessary. The Group HSE Department supervises environmental conditions for each facility's site, buildings, activities, soil and groundwater, and participates in the due diligence process for asset disposals and acquisitions.

Since 2016, the Group has operated two Safran Landing Systems facilities, in Molsheim and Bidos, that are classified as upper-tier Seveso sites. Both facilities comply with prevailing legislation, with safety management systems, an internal operations plan and technological risk prevention plans in place.

Some units operate facilities that are subject to permits, reporting or registration depending on national legislation. All of the facilities requiring an operating permit have been reported by the Group to the proper authorities. In line with French legislation, in late 2015 and late 2018 financial warranties were offered to local authorities to ensure that the facilities classified as Seveso or ICPE (installation classified for protection of the environment) sites are secured and decontaminated in the event of decommissioning. The facilities concerned are subject to additional local regulations relating to the financial warranties.

The Group is committed to ensuring that all of its projects comply with prevailing environmental legislation. In applying for operating permits, studies are performed as needed to determine the impact of its activities on local biodiversity. The Group did not record environmental accidents with a significant impact on the environment in 2019.

5.5.4 Key indicators

All of the indicators mentioned below relate to a Group scope unless otherwise stated.

Energy

	2018	2019
■ Electricity (MWh)	1,302,423	1,331,979
■ Natural gas and liquefied petroleum gas – LPG (MWh PCS)	867,164	929,212
■ Aviation fuel (in liters)	17,305,991	17,747,676
■ Heating/steam and cooling networks (MWh)	55,461	52,313
■ Fuel oil (in liters)	865,366	622,354

Scopes 1 and 2 greenhouse gas emissions⁽¹⁾

In accordance with its aim of fighting global warming, Safran measures its carbon footprint and energy consumption in Scopes 1 and 2. The resulting data reflect the increase in output, which has a noticeable impact on the consumption of electricity and gas.

	2018*	2019	Objectives (baseline year 2018)
Scope 1 direct emissions (t CO ₂ eq.)	218,906	219,745	8% reduction by 2025
Scope 2 energy-related indirect emissions (t CO ₂ eq.)	374,691	386,495	18% reduction by 2025

(*) The indicators were revised in 2019; they are expressed in absolute value: t CO₂eq.
They were in relative value (t CO₂eq./employee) in 2018.

Scope 3 greenhouse gas emissions⁽²⁾

Safran believes that indirect emissions from the use of its products are accurately reported by their users (airlines in particular) in their own Scope 1 measurements.

Safran's greenhouse gas emissions from business air travel amounted to 63,863 metric tons of CO₂ equivalent in 2019. Its greenhouse gas emissions related to waste treatment amounted to 24,629 metric tons of CO₂ equivalent in 2019.

Safran plans to define its Scope 3 indirect emissions in 2020. Work is ongoing to calculate indirect emissions linked to purchases of goods and services and employee commuting.

Sites concerned by the European CO₂ quota trading system (EU ETS)

Of more than 150 sites in Europe, only 3 are affected by the EU ETS (European Union Emissions Trading System). They are the Gennevilliers, Villaroche and Villeurbanne sites. To date, Safran has never had to buy CO₂ quotas on the market; its free allowances have always been sufficient. Moreover, the Group is working on an opt-out option from the EU ETS for its Gennevilliers and Villaroche sites by looking into the possibility of using alternative energies.

Other environmental indicators

	2018	2019
Total waste generated (in metric tons)	91,918	91,979
Total waste recovered and reused (in metric tons)	68,090	63,565
% of waste recovered and reused	74.1	69.1
Total water consumption (cu.m)	3,714,549	4,514,698

(1) Scope 1: direct greenhouse gas emissions linked to the combustion of energy sources such as gas, liquefied petroleum gas and aviation fuel during the production phases at Safran sites.

Scope 2: indirect emissions linked to the consumption of energy, electrical power or heating/cooling at Safran sites.

(2) Scope 3: other emissions indirectly produced by Safran's activities and which are not accounted for in Scopes 1 and 2 but which are linked to the overall value chain (source: Ademe).

5.6 HEALTH AND SAFETY

5.6.1 Challenges

Safran's biggest challenge is to ensure the protection of the health and safety of Group employees. 2019 was devoted to work with the HSE coordinators of tier-one companies to establish an HSE vision by 2025. This resulted in the creation of a roadmap that sets out HSE challenges in four key areas: health, safety, ergonomics and the environment (see section 5.5). A sustainable culture in terms of HSE, the digitization of training, the prevention of situations of psychosocial risks and the development of skills

in ergonomics have been identified as the main challenges for the Group.

The rollout of the HSE standard in companies that joined Safran in 2018 continued in 2019 and will continue again in 2020. Some of the most noteworthy initiatives were the harmonization of indicators and the standardization of reporting practices, two important milestones, and the migration to shared IT tools.

5.6.2 Policy

Safran is committed to promoting a culture of prevention to control health and safety risks for the benefit of its employees, supplier partners, customers and any other stakeholder in its activities, in a spirit of transparency and sincerity.

It renewed its commitment in 2019, with all members of the Safran Executive Committee signing the health, safety and environment policy applicable to all sites.

The policy objectives combine to embody a comprehensive approach to continuous improvement of the health, safety and environment management system aimed at:

- preserving the health and safety of the men and women of the Group;
- reducing environmental impact by designing products and services that are more efficient throughout their life cycle (see section 5.5);

- reducing production-related greenhouse gas emissions, notably by reducing energy consumption (see section 5.5);
- guaranteeing the compliance of facilities all over the world;
- preventing and reducing pollution potentially generated by activities (see section 5.5).

All actors of the Group, company chairmen, managers and employees agree to respect and implement the Group's HSE policy, by:

- complying with legal and other applicable requirements, including the Safran HSE standard;
- playing a part in prevention procedures and ensuring the active contribution of all parties in each entity;
- ensuring that progress plans are effective and that the HSE function is involved in all industrial projects.

To ensure this commitment, operational directors undergo specific two-day training in day-to-day HSE management. Approximately 300 managers completed this training in 2019.

5.6.3 Overall and operational HSE guidelines

Every day, Safran strives to achieve excellence in its workplace health and safety practices. The rollout of the Health, Safety and Environment (HSE) policy is based on an internal organization and standards. The comprehensive HSE Guidelines serve to structure risk management and improve the operational HSE performance. Their management involves close collaboration with the HSE coordinators of tier-one companies, site prevention officers, occupational health services and a decentralized expert network. The cluster coordinators, combining several local entities, promote local synergies within the framework of the system.

The Safran guidelines include the HSE manual covering ISO 14001, ISO 45001 and OHSAS 18001 and operational requirements specific to Safran. A maturity matrix is used to assess the performance (maturity level) of each standard and to set measurable improvement targets. The Safran HSE Guidelines have been validated by an external body, which certified their equivalence to the ISO 14001 and OHSAS 18001 standards.

The HSE Guidelines lay down operational HSE standards applicable on issues including regulatory management, document management, engagement and leadership, risk and impact analysis, planned general inspections (PGI), surveys and studies, change

management, supplier management, operating authorization management and eco-design. They also include standards that allow uniform implementation across the Group of requirements relating to work at height, lockout-tagout operations, confined spaces, explosive atmospheres, off-site interventions, chemical risks, physical risks, health and working conditions, asbestos, prevention of legionellosis, ergonomics and road risks.

Today, these guidelines are being applied in every Group unit. Every year, compliance with the Guideline standards is audited to measure operating performance, as indicated by the level of maturity demonstrated by the facilities. Internal HSE auditors, whose qualifications are verified by the HSE Department and an external certification body, conduct reviews of the Group's facilities in accordance with the schedule presented at the beginning of the year. Audit reports are reviewed by the Group Certification Committee, chaired by the Head of the Group HSE Department. A representative of an external certification body sits on the Committee. The certificate delivered by the Committee indicates the standards (ISO 14001 and/or OHSAS 18001) met by the facility and the overall maturity level demonstrated for each of the Safran HSE standards. In 2019, Guideline compliance audits were performed at more than 110 facilities.

Health & Psychosocial Risk (PSR) prevention

Since 2006, Safran has diligently worked to prevent psychosocial risks and to promote quality of worklife. Its work has highlighted the favorable psychosocial factors to be promoted as sources of quality of life at work. It has also served to determine factors of risk. Initial analyses have now given way to the identification and implementation of targeted action plans adapted to the situations to be addressed.

Programs and tools have been rolled out at all of the Group's sites through the health and working conditions standard. The standard integrates issues addressed by the psychosocial risk program, which comprises initiatives to prevent stress on three levels: primary, secondary and tertiary. Primary prevention is based on a psychosocial risk assessment process included in the Group agreement on the prevention of stress at work. It is supported by standards set in the Safran HSE Guidelines. Secondary prevention is based on regularly providing employees with information and publications on psychosocial risks, with an emphasis on raising awareness about such risks, detecting and supporting people in difficulty, preventing harassment and violence in the workplace, and avoiding addiction and other at-risk behavior. A selection of training courses is also available in the Safran University catalog.

Tertiary prevention is provided by company health services. Since 2018, the Group has also set up PSR monitoring units at sites in France. These multidisciplinary units, which are bound by professional secrecy, aim to deal with situations of discomfort at work, either individually or in small groups, with the agreement of the employees concerned. Occupational health services can also call on specialized providers who can act quickly if necessary.

At the end of 2018, the Group began rolling out the EVREST occupational health developments and relationships observatory at all sites in France and Morocco. In 2019, more than 110 sites circulated the questionnaire. EVREST allows the Group to collect data on employees' experience and health over time, which can then be used to identify areas for improvement. Indicators such as workload, recognition, quality of working relationships, psychological and physical health are regularly shared. Work will be carried out in 2020 to define harmonized indicators across the Group.

Ergonomics: putting people at the heart of production systems

Safran's Ergonomics program, which is central to human-work engineering, contributes to occupational health and safety and improving the performance of production systems. In 2019, the central team was reinforced by the arrival of two ergonomists to accelerate the implementation of the "Ergonomics" program in America and Asia. The Group ergonomics standard is currently being rolled out on all sites, helping attenuate the risks arising from postures, handling and repetitiveness and reducing the cases of work-related musculoskeletal disorders.

In addition, designing ergonomics into the Group's future production facilities is one of the core issues in the Factory of the Future, to improve working conditions and performance. This can be seen in the introduction of new technologies such as collaborative robotics, which offers fresh prospects for improving work situations. The Safran Siroco cobotic platform (from the French for collaborative robot simulation and integration) was created in 2018 to design and process engineer cobotic systems to reduce the number of arduous tasks for operators, allowing them to refocus on tasks with greater added value. A Siroco project was carried out at Safran Electrical & Power in Villemur in 2019, on the circuit breaker panel control station: it resulted in the deployment of a cobot to replace the operator for the opening and closing of hundreds of circuit breakers, allowing the operator to concentrate on the results of the tests and to analyze any malfunctions.

More than 1,800 employees are trained in ergonomics in the Group. Overall, the Group now has more than twenty ergonomists dedicated full-time to analyzing and improving workstations, supported by an international network of some 200 ergonomics correspondents and more than 1,000 people involved in workstation design. Lastly, to recognize excellence and encourage sharing, a database of good ergonomic practices is available to all sites. It collates 350 replicable good practices that are the focus of an annual Ergonomics Award showcasing the Group's best good practice.

Site security and protection

A network of Health, Safety & Environment prevention officers operates throughout the Group. Each part of the network is managed centrally by geographic area: America, French-speaking Europe, English-speaking Europe and Asia. Several one-day meetings are organized with all HSE actors each year. Monthly meetings also allow the exchange of good practices and feedback from this network. Regional clusters have been established to provide support directly on the sites. They are managed by an HSE prevention officer from the cluster.

Safran has taken an active stand in attenuating road risks, issuing a road risk prevention charter in 2016. In March 2018, it joined France's national appeal for safer roads and signed the seven road safety commitments that the Ministry of the Interior recommended for business travel. A road risk standard has also been added to the HSE Guidelines. In 2019, 100% of the Group's facilities self-assessed their compliance with the new standard. Action plans have been implemented with a view to reaching level 1 maturity in 2020.

Lastly, the Group continued to improve the protection of its sites against fire risks. A committee meets every three months to study expansion, renovation and similar projects. The fire expert from the Group HSE Department attends the meetings, which bring together other cross-cutting functions. State-of-the-art practices can therefore be factored in as far upstream as possible. In addition, the HSE Department performs a review every six months with a fire prevention and protection firm, insurers and the Group Risk & Insurance Department. Meetings provide a forum for discussion on past and future developments.

5.6.4 Objectives and indicators

Safety

Since 2017, a safety indicator, based on the number of accidents reported, with or without lost time or first aid, has been tracked at Group level. Improvement targets have been adapted to each company in line with its operations and past performance. In 2019, the Group's reported accident frequency rate was 18.8, compared with a target of 21.7. That represents a 17.9% reduction, demonstrating the sites' efforts in the prevention of situations of risk. Managers' appraisals take into account an HSE-related objective, in particular in parts of the business sensitive to work safety (production, tests, etc.).

HSE maturity – robust standards

The level of HSE maturity is a comprehensive indicator assessing each site's compliance with the 30 standards of the HSE Guidelines. It serves to verify the standards' harmonized implementation across all of the Group's sites. Based on maturity, the certification may be bronze (level 1 compliance for all standards), silver (level 2 compliance for all standards) or gold (level 3 compliance for all standards).

The objective set by the Group for the entities included in the HSE approach in 2016 (i.e., 81 sites) is to reach gold level by 2020. In 2019, 50% of sites had reached this objective. For entities entering the Safran scope since 2018 (i.e., more than 200 sites), the objective is to reach gold level by 2025.

Occupational illnesses

The number of occupational illnesses is monitored by each Group entity, in accordance with the country's national legislation. As the Group's activities require manual and precise operations, the main occupational diseases are related to certain movements and work postures, notably affecting the upper limbs. Improvements are made each year following ergonomic assessments of workstations aimed at reducing the need for harmful operations for employees. Assessments are carried out by people who have received ergonomics training in what is known as actor PRAP (prevention of risks related to physical activity), or by Ergonomics correspondents.

In France, the number of occupational diseases fell from 87 in 2018 to 52 in 2019. Of the number reported, 80% of cases were attributable to musculoskeletal disorders, in line with the nationwide statistics for France. Cases of occupational illness are also tracked in the rest of the global organization.

Fire protection

An indicator relating to the level of protection of sites against fire is monitored following visits by an international firm specializing in fire prevention and protection, which keeps the Group's fire risk mapping up to date. For all of the facilities mapped in that way, protection against fire risks was rated "Good", with a score of 6.8/10. The score is based on several criteria such as the installation of sprinklers, documentary and operational management, and the building construction. The criteria are then weighted to give an overall score from 0 to 10, 10 being the best.

Health and safety indicators

All of the indicators mentioned below relate to a Group scope unless otherwise stated.

	2018	2019
Percentage of gold level sites (target of 100% of gold level sites by 2025)	30%	50%
Reported accident frequency rate ⁽¹⁾	22.7	18.8
Frequency rate of lost-time work accidents	2.9	3.2
Severity rate of work-related accidents	0.07*	0.07
Fatal work-related accidents	1	3
Number of occupational illnesses (France)	87	52
Number of occupational illnesses (United States and Mexico)	N/A	36
Level of fire protection	6.8	6.8

(1) Reported accidents: accidents with or without lost time or first aid.

(*) Excluding activities derived from the former Zodiac Aerospace.

5.7 HUMAN RESOURCES

5.7.1 The challenges of the HR policy

The Group's Human Resources policy faces several major challenges. The underlying risk analysis is summarized in section 4.3.4.

The first challenge in terms of talent and skills management is to support and improve the Group's performance through the development of its human capital, by anticipating future skills requirements while meeting the aspirations of employees, generating engagement and results for the Group.

In a context of digital transformation, skills and careers are in the throes of a profound shift on three levels:

- multiple critical digital skills: digital continuity, predictive maintenance, software, artificial intelligence, additive manufacturing, cybersecurity, data for new services, architecture, industrial engineering, industrial data processing, etc.;
- organizational and managerial adaptations requiring considerable support: collaborative management and an autonomous multi-business team, development of multi-machining and multi-skills, internationalization of managerial practices;
- Safran's legacy skills (mechanics, avionics, materials), which continue to represent a considerable source of differentiation, and which are gradually integrating skills in data mining. Other existing skills will also need to be reinforced as the ecological transition takes hold: electrical, power electronics, energy management, systems, airworthiness, new fuels.

In terms of innovation in the aerospace value chain, Safran is positioned as an architect of global solutions, products and services, generating new needs for strategic resources, both expert and managerial. Preparing and supporting these changes is a major challenge for the Human Resources function as a whole.

A second challenge is to develop a global Safran employer brand consistent with the Group's host locations despite the fact that the needs of labor markets differ and recruitment needs are specific. Safran uses targeted communication promoting a differentiating proposition for our future employees: the promise of varied professional paths and with high technological content, for a safer and more environmentally friendly aerospace industry.

As a measure of the extent of the challenge, Safran recruits almost 15,000 people each year. Due to the age structure and turnover, nearly 12,000 departures are registered worldwide every year.

Lastly, the third challenge for the Group's Human Resources teams is to promote diversity among employees. The Group firmly believes that team diversity is a factor of performance, synonymous with creativity, vitality and innovation. The complementarity of profiles, the mixture of points of view, opinions and expectations contribute to Safran's overall success.

5.7.2 Talent development

Every step in the Group's industrial and financial management planning process is supported by fully aligned HR programs in the medium-term plan (MTP). Today, one of the drivers of Safran's success is its ability to manage its industrial, financial and HR planning as part of a highly proactive, seamlessly aligned process. The MTP offers a four-year vision of the quantitative and qualitative skills that each Group department, unit and company will have to acquire in each business line worldwide. A job description repository divided into four sections, 35 business lines and a little more than 160 benchmark jobs serves as an interpretive and analytical framework.

5.7.2.1 Building career paths and mobility

The Group has initiated a professional development policy for its employees, resulting in the implementation of performance reviews and professional development processes. The success of the process is measured annually. In 2019, almost 90% of employees used the process.

Career committees in the operational entities and cross-functional Group business committees allow opinions to be compared within a given operational activity or business line so as to offer all people diversified paths. These reviews analyze and validate proposals for high-potential profiles, as well as standard mobility pathways and succession plans. More than 2,000 high-potential individuals are subject to specific monitoring, as are 1,300 experts.

The Group career management process set up in 2016, defining the role of HR players and managers, has been enriched, with new emphasis placed on the international dimension of talent management; a progress plan has been implemented, focused on identifying and developing tomorrow's leaders by listening to the expectations of employees and managers, through internal surveys, and by improving the alignment on the identification of high-potential profiles through a shared framework and analysis of best market practices.

Twenty business committees meet several times a year, bringing together Group Human Resources and operational staff in a collaborative approach around the medium-term plan and HR challenges resulting from changes in the business.

The business committees are organized in line with the Safran business standards. They cover the Group's global scope, with the presence of business experts from each company. Each committee assesses itself on a maturity grid and sets progress targets.

Mobility is highly encouraged and valued within the Group. The fluidity of resources and the ability of employees to develop help maintain their employability and are a core driver for the Group's transformation and agility. More than 2,000 geographic mobility transfers were carried out in 2019.

The Safran mobility charter, which lays down a single set of rules for all players, was renewed and extended to the entire Group in 2019. In 2019, it was noted worldwide that 85% of managerial-grade employees (Managers & Professionals) had less than four years' seniority in the same position.

In 2019, Safran added an international dimension to its policy, in several areas:

- to develop a richer range of international and multi-company courses, allowing high-potential profiles, experts and managers, known as strategic resources, to have greater access to cross-mobility. Ensuring that succession plans reflect international ambitions and the crossover of experiences between subsidiaries will be key;
- to roll out mobility bodies by geographic area (employment areas) to increase the Group's attractiveness, develop Safran's high-potential profiles locally, obtain increased loyalty among international staff and in that way reduce the high levels turnover that can be seen in countries such as Mexico and Morocco;
- to intensify action plans targeting experts. For example, Mentoring and Tutoring programs have been in place as succession mechanisms since 2018, especially for those whose departure is expected within the timeframe of the medium-term plan. Steps have been taken to ensure that 100% of the key skills of tomorrow are transferred to successors capable of acquiring and improving them.

5.7.2.2 Training, skills and leadership development

Each year, the key thrusts of Safran's training strategy are detailed in a reference document sent to all of the Group's HR players and managers. Safran University develops its catalog of training offers in line with these major thrusts. Companies can define their own training plan in accordance with the guidelines and their own specific needs.

Safran University acts as a key vector for onboarding new hires, transforming the organization and instilling leadership across the Group by:

- welcoming new hires and bringing together Group employees from different companies, countries and generations in a place that inspires pride and a sense of belonging in the Safran community. Safran University holds annual Safran Discovery Days dedicated to new hires. The two held in 2019 welcomed a total of 800 people;
- skills development and education, through strategic management of Group training areas and programs;
- transformation, with the strengthening of the digital unit and support in new professions;
- creating interactive, mutually supportive networks of executives who hone their transformative capabilities and acquire and transmit the Group's values and culture. In recent years, 700 of the Group's high-potential profiles have benefited from a Management Development Program (MDP) featuring academic contributions, group work presented to leaders and members of the Executive Committee and a learning expedition.

Safran University guarantees that all the training provided supports and advances the Group's strategic vision.

Safran University also contributes to the transmission of knowledge by gradually providing managers, HR and experts with skills-transfer tools, such as tutoring on business skills and mentoring on behavioral skills for experts and managers.

Each Executive Committee member regularly spends a day on the campus meeting trainees and discussing Group-related topics and news with them, as do company HR Directors.

The Safran campus is home to the University. It includes hotel and restaurant services, and has been operating in the Paris suburb of Massy since 2014. It welcomed nearly 22,000 of the Group's men and women in 2019, an increase compared with 2018, half of whom came for training and the other half for events.

Key training figures for 2019:

- more than 2,300,000 hours of classroom and remote training;
- of which 1,000,000 hours in France, representing an investment of 4.4% of payroll in France.

Safran University in 2019:

- designs and provides core training, considered to be strategic;
- over 483,000 hours, or more than 21% of total training hours;
- including 95,400 hours of core digital training, which almost tripled compared to 2018 and is set to continue growing sharply.

Teaching methods are taking a new direction. They are increasingly geared towards employees, with learning methods drawing from technological and neuro-pedagogical advances.

In many courses, Group expertise is transferred through the intermediary of an internal expert or trainer. In many courses, Group expertise is transmitted by in-house experts or trainers, more than 150 of whom teach courses at Safran University.

Digital-based training, using videos, virtual communities and online course materials, is also being developed to expand access to Group skills and bring courses to a wider audience at no extra cost.

With a view to strengthening the employability of all populations, adapted training courses and specific systems (skills assessments, promotion of acquired experience) are reinforced in order to support professional development and reorientation, and to allow skills development in the professions of tomorrow.

To support the Group's international expansion, Safran University teams have been deployed in countries where Safran has the strongest local footprint, such as the United States, the United Kingdom, China and Morocco. There are plans to intensify that process. Training programs will continue to be delivered in some 10 countries, in French, English or the local language.

As part of this process, to spur the acquisition of shared core competencies and facilitate onboarding, 50 Safran University programs representing Safran's corporate culture have been selected for priority deployment in these countries. Held in classrooms or remotely (via e-learning, MOOCs or other formats), the programs cover a variety of business lines and cross-functional skill sets, some of which – like “White Belt”, “Leadership Model” and “One Safran Awareness” – must be attended by employees on every site, while others are mandatory only for employees in a given business line.

An English language learning platform came online in early 2018, to enable any employee to practice his or her English anywhere and anytime, 24/7, from a workstation, tablet or phone.

Leadership development

Safran shares a unique set of leadership skills across all of its sites and for all of its employees. It is made up of behavioral skills falling into five groups: mobilizing around a shared vision, winning as a team, managing by example, daring to innovate and empowering employees. Each skill is itself broken down into five observable behaviors and adapted to the different levels of responsibility.

The digital tools made available by the Group include an individual evaluation of everyone's leadership, allowing for both a self-assessment, and assessment of peers, colleagues and management. Safran University integrates this leadership benchmark into all of its managerial training and encourages the implementation of individual and collective progress plans. All of the companies' initiatives in this area, such as the Team Dynamics coaching methodology and the Leadership Awareness initiative are supported and shared.

Preparation for the Factory of the Future – the Bondoufle CampusFab

CampusFab opened in 2019. Its aim is to provide training for aerospace and space technicians in the jobs that will be part of the industry of the future. Located in Bondoufle, CampusFab is supported by a consortium of companies, French government agencies and local authorities.

CampusFab has acquired the technologies, industrial equipment and software solutions that will underpin Industry 4.0. Digital technology is omnipresent in this modular 2,000 sq.m. space, with collaborative robots, connected objects, virtual or augmented reality, and additive manufacturing. Everything is designed and organized to monitor data continuity, from product design to completion.

CampusFab offers access to a centrally located digital room, where data and processes are controlled and analyzed. It also features an additive manufacturing center, a model machining line producing aerospace quality/automotive capability parts, an assembly line, a maintenance hub for the production facilities and a space for activities and professional meetings.

CampusFab is designed to provide Safran employees with continuous training to prepare them for the challenges of tomorrow's digital factory, and to give them the knowledge needed to pilot industrial systems and manage data. Training modules will be offered to people on combined work-study programs. From their initial training, they will be ready for Industry 4.0 developments.

5.7.2.3 Compensation and giving employees a stake in company performance

The compensation policy is based on the following fundamental principles:

- maintain employees' purchasing power by ensuring that they keep within the local standards of Safran's various employment areas and by supporting mobility and promotions to encourage risk-taking and initiative;
- build compensation partly on the basis of employees' individual performance, but also on the collective performance of their company and the Group;
- offer the most differentiating and attractive benefits possible compared with competing employers.

Gender pay ratios are presented in section 6.6.2.4.

Compensation trends

France

In 2019, average annual compensation increased by between 2.35% and 3% of payroll, depending on the company. The 2019 pay round included across-the-board and individual pay rises for below managerial-grade employees, and individual pay rises for management-grade employees.

The French law of September 5, 2018 on the freedom to choose one's professional future and its implementing decree of January 8, 2019 create an obligation for companies to measure five indicators in terms of equal pay between men and women. The index determined on the basis of the new law puts Safran at a satisfactory level, with a score of 87/100 at Group level based on its companies with more than 250 employees in France.

Internationally

Increases in compensation internationally were in line with local market trends: overall increases in the Group's main host countries averaged 3% in the United States, 5.5% in Mexico, 2.5% in the United Kingdom, 4.5% in Morocco and 6.5% in China.

Profit sharing

Internationally, profit-sharing systems (profit sharing, bonuses) allow employees to share in their companies' results. In France, statutory and optional profit-sharing schemes are used to allow employees to benefit comprehensively and fully from the Group's economic and financial results.

In France, statutory profit sharing is paid under the terms of the Group agreement signed on June 30, 2005, whereby every employee, regardless of his or her company's earnings for the year, is paid an identical percentage of his or her annual salary out of the aggregate non-discretionary profit-sharing reserves set aside by Group companies in France.

On May 29, 2019, the Group profit-sharing agreement was extended to the companies of the former Zodiac Aerospace.

Optional profit sharing

All French entities have optional employee profit-sharing plans based primarily on economic performance, but also on other operating performance indicators.

Savings plans

Group employees in France benefit from a comprehensive employee savings plan system that allows them to save money with the help of their company: Safran's Group employee savings plan (PEG), introduced by a Group agreement in 2006, offers a medium-term savings solution via a range of five corporate mutual funds with different management strategies. The Group employee savings plan encourages employee share ownership in particular, by allocating up to €2,000 per year and per employee in Company contributions to an FCPE invested in Safran shares. This contribution is among the highest of CAC 40 companies.

Since 2012, a Group agreement has also established a Safran collective retirement savings plan (PERCO), which lets employees save for retirement by investing in six corporate mutual funds with different management strategies. In 2019, a matching employer contribution of up to €900 per employee per year was offered, while a bonus contribution of up to €1,700 is planned for employees in their last two years of service ahead of retirement.

When the Safran Group was created in 2005, employee share ownership was broadened to the global Safran community with a Group-wide agreement signed in 2006 that set up an international Group employee savings plan (PEGI). It provides employer financial support to employees of foreign subsidiaries who wish to contribute to a savings plan based on Safran shares (Company contribution of up to €2,000 per year per employee). More than 18,800 employees in Group companies in Belgium, Canada, Germany, Mexico, Morocco, the United Kingdom and the United States have access to this plan.

The scope of the former Zodiac Aerospace is not yet covered by these agreements; the French companies will gradually be brought in from January 2020. Group employees located in France will therefore all be able to benefit from the PEG and PERCO schemes.

Employee share ownership

Safran boasts one of the highest proportions of current and former employees participating in share ownership plans of all CAC 40 companies. Together, they held 6.76% of the Company's outstanding shares at December 31, 2019.

Employee shareholding is based on:

- long-term schemes such as the PEG in France and the PEGI internationally;
- the implementation of one-off operations since the Group's creation, such as the allocation of 100 free shares in 2009 in Europe, the leveraged employee shareholding offer in 2012 and the classic employee shareholding offer with a matching contribution in 2014.

In 2020, a new employee shareholding offer reserved for all eligible employees based in France and 15 other countries has been launched. Known as "Safran Sharing 2020", it covers 91% of the Group's headcount. This leveraged offer allows participants to acquire Safran shares at preferential conditions via the PEG or the PEGI. It guarantees the invested capital and allows investors to benefit from a gain in the event of an increase in the share price during the five-year lock-up period.

5.7.3 Recruitment and the employer brand

For the past five years, Safran has been pursuing an active policy of developing its employer brand to attract the best talent. The policy helped hire 14,880 new employees in 2019 and to maintain or improve Safran's place in the rankings:

- Universum: #4 company preferred by students from engineering schools in 2019 (a gain of 15 places in seven years);
- Glassdoor: #7 best employer in France, entry into the top 10 in 2019;
- Le Figaro Cadremploi: #5 benchmark employer for students and young graduates from engineering schools in 2019;
- Capital: #4 best employer in France in 2020.

Numerous communication initiatives are carried out on networks and recruitment sites to promote awareness of the jobs of the future at Safran. For example, Safran had 459,000 LinkedIn followers at the end of 2019, up from 390,000 at the start of 2018. Safran also has an Employee Advocacy program to encourage employees to voice their opinions on social media.

The 19 partnerships formed with engineering schools and universities in France are managed dynamically, with support from an active network of 260 Safran employee ambassadors to these schools as of December 31, 2019. Trainees, apprentices, doctoral students and VIE from these partner schools are

Social protection and welfare

France

A single mandatory personal risk insurance plan was set up for Group employees in 2009, covering short- and long-term disability, death and healthcare and offering generous benefits for employees and their dependents. Including dependents, more than 93,000 people were covered by the plan in 2019, as well as nearly 22,000 pensioners. Since 2016, it has been in compliance with the "responsible contracts" decree of November 18, 2014, designed to bring healthcare costs under control, and has been more than 50% funded by Safran.

Since 2015, all Group employees have been enrolled in a single insurance plan covering accidental death and disability on the job, which is fully funded by Safran.

Since November 1, 2018, Group employees and retirees have been able to access a range of caregiver support services. Available by phone or online, the services are intended to support Safran employees and retired employees faced with the loss of autonomy of a loved one.

Lastly, an amendment to the Group agreement dated September 18, 2019 made it possible to extend the Safran personal risk insurance and healthcare plans to employees of the companies of the former Zodiac Aerospace, and to improve the overall cover.

Internationally

Special attention is paid to healthcare and personal risk insurance plans through the implementation of single, harmonized plans for all Safran companies in a given country, notably in the United States, Canada, India and Morocco.

In addition, an audit was performed in the international subsidiaries in 2018 to ensure that each unit provided sufficient healthcare and other insurance coverage for Group employees.

encouraged and followed particularly closely. Their ranks total nearly 800 in France each year. The ambassadors participate in the design of the educational content of their schools, and organize or participate in numerous events between the Group and their partner school.

Many specific steps were taken in 2019 to develop the attractiveness of the Group and its businesses:

- bringing the academic and business worlds closer with the CGenial Foundation through two operations: "Technicians and engineers in the classroom" and "Professors in business";
- strong presence at the 2019 Paris Air Show, with the Plane-Jobs and the Job Training Forum;
- Safran and the French Ministry of Education and Youth Affairs have renewed the framework agreement for the professional integration of young people for another three years;
- a new partnership with École des Ponts ParisTech and two new sponsorships with ENSEIHT (National School of Electrical Engineering, Electronics, Computer Science, Hydraulics and Telecommunications) and the Industrial Engineering Department of INSA Lyon (National Institute of Applied Sciences);
- Safran has become the leading employer of doctoral students under CIFRE (industrial research training agreements) schemes;

Human resources

- Safran was labeled “Best in Class 2019” by *Engagement Jeunes*, a distinction won thanks to the very positive evaluations by young people welcomed into Group companies. *Engagement Jeunes* is a community platform where socially committed companies share their work-study trainees, interns, VIEs and doctoral students with their ecosystem and the job market;
- two challenges bringing together 850 students: the “Safran Challenge” and the Safran Electronics & Defense “Black-Out Challenge”;
- #SafranOnBoard: a new identity for school relations, with an associated toolkit;
- a Talent News publication for job applicants;
- the Agires-Synergie Trophies, on June 6: Safran was awarded two prizes by engineering schools and universities for the quality of its relations with schools;
- live jobchats via the Pathmotion platform: fluid mechanics, purchasing, non-destructive testing, industrial maintenance, etc.

In 2019, a specific Employer Brand action plan was launched in certain geographic areas, primarily in the United States, where the job market is particularly tight. Safran’s businesses are less well known there and recruitment requirements are very specific. This is also the case in Morocco and Mexico, where boosting the Group’s attractiveness and retaining talent are more critical issues.

5.7.4 Diversity

Diversity is a priority challenge of the Group’s HR policy. Long-lasting initiatives are undertaken to promote equal opportunities and to fight against all forms of discrimination. Safran wants all of its employees to reach their full potential in a Company that respects everyone. Safran adheres to the United Nations Global Compact and promotes its 10 key principles. Since 2010, the Group has been a signatory of the diversity charter, the principles of which are integrated into management and decision-making throughout the HR processes.

5.7.4.1 Professional equality between men and women

Safran sees gender diversity as a lever for performance and success within the Company. It does not wish to deprive itself of the wealth of diversity of any talents, especially those of women.

Women represent a steadily increasing contingent in Safran’s workforce, currently accounting for 29.1% of the total. Women made up 25.2% of managerial-grade employees, 12% of senior managers, and 37.4% of new hires in 2019.

Safran laid down an action plan in December 2019, with targets set for 2023. It is based on four goals broken down into practical objectives:

- make professional equality a lever for transformation;
- make the corporate culture more inclusive;
- enhance the attractiveness of Safran for women;
- increase the number of women senior managers⁽¹⁾.

The Group plans to strengthen its attractiveness in new digital skills, with new partnerships with schools and specialized masters programs, as well as via a communication campaign with recruitment targets and new digital ambassadors.

Integrating young people is a central theme. On average, the Group welcomes more than 6,000 interns and work-study trainees across all of its businesses throughout Europe each year, thereby giving them special access to employment. In addition, 700 final-year middle school students were welcomed in the various Group companies in France.

Through its European framework agreement to support young people transitioning from school to work, Safran has reaffirmed its commitment to ensuring that apprentices and interns each account for 5% of the workforce of Group companies in Europe. Young interns, work-study trainees and PhD graduates made up 11.6 % of the Group’s Europe-based workforce in 2019.

Every year, this commitment enables a large number of employees to mentor a young trainee in their company.

Safran is a partner of the Global Apprenticeship Network (GAN). In this way, it acts in support of employment for young people by encouraging the development of learning and by participating in local initiatives such as the national work-study day.

For example, Safran has set the following objectives:

- communicate the Group’s ambitions in terms of gender equality to all teams;
- raise awareness about non-discrimination among all employees;
- bring the proportion of new hires who are women to 41% by 2023;
- raise the proportion of senior managers who are women to 16% in 2023;
- have at least three women per management committee in each company.

Progress on these objectives will be monitored each year by the Board of Directors (see section 6.3.3) and the Executive Committee.

In December 2017, four Safran companies in Europe received the Gender Equality European & International Standards label, which backs up the Group’s gender equality policy. After receiving the label, an international working group and a steering committee comprising senior managers⁽¹⁾ of the Group set about strengthening the professional equality policy.

Safran obtained a good score of 87/100 at Group level in the French legal index assessing the gender pay gap. The Human Resources Department’s objective is to ensure a policy of equal pay in the various geographic areas where Safran operates.

A range of initiatives are being developed and offered to women in the Group.

For instance, the Women@Safran network brings in personalities to talk about issues such as the place of women in business and the work-life balance.

(1) Senior managers designate people occupying positions with the highest level of responsibility and strategic impact for the Group.

Programs combating all types of discrimination have been run in all Group companies. They include *Illuminate* in the United States, *Girl's Day* in Mexico and *Future en tous genres* (Future in all Genders) in Switzerland.

There are also plans to encourage girls to train for technical professions.

Safran has been a member of women's mentoring association *Elles Bougent* (Women on the Move) since 2005, continuing its partnership in a national and international network. The Group had more than 330 *Elles Bougent* sponsors in its ranks in 2019. They promote the place of women in the aerospace industry among schoolgirls, high school students and university students. The internal network of sponsors and correspondents organizes initiatives to show young women that the world of science is not reserved for men. They range from forums, workshops and visits to Safran sites to the week-long "Girls On The Move" event on the worldwide stage.

5.7.4.2 Integrating and retaining employees with disabilities

Disability policies focus on four key objectives: retaining employees with disabilities, hiring the disabled, working with sheltered workshops and disabled-staffed companies, and deploying the Afnor "disability-friendly workplace" standard for the integration of disability into all our processes.

In France, excluding Safran Passenger Solutions, Safran Aerosystems, Safran Cabin and Safran Seats, the percentage of people with disabilities in the workforce increased from almost 4.6% in 2015 to 5.1% in 2019. In France, this policy draws on a network of correspondents and liaison officers in companies whose role is to achieve the objectives of our disability agreement signed for the period from 2018 to 2022. It is a very active network which develops job retention measures such as suitable arrangements for anyone in the company experiencing health problems so that they can continue to work, including work-study students and interns. The correspondents play a pivotal role, first by supporting employees and second by raising awareness among managers and within teams.

The network of correspondents working with the central hiring unit aims to achieve a target of 1% of new hires on permanent and fixed-term contracts, and a minimum of 28 apprentices each year.

A large number of awareness-building events are carried out throughout the year, such as workshops on breaking down stereotypes and awareness-raising initiatives on different disabilities. The "Duoday" held in certain European entities allows a Safran employee to explain the basics of his or her profession to a person with a disability, thereby helping to align skills with a profession within Safran.

Meetings are also organized to present the activities of vocational rehabilitation centers or sheltered employment companies to develop commercial partnerships.

The last objective of Safran's disability policy is to increase the integration of disability into all of the Company's processes. In 2019, one facility obtained Afnor compliance, thereby joining the seven other facilities in France already declared compliant.

Internationally, legal differences have thus far made it impossible to consolidate data for Safran Cabin and Safran Seats. These two entities do however carry out awareness-raising and training initiatives, and adapt positions to facilitate inclusion. In 2020, measures will be taken to improve this reporting. Generally speaking, the main actions are practical, such as workstation modifications, very often with the help of ergonomists. Partnerships with associations also allow people with disabilities to familiarize themselves with the world of work for a few weeks or months through services.

5.7.4.3 Intergenerational balance

Social inclusion of young people

Through the European agreement in favor of the professional integration of young people (see section 5.8.2), Safran is also acting for the social and professional integration of young people in difficulty.

The Group offers orientation, training or employment opportunities to young people in difficulty, thereby helping fight exclusion in the most disadvantaged areas.

Its partnership with the *Jeunes d'Avenir* job fair and its decision to sign up to the PAQTE plan (from the French acronym for pact with neighborhoods for all businesses) show that Safran is serious about maintaining the effort to welcome young people facing difficulties in finding a job. PAQTE is a support program designed to achieve greater economic inclusiveness. It has four pillars: awareness-raising, training, recruiting and purchasing. For instance, awareness-raising about the world of business was targeted at young people, with more than 700 participants brought in for first-hand observation. The *Ma Caméra chez les Pros* scheme saw three middle school classes visit three production entities.

Safran has also partnered with *Article 1*, an association that seeks to foster social bonds and civic engagement as a means of shared success. The Group contributes to its work by sponsoring students from less advantaged backgrounds. Around one hundred Safran employees work with *Article 1* as sponsors.

Seniors

To maintain a balance between generations, the Group is committed, especially in France, to promoting the recruitment of seniors and helping them stay in work.

These commitments are illustrated by two objectives for France. The goal of recruiting 4% of people over the age of 50 per year was exceeded in 2019, with a rate of 5.8%. The aim of having 15% of employees aged 55 and over within the overall workforce was also exceeded, with a total of 20.1% in 2019.

End-of-career arrangements such as telework, modified scheduling and assisted part-time schedules are implemented, as are support measures adapted to certain professional or personal situations.

5.7.4.4 Indicators and objectives

All of the indicators mentioned below relate to a Group scope unless otherwise stated.

	2017	2018	2019
TOTAL HEADCOUNT	58,324	92,639	95,443
Europe	43,320	55,475	55,866
■ of which France	36,910	44,492	45,198
Africa and the Middle East	2,664	6,701	6,855
Americas	9,890	25,601	27,585
Asia and Oceania	2,450	4,862	5,137
% of male employees	74.3%	71.50%	70.9%
% of female employees	25.7%	28.50%	29.1%
% of managerial-grade employees	39.6%	36.10%	36.8%
% of women management-grade employees (Managers & Professionals) among total management-grade employees (Managers & Professionals)	23.3%	24.30%	25.2%
% of women among senior managers	12%	12%	12%
% of women on the Company's Executive Committee (see section 6.2.4.2)	6%	6%	6%
% of women on the Company's Board of Directors	41.18%	46.7%	38.5%
TRAINING			
Average number of hours per employee	25	26 ⁽¹⁾	26
% of employees to have completed at least one training course	81%	87% ⁽¹⁾	83%
HIRINGS AND SEPARATIONS			
Total new hires – world	6,673	13,050	14,880
% of male new hires – world	70.2%	63.9%	62.6%
% of female new hires – world	29.8%	36.1%	37.4%
Number of definitive departures	6,086	12,022	12,461
Permanent departure replacement index	1.1	1.1	1.2
Number of mobilities and transfers	1,352	1,384	2,025
INTEGRATION OF YOUNG PEOPLE ON TRAINING			
Number of interns (European Group agreement scope)	2,367	2,914	2,728
Number of work-study trainees (European Group agreement scope)	2,524	3,210	3,493
Number of student researchers (European Group agreement scope)	155	234 ⁽¹⁾	260
DIVERSITY AND EQUAL OPPORTUNITIES			
% of employees aged 50 and over in France	29%	33.60%	32.3%
% of employees aged 55 and over in France		20.61%	20.1%
Number of disabled people (France agreement scope) ⁽¹⁾	1,861	1,892	1,929
Direct and indirect employment rate of people with disabilities (France agreement scope) ⁽¹⁾	5%	5.1%	5.1%
ABSENTEEISM			
Absenteeism rate	N/A	2.61% ⁽¹⁾	2.84%

(1) Excluding Safran Aerosystems, Safran Passenger Solutions, Safran Cabin, Safran Seats.

Compensation indicators

(in € millions)	2017	2018	2019
Statutory employee profit sharing ^{(1) (3)}	144	170	218
Optional employee profit sharing ^{(2) (3)}	161	172	178
Matching contributions (World scope)			
Amount paid as PERCO, PEG and PEGI matching contributions for all Group employees	65	66	87
Employee savings			
Total amount paid in respect of statutory and optional profit sharing (France scope) and related contributions (World scope) (including the corporate social contribution)	433	417	458

(1) For French companies, the minimum salary used to calculate the individual amount of statutory employee profit sharing is 1.2 times the annual social security ceiling (PASS) (i.e., €48,828.80 for a full-time employee in 2019). Employees who received lower salaries during the year under consideration will receive the minimum amount (pro-rated to the period of their employment).

(2) For French companies, the amount of optional employee profit sharing may total up to 7% of payroll, depending on the agreement and the company's performance.

(3) Amount from the consolidated financial statements (see section 3.1, Note 7) of companies included in the scope of consolidation, as defined in section 3.1, Note 37.

Targets for diversity and equal opportunity

2023 targets	
Gender diversity	- bring the proportion of new hires who are women to 41% - have at least three women per management committee in each company
Disability	6% of people with disabilities in France - bring the proportion of new hires who have disabilities to 1% each year in France - hire at least 28 apprentices with disabilities each year in France

5.8 SOCIAL DIALOGUE

Since its creation, Safran has seen social dialogue as an integral part of its corporate culture. In 2006, management and all of the representative union organizations at Group level signed an agreement on the development of social dialogue in which the parties reaffirmed the importance of union action in balancing and regulating labor relations within the Group.

In addition, ESG rating agency Vigeo-Eiris gave the quality of social dialogue at Safran a very positive evaluation in 2019, assigning it a score of 79/100.

Lastly, on a daily basis, the Human Resources Department and the employees and trade union representatives cooperate widely on subjects of common interest, at various levels.

5.8.1 Worldwide

At Group level, the framework agreement on corporate social responsibility, presented in part in section 5.1.3, applies to all Safran employees worldwide. Under this agreement, the Group and its subsidiaries guarantee the proper representation of employees and respect for union rights in accordance with international standards (notably the ILO conventions) and local laws.

In the United States, Canada and Mexico, multi-year and global collective bargaining agreements are in force, covering a very large part of life in the company. Outside France, in other countries such as Germany, agreements signed with the employee representative bodies relate to more specific subjects and cover varying periods.

5.8.2 In Europe

At Group level, social dialogue mainly revolves around the European Works Council (EWC) and the application of two agreements covering all European Union countries and Switzerland.

The European Works Council

The European Works Council has 21 full members representing Belgium, the Czech Republic, Finland, France, Germany, the Netherlands, Spain, Poland and the United Kingdom. It is designed to represent the Group's 55,000 employees in the European Union.

Given the changes in the Group's scope of consolidation and the many European labor issues on the table, the European Works Council was again the scene of intense discussions in 2019. Several plenary meetings were held during the year, as were meetings between the Group Human Resources Department and the EWC Board. Meetings saw discussions on issues including Brexit and its impact on Safran.

European collective agreements

Two agreements, one relating to the professional integration of young people and the other for skills development and

professional careers, provide a common framework for all of the Group's employees in Europe. They are deployed through local action plans in each host country.

The two agreements are helping to drive Safran's performance by underpinning its ability to grow and renew itself, in particular by bringing young people into the workforce and encouraging mobility as an opportunity for skills development. Every year, the agreements are reviewed by the monitoring review board to measure the progress made towards their objectives and to identify priorities for the coming year.

In 2019, negotiations took place between Safran's management and IndustriALL, the European trade union federation, to renew the European framework agreement on skills development and professional careers. The purpose of the renegotiation was not only to extend the scope of the agreement to all Safran companies, but also to improve its provisions.

In addition, in the Group's European subsidiaries, some 60 specific collective agreements with fixed or indefinite terms were concluded, notably in Belgium, Germany, the United Kingdom and Poland. They covered a range of topics including work organization, leave, profit sharing, social dialogue, skills management and working conditions.

5.8.3 In France

At Group level

As a shared foundation for labor policy, collective agreements attest to the Group's commitment to its employees and, in particular, to the success of the entire organization.

In all, nearly 15 Group-wide agreements are now in effect, on such issues as employee savings plans, death and disability insurance, intergenerational relations, disabilities, training, human resources planning and development, the prevention of workplace stress, and the development of social dialogue.

In 2019, social dialogue also took the shape of regular meetings with Group union coordinators to discuss issues such as the annual pay round, agreement monitoring review boards and the extension of Group agreements to all Safran companies (profit sharing, personal risk insurance, PEG, PERCO).

Lastly, the Group Works Council frequently holds ordinary and extraordinary meetings. Made up of 30 members, it acts as a forum for information, discussion and dialogue between employee representatives and senior management, with a special focus on sharing viewpoints on major strategic objectives and labor relations issues.

Within the subsidiaries

The active Group-level social dialogue process also leaves space for each subsidiary to pursue its own robust negotiations, in line with its economic and business environment. In 2019, in addition to wage agreements, the main issues negotiated concerned optional employee profit-sharing, professional equality, the establishment of the social and economic committee, and telework.

5.9 SOCIAL IMPACT

5.9.1 Community outreach

The global CSR framework agreement signed in 2017 stipulates that "in each country where it operates, Safran favors local human resources to fill available jobs and whenever possible, develops local integration. In the event of changes in its activity, Safran undertakes to inform the local and national authorities beforehand and to cooperate with them in order to better account for local

interests". Safran also favors local partners and subcontractors so as to minimize product imports.

This commitment is demonstrated in the provision of vocational training for aerospace jobs to facilitate skills transmission, as well as in Safran's support for research to encourage innovation at the Group's various locations.

For example:

- Safran operates in India through six companies located in Delhi, Bangalore, Hyderabad and Goa. Together, they represent a workforce of 600 people and one employee training center. A joint venture has been created between Safran Helicopter Engines and Indian company HAL, which provides support to national and international operators using helicopter engines, primarily the Indian air force and army.

At the same time, non-Indian employees located in Europe received intercultural training in 2019 to learn how to work better with Indian people and encourage exchanges with Indian industrial groups.

In India, Safran is also involved in French engineering school ICAM's Franco-Indian educational program, which prepares students at the Loyola ICAM College of Engineering and Technology in Chennai to earn two degrees: a Bachelor of Engineering in India and an ICAM Master of Engineering degree in France. Safran also offers program participants engineering internships.

- In Morocco, Safran helped to forge the partnership between the Moroccan government, the Moroccan Aeronautical and Space Industries Group (GIMAS) and France's Mining and Metals Industry Confederation (UIMM). The Group also participated in the creation of a training institute for aerospace professions (IMA) and has committed to helping the Moroccan authorities develop the country's research activity through the creation of doctoral courses in aerospace.
- In Mexico, Safran is involved in the Mexprotec bilateral university cooperation program, which enables Mexican senior technicians to earn a professional degree in a French institute of technology. The Group is partnering with several

universities, including the National Autonomous University of Mexico (UNAM) and the Technological University of Querétaro (UTEQ). It has collaborated with the Lycée Franco-Mexicain in Mexico City to set up a work-study program delivering a professional degree from the University of Créteil in France. Safran is also a founding member of the AeroClúster de Querétaro association.

- In Brazil, Safran promotes excellence and international mobility for young Brazilian engineers and researchers by providing grants to science and technology students at UNB University in Brasília. Several Safran companies have also signed collaborative research agreements with Brazilian universities. Since 2013, the Group has been involved in a partnership with Brazil's National Training Service (SENA). In 2019, Safran Cabin also set up partnerships with universities and language schools to promote training for its employees.
- In China, the CFM International training center has trained more than 10,000 trainees. It is CFM's third-largest training center worldwide.
- In Poland, the CEKSO 2 training plan marks Safran's contribution, alongside other Aviation Valley companies, to the establishment of training standards to adapt educational programs to the needs of the aviation industry. Safran employees are involved in these training courses.
- In Canada, Safran works with an aerospace association to identify the key skills of a future industry and to influence academic programs.
- In France, Safran has been working since 2016 with the MetaFensch research and development platform and several metallurgy groups, including Eramet and Vallourec, with the aim of developing the French titanium sector of the future.

5.9.2 Safran's foundations

Safran supports social and artistic endeavors through two corporate foundations:

In the arts, the Safran Corporate Foundation for Music has a 15-year track record of supporting young talents as they embark on their professional lives on the classical music scene. Since 2004, it has provided a total of €2.98 million in support in this area. Aiming to bring budding musicians up to professional standard as quickly as possible, the Foundation's action is built on three pillars:

- First, individual support for young talents identified by networks built with high-level schools and professional players in the music industry: development grants, assistance with professional quality recording ("sound CV"), assistance with the purchase of a quality instrument.

In 2019, 20 individual requests were selected from the 110 applications submitted.

- Second, support for structures serving as a sounding board for young talents by offering them venues in which to perform, and artistic residencies giving them time to work and create. The Foundation supports associations that carry out complementary initiatives to create a network providing everything it takes to develop the talent of these young people.

Support is currently provided to eight associations or institutions serving young talents, several of which, such as the French Army Museum, *Jeunes Talents* and *Piano à Lyon*, under partnerships dating back several years. Sixty-one applications were submitted in 2019.

- Lastly, a competition that each year puts a different instrument in the spotlight and whose prize reflects the Foundation's professional vocation: an endowment accompanied by a concert in a prestigious venue on the program of the *Saison Musicale* of the French Army Museum. In October 2019, the prize was won by Paul Zientara, a young viola player who had only just turned 19.

Acting in support of the integration of adolescents and young adults with disabilities, whatever their nature, the Safran Foundation for Integration has supported more than 250 projects since its creation in 2005. A total of €4.9 million has been allocated for support in this area.

In the run-up to its 15th anniversary, the Board of Directors has decided to turn the Corporate Foundation's mode of action towards targeted calls for projects on a number of more specific themes, namely professional integration, which is central to the Foundation's vocation, social integration through housing, and social integration through culture. Particular importance is placed on projects aimed at integrating young people with physical, mental or sensory disabilities into the mainstream. The projects supported are mainly located in France, with a budget dedicated to supporting projects in the countries where the Group operates.

2019 was a year of transition. Thirty projects were supported, out of 124 requests, receiving €447,000 in funding.

The Foundation will continue to use two other levers to fulfill its purpose:

- The SHIFT project, specific to the Foundation and launched in 2011, has been implemented in the form of an electric urban mobility kit that can adapt any type of wheelchair to any type of electric scooter available on the market. This project is being developed within a fledgling company, OMNI.
- The commitment to the AlphaOmega foundation, initiated in 2017 with a total endowment of €1 million, continues. This project has allowed the Safran Corporate Foundation for Integration to move into the field of venture philanthropy. It now aims to use this innovative approach inspired by the methods of venture capital to place seven associations carefully chosen for their ability to obtain in-depth results in the field of education on the national stage.

5.9.3 Philanthropy

As part of its corporate patronage policy, Safran provides financial support to public and private partners, independently of its own business interests. A rigorous selection process is in place to ensure that all project applications are treated equally. This process is based on:

- a defined scope of action: Safran has chosen mainly to support educational and cultural initiatives: combating illiteracy and student dropout, teaching computer code, introducing children to science, etc.;
- a charter setting out the corporate patronage policy of Safran and its companies, as well as its scope and implementation;
- a geographic scope that spans France and other host countries worldwide;
- clear eligibility criteria for successful projects. Projects may be submitted by anyone, whether employed by the Group or not.

The Safran Corporate Patronage Committee meets once or twice a year to review applications and select projects. Safran's Group Compliance Officer checks the compliance of all applications submitted. The decisions are collegial.

Opening a window to the outside world, patronage can also be expressed by employees.

Go Safran-Race for Education: a unique endeavor

Actions implemented to facilitate the integration of the former Zodiac Aerospace included the launch of Go Safran in June 2018. The goal was to put together a mobile and web sports app to organize challenges as a means of encouraging employees to form mixed teams (combining people from the two companies). The system was designed to foster interest in discovering the

Group and to promote Safran's values of team spirit, performance and the sharing of progress and successes.

In addition, February 2019 saw a call for educational patronage projects among employees. The Go Safran-Race for Education philanthropy operation benefited from communication in five languages. The Safran Corporate Patronage Committee selected 12 projects put forward by international and French employees, ranging from the creation of a school library in the town of Kon Tum in Vietnam to an initiative aimed at popularizing science among young people in Morocco's Oriental region and the staging of a school play in Montluçon (France).

Go Safran was a unifying initiative, and its success can be summed up in a few figures:

- 15,000 people registered, of which 44.5% internationally;
- 2,426 teams worldwide;
- 17,925,040 km traveled;
- 12 patronage projects supported in the dedicated Go Safran-Race for Education operation.

To continue its work, the Safran Corporate Patronage Committee met a second time in October 2019 to study the unsolicited applications sent by associations. It chose nine new initiatives in France. Safran responded favorably to the request from a middle school located in a priority education area in the Eure *département* for the purchase of books allowing each teacher to start the first afternoon lesson with 15 minutes of silent and individual reading. The Group also supports MuMo, the first free mobile contemporary art museum for children. It has also made a commitment to children's reading association *Lecture Jeunesse*, in the form of support for a cross-cutting project called "Numook" aimed at making reading and writing a reality for adolescents through the collective creation of a digital book.

5.10 METHODOLOGICAL NOTE AND ITP REPORT

5.10.1 Methodology note on labor and HSE indicators

The labor and HSE indicators in this chapter have been defined by experts from the Group's support functions and businesses. As part of its continuous improvement process, Safran is gradually introducing a set of labor and HSE indicators aligned with legal obligations that have proven effective in tracking changes in the Group and its operations.

The indicators and reporting period presented herein cover the 2019 calendar year, from January 1 to December 31, unless otherwise indicated in the text or below.

Safran has elected to have the entire report reviewed by one of its Statutory Auditors, Mazars, in accordance with prevailing legislation.

The nature and scope of the work of the Statutory Auditors, and their conclusions, are presented in the Statutory Auditors' report in section 5.10.2.

Reporting scope

Labor indicators

The scope of labor reporting covers Safran and all of its more than 50% directly or indirectly controlled subsidiaries, excluding joint ventures, unless otherwise indicated below.

The labor indicators at December 31, 2019 cover all of the subsidiaries in the scope of reporting, regardless of their business activities.

Indicators on employees with disabilities and the percentage of full-time employees pertain only to France. Indicators on work-study programs and internships pertain to Europe.

HSE indicators

The Health and Safety scope of reporting encompasses Safran and some of its more than 50% directly or indirectly controlled subsidiaries in which the HSE prevention policies and process have been deployed. For the Environment, the scope covers subsidiaries whose operations are overseen by Safran or in which Safran has a stake of at least 50%. Adjustments may be made to the scope of each indicator in line with its relevance for the facility and the facility's ability to report data.

Environment reporting covers all facilities with more than 50 employees, whereas Health and Safety reporting applies to those with upwards of 100. Facilities with fewer than 100 employees and high-risk manufacturing operations are encouraged to report Health and Safety information. Facilities with fewer than 100 employees and no significant risks can contribute to Health and Safety reporting if they wish.

Companies and facilities newly consolidated during the year must report their HSE data through the Score system within 24 months, according to a schedule set with Safran's Sustainable Development Department.

Changes in scope of reporting

The scope of reporting may change due to acquisitions, the creation of new businesses, disposals, liquidations or changes in the ownership stake in subsidiaries. The following rules were defined for the labor and HSE indicators:

- acquisitions/increases in the ownership stake in subsidiaries: data from the acquired or newly consolidated entity (more than 50% interest only) are included in the scope of reporting at the date on which control is acquired;
- disposals/liquidations/decreases in the ownership stake in subsidiaries: data from the sold, liquidated or deconsolidated entity (50% interest or less) are excluded from the scope of reporting at the date of disposal, liquidation or loss of control.

The time it takes to introduce reporting systems in start-ups and acquisitions may cause a delay in their contribution to consolidated reporting.

Data collection

Labor and HSE indicators are based on several data collection systems, each of which is managed by a specific department.

Labor indicators

Global labor indicators are reported on a quarterly basis, while reporting for France is monthly.

Employee data for the international scope are collected in each of the subsidiaries directly controlled by Safran (tier-one companies), which in turn are responsible for collecting employee data from their more than 50%-controlled subsidiaries. Employee data are collected using a standard template.

Data reported for France are derived from the Cognos and Zephyr reporting software and subsequently validated by the Group companies. Cognos gets its data from a shared payroll management system used for more than 80% of employees in France. Zephyr, core HR for the rest of the French employees, is the second source of employee data.

After checking for consistency, the Group Human Resources Department consolidates employee data for the French and international companies.

HSE indicators

Safety indicators are reported on a monthly basis, while health and environmental indicators are reported on a quarterly or annual basis. The data disclosed in 2020 correspond to the data available at year-end 2019.

At every facility, data are entered by appointed representatives into a dedicated Group data collection application. They are consolidated by the Group HSE Department. The software used at Safran Aerosystems, Safran Cabin, Safran Seats and Safran Passenger Solutions will be merged to create a single shared system.

Details on certain indicators

The definitions of the labor indicators presented below are specified in the template used by contributors and in its instructions for use.

The definitions and calculation methods of HSE indicators are provided in the reporting system used by representatives. The main assumptions are presented below by category of indicator.

Headcount

Headcount is stated as of December 31, 2019. It includes all employees of companies included in the labor reporting scope that work under permanent or fixed-term employment contracts, and excludes other types of contracts such as work-study contracts, industrial research training agreements (*Conventions industrielles de formation par la recherche* - CIFRE) and technology research diplomas (*Diplôme de recherche technologique* - DRT). Employees are counted in terms of individuals.

The data on the employee age pyramid cover close to 99% of Safran's headcount, as some subsidiaries qualify this information as confidential and/or discriminatory.

Managers & Professionals (managerial-grade employees) / Non Managers & Non Professionals (non-managerial-grade employees)

Managerial-grade employees (Managers & Professionals) are employees who coordinate an assigned set of physical, human or financial resources with the degree of independence and responsibility required to meet targets. The management and responsibility entrusted to them can relate to a team, projects, a process, a technique or a customer or supplier portfolio.

All other employees who are not identified as Managers & Professionals are classified as Non Managers & Non Professionals.

New hires

External hiring refers to the recruitment of new employees from outside the Group on fixed-term or permanent employment contracts. It does not include acquisitions or other types of contracts (work-study contracts, CIFRE and DRT research internships).

Permanent departure replacement index

The permanent departure replacement index is determined by dividing the number of new hires by the number of separations.

Job mobility

The total number of job mobilities includes employees on permanent and fixed-term contracts. Transfers are included in this indicator.

Worldwide absenteeism

Absenteeism corresponds to the total number of paid or unpaid hours lost to illness, occupational accidents or work-related travel accidents, strikes and unjustified absences divided by the theoretical number of hours worked and multiplied by 100. The rate is based on all employees on payroll, excluding people on long-term leave, specific contracts and expatriates/seconded workers.

Long-term leave is defined as:

- contract suspensions;
- employees who are ill for more than six consecutive months.

Employees with disabilities in France

In France, this indicator includes employees on payroll in 2019 who were certified as disabled as defined by Article L.5212-13 of the French Labor Code (*Code du travail*) and Articles 394 and 395 of the French Code of Military Pensions (*Code des pensions militaires*). It does not cover persons working under work-study contracts, CIFRE and DRT research internships or seasonal employment contracts. The French entities Safran Aerosystems, Safran Cabin, Safran Seats and Safran Passenger Solutions are not yet covered by the Group's disability agreement.

Work-study contracts, internships, CIFRE and DRT research internships

This indicator counts work-study contracts (apprenticeship and professional training contracts), internship agreements with a minimum duration of four weeks, CIFRE (industrial research training agreements) and DRT (technology research diplomas) that took place in 2019 on the European scope.

Training

The indicator on training hours covers all types of training worldwide. Training courses of fewer than four hours and on-the-job training have been included since 2014. Other supporting documents may also be used outside France, such as invoices, evaluation sheets, quality certificates, etc.

The indicator showing the percentage of employees that have completed a training course during the year corresponds to the number of active employees to have completed training during the year as a proportion of the number of registered employees excluding long-term absence. The number of employees on long-term leave worldwide is determined by extrapolating the number of employees on long-term leave in France.

Accidents

The frequency rate of occupational accidents equals the number of incidents resulting in more than one day's lost time per million hours worked.

The occupational accident frequency index corresponds to the number of accidents resulting in more than one day's lost time per thousand employees.

The occupational accident severity index corresponds to the total number of working days lost to occupational accidents reported divided by the number of lost-time accidents.

CO₂ emissions

Emissions are classified as Scope 1 or 2 using the methodologies defined in Article 75 of the Grenelle II Act. Emissions from refrigerants are reported for the 2019 calendar year.

Calculating CO₂ emissions

Scope 1: inclusion of emissions from butane, propane, natural gas, home heating oil, diesel fuel, heavy fuel oil, aviation fuel and refrigerants.

Scope 2: inclusion of emissions from purchased electricity, steam, heat and cold.

The electricity emission factor for France includes:

- in 2017, upstream fuel production, combustion and loss in transmission and distribution;
- in 2018 and 2019: combustion only, as per the emission factors of other countries.

Scope 3: inclusion of emissions from all Group business air travel, as recorded by the business travel management application. The other Scope 3 emissions are not taken into account.

Waste

Waste corresponds to the total of all hazardous and non-hazardous waste.

Categories of waste are defined according to local legislation. In order to harmonize reporting practices across the Group, non-contaminated metallic chips are reported separately.

Water

Reported water consumption corresponds to total water withdrawn and used for all sources, including the public water supply, surface water and groundwater.

Cooling water is not reported because it is not directly used in the industrial processes and is not physically or chemically treated before being released into the natural environment.

Energy

In 2018: data relating to natural gas and liquefied petroleum gas are indicated in kWh LHV (lower heating value) or kWh HHV (higher heating value), depending on the business activity and location.

In 2019: data relating to natural gas and liquefied petroleum gas are all indicated in kWh HHV (higher heating value).

NFIS exclusions

In view of its businesses, the fight against food waste and food insecurity, respect for animal welfare and social commitments in favor of a responsible, fair and sustainable food system are not major challenges for Safran.

5.10.2 Report by the independent third party on the consolidated non-financial information statement included in the management report

This is a free translation into English of the Statutory Auditor's report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as an independent third party, certified by COFRAC Inspection under number 3-1058 (whose scope is available at www.cofrac.fr) and member of the Mazars network, Safran's Statutory Auditor, we hereby report to you on the consolidated non-financial information statement for the year ended December 31, 2019 (hereinafter the "Statement"), included in the management report pursuant to the legal and regulatory provisions of Articles L.225-102-1, R.225-105 and R.225-105-1 of the French Commercial Code (*Code de commerce*).

Responsibility of the company

Pursuant to legal and regulatory requirements, the Board of Directors is responsible for preparing the Statement, which must include a presentation of the business model, a description of the principal non-financial risks, a presentation of the policies implemented in light of those risks and the outcome of said policies, including key performance indicators.

The Statement has been prepared in accordance with the company's procedures (hereinafter the "Guidelines"), the main elements of which are presented in the Statement and are available on request from the company's head office.

Independence and quality control

Our independence is defined by the provisions of Article L.822-11-3 of the French Commercial Code and the French Code of Ethics (*Code de déontologie*) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements, French professional standards and applicable legal and regulatory requirements.

Responsibility of the independent third party

On the basis of our work, our responsibility is to provide a reasoned opinion expressing a limited assurance conclusion on:

- the consistency of the Statement with the provisions of Article R.225-105 of the French Commercial Code;
- the fairness of the information provided in accordance with Article R.225-105 I, 3 and II of the French Commercial Code, i.e., the outcome of the policies, including key performance indicators, and the measures implemented in light of the principal risks (hereinafter the "Information").

It is also our responsibility to provide, at the request of the company and outside the scope of our certification, reasonable assurance as to whether the information selected by the company was prepared, in all material respects, in accordance with the Guidelines.

However, it is not our responsibility to comment on the company's compliance with other applicable legal and regulatory provisions, in particular the French duty of care law and anti-corruption and tax evasion legislation, or the consistency of products and services with the applicable regulations.

Nature and scope of our work

The work described below was performed in accordance with the provisions of Articles A.225-1 *et seq.* of the French Commercial Code and with the professional standards applicable in France to such engagements, as well as with ISAE 3000⁽¹⁾:

- we obtained an understanding of all the consolidated entities' activities and the description of the main risks;
- we assessed the appropriateness of the Guidelines with respect to their relevance, completeness, reliability, objectivity and understandability, with due consideration of industry best practices, where appropriate;
- we verified that the Statement includes each category of human resources and environmental information set out in Article L.225-102-1 III, as well as information regarding compliance with human rights and anti-corruption and tax evasion legislation;
- we verified, where relevant with respect to the principal risks, that the Statement provides the information required under Article R.225-105 III and includes, where appropriate, an explanation for the absence of the information required under Article L.225-102-1 III, 2;
- we verified that the Statement presents the business model and a description of the principal risks associated with all the consolidated entities' activities, including where relevant and proportionate, the risks associated with their business relationships and products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators related to the principal risks;
- we referred to documentary sources and conducted interviews to:
 - assess the process for identifying and confirming the principal risks, as well as the consistency of the outcomes and the key performance indicators used with respect to the principal risks and the policies presented, and
 - corroborate the qualitative information (measures and outcomes) that we considered to be the most important presented in Appendix 1. For certain risks (risks linked to supplier relationships, risk of corruption), our work was carried out at the level of the consolidating entity; for other risks, our work was carried out at the level of the consolidating entity and in a selection of entities presented in Appendix 1;
- we verified that the Statement covers the scope of consolidation, i.e., all the entities included in the scope of consolidation in accordance with Article L.233-16 within the limitations set out in the Statement;
- we asked what internal control and risk management procedures the company has put in place and assessed the data collection process to ensure the completeness and fairness of the Information;
- for the key performance indicators and the other quantitative outcomes that we considered the most important presented in Appendix 1, we implemented:
 - analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data, and

(1) ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information

Methodological note and ITP report

- tests of details, using sampling techniques, in order to verify the proper application of the definitions and procedures and reconcile the data with the supporting documents. This work was carried out with the Compliance Department, the CSR and Diversity Department, the Legal Department, the Human Resources Department, the Labor Relations Department, the Health, Safety and Environment Department, the Purchasing Department, the Safran University Department, as well as with a selection of contributing entities⁽¹⁾, and covers between 17% and 29% of the consolidated data selected for these tests;

- we assessed the overall consistency of the Statement based on our knowledge of all the entities included in the scope of consolidation.

We believe that the work carried out, based on our professional judgment, is sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures.

Means and resources

Our work was carried out by a team of seven people between mid-November 2019 and mid-March 2020 and took a total of 16 weeks.

We conducted interviews with around 20 people responsible for preparing the Statement, representing CSR and Diversity, Legal, Labor Relations, Compliance, Human Resources, Health, Safety and Environment, and Purchasing departments.

Conclusion

Based on our work, nothing has come to our attention that causes us to believe that the non-financial information statement is not in accordance with the applicable regulatory provisions and that the Information, taken as a whole, is not presented fairly and in accordance with the Guidelines.

Reasonable assurance on a selection of CSR Information

Regarding information selected by the company and listed in Appendix 1, we conducted – at the request of the company and on a voluntary basis – similar but more in-depth (especially regarding the number of tests) work as described above in the paragraph entitled “Nature and scope of our work” for the key performance indicators and for the other quantitative results that we considered to be most significant.

The sample selected represents between 47% and 100% of the headcount, depending on the indicators.

We deem that this work allows us to express a reasonable assurance on the information selected by the company and listed in Appendix 1.

Conclusion

In our opinion, the information selected by the company and presented in Appendix 1 was prepared, in all material respects, in accordance with the Guidelines.

Paris La Défense, March 26, 2020

Independent Third Party

Mazars SAS

Gaël Lamant

Partner

Edwige Rey

CSR & Sustainable Development Partner

(1) Environmental indicators related to climate change: Safran Aero Boosters – Milmort; Safran Landing Systems – Gloucester; Safran Landing Systems – Walton; Safran Aircraft Engines – Villaroche; Safran Aircraft Engines – Evry-Corbeil; Safran Landing Systems – Bidos; Safran Nacelles – Le Havre; Safran Seats – Gainesville (formerly Zodiac Seats); Safran Aircraft Engines – Gennevilliers; Safran Transmission Systems – Sedziszow Malopolski; Safran Landing Systems – Molsheim.

Health and safety indicators: Safran Aero Boosters – Milmort; Safran Landing Systems – Gloucester; Safran Landing Systems – Walton; Safran Aircraft Engines – Villaroche; Safran Aircraft Engines – Evry-Corbeil; Safran Landing Systems – Bidos; Safran Nacelles – Le Havre; Safran Seats – Gainesville (formerly Zodiac Seats).

Indicators concerning insufficient or loss of attractiveness: CSP and Safran Seats – Gainesville (formerly Zodiac Seats), Zodiac Hydraulics – Châteaudun.

Appendix 1: Information considered to be the most important

Qualitative information (actions and outcomes) relating to the principal risks

- Corruption
- Environment – Climate change
- Health, Safety and Environment
- Supplier relationships
- Skills and know-how
- Insufficient or loss of attractiveness

Quantitative indicators including key performance indicators

Themes	Indicators
Corruption risk	Number of employees trained under compliance programs and in export control
	Percentage of employees trained under compliance programs and in export control
	Number of trade compliance reviews
Environmental risks related to climate change	Electricity consumption
	Natural gas and liquefied petroleum gas consumption
	Refrigerants
	Fuel oil consumption
	Aviation fuel consumption
	Heat/steam consumption
	Cooling network
	Waste recovery ratio (total waste generated and recovered)
Health, safety and environmental risks	CO ₂ emissions, Scopes 1 and 2
	Frequency rate
	Severity rate
Risks related to supplier relationships	Number of occupational diseases
	Percentage of CSR-trained buyers
Risks related to skills and know-how	Percentage of Group employees to have completed at least one training course
	Number of training hours
	Average number of training hours per employee
Risk of insufficient or loss of attractiveness	Permanent departure replacement index
	Absenteeism rate, breakdown by region
	Total headcount and breakdown of employees by gender, age and category
	Number of new hires
	Number of permanent departures during the year including dismissals
	Number of mobilities and transfers
	Percentage of female new hires
	% of female engineers and managers
	Employment rate of people with disabilities (number and percentage)

Information for which we express reasonable assurance

- Total headcount and breakdown of employees by gender, age and category (Managers & Professionals/Non Managers & Professionals)
- Number of new hires
- Number of permanent departures during the year including dismissals
- Permanent departure replacement index
- Absenteeism rate
- Percentage of female new hires
- Percentage of female engineers and managers
- Employment rate of people with disabilities (number and percentage)

5.11 CROSS-REFERENCE TABLE FOR THE NON-FINANCIAL INFORMATION STATEMENT

Themes	Chapter	Pages
ITEMS COMPRISING THE NFIS		
Business model		20; 21
Main non-financial risks	5.2	246
Reasonable diligence policies and procedures	5.3 - 5.7	251 - 268
Publication of key performance indicators		47
MANDATORY TOPICS CITED IN ARTICLE L.225-102-1		
Labor-related consequences of the business	5.7	268
Environmental consequences of the business	5.5.3	24 - 26
Respect for human rights	5.2.2.3 and 5.5	248 and 251
Fight against corruption	5.3.1	251
Fight against tax evasion	5.3.5	255
Consequences of the company's business and the use of the goods and services it produces on climate change	5.5	258
Social commitments in favor of the circular economy	5.5.3	261
Collective bargaining agreements in place within the Group and their impacts on economic performance and working conditions of employees	5.8	275
Measures to combat discrimination and promote diversity	5.7.4	272
Social commitments in favor of the fight against food waste ⁽¹⁾	N/A	N/A
Measures taken in favor of people with disabilities	5.7.4.2	273
Social commitments in favor of the fight against food insecurity ⁽¹⁾	N/A	N/A
Social commitments in favor of respect for animal welfare ⁽¹⁾	N/A	N/A
Social commitments in favor of a responsible, fair and sustainable food system ⁽¹⁾	N/A	N/A
Social commitments in favor of sustainable development	5.9	276

⁽¹⁾ These topics were excluded from the scope of the analysis because they were considered to be too far removed from Safran's business.



6

CORPORATE GOVERNANCE

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This chapter constitutes the main body of the Board of Directors' report on corporate governance⁽¹⁾. It provides information on the membership structure of the Board of Directors, the Company's application of the AFEP-MEDEF Corporate Governance Code, which it uses as its corporate governance framework, the conditions for preparing and organizing the work of the Board of Directors and the Board Committees, the powers of the Chairman of the Board of Directors and the Chief Executive Officer, and the compensation policy applicable to the corporate officers, as well as the components of their compensation and benefits.

6.1 SAFRAN'S CORPORATE GOVERNANCE STRUCTURE

Corporate governance reference framework

Safran uses as its corporate governance framework the "Corporate Governance Code of Listed Corporations" (revised version dated January 30, 2020), drawn up jointly by the French employers' associations, AFEP⁽²⁾ and MEDEF⁽³⁾, as well as the related application guidelines (revised version of March 2020). These documents are available on the AFEP and MEDEF websites at www.afep.com and www.medef.com.

Where certain recommendations included in this Code or in its application guidelines are not implemented, the reasons are explained in section 6.4, "Application of the AFEP-MEDEF Corporate Governance Code" of this Universal Registration Document.

6.1.1 Board of Directors – Separation of the roles of Chairman of the Board of Directors and Chief Executive Officer

Shareholders at the Annual General Meeting of April 21, 2011 approved the adoption of a corporate governance structure with a Board of Directors.

At its meeting on April 23, 2015, the Board of Directors opted to separate the roles of Chairman of the Board of Directors and Chief Executive Officer and appointed Ross McInnes as Chairman and Philippe Petitcolin as Chief Executive Officer.

■ Ross McInnes – who was appointed as a Director (by the shareholders) and as Chairman of the Board of Directors (by the Board) for an initial term of four years – was re-appointed as a Director for a further four-year term by the shareholders at the May 23, 2019 Annual General Meeting.

On the same date, as the Board wished to continue to benefit from Ross McInnes' commitment, expertise and professionalism, both in his role as Chairman of the Board and in the additional assignments entrusted to him, it re-appointed him as its Chairman for the duration of his term as a Director, i.e., until the Annual General Meeting to be held in 2023.

The Board took this decision in view of its satisfaction with (i) the governance structure based on segregated roles of Chairman of the Board and Chief Executive Officer, and (ii) Ross McInnes' performance of his duties as the Board's Chairman.

■ Philippe Petitcolin was initially appointed by the Board as Chief Executive Officer for a term of three years. He was re-appointed to this position on February 26, 2018 for a term expiring at the close of the 2020 Annual General Meeting. On September 4, 2019, the Board extended the expiry date for his term as Chief Executive Officer to December 31, 2020.

In addition, following his initial four-year term as a Director, at the Annual General Meeting of May 23, 2019, the shareholders re-appointed him as a Director for a further four-year term, i.e., until the Annual General Meeting to be held in 2023.

This means that the duration of Philippe Petitcolin's term as a Director is not the same as his term of office as Chief Executive Officer. Consequently, Philippe Petitcolin has undertaken to tender his position to the Board of Directors when his term of office as Chief Executive Officer expires, such that his successor can also be appointed as a Director. The Board believes that it is useful, necessary and of real value for the Chief Executive Officer to also be a Director of the Company, as it enables the CEO to be among his peers around the Board table, and also enables the Board to benefit from his contribution to its discussions. This would also apply to his successor as Chief Executive Officer.

See section 6.2.2 of this Universal Registration Document for the profiles of the Chairman of the Board of Directors and the Chief Executive Officer.

On November 4, 2019, the Board of Directors announced that, based on the recommendation of the Appointments and Compensation Committee, it had selected Olivier Andriès to succeed Philippe Petitcolin as Chief Executive officer from January 1, 2021. Olivier Andriès has all the qualities and attributes required to head up the Group. In particular, he has built up solid experience over the past ten years, first in Defense and Security between 2009 and 2011, and then in Propulsion since 2011 (Safran Helicopter Engines and Safran Aircraft Engines). Until he takes over as Chief Executive Officer, he will devote his time to specific assignments carried out under the supervision of Philippe Petitcolin. The conditions for a smooth, orderly transition are therefore all in place. Olivier Andriès was selected after a succession process complying with best corporate governance standards, which involved interviews and assessments of both internal and external candidates.

(1) Report drawn up in accordance with Article L.225-37, paragraph 6, of the French Commercial Code.

(2) Association française des entreprises privées.

(3) Mouvement des entreprises de France.

6.1.2 Powers and responsibilities of the Chairman of the Board of Directors

The Board of Directors assigned the following specific responsibilities to Ross McInnes in his role as Chairman of the Board of Directors:

- representing the Group (with the support of and in concertation with Executive Management) in France and abroad in dealings with government authorities, major customers, partners and institutional shareholders;
- organizing the Board's strategic work;
- working with the Board on the preparation and implementation of succession plans for the Group's key operations managers and support function managers.

In addition, Ross McInnes represents the Board of Directors and is responsible for organizing and managing the work of the Board, on which he reports to shareholders at the Annual General Meeting. He coordinates the work of the Board and the Board Committees, as well as ensuring that the Company's corporate governance structures function effectively and particularly that Directors are in a position to properly perform their duties. To that end, in accordance with the applicable legislation and Article 15.2 of the Company's bylaws, he is responsible for:

- calling Board meetings based on an annual schedule and on other occasions where necessary, drawing up the agenda and ensuring that the Directors are given the appropriate information;
- ensuring that the Board Committees discuss certain matters in preparation for Board meetings and that the Directors respect the Board of Directors' Internal Rules and the Board Committees;
- monitoring the implementation of the Board's decisions.

Work carried out by the Chairman of the Board of Directors in 2019

In addition to the duties assigned to him by law, the Chairman represented the Group in France and on the international stage within the scope of specific assignments entrusted to him, notably dealing with public authorities and institutional shareholders. He took part in various meetings to hear their points of view and explain the Group's situation and positions relating to both corporate governance issues and strategic development.

Throughout the year the Chairman also continued his active role of organizing the Board's strategic work, including:

- determining and preparing, in conjunction with the Chief Executive Officer, the particular issues and strategy points to be discussed at the Board's Annual Strategy Seminar;
- building up shareholder dialogue, notably through governance roadshows organized for the Group's main shareholders and investors in order to present the Board's membership structure and the organization of its work and decision-making processes, as well as proposed changes and how the expectations of shareholders and investors are taken into account.

In addition, working with the Lead Independent Director and the Appointments and Compensation Committee, the Chairman:

- organized the succession process concerning the Chief Executive Officer;
- monitored the measures and action plans launched in relation to the areas for improvement identified in the Board's formal assessment process carried out in 2018;
- organized the process of selecting Director candidates (defining candidate profiles, selecting candidates and holding interviews along with members of the Appointments and Compensation Committee), and making the resulting recommendations to the Board;
- launched the process for nominating candidates for appointment as Directors representing employee shareholders.

6.1.3 Powers and responsibilities of the Chief Executive Officer

The Chief Executive Officer represents the Company in its dealings with third parties and has the broadest powers to act in all circumstances in the Company's name.

He exercises these powers within the scope of the Company's corporate purpose and subject to the powers expressly vested by the applicable laws and regulations in Shareholders' Meetings and the Board of Directors.

The Company is bound by the actions of the Chief Executive Officer with respect to third parties even when they fall outside the scope of the corporate purpose, unless it can be proven that the third party knew, or under the circumstances could

not have failed to know, that such actions exceeded the remit of the corporate purpose. Publication of the Company's bylaws does not in itself constitute such proof.

Any restrictions placed on the powers of the Chief Executive Officer by the bylaws or a decision of the Board of Directors are not binding on third parties. The restrictions placed by the Board on the powers of the Chief Executive Officer are set out in the Board of Directors' Internal Rules (see sections 6.1.4.2 and 6.3.2), and particularly relate to investments and divestments and certain strategic operations.

6.1.4 Powers and responsibilities of the Board of Directors

6.1.4.1 Roles and responsibilities of the Board of Directors

The Board of Directors sets Safran's overall business strategy and oversees its implementation, in accordance with the Company's best interests and taking into account the social and environmental aspects of its activities. Subject to the powers directly vested in Shareholders' Meetings, the Board is responsible for dealing with all matters concerning the efficient running of the Company and for making all related decisions, within the scope of the Company's corporate purpose.

In accordance with the applicable laws and regulations and the terms and conditions set out in the Board of Directors' Internal Rules, the roles and responsibilities of the Board of Directors include, but are not limited to:

- calling the Annual General Meeting and setting its agenda;
- approving the Group's annual budget presented by the Chief Executive Officer, as well as any amendments thereto;
- approving the Group's medium-term business plan;
- approving the financial statements of the Company and the Group and drawing up the annual corporate governance report;
- authorizing related-party agreements governed by Article L.225-38 of the French Commercial Code (*Code de commerce*);
- selecting the Company's management structure in accordance with Articles 21.1 and 21.4 of the bylaws;
- appointing or removing from office:
 - the Chairman of the Board of Directors,
 - the Chief Executive Officer, and
 - on the recommendation of the Chief Executive Officer, the Deputy Chief Executive Officer(s) (if any);
- determining the powers of the Chief Executive Officer and, in agreement with the Chief Executive Officer, of the Deputy Chief Executive Officer(s) (if any);
- appointing Directors prior to ratification by shareholders;
- setting the compensation payable to the Chairman of the Board of Directors, the Chief Executive Officer and the Deputy Chief Executive Officer(s) (if any);
- appointing the members of the Board Committees set up in accordance with the applicable laws, the Company's bylaws and the Board of Directors' Internal Rules;
- dividing among the Directors the aggregate annual compensation allocated to them by the shareholders at the Annual General Meeting (formerly "attendance fees");
- deciding on issues of debt securities not carrying rights to shares;
- deciding whether to allocate compensation to any Board Advisors (*censeurs*);
- giving the Chief Executive Officer authorization (which may be delegated) to grant guarantees, endorsements and sureties, in accordance with conditions set by the Board.

In addition, the Board of Directors performs any checks and controls that it deems appropriate (notably carried out by its Chairman).

6.1.4.2 Internal rules relating to transactions requiring prior approval of the Board of Directors

In accordance with Article 19.3 of the Company's bylaws and Article 4 of the Board of Directors' Internal Rules:

- the following operations have to be approved by the Board before they can be carried out by the Chief Executive Officer or a subsidiary (see section 7.1.2.1 of this Universal Registration Document):
 - decisions related to starting up significant business activities in France or abroad;
 - decisions to withdraw from such business activities in France or abroad,
 - material operations likely to affect the Group's strategy or modify its financial structure or the scope of its activity,
- the Board's prior approval is systematically required for the following:
 - any capital expenditure or self-financed development expenditure related to any project, program or industrial or commercial development that represents an amount equal to or more than €100 million for the Company or any Group entity,
 - any investment, divestment, expenditure, commitment or warranty related to the following operations or decisions and which represents an amount equal to or more than €50 million for the Company or any Group entity:
 - any acquisition or disposal of real estate,
 - any acquisition or disposal of interests in any existing or future company, involvement in the creation of any company, group or organization, subscription to any issues of shares or bonds, excluding ordinary treasury management transactions,
 - any exchange, with or without balancing cash adjustments, relating to assets or securities, excluding ordinary treasury management transactions,
 - in the event of a dispute or litigation, the signature of any agreement or the acceptance of any settlement,
 - collateral pledged over the Company's assets.

the prior approval referred to above is not required for operations and decisions that result in the signature of agreements exclusively involving Group entities (between these entities or with the Company);
- the Board of Directors' prior approval is systematically required for each of the following operations or decisions if they represent an amount equal to or more than €400 million for the Company or any Group entity:
 - granting or contracting any loan, credit or advance,
 - setting up or changing any program involving issues by the Company of negotiable debt securities (formerly the commercial paper program), apart from renewals or changes that do not result in an increase in the maximum size of the program or the maturity of the debt securities concerned (once such programs are approved, the Company's Finance Department is responsible for their implementation),
 - acquiring or disposing of any receivables due beyond one year.

The prior approval referred to above is not required for operations and decisions that result in the signature of agreements exclusively involving Group entities (between these entities or with the Company);

- the Board of Directors' prior approval is also systematically required for any offer or industrial or commercial project entered into by the Company or any Group entity that:
 - results in a guarantee commitment representing €300 million or more, or
 - is deemed material, with the notion of "material" decided by the Chief Executive Officer or any other person duly authorized to implement said offer or project;
- furthermore, the following operations and decisions require prior authorization from the Board of Directors, with at least one Director representing the French State voting in favor if the French State owns more than 10% of Safran's capital:

- any disposal by the Group of strategic military assets that concern prime contractor, design, manufacture, integration and operational maintenance capacities with regard to the propulsion and guidance of French cruise and tactical ballistic missiles,
- any sale by Safran of shares in Safran Ceramics, Safran Power Units, Safran Electronics & Defense and ArianeGroup Holding,
- any decision to grant to a third party specific management rights or rights to information related to the Group's strategic military assets that concern prime contractor, design, manufacture, integration and operational maintenance capacities with regard to the propulsion and guidance of French cruise and tactical ballistic missiles,
- any decision to grant to a third party rights to be represented on the administrative or management bodies of Safran Ceramics, Safran Power Units, Safran Electronics & Defense and ArianeGroup Holding.

6.2 MEMBERSHIP STRUCTURE OF THE BOARD OF DIRECTORS

Safran's Board of Directors comprises 17 members, including one representative of the French State, one Director put forward by the French State, two Directors representing employee shareholders and two Directors representing employees.

The diverse experience and expertise of the Directors and the international profile of a number of them (see profiles below) provide the Board with a wide range of complementary skills.

6.2.1 Summary table of information about Directors (at the filing date of this Universal Registration Document)

Director	Age ⁽¹⁾	Gender	Nationality	Number of shares held	Number of directorships in listed companies ⁽¹⁾⁽⁴⁾	Independent Director ⁽²⁾	Date first appointed	End of term (expiration or other)
Directors currently in office								
Ross McInnes Chairman of the Board of Directors	66	M	French and Australian	7,517	4	No	April 23, 2015	2023 (AGM held to approve the 2022 financial statements)
Philippe Petitcolin Chief Executive Officer	67	M	French	42,268	3	No	April 23, 2015	2023 (AGM held to approve the 2022 financial statements)
Hélène Auriol Potier	57	F	French	500	1	Yes	June 15, 2017	2021 (AGM held to approve the 2020 financial statements)
Hervé Chaillou	54	M	French	41	1	No	November 20, 2019	November 19, 2023
Jean-Lou Chameau	66	M	French and American	1,000	1	Yes	April 21, 2011	2023 (AGM held to approve the 2022 financial statements)
Monique Cohen	64	F	French	500	3	Yes	May 28, 2013	2022 (AGM held to approve the 2021 financial statements)
Hélène Dantoine*	48	F	French	N/A	2	No	March 13, 2019	2023 (AGM held to approve the 2022 financial statements)
Odile Desforges	70	F	French	500	4	Yes	April 21, 2011	2021 (AGM held to approve the 2020 financial statements)
Didier Domange	76	M	French	195,109	1	No	May 25, 2018	2022 (AGM held to approve the 2021 financial statements)
Laurent Guillot	50	M	French	500	2	Yes	May 23, 2019	2023 (AGM held to approve the 2022 financial statements)
Vincent Imbert	64	M	French	N/A	1	No	March 28, 2014	2023 (AGM held to approve the 2022 financial statements)
Gérard Mardiné	60	M	French	7,319	1	No	May 19, 2016	2020 (AGM held to approve the 2019 financial statements)
Daniel Mazaltarim	60	M	French	1,945	1	No	November 20, 2014	November 19, 2023

(1) At the filing date of this Universal Registration Document or the departure date of Directors whose terms of office expired at end-2019.

(2) See section 6.2.4.1, "Independence of the members of the Board of Directors".

(3) At December 31, 2019.

(4) Including directorship with Safran, in compliance with the recommendations of the AFEP-MEDEF Code.

(5) From March 28, 2014 to April 23, 2015 as a Director representing the French State.

(6) Director put forward by the French State.

(7) Only two companies are taken into account for calculating Robert Peugeot's aggregate number of directorships as provided for in Article 18.2 of the AFEP-MEDEF Code, namely FFP and Sofina. His directorships in three other companies (Safran, Peugeot S.A. and Faurecia) are not taken into account in the calculation as he is a director of these companies as a result of direct or indirect interests held by FFP, whose main activity is acquiring and managing equity investments.

(*) Hélène Dantoine was named as representative of the French State by way of a ministerial decree dated March 13, 2019 and her term was renewed on May 23, 2019.

Membership structure of the Board of Directors

Number of years on the Board ⁽¹⁾	Date last re-appointed	Director representing employees or employee shareholders	Attendance rate (Board meetings) ⁽³⁾	Membership of Board Committees ⁽¹⁾	Main experience and expertise brought to the Company
4 years and 11 months	May 23, 2019	No	100%	-	Chairman of the Board of Directors
4 years and 11 months	May 23, 2019	No	100%	-	Chief Executive Officer
2 years and 9 months	-	No	90%	Appointments and Compensation Committee Innovation and Technology Committee	Organization and management of corporations/International business/ Digital transformation
4 months	-	Yes	100%	-	Perspective of an employee/ Knowledge of the Group and its markets
8 years and 11 months	May 23, 2019	No	100%	Appointments and Compensation Committee Innovation and Technology Committee	RTDI/International business
6 years and 10 months	May 25, 2018	No	90%	Appointments and Compensation Committee (Chair)	Financial and banking markets/Private equity/Shareholding strategy
1 year	May 23, 2019	No	88%	Audit and Risk Committee Appointments and Compensation Committee	Finance/Organization and management of corporations/ International business/Industry
8 years and 11 months	June 15, 2017	No	100%	Audit and Risk Committee (Chair)	Organization and management of corporations/Industry/RTDI/ Performance and management control
1 year and 10 months		No	100%	Appointments and Compensation Committee	Organization and management of corporations/International business/ Knowledge of the Group and its markets
10 months	-	No	100%	Audit and Risk Committee	Organization and management of corporations/International business/ Industry
6 years ⁽⁵⁾	May 23, 2019 ⁽⁶⁾	No	90%	Innovation and Technology Committee	Industry/Strategy/Defense industry/ Competitive environment
3 years and 10 months	-	Yes	90%	Audit and Risk Committee	Perspective of an employee/ Knowledge of the Group and its markets
5 years and 4 months	-	Yes	100%	Appointments and Compensation Committee	Perspective of an employee/ Knowledge of the Group and its markets

Membership structure of the Board of Directors

Director	Age ⁽¹⁾	Gender	Nationality	Number of shares held	Number of directorships in listed companies ⁽¹⁾⁽⁴⁾	Independent Director ⁽²⁾	Date first appointed	End of term (expiration or other)
Patrick Pélata	64	M	French	500	1	Yes	June 15, 2017	2021 (AGM held to approve the 2020 financial statements)
Fernanda Saraiva	51	F	French	700	1	No	July 25, 2019	2020 (AGM held to approve the 2019 financial statements)
Robert Peugeot Permanent representative of F&P	69	M	French	500	2 ⁽⁷⁾	Yes	May 25, 2018	2022 (AGM held to approve the 2021 financial statements)
Sophie Zurquiyah	53	F	French and American	500	2	Yes	June 15, 2017	2021 (AGM held to approve the 2020 financial statements)
Directors whose directorship ended (on expiration of their term of office or through resignation) during 2019 and since January 1, 2020⁽³⁾								
Éliane Carré-Copin	66	F	French	414	1	No	May 19, 2016	July 25, 2019
Caroline Laurent	55	F	French	N/A	1	No	February 7, 2019 ⁽⁵⁾	2019 (AGM held to approve the 2018 financial statements)
Brigitte Lesschaeve	61	F	French	491	1	No	February 26, 2018	November 19, 2019

(1) At the filing date of this Universal Registration Document or the departure date of Directors whose terms of office expired at end-2019.

(2) See section 6.2.4.1, "Independence of the members of the Board of Directors".

(3) At December 31, 2019.

(4) Including directorship with Safran, in compliance with the recommendations of the AFEP-MEDEF Code.

(5) From March 28, 2014 to April 23, 2015 as a Director representing the French State.

(6) Director put forward by the French State.

(7) Only two companies are taken into account for calculating Robert Peugeot's aggregate number of directorships as provided for in Article 18.2 of the AFEP-MEDEF Code, namely FFP and Sofina. His directorships in three other companies (Safran, Peugeot S.A. and Faurecia) are not taken into account in the calculation as he is a director of these companies as a result of direct or indirect interests held by FFP, whose main activity is acquiring and managing equity investments.

(*) Hélène Dantoine was named as representative of the French State by way of a ministerial decree dated March 13, 2019 and her term was renewed on May 23, 2019.

Membership structure of the Board of Directors

Number of years on the Board ⁽¹⁾	Date last re-appointed	Director representing employees or employee shareholders	Attendance rate (Board meetings) ⁽³⁾	Membership of Board Committees ⁽¹⁾	Main experience and expertise brought to the Company
2 years and 9 months	-	No	100%	Innovation and Technology Committee (Chair) Appointments and Compensation Committee	Organization and management of corporations/International/Strategy/ Industry/New technologies
8 months	-	Yes	100%	-	Perspective of an employee/ Knowledge of the Group and its markets
1 year and 10 months	-	No	90%	Audit and Risk Committee	Organization and management of corporations/International/Finance/ Asset management
2 years and 9 months	-	No	90%	Audit and Risk Committee	Organization and management of corporations/International business/ Industry
2 years and 10 months	-	Yes	90%	-	Éliane Carré-Copin's directorship ended on July 25, 2019
1 month	-	No	N/A	-	Caroline Laurent's directorship ended on May 23, 2019
1 year and 1 month	-	Yes	89%	Innovation and Technology Committee	Brigitte Lesschaeve's term as a Director representing employees ended on November 19, 2019

6.2.2 Directors' profiles



Ross MCINNES

Chairman of the Board of Directors

Safran – 2, bd du Général Martial-Valin – 75015 Paris, France

Number of Safran shares held: 7,517⁽¹⁾

PROFILE – EXPERTISE AND EXPERIENCE

Born in 1954, Ross McInnes has dual French and Australian nationality and is a graduate of Oxford University. He started his career in 1977 with Kleinwort Benson, first in London and then in Rio de Janeiro. In 1980, he joined Continental Bank (now Bank of America) in which he held several positions in the corporate finance arm, in Chicago and then in Paris.

In 1989, he joined Eridania Beghin-Say, where he was appointed Chief Financial Officer in 1991 and then became a member of the Board of Directors in 1999. The following year, he joined Thomson-CSF (now Thales) as Executive Vice-President and Chief Financial Officer and assisted in the group's transformation, until 2005. He then moved to PPR (now Kering) as Senior Vice-President for Finance and Strategy, before joining the Supervisory Board of Générale de Santé in 2006. He served as acting Chairman of the Management Board of Générale de Santé from March to June 2007. He also held the position of Vice-Chairman of Macquarie Capital Europe where he primarily specialized in infrastructure investments.

In March 2009, Ross McInnes joined Safran and became Executive Vice-President, Economic and Financial Affairs in June of that year. He was a member of the Executive Board of Safran between July 2009 and April 2011 and then served as Deputy Chief Executive Officer until April 2015.

He became Chairman of Safran's Board of Directors on April 23, 2015.

Since February 2015, Ross McInnes has also acted as Special Representative for economic relations with Australia, having been appointed to this diplomatic role by the French Minister of Foreign Affairs and International Development.

From November 2016 to November 2019, he was a member of the French High Committee for Corporate Governance.

In February 2017, he joined SICOM, the general partner of Vivescia Industries, as a "qualified person".

In October 2017, Ross McInnes was appointed by the French Prime Minister as Co-Chairman of the "Action Publique 2022" Committee, which was tasked with making recommendations on reforming French public policies, a mission it has since completed.

Since January 2018, he has been a Trustee and a Director of the IFRS Foundation.

In October 2018, the French Prime Minister tasked him with lobbying for France with both British and non-British companies operating in the non-financial sector and based in the United Kingdom.

Ross McInnes is also (i) a Director of Eutelsat and a member of its Audit Committee (since February 2013) and Chairman of its Nomination and Governance Committee (since February 2019), (ii) a Director of Lectra and a member of its Board committees (since January 2018), and (iii) a Director of Engie, a member of its Audit Committee (since May 2018), Chairman of its Ethics, Environment and Sustainable Development Committee and a member of its Strategy, Investment and Technology Committee (since May 2019).

MAIN POSITION(S) HELD

- Chairman of the Board of Directors of Safran

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

SAFRAN GROUP

- Chairman of the Board of Directors of Safran

NON-GROUP

- Director, Chairman of the Nomination and Governance Committee, and a member of the Audit Committee of Eutelsat Communications (listed company)
- Director of Lectra (listed company) and a member of its Board committees
- Director, Chairman of the Ethics, Environment and Sustainable Development Committee, member of the Audit Committee, and member of the Strategy, Investment and Technology Committee of Engie (listed company)
- Trustee and Director of the IFRS Foundation (United States and United Kingdom)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Deputy Chief Executive Officer of Safran until April 2015
- Director of Safran USA, Inc. (United States) until June 2015
- Permanent representative of Établissements Vallaroché on the Board of Directors of Soreval (Luxembourg) until May 2015

NON-GROUP

- Director and Chairman of the Audit Committee of Faurecia (listed company) until May 2017
- Director of Financière du Planier until June 2015
- Non-executive Director and Chairman of the Audit Committee of IMI PLC (listed company) (United Kingdom) until October 2017

(1) Including 7,507 shares via corporate mutual fund units (conversion based on the Safran share price at December 31, 2019).



Philippe PETITCOLIN

Chief Executive Officer and Director

Safran – 2, bd du Général Martial-Valin – 75015 Paris, France

Number of Safran shares held: 42,268⁽¹⁾

PROFILE – EXPERTISE AND EXPERIENCE

Born in 1952, Philippe Petitcolin holds a degree in mathematics and is a graduate of the Centre de Perfectionnement aux Affaires (CPA) business school.

Philippe Petitcolin began his career in 1978 as an export manager for Europrim before becoming an export area manager for Filotex, a subsidiary of Alcatel-Alstom. In 1982, he was appointed Aviation Sales Director for Chester Cable in the United States before returning to Filotex in 1984 as Export Director.

In 1988, he joined Labinal as Deputy Sales Director before being appointed Sales and Marketing Director of the company's Aeronautical Systems Division and subsequently its Managing Director in 1995.

Between 1999 and 2001, he was General Manager of Labinal's Filtrauto Division, also serving as General Manager of the friction materials business after the division was bought by Valeo. In May 2001, he was named Chief Executive Officer of Labinal (now Safran Electrical & Power), before being appointed Chairman and Chief Executive Officer in November 2004. He was then appointed Chairman and Chief Executive Officer of Snecma (now Safran Aircraft Engines) in 2006.

Between 2011 and 2013, he served as President of Safran's Defense and Security businesses and then Chairman and Chief Executive Officer of Safran Electronics & Defense.

From July 2013 to July 2015, he was Chairman and Chief Executive Officer of Safran Identity & Security.

On April 23, 2015, Philippe Petitcolin was appointed as a Director of Safran at the Company's Annual General Meeting and then as Chief Executive Officer by the Board of Directors on the same day.

Also on April 23, 2015, he became a Board member of the Aerospace and Defence Industries Association of Europe (ASD).

In July 2015, Philippe Petitcolin was appointed Vice-Chairman of GIFAS (*Groupe des Industries Françaises Aéronautiques et Spatiales*) and in September 2015, he was appointed as a Director of Belcan Corporation, an engineering services company.

He was appointed as a Director and member of the Strategy Committee at EDF in May 2019 and then as a Director and member of the Compensation Committee at Pernod Ricard in November 2019.

MAIN POSITION(S) HELD

- Chief Executive Officer of Safran

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Chief Executive Officer of Safran
- Director of Safran

NON-GROUP

- Director of Belcan Corporation (United States)
- Director and a member of the Strategy Committee of EDF since May 2019 (listed company)
- Director and a member of the Compensation Committee of Pernod Ricard since November 2019 (listed company)
- Vice-Chairman of GIFAS
- Board member of the Aerospace and Defence Industries Association of Europe (ASD) (Belgium)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Chairman and Chief Executive Officer of Safran Identity & Security until July 2015
- Chairman of the Board of Directors of:
 - Safran Identity & Security North America (formerly MorphoTrak, LLC) (United States) until July 2015
 - Morpho Detection International, LLC (United States) until July 2015
- Chairman and President of Morpho USA, Inc. (United States) until July 2015
- Director of Safran Identity & Security USA (formerly Morpho Detection, LLC) (United States) until July 2015
- Member of the Supervisory Board of Safran Identity & Security GmbH (formerly Morpho Cards GmbH) (Germany) until July 2015

NON-GROUP

- Member of the Supervisory Board of Institut Aspen France until March 2015

(1) Including 18,685 shares via corporate mutual fund units (conversion based on the Safran share price at December 31, 2019).



Hélène AURIOL POTIER

Independent Director

Member of the Appointments and Compensation Committee

Member of the Innovation and Technology Committee

Orange Business Services – 1, place des Droits de l'Homme – 93210 Saint Denis, France

Number of Safran shares held: 500

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1962, Hélène Auriol Potier, a French national, graduated as an engineer from the École Nationale Supérieure des Télécommunications de Paris and completed an Executive Program MBA at INSEAD.

Hélène Auriol Potier built her career in the digital technologies and telecommunications industry in the United States, Europe, Africa and Asia.

She started her career in New York at France Télécom in 1986.

In 1990, she joined the Canadian mobile technology company Nortel, where she spent 16 years and successively held several management positions including Vice President Mobile Pre-Sale Division and Vice-President EMEA, Services & Operations.

In 2006, she joined Dell as Managing Director, in charge of the Africa and Mediterranean region and as a member of the Executive Committee of Dell Emerging Markets.

Hélène Auriol Potier joined Microsoft in 2009 as General Manager – Enterprises, Public Sector and Partners – and a member of the Executive Committee of Microsoft France. She was then appointed General Manager of Microsoft Singapore and a member of the Executive Committee of Microsoft Asia-Pacific. In 2013, she was appointed General Manager of Microsoft Dynamics, Western Europe and then General Manager of Microsoft Europe Public Sector before going on to serve as Managing Director Artificial Intelligence Europe.

In November 2018, she joined Orange, as Executive Vice-President International and a member of the Executive Committee of Orange Business Services.

Hélène Auriol Potier brings to the Board her experience of leading international corporations, an international outlook, expertise and vision in digital technologies and transformation, as well as her experience as a Director.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Executive Vice-President International at Orange Business Services

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran

NON-GROUP

- Member of the Supervisory Board of Oddo BHF SCA

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Director, Chair of the Ethics Committee and member of the Compensation Committee of Ipsen (listed company), until May 2018
- Director of Faiveley Transport (listed company) until November 2016



Hervé CHAILLOU

Director representing employees

Member of the Innovation and Technology Committee

Safran Aircraft Engines – Direction Industrielle et Supply Chain – Rue Henri Auguste Desbrières – BP 81
– 91003 Evry Cedex, France

Number of Safran shares held: 41⁽¹⁾

PROFILE – EXPERTISE AND EXPERIENCE

Born in 1966, Hervé Chaillou holds a higher technical diploma in production theory.

He began his career with the Safran Group in 1983 at Safran Aircraft Engines (formerly Snecma) as a lathe operator, where he received professional certification from the Snecma academy.

A method technician at Safran Aircraft Engines, Hervé Chaillou is currently a machine programmer in the compressor blades Industrial Center of Excellence (Industrial Management and Supply Chain Department) at the Évry-Corbeil facility.

A former CGT union representative for the Corbeil site, Hervé Chaillou was notably the correspondent for the external advisor on industrial investment and organizational matters within the Social and Economic Committee.

Hervé Chaillou brings to the Board his insight into health, safety and working conditions, as well as his view of Safran from an employee's perspective and an in-depth knowledge of the Group and its markets.

MAIN POSITION(S) HELD

- Machine programmer at Safran Aircraft Engines' compressor blades Industrial Center of Excellence

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

SAFRAN GROUP

- Director representing Safran employees since November 2019 and member of the Innovation and Technology Committee since February 14, 2020
- Employee representative for Safran's health insurance plan

NON-GROUP

None

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Elected member of the Social and Economic Committee at Safran Aircraft Engines' Corbeil site until October 2019
- Officer of the Social and Economic Committee at Safran Aircraft Engines' Corbeil site until October 2019
- Member of the market commission of the Social and Economic Committee at Safran Aircraft Engines' Corbeil site until October 2019
- Elected member of Safran Aircraft Engines' Central Social and Economic Committee until October 2019
- Officer of Safran Aircraft Engines' Central Social and Economic Committee until October 2019
- Substitute member of Safran Aircraft Engines' Works Council until January 2019
- Trade union representative on Safran Aircraft Engines' Central Works Council and acting in this capacity as a member of the central economic commission until January 2019

NON-GROUP

None

(1) Via corporate mutual fund units (conversion based on the Safran share price at December 31, 2019).



Jean-Lou CHAMEAU

Independent Director

Member of the Appointments and Compensation Committee

Member of the Innovation and Technology Committee

Safran – 2, bd du Général Martial-Valin – 75015 Paris, France

Number of Safran shares held: 1,000

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1953, Jean-Lou Chameau has dual French and American nationality. He obtained an engineering degree at École Nationale Supérieure d'Arts et Métiers in 1976, and then continued his studies at Stanford University, where he graduated with a Master's in civil engineering in 1977, followed by a PhD in seismic engineering in 1980.

Jean-Lou Chameau started his academic career at Purdue University (United States), where he taught from 1980 to 1991, before joining Georgia Tech as professor and head of the School of Civil and Environmental Engineering. He left this position in 1994 to become Chairman of the international geotechnical engineering company, Golder Associates Inc. He returned to teach at Georgia Tech two years later, where he became dean of its College of Engineering in the United States. In 2001, he was promoted to the position of provost, which he occupied up to 2006.

From 2006 to June 2013, Jean-Lou Chameau was the President of the California Institute of Technology (Caltech).

In June 2009, he was awarded the honorary "Doctor honoris causa" degree from École Polytechnique Montreal in Canada.

Jean-Lou Chameau is a member of the National Academy of Engineering in the United States and of the Académie des Technologies in France.

He was President of King Abdullah University of Science and Technology (KAUST) (Saudi Arabia) between July 2013 and August 2017.

Since May 2016, he has been a member of the international jury for the Queen Elizabeth Prize for Engineering.

In 2018, he was tasked by the French Ministry of the Armed Forces, Economy and Finance, and the Ministry of Higher Education, Research and Innovation, with coordinating the group of educational facilities at the Saclay research and innovation cluster, with the ultimate aim of establishing a best-in-class science and technology institute.

Jean-Lou Chameau brings to the Board his experience as a Director of an international corporation, as well as his expertise in research, technological development and innovation and his in-depth knowledge of North America, the Middle East and Asia.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Science, technology and innovation consultant
- Company Director

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran

NON-GROUP

- President Emeritus of the California Institute of Technology (Caltech) (United States)
- Chairman of the Advisory Board of Georgia Tech Lorraine
- Member of the International Advisory Board of HEC since November 2018
- Member of the Scientific Advisory Board of the National Research Foundation of Singapore (Republic of Singapore)
- Member of the Academic Research Council of Singapore (Republic of Singapore)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Member of the Advisory Board of King Fahd University of Petroleum and Minerals (Saudi Arabia) until December 2018
- President of King Abdullah University of Science and Technology (KAUST) (Saudi Arabia) until August 2017
- Director of Ma'aden (listed company) (Saudi Arabia) until October 2017



Monique COHEN

Lead Independent Director

Member and Chair of the Appointments and Compensation Committee

Apax Partners SAS – 1, rue Paul-Cézanne – 75008 Paris, France

Number of Safran shares held: 500

PROFILE – EXPERTISE AND EXPERIENCE

Born in 1956, Monique Cohen, a French national, is a graduate of École Polytechnique (1976) and has a Master's degree in mathematics. She started her career at Paribas, where she worked as Assistant Finance Manager from 1980 to 1987.

At Paribas, which later became BNP Paribas, Monique Cohen successively held the positions of Administrative Officer of CourcouxBouvet – a brokerage firm and subsidiary of Paribas – between 1987 and 1990, Head of Equity Syndication and Brokerage Activities from 1990 to 1999, and Global Head of Equity Business from 1999 to 2000.

Since 2000, Monique Cohen has been an Executive Partner at Apax Partners in Paris, which specializes in investments in the business and financial services sector.

Between June 2011 and September 2014, she was a member of the Board of Directors of the French financial markets authority (*Autorité des marchés financiers* – AMF).

Monique Cohen brings to the Board her experience as an executive and Director of international groups, as well as in-depth knowledge of the financial and banking markets, expertise in private equity and a financial view of shareholding structures.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Executive Partner of Apax Partners

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Lead Independent Director of Safran

NON-GROUP

- Chair of the Board of Directors of Proxima Investissement (Luxembourg)
- Vice-Chair and member of the Supervisory Board and Chair of the Audit Committee of Hermès International (listed company)
- Director of:
 - Financière MidMarket SAS
 - Apax Partners SAS
- BNP Paribas (listed company): Director; Chair of the Corporate Governance, Ethics, Nominations and CSR Committee; member of the Internal Control, Risk Management and Compliance Committee
- Managing Partner of Société Civile Fabadari

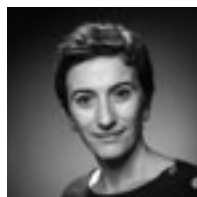
OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Chair of Trocadéro Participations II SAS until October 2016
- Chair and member of the Supervisory Board of Texavenir II SAS
- Deputy Chief Executive Officer of Altamir Amboise Gérance SA until May 2015
- Member of the Supervisory Board and the Audit Committee of JC Decaux (listed company) until May 2017
- Member of the Supervisory Board of:
 - Global Project SAS until June 2017
 - Trocadéro Participations SAS until October 2016



Hélène DANTOINE

Representative of the French State

Member of the Audit and Risk Committee

Member of the Appointments and Compensation Committee

Agence des participations de l'État (APE) – 139, rue de Bercy – 75012 Paris, France

Number of Safran shares held: None

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1971, Hélène Dantoine, a French national, is a graduate of the École National d'Administration (ENA) and the Institut d'Études Politiques de Paris. She also holds a Master's degree in public law and a post-graduate degree (DEA) in Latin-American studies.

Hélène Dantoine began her career in 1995 with the French Foreign Ministry. From 2003 to 2005 she attended ENA, and after her graduation she joined the French General Finance Inspectorate (IGF). In 2009, she moved back to the Foreign Ministry and then in 2010 once again worked with the IGF.

In 2011, Hélène Dantoine joined the Total group, where she served in various management positions for seven years (New Business Project Director; Logistics and Support Director for the exploration and production division; Director, Africa for the exploration subsidiaries; and Group Public Affairs Director).

Since March 1, 2019, she has been Deputy Chief Executive Officer of the French State Investments Agency (APE).

Hélène Dantoine brings to the Board her financial expertise and – through her experience as a former executive in both operational and support functions of an international industrial group – her skills in performance management, industrial development and logistics.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Deputy Chief Executive Officer of the State Investments Agency (APE)

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

SAFRAN GROUP

- Representative of the French State on the Board of Directors of Safran since March 2019

NON-GROUP

- Representative of the French State on the Board of Directors of Orange (listed company) since March 2019
- Representative of the French State on the Board of Directors of SNCF Mobilités since July 2019
- Director of SNCF since January 2020

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Chair of:
 - Total E&P Sénégal until December 2018
 - Total E&P Madagascar until December 2018
 - Total E&P Mauritanie until December 2018
 - East Africa Offshore Ventures until December 2018
- President and Chief Executive Officer of Total E&P South Sudan until May 2018
- Director and Chief Operating Officer of Total E&P Somalia until May 2018
- Legal Manager of Total E&P RDC until January 2019
- Director and President of Total E&P Ethiopia AS until December 2018
- Chairman of the Board and Manager of Total Washington DC Representative Office LLC until January 2019
- Director of Total Exploration Netherlands BV until January 2019
- Director of:
 - Total E&P International K1 Ltd until December 2018
 - Total E&P International K2 Ltd until December 2018
 - Total International K3 Ltd until December 2018
 - Total International Ltd until December 2018
- Member of the Corporate Sponsorship Committee of the Paris Bar's Solidarity Fund until 2017



Odile DESFORGES

Independent Director

Member and Chair of the Audit and Risk Committee

Safran – 2, bd du Général Martial-Valin – 75015 Paris, France

Number of Safran shares held: 500

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1950, Odile Desforges, a French national, is a graduate of the École Centrale Paris engineering school.

She began her career as a Research Analyst at the French Transport Research Institute (*Institut de Recherche des Transports*). In 1981, she joined the Renault group as planning officer for the Automobile Planning Department before becoming a product engineer on the R19 and then for the M1 range (1984-1986). In 1986, she moved to the Purchasing Department as Head of the Exterior Equipment Unit. She was later appointed Director of Body Hardware Purchasing for the joint Renault Volvo Car Purchasing Organization in 1992, and for Renault alone in 1994. In March 1999, she became Executive Vice-President of the Renault VI-Mack group, in charge of 3P (Product Planning, Product Development, Purchasing Project). In 2001, she was appointed President of AB Volvo's 3P Business Unit.

In 2003, Odile Desforges became Senior Vice-President, Renault Purchasing, Chair and CEO of the Renault Nissan Purchasing Organization (RNPO) and a member of the Renault Management Committee.

From 2009 to July 2012, she was Director of Engineering and Quality, and a member of Renault's Executive Committee.

She retired on August 1, 2012.

Odile Desforges brings to the Board her experience as a Director and former senior executive of international industrial groups, as well as performance and management control expertise and acknowledged experience in purchasing, R&D projects and innovation.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

■ Company Director

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

■ Director of Safran

NON-GROUP

■ Director and Chair of the Audit Committee of Faurecia (listed company)

■ Director and a member of the Audit Committee of Dassault Systèmes (listed company)

■ Director and a member of the Strategy Committee of Imerys (listed company)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

■ Director and a member of the Audit Committee, the Nomination Committee and the Management Development and Remuneration Committee of Johnson Matthey PLC (listed company) (United Kingdom) until July 2019

■ Director and a member of the Nomination and Compensation Committee of Sequana (listed company) until May 2016



Didier DOMANGE

Director

Member of the Appointments and Compensation Committee

Safran – 2, bd du Général Martial-Valin – 75015 Paris, France

Number of Safran shares held: 195,109

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1943, Didier Domange, a French national, is a graduate of the École Supérieure de Commerce in Le Havre, France.

He joined the Domange family business in 1966 as supply chain manager and was a member of the Management Committee of Établissements Domange from 1970 to 1980.

In 1966, he was appointed a Director of Zodiac, becoming Chairman and Chief Executive Officer in 1973.

When Zodiac was floated on the *second marché* of the Paris stock exchange in 1983 he was appointed Chairman of the Supervisory Board, a position he held until January 2018.

Didier Domange brings to the Board his experience as a corporate officer of an international group, as well as his knowledge of the aeronautical sector and the Group's businesses and markets.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

■ Company Director

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

■ Director of Safran

NON-GROUP

■ Chairman of the Supervisory Board of Fidoma

■ Representative of CICOR on the Board of Directors of Banque Transatlantique

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

■ Chairman of the Supervisory Board of Zodiac Aerospace (listed company) until January 2018

■ Director of Safran Seats (formerly Zodiac Seats France) until January 2018



F&P* represented by Robert PEUGEOT

Independent Director

Member of the Audit and Risk Committee

FFP – 66, avenue Charles-de-Gaulle, 92200 Neuilly-sur-Seine, France

Number of Safran shares held: 500

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1950, Robert Peugeot, a French national, is a graduate of École Centrale de Paris and INSEAD.

He has held a number of high-level positions in the PSA Group and was a member of the Group Executive Committee from 1998 to 2007, responsible for Innovation and Quality.

He is FFP's permanent representative on the Supervisory Board of Peugeot S.A., and is also Chairman of the Strategy Committee and a member of the Finance and Audit Committee of Peugeot SA. He has been Chairman and Chief Executive Officer of FFP, responsible for its business development, since end-2002.

On November 1, 2018, he joined the French High Committee for Corporate Governance.

Robert Peugeot brings to the Board his experience as an executive and director of international industrial groups, as well as his experience in private equity and finance.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Chairman and Chief Executive Officer of FFP
- Company Director

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

SAFRAN GROUP

- Permanent representative of F&P as a Director of Safran

NON-GROUP

- Chairman and Chief Executive Officer and Chairman of the Investments and Participations Committee of FFP (listed company)
- Permanent representative of FFP, Chairman of FFP Invest
- Chairman of F&P
- Permanent representative of FFP as a member of the Supervisory Board, Chairman of the Strategy Committee and a member of the Finance and Audit Committee of Peugeot SA (listed company)
- Permanent representative of FFP Invest as Chairman and a member of the Supervisory Board of Financière Guiraud SAS
- Permanent representative of Maillot I as a member of the Board of Directors of Sicav Armene 2
- Director and member of the Management Committee of Faurecia (listed company)
- Director and Chairman of the Nominations Committee of Sofina (listed company) (Belgium)
- Director and member of the Audit Committee of Etablissements Peugeot Frères
- Director and member of the Nomination and Compensation Committee of Tikehau Capital Advisors
- Member of the Supervisory Board of:
 - Soparexo
 - Ace Management
- Member of the Supervisory Board and Investment Committee of Signa Prime
- Director of FFP Investment UK Ltd
- Legal manager of:
 - SARL CHP Gestion
 - SC Rodom

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Member of the Supervisory Board, member of the Audit Committee and member of the Compensation, Appointments and Governance Committee of Hermès International (listed company) until June 2019
- Director and member of the Nomination and Compensation Committee of DKSH Holding AG (listed company) (Switzerland) until March 2019
- Permanent representative of Maillot I as a member of the Board of Directors of Sicav Armene until May 2019
- Permanent representative of FFP Invest as a member of the Board of Directors and Chairman of the Compensation and Nominations Committee of Sanef until April 2017
- Director and a member of the Strategy Committee and the Nomination and Compensation Committee of Imerys (listed company) until May 2016
- Director of Holding Reinier S.A.S. until March 2016
- Permanent representative of FFP Invest as a member of the Supervisory Board of IDI Emerging Markets S.A. (Luxembourg) until June 2015

(*) F&P is a joint venture set up by FFP Invest and Fonds Stratégique de Participations (FSP) specifically for the purpose of exercising the role of a Director of Safran.



Laurent GUILLOT

Independent Director

Member of the Audit and Risk Committee

Saint Gobain – Les Miroirs – 18, avenue d'Alsace – 92400 Courbevoie, France

Number of Safran shares held: 500

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1969, Laurent Guillot, a French national, is a graduate of École Polytechnique and of École des Ponts ParisTech engineering school, and holds a postgraduate degree in macroeconomics from Université Paris I.

He began his career with the French Ministry of Finance in 1996, initially as head of the Energy unit in the Forecasting Department and then as head of the Central Africa unit within the Treasury Department's International Division. In 1999, he was appointed technical advisor to the Minister of Infrastructure, Transport and Housing, first on maritime issues and then on budgetary, financial and industrial issues.

He joined Compagnie de Saint-Gobain in 2002 as Vice-President of Corporate Planning. He was appointed Vice-President of Construction Abrasives in 2004, becoming Vice-President of High-Performance Refractories and Diesel Particulate Filters the following year. In 2007, he was appointed General Delegate for Brazil, Argentina and Chile.

From 2009 to the end of 2015, Laurent Guillot served as Saint Gobain's Chief Financial Officer and was also in charge of Group procurement and information systems.

In 2016, he was appointed Vice-President of the High-Performance Materials business. The following year, he became Senior Vice-President of Compagnie de Saint-Gobain in charge of the High-Performance Materials business, with direct oversight over the Performance Plastics business.

Since January 1, 2019, he has been Senior Vice-President of Compagnie de Saint-Gobain in charge of High-Performance Solutions and also has responsibility for information systems.

Laurent Guillot brings to the Board his financial expertise, his skills and experience as an operational and functional manager of a global industrial group, and his expertise in high-performance materials, industrialization and information systems.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Senior Vice-President of Compagnie de Saint-Gobain, Chief Executive Officer of High-Performance Solutions

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran since May 2019

NON-GROUP

- Non-executive Director, Chairman of the Risk Management Committee, member of the Remuneration and Nomination Committee, and member of the Corporate Social Responsibility Committee of Grindwell Norton Ltd (listed company) (India)
- Chairman and Director of Saint-Gobain Ceramics & Plastics, Inc. (United States)
- Chairman of Saint-Gobain Cristaux & Détecteurs; Saint-Gobain Performance Plastics Europe; Saint-Gobain Centre De Recherche et d'Etudes Européen; Saint-Gobain Quartz SAS; Saint-Gobain Coating Solutions; Savoie Réfractaires; Saint-Gobain Matériaux Céramiques; Saint-Gobain Consulting Information and Organization; Saint-Gobain Performance Plastics France; Valoref; Société Européenne des Produits Réfractaires – S.E.P.R.
- Deputy Director of Saint-Gobain Archives
- Director of Saint-Gobain Corporation (United States) since April 2019; Z-tech, LLC (United States); Carborundum Ventures Inc. (United States); Saint-Gobain Performance Plastics Corporation (United States); Saint-Gobain Abrasives, Inc. (United States); Saint-Gobain Solar Gard Australia Pty, Ltd (Australia); Saint-Gobain High Performance Materials UK Limited (United Kingdom); Saint-Gobain Tm K.K. (Japan); Saint-Gobain K.K. (Japan); Saint-Gobain Advanced Ceramics (Shanghai) Co Ltd (China)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- President, Chief Executive Officer and Director of Zenpure Corporation (United States) until April 2019; Zenpure Americas, Inc. (United States) until April 2019
- Chairman of the Board of Directors of Sepr Italia SpA (Italy) until March 2019
- Director of Farecla Products Ltd (United Kingdom) until January 2019; Saint-Gobain Performance Plastics Rencol Limited (United Kingdom) until January 2019; Saint-Gobain (China) Investment Co., Ltd (China) until June 2016
- President & Chief Executive Officer of Phoenix Coating Resources, Inc. (United States) until January 2017; Z-tech, LLC (United States) until January 2017
- Chairman of Vertec until January 2016; Spafi – Société de Participations Financières et Industrielles until January 2016
- Chairman of the Board of Directors of International Saint-Gobain (Switzerland) until September 2016
- Chief Executive Officer and Director of Saint-Gobain Solar Gard, LLC (United States) until April 2019
- Director of Phoenix Coating Resources, Inc (United States) until April 2019; Saint-Gobain Hycomp LLC (United States) until April 2019; Fluocabron Components, Inc. (United States) until April 2019
- Director of Saint-Gobain Performance Plastic H-old SpA (Spain) until March 2019; Verlona until May 2016; Saint-Gobain Pam until January 2016; Saint-Gobain Bénélux (Belgium) until January 2016



Vincent IMBERT

Director

Member of the Innovation and Technology Committee

Direction générale de l'armement – 60, bd du Général-Martial-Valin – 75015 Paris, France

Number of Safran shares held: None

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1956, Vincent Imbert, a French national and senior defense engineer, is a graduate of École Polytechnique and École Nationale Supérieure de l'Aéronautique et de l'Espace. He is a former auditor of the Center for Advanced Defense Studies (*Centre des Hautes Études de l'Armement*).

He started his career at the French Directorate General of Weapons Procurement (DGA) in 1981 managing programs. He was Director of the PR4G (radios for the army) program and the RITA and RITA enhancement programs and then Director of the Leclerc tank program for France and the United Arab Emirates.

In 1998, he became Director of the French military test center at Bourges, responsible for the assessment and testing of pyrotechnic, artillery and ground missile systems.

In 2000, he was appointed Force System Architect, responsible for directing and managing prospective studies to prepare the French army's future defense and weapons systems.

In 2003, he was appointed technical Advisor to the Deputy Head of the DGA, and became Director of its Ground Weaponry Programs Department (SPART) in 2004.

In 2006, he also became Director of the DGA's Observation, Telecommunication and Information Programs Department (SPOTI).

In 2009, he was responsible for setting up the technical department at the DGA, which he subsequently managed.

In June 2013, he was appointed Executive Vice-President of the DGA and on September 1, 2017 became Inspector General of the Weaponry Division of the French Armed Forces.

Vincent Imbert brings to the Board an in-depth knowledge of the Group's products and markets and particularly his expertise in the areas of defense and strategy.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Inspector General of the Weaponry Division of the French Armed Forces

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran

NON-GROUP

None

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Representative of the French State on the Board of Directors of Safran until April 2015

NON-GROUP

- Representative of the French State on the Board of Directors of Giat Industries until December 2015



Gérard MARDINÉ

Director representing employee shareholders

Member of the Audit and Risk Committee

Safran Electronics & Defense – 72-76, rue Henry Farman – 75015, France

Number of Safran shares held: 7,319⁽¹⁾

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1959, Gérard Mardiné, a French national, holds a degree from ENSAM engineering school in Paris and is also a graduate of the École Supérieure des Techniques Aérospatiales.

Gérard Mardiné joined Snecma in 1982 as an engineer specialized in regulating turbojet engines and subsequently became head of development of navigation equipment and drone systems at Sagem. He has specialized in drones and aviation for over 13 years.

Gérard Mardiné brings to the Board his view of Safran from an employee shareholder's perspective, as well as an in-depth knowledge of the Group and its markets.

MAIN POSITION(S) HELD

- Drones and aviation specialist at Safran Electronics & Defense

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran representing employee shareholders
- Chairman of the Supervisory Board of the Avenir Sagem corporate mutual fund
- Member of the Supervisory Board of the Safran Investissement corporate mutual fund
- Member of the Social and Economic Committee and Trade Union Representative at Safran Electronics & Defense Farman since December 2019
- Vice-President of Observatoire de la RSE (ORSE), of which Safran is a member

NON-GROUP

- Member of the Management Committee of Club Sagem
- Chairman of École Nationale Supérieure de Sécurité Sociale (EN3S)
- General Secretary of the Confédération française de l'encadrement CFE-CGC since October 2019

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Chairman of the Supervisory Board of the Safran Investissement corporate mutual fund until January 2018
- Coordinator for the CFE-CGC trade union within the Group until May 2018

NON-GROUP

- Director of Humanis Retraite ARRCO (pension fund) until December 2018
- Director of AGIR-ARRCO (supplementary pension regime) until November 2019
- Chairman of the Steering Committee of IPSA (an aerospace engineering school) until May 2019

(1) Including 1,029 shares via corporate mutual fund units (conversion based on the Safran share price at December 31, 2019).



Daniel MAZALTARIM

Director representing employees

Member of the Appointments and Compensation Committee

Safran Aircraft Engines – Division des moteurs militaires Établissement d'Évry-Corbeil –

Rue Henri-Auguste-Desbrières – B.P. 81 – 91003 Évry Cedex, France

Number of Safran shares held: 1,945⁽¹⁾

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1960, Daniel Mazaltarim, a French national, holds a PhD in geology from Strasbourg University, post-graduate diplomas (DESS) in management and human resources management from Institut d'Administration des Entreprises de Paris and a Business Certificate from the American University of Paris.

Daniel Mazaltarim has been with the Group for 19 years.

He started his career as a quality assurance manager at Safran Transmission Systems (formerly Hispano-Suiza), before joining Safran Consulting in 2004, first as a consultant and subsequently a manager.

In June 2014, he became a member of the Progress Initiative Department of Safran Aircraft Engines' Military Engines Division as a Black Belt, then as a Master Black Belt.

Daniel Mazaltarim brings to the Board his view of Safran from an employee's perspective, as well as an in-depth knowledge of the Group and its markets.

MAIN POSITION(S) HELD

- Black Belt Master in the progress initiative department of Safran Aircraft Engines' military engines division

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran representing employees

NON-GROUP

None

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Chairman of COSAF 13 until August 2019

(1) Via corporate mutual fund units (conversion based on the Safran share price at December 31, 2019).



Patrick PÉLATA

Independent Director

Member and Chairman of the Innovation and Technology Committee

Member of the Appointments and Compensation Committee

Safran – 2, bd du Général Martial-Valin – 75015 Paris, France

Number of Safran shares held: 500

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1955, Patrick Pélata, a French national, is a graduate of the École Polytechnique and of the École Nationale des Ponts et Chaussées engineering school, and holds a PhD in socioeconomics from the École des Hautes Études en Sciences Sociales.

He joined Renault in 1984 as a shop foreman at the Flins plant and from 1988 he contributed to the creation of the Renault Twingo and served in several engineering positions at Vehicle Engineering, where he became Senior Vice-President in 1998 and joined the Renault Management Committee. Following the signature of the Alliance between Renault and Nissan in 1999, he joined Nissan in Tokyo as Executive Vice-President in charge of Corporate and Product Planning, Design and Programs, sitting on the Executive Committee of Nissan and the Executive Board of the Alliance. In 2005, he returned to Renault as Executive Vice-President in charge of Corporate and Product Planning, Design and Programs, and joined the Executive Committee. Patrick Pélata served as Chief Operating Officer of the Renault group from October 2008 to April 2011, before his departure in August 2012.

From September 2012 to July 2015, he was Chief Automotive Officer and Executive Vice-President of Salesforce.com, with responsibility for strategy execution and promoting social media, mobility and cloud computing technologies to the automotive industry.

In July 2015, he created Meta Consulting LLC, of which he is the President. He returned to Paris in July 2017.

Patrick Pélata brings to the Board his experience of leading innovative, high-tech industrial groups on an international scale, as well as his experience in strategy, consulting and industrialization in the digital age.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Consultant at Meta Strategy Consulting
- Company Director

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran

NON-GROUP

- Director of:
 - Orano
 - Vullog
- Consultant at Meta Strategy Consulting

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- President of Meta Consulting LLC (United States) until July 2017



Fernanda SARAIVA

Director representing employee shareholders

Safran Helicopter Engines – Avenue Szydlowski- 64511 Bordes, France

Number of Safran shares held: 700⁽¹⁾

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1968, Fernanda Saraiva is a graduate of the École Supérieur de Commerce in Pau, France.

She has been an employee of the Group for 29 years.

She started in 1991 as a sales assistant, specializing in sales negotiation in an intercultural environment and subsequently held several Program Sales Manager positions in cooperative programs.

She is currently Licensing Manager in the Aircraft Manufacturer Sales Department at Safran Helicopter Engines, a role she combines with her work with the CFE-CGC employees' union.

Fernanda Saraiva brings to the Board her view of Safran from an employee shareholder's perspective, as well as an in-depth knowledge of the Group and its markets.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Licensing Manager in the Aircraft Manufacturer Sales Department of Safran Helicopter Engines

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran representing employee shareholders since July 2019
- Member of Safran Helicopter Engines' Social and Economic Committee at its Bordes site and its Central Social and Economic Committee
- Treasurer of Safran Helicopter Engines' Central Social and Economic Committee
- Deputy central trade union representative at Safran Helicopter Engines
- Member of the Safran Coordination Board
- Member of the Safran Investissement corporate mutual fund

NON-GROUP

- CFE-CGC trade union representative – Conseil National Aéronautique Espace Défense
- CFE-CGC trade union representative – Humanis Prévoyance

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Secretary of Safran Helicopter Engines' Central Works Council until November 2019
- CFE-CGC trade union representative on Safran's Group Works Council until September 2018
- Treasurer of Safran Helicopter Engines' Works Council until September 2017
- Local CFE-CGC trade union representative for Safran Helicopter Engines until July 2016

NON-GROUP

None

(1) Via corporate mutual fund units (conversion based on the Safran share price at December 31, 2019).



Sophie ZURQUIYAH

Independent Director

Member of the Audit and Risk Committee

CGG – 27, avenue Carnot – 91300 Massy, France

Number of Safran shares held: 500

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1966, Sophie Zurquiyah has dual French and American nationality. She is a graduate of the École Centrale de Paris and holds a Master of Science in numerical analysis from the Pierre and Marie Curie University (Paris VI), as well as a Master of Science in aerospace engineering from the University of Colorado.

Having started her career with Schlumberger in 1991 as a geophysics engineer, she held a variety of positions in research, development and manufacturing in France and the United States, before becoming General Manager for Schlumberger's South Latin America Region, based in Rio de Janeiro in 2003. Between 2005 and 2007, she served as Human Resources Director for Oilfield Services at Schlumberger, and then as Chief Information Officer for the Schlumberger group at its headquarters in Paris until 2009. In the same year she was appointed President of Schlumberger Data & Consulting Services in Houston, where she remained until 2012.

Sophie Zurquiyah joined CGG on February 4, 2013 as Senior Executive Vice-President of the Geology, Geophysics & Reservoir (GGR) business. On September 1, 2015, she was appointed Chief Operating Officer in charge of Technology and Global Operational Excellence, in addition to her operating responsibilities for product lines in the GGR segment. She is currently a member of the Executive Committee of the CGG group.

On November 18, 2017, Sophie Zurquiyah was appointed as a member of the French Industry Council by way of a ministerial decree.

Since April 26, 2018 she has been Chief Executive Officer and a Director of CGG SA.

Sophie Zurquiyah brings to the Board her experience of heading up innovative global corporations specialized in high-tech industrial equipment and services, as well as an international outlook, expertise in various operational and corporate positions, and her extensive knowledge of North America and Latin America.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Chief Executive Officer of CGG SA

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran

NON-GROUP

- Director and Chief Executive Officer of CGG SA (listed company)
- Director of Bazean (United States) since January 2019
- Corporate officer of CGG Services, Inc. (United States)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Director of Petroleum Edge Ltd (United Kingdom) until June 2018
- Chief Operating Officer of CGG SA (listed company) until January 2017
- Director of Magnitude Microseismic, LLC (United States) until 2015

Skills and expertise of the members of the Board of Directors

The tables below summarize the expertise and diverse skills of each of the Directors. They show that the Directors have a wide range of experience in different business sectors and expertise in varied fields, meaning that the Board is well equipped to deal with the challenges Safran faces in terms of both strategy and

performance. In addition, 65% of the Board's members (i.e., 11 out of 17) and 87% of the independent Directors (7 out of 8) have spent part of their careers working internationally (irrespective of their nationality).

This skills matrix is monitored and reviewed by the Appointments and Compensation Committee, particularly in order to identify Director candidate profiles in the event of any changes in the Board's membership structure.

A diverse range of profiles, expertise and skills within the Board

Experience and specific positions exercised by Directors in different sectors and activities	Number of Directors
Aerospace industry	11
Other industries	15
Innovation, R&T, Development, Engineering	13
International career and experience	11
Strategy, competition and M&A	11
Finance and management control	11
Digital - New technologies	6
Governance and compensation	17
Human Resources - CSR	9

Diverse skills and expertise of each Director

	Ross McInnes	Philippe Petitcolin	Hélène Auriol Potier	Hervé Chaillou	Jean-Lou Chameau	Monique Cohen
Aerospace	√	√		√	√	
Automotive	√	√				
Defense	√	√		√		
Energy	√	√			√	
Finance, Banking, Insurance, Asset Management	√		√			√
Strategy and consulting					√	√
IT, Telecoms			√			
New technologies			√		√	
Government services	√					
International experience (irrespective of nationality)	√	√	√		√	
Office(s) held in listed companies (Chairman, CEO, COO)	√	√				
Director of listed companies	√	√	√	√	√	√
Executive of unlisted companies		√	√		√	√
Director of unlisted companies	√	√	√		√	√
Governance and compensation	√		√		√	√
Organization and management of corporations	√	√	√	√		√
Strategy and competitive environment	√	√			√	√
Shareholding strategy and vision	√	√				√
Perspective of an employee or employee shareholder				√		
Mergers & Acquisitions	√	√				√
Innovation, Research & Technology		√			√	
Performance and industrial developments - Operations, engineering		√		√		
Sales & marketing, procurement, commerce, distribution		√	√			
Finance, Performance and management control	√				√	√
IT, digital			√		√	
Human Resources				√	√	
CSR	√		√	√		√

Membership structure of the Board of Directors

Hélène Dantoine	Odile Desforges	Didier Domange	F&P represented by Robert Peugeot	Laurent Guillot	Vincent Imbert	Gérard Mardiné	Daniel Mazaltarim	Patrick Pélata	Fernanda Saraiva	Sophie Zurquiyah
		✓		✓	✓	✓	✓		✓	✓
	✓		✓	✓				✓		
					✓	✓	✓		✓	
✓				✓						✓
✓		✓	✓	✓						
								✓		
	✓			✓						✓
								✓		
✓					✓					
✓	✓	✓	✓	✓				✓		✓
		✓	✓					✓		✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓				✓		
✓	✓	✓	✓	✓	✓			✓		✓
✓	✓	✓	✓	✓				✓		
✓	✓	✓	✓	✓				✓		✓
✓	✓	✓	✓	✓	✓			✓		
		✓	✓	✓						✓
						✓	✓		✓	
		✓	✓	✓						
✓	✓		✓	✓				✓		✓
✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
	✓			✓					✓	
✓	✓	✓	✓	✓					✓	
				✓				✓		✓
				✓		✓			✓	✓
				✓		✓			✓	

6.2.3 Other information about the Board of Directors' membership structure

Lead Independent Director

Monique Cohen has served as the Company's Lead Independent Director since March 2018 and will continue to serve in this capacity for the duration of her term as a Director. Although the position of Lead Independent Director is not indispensable because the Company has separated the roles of Chairman of the Board and Chief Executive Officer, the Board felt that it would be good practice to have such a Director.

The Lead Independent Director has the following powers and responsibilities:

- the Chairman of the Board of Directors consults with her about the agenda and schedule of Board meetings;
 - in her capacity as both Lead Independent Director and a member of the Appointments and Compensation Committee, she takes part in (i) preparing the succession plan for the Company's officers, including the Chairman of the Board of Directors, (ii) the process of selecting candidates for members of the Board and its Committees (iii) organizing assessments of the Board, and (iv) discussions regarding governance matters.
- She leads the Board's discussions about the succession plan for the Chairman of the Board and any appraisals of his performance or reviews of his compensation;
- where necessary, or useful, either at her own initiative or at the request of the Chairman of the Board, she is informed of any opinions or specific questions expressed by the shareholders in relation to corporate governance matters and participates, in conjunction with the Chairman of the Board, in any resulting discussions;
 - she brings to the Chairman's attention any potential conflicts of interest that she may identify and examines such situations with him;
 - if the Chairman is temporarily unable to perform his duties or in the event of the Chairman's death, and if there is no Vice-Chairman, then the Lead Independent Director replaces the Chairman, as follows:
 - in the event of temporary absence, the Lead Independent Director stands in for the Chairman until he is once again able to perform his duties, and
 - in the event of the Chairman's death, the Lead Independent Director acts as Chairman until a new Chairman is elected.

In either of the above cases, the Lead Independent Director chairs meetings of the Board of Directors.

The Lead Independent Director does not receive any specific additional compensation for her duties in this capacity.

Work carried out by the Lead Independent Director during the year

In 2019, Monique Cohen – Lead Independent Director and Chair of the Appointments and Compensation Committee – chaired the parts of the Board meetings related to reviewing the Chairman's specific situation (compensation, expiration and renewal of term of office, etc.). The Chairman did not take part in any discussions or votes concerning these matters.

The Lead Independent Director also led the work of the Appointments and Compensation Committee related to the selection of Director candidates.

In addition, working alongside the Chairman, she:

- organized the succession process concerning the Chief Executive Officer;
- organized the process of selecting Director candidates (defining the candidate profile, selecting candidates and holding interviews along with members of the Appointments and Compensation Committee), and making the resulting recommendation to the Board;
- monitored the measures and action plans launched in relation to the areas for improvement identified in the Board's formal assessment process carried out in 2018.

Independent Directors

The Board has eight independent Directors (see section 6.2.4.1), who are all highly engaged and involved in the Board's work. The fact that these Directors have full freedom of judgment and expression contributes to the quality of the Board's discussions, and their professional and personal experience provides an outside view that is beneficial for the Company.

The independent Directors are not executives or employees of the Group and do not have any significant financial, family or other relations with the Group that could affect their freedom of judgment or could lead to any actual or potential conflicts of interest.

The aim of having independent Directors on the Board is to provide the Company's shareholders with assurance that the collegiate body of the Board comprises members who have total independence to analyze, judge, take decisions and act, always in the Company's interests.

Representative of the French State and Directors put forward by the French State

The membership structure of Safran's Board of Directors is subject to the provisions of French law applicable to *sociétés anonymes* (joint-stock corporations). However, as the French State owns at least 10% of the Company's capital, as provided for in Article 14.1 of the Company's bylaws, a certain number of seats on the Board must be assigned to representatives of the French State in accordance with Articles 4 and 6 of *ordonnance* 2014-948 dated August 20, 2014, which sets out the terms and conditions for State representation on the Boards of Directors of companies in which it holds an ownership interest.

Following the May 23, 2019 Annual General Meeting, the number of Directors with a link to the French State was reduced from three to two, i.e.:

- one director put forward by the French State and appointed by shareholders at the Annual General Meeting (compared with two previously); and
- one representative of the French State appointed by way of a ministerial decree.

This reduction resulted from applying, as agreed with the French State, the provisions of the *ordonnance* dated August 20, 2014 in view of the change in the French State's ownership interest in Safran. In connection with Safran's implementation of the August 20, 2014 *ordonnance*:

- by way of a ministerial decree dated May 23, 2019⁽¹⁾, the French State appointed Hélène Dantoine as its representative on Safran's Board of Directors for the same term as the

(1) In accordance with Article 4 of the August 20, 2014 *ordonnance*.

other Board members⁽¹⁾, i.e., four years, expiring at end of the Annual General Meeting to be held in 2023 to approve the 2022 financial statements;

- Vincent Imbert was re-appointed as a Director at the Annual General Meeting of May 23, 2019, having been put forward again by the French State⁽²⁾. His new term of office is for four years, expiring at the close of the Annual General Meeting to be held in 2023 to approve the 2022 financial statements.

Directors representing employee shareholders

Safran's Board of Directors includes two Directors representing employee shareholders, who are appointed by the shareholders in a General Meeting. The current Directors representing employee shareholders – whose terms of office expire at the close of the Annual General Meeting to be held on May 28, 2020 – are:

- Gérard Mardiné, appointed at the May 19, 2016 Annual General Meeting for a four-year term; and
- Fernanda Saraiva, appointed by the Board of Directors on July 25, 2019 to replace Éliane Carré-Copin (who was appointed at the May 19, 2016 Annual General Meeting for a four-year term but has retired – see sections 6.2.6.1 and 8.2.1.5).

In accordance with the applicable law and Article 14.8 of Safran's bylaws, if the shares held by employees of the Company – or of companies related to it within the meaning of Article L.225-180 of the French Commercial Code – represent more than 3% of the share capital, then one or more Directors representing employee shareholders must be appointed at an Ordinary General Meeting.

Directors representing employee shareholders have the same voting rights at Board meetings as the other Directors and must act in the corporate interest of the Company at all times. Subject to the legal provisions applying to them, they have the same rights and responsibilities and are bound by the same duties – in particular with regard to confidentiality – as the other members of the Board.

The terms of office of Fernanda Saraiva and Gérard Mardiné expire at the close of the Annual General Meeting to be held on May 28, 2020. The shareholders will be invited to replace them by appointing two of the candidates from among the four names put forward following the call for candidates carried out by the Company. Out of these candidates, the Board of Directors will recommend the appointment of Marc Aubry and Anne Aubert (see sections 6.2.6.2 and 8.2.1.4).

Directors representing employees

In accordance with Article 14.9 of the Company's bylaws⁽³⁾, the Board of Directors must include one or two Directors representing employees, depending on the total number of Board members, as follows: (i) one such Director if the Board has twelve or less members, or (ii) two such Directors if the Board has more than twelve members. The total number of Board members is assessed on the date that the Director(s) representing employees are appointed, and does not take into account any existing Directors representing employees or employee shareholders.

At the Annual General Meeting of May 28, 2020, the shareholders will be invited to reduce the threshold for having two employee-representative Directors from twelve to eight

members on the Board, in line with an update to be made to the Company's bylaws to align them with the French "Pacte Act" dated May 22, 2019⁽⁴⁾ (see section 8.2.2). This change will have no impact on the Board of Directors' membership structure.

On October 24, 2019, Daniel Mazaltarim and Hervé Chaillou were elected as Directors representing employees for four-year terms commencing November 20, 2020, based on the lists of candidates put forward by the four trade unions represented within the Group (CFDT, CFE-CGC, CGT and CGT-FO). Eligible voters in this election corresponded to all of the employees of Safran and its direct and indirect subsidiaries whose registered offices are located in France.

Directors representing employees have the same voting rights at Board meetings as the other Directors and must act in the corporate interest of the Company at all times. Subject to the legal provisions applying to them, they have the same rights and responsibilities and are bound by the same duties – in particular with regard to confidentiality – as the other members of the Board.

Other persons attending Board of Directors' meetings

The following people attend Board of Directors' meetings in an advisory capacity: a Government Commissioner appointed by decision of the Ministry of Defense in accordance with the regulations applicable to Safran's activities, and a representative of the Group's Social and Economic Committee in accordance with the French Labor Code (*Code du travail*).

Government Commissioner

Éric Méresse, Controller-General of the French Armed Forces, was appointed as Government Commissioner to Safran and its subsidiaries by way of a decision of the Ministry of Defense on September 15, 2014 in accordance with the laws and regulations applicable to companies supplying military equipment under public contracts or more generally engaged in the manufacturing or trading of such equipment.

Representative of the Social and Economic Committee

Ould Bouamama was appointed on December 9, 2019 by the Group's Social and Economic Committee as its representative on the Board of Directors, pursuant to the provisions of Article L.2312-72 of the French Labor Code.

The Statutory Auditors

The Statutory Auditors are invited to attend the Board meetings during which the annual and interim financial statements are reviewed. They may also be invited to any other Board meeting and also take part in meetings of the Audit and Risk Committee.

Other persons

In accordance with the Board of Directors' Internal Rules, depending on the matters discussed, the Chairman of the Board of Directors may invite any person to attend Board of Directors' meetings whom he considers may be able to provide Board members with information on an agenda item.

(1) In accordance with Article 2 of Decree no. 2014-949 dated August 20, 2014 concerning the implementation of the August 20, 2014 ordonnance.

(2) In accordance with Article 6 of the August 20, 2014 ordonnance.

(3) Adopted pursuant to the French Employment Security Act of June 14, 2013.

(4) French Act no. 2019-486 dated May 22, 2019 on business growth and transformation.

6.2.4 Independence and diversity of the Board of Directors

Based on the independence criteria set out below, eight of Safran's Directors qualify as independent (i.e., 61.5%).

In accordance with the AFEP-MEDEF Code, Directors representing employee shareholders and Directors representing employees are not taken into account when calculating the percentage of independent Directors.

6.2.4.1 Independence of the members of the Board of Directors

Independence criteria

Independent Directors are those who do not have any relationship whatsoever with Safran, the Group or its Management that may compromise their freedom of judgment.

A Director is deemed independent when he or she meets all of the following criteria (Article 2.4 of the Board of Directors' Internal Rules and Article 9.5 of the AFEP-MEDEF Code):

- criterion 1: an independent Director must not be, or must not have been, during the past five years:
 - an employee or executive corporate officer of Safran,
 - an employee, executive corporate officer or Director of a company that is consolidated by Safran,
 - an employee, executive corporate officer or Director of Safran's parent company or a company consolidated by Safran's parent company;
- criterion 2: an independent Director must not be an executive corporate officer of a company in which Safran holds a directorship, directly or indirectly, or in which an employee appointed as such or an executive corporate officer of Safran

(currently in office or having held office within the past five years) is a Director;

- criterion 3: an independent Director must not be a customer, supplier, commercial banker, investment banker, or advisor
 - that is significant for Safran or the Group, or
 - for which Safran or the Group represents a significant portion of its business;
- criterion 4: for Directors who have duties in one or more banks, in order to be qualified as independent, he or she must not participate in (i) preparing or soliciting offers for services from one or more of said banks with Safran or any other Group company, (ii) the work of any of said banks in the event of the performance of a mandate entrusted to the bank by Safran or any other Group company, or (iii) the vote on any resolution concerning a project in which the bank concerned is or could be involved in an advisory capacity;
- criterion 5: an independent Director must not have any close family ties with a corporate officer of Safran or any other Group company;
- criterion 6: an independent Director must not have been a Statutory Auditor of Safran in the past five years;
- criterion 7: an independent Director must not have been a member of Safran's Board of Directors (or previously its Supervisory Board) for over 12 years, it being specified that members lose their status as independent Directors once the 12-year threshold is reached;
- criterion 8: an independent Director must not be a major shareholder of Safran.

At each appointment of a Director, the Board of Directors examines the issue of independence with regard to the criteria set out in the Internal Rules and checks whether the applicant has significant business relations with the Group. An independence review is then carried out on an annual basis.

Independence criteria	1	2	3	4	5	6	7	8	Independent
Ross McInnes	x	√	√	√	√	√	√	√	x
Philippe Petitcolin	x	√	√	√	√	√	√	√	x
Hélène Auriol Potier	√	√	√	√	√	√	√	√	√
Hervé Chaillou	x	√	√	√	√	√	√	√	x
Jean-Lou Chameau	√	√	√	√	√	√	√	√	√
Monique Cohen	√	√	√	√	√	√	√	√	√
Hélène Dantoine	√	√	√	√	√	√	√	x	x
Odile Desforges	√	√	√	√	√	√	√	√	√
Didier Domange	√	√	√	√	√	√	√	√	x ⁽¹⁾
F&P represented by Robert Peugeot	√	√	√	√	√	√	√	√	√
Laurent Guillot	√	√	√	√	√	√	√	√	√
Vincent Imbert	√	√	√	√	√	√	√	x	x
Gérard Mardiné	x	√	√	√	√	√	√	√	x
Daniel Mazaltarim	x	√	√	√	√	√	√	√	x
Fernanda Saraiva	x	√	√	√	√	√	√	√	x
Patrick Pélata	√	√	√	√	√	√	√	√	√
Sophie Zurquiyah	√	√	√	√	√	√	√	√	√

√ Independence criterion met

x Independence criterion not met

(1) See the "Independence review" section below for an explication of why Didier Domange has not been qualified as independent despite the fact that he meets all of the independence criteria.

Independence review

At its meeting on March 26, 2020, on the recommendation of the Appointments and Compensation Committee, the Board undertook a review of the independence status of its members.

During this review, both the Board and the Appointments and Compensation Committee examined any business relations that may exist between Safran, its Directors, and the companies (advisory/consultancy/management firms) and institutions in which Safran's Directors are corporate officers. The findings of the review were that none of the Directors considered as independent have any business relations with Safran that could jeopardize their independence. Following the review, the Board of Directors was able to confirm that its independent Directors still qualify as independent.

The Board of Directors relies on the following key procedures, reviewed by the Appointments and Compensation Committee, to determine independence:

- a separate annual questionnaire and a permanent obligation to inform the Board of any conflict of interest:
 - every year, a questionnaire is sent to each independent Director in particular, pursuant to which, any conflict of interest between their duties as a Director, their private interests and any other of their roles or responsibilities, must be declared, as well as any existing service contracts they benefit from with the Group,
 - strict provisions on permanent disclosure obligations and managing conflicts of interest are included in the Board of Directors' Internal Rules, as set out in section 6.2.5 of this Universal Registration Document;
 - identification and a materiality test in respect of Safran's relationships with other companies and institutions for which Directors of Safran are corporate officers – a specific materiality test in respect of Safran's relationships with bank partners: These tests mainly consist of:
 - a qualitative analysis, intended to ensure that any existing business relationships are free of conflicts of interest and do not bring into question the independence of the Director, mainly through a review of the history, scale and organization of the relationship (the position of the Director concerned in the contracting company) for Directors who have duties in one or more banks, not to have been involved in (i) preparing or soliciting service offerings of one of these banks with respect to Safran or any other Group company, (ii) the work of any of these banks in the event of the performance of a mandate entrusted to said bank by Safran or any other Group company or (iii) the vote on any resolution concerning a project in which the bank concerned is or could be involved in an advisory capacity,
 - a quantitative analysis, intended to evaluate the significance of any existing business relationships to ensure that they do not result in any form of financial dependence and that they are neither exclusive nor predominant among the relationships taken as a whole (in respect to relationships with bank partners, the main flows, commitments, transactions and existing terms of office are expressed in amounts and percentages and analyzed to determine their relative weighting).
- The results of these reviews were as follows:
- each independent Director stated that they had no conflicts of interest;
 - no information was identified showing that any conflicts of interest exist, as defined in the Board's Internal Rules;

- for the materiality test in respect of Safran SA's business relations with other companies (advisory/consultancy/management firms) and institutions in which Safran's independent Directors are corporate officers or executives:
 - no relations were either disclosed or identified that generate payments by Safran to companies in which Safran's independent Directors are corporate officers and which could call into question their independence;
- based on specific materiality tests concerning the business relations between Safran and (i) BNP Paribas, of which Monique Cohen is a Director, and (ii) Oddo BHF SCA, of which Hélène Auriol Potier is a member of the Supervisory Board:
 - the business relations between Safran and BNP Paribas and Oddo BHF SCA do not generate any financial dependency, and Safran's relations with these banks are neither exclusive nor represent a predominant portion of its overall banking relations. The Board once again concluded that Monique Cohen and Hélène Auriol Potier have total independence of judgment in their roles as Directors of Safran. In addition, their directorship at BNP Paribas and membership of Oddo BHF SCA's Supervisory Board are non-executive positions. Any business relations that may exist between Safran and BNP Paribas or Oddo BHF SCA do not in any way jeopardize the independent Director status of Monique Cohen or Hélène Auriol Potier;
- other situation: concerning Didier Domange, although he could be considered as meeting all of the independence criteria applied by Safran, to date the Board has decided not to qualify him as an independent Director based on the analysis carried out when he was first appointed concerning his position in and relations with Zodiac Aerospace. The reasons for this decision are that Didier Domange was (i) a corporate officer of Zodiac Aerospace, (ii) the representative of a long-standing family shareholder of Zodiac Aerospace, and (iii) involved in the project for the business combination between Safran and Zodiac Aerospace, which provided for cross put and call options between the two companies.

6.2.4.2 Diversity, expertise and proportion of women on the Board of Directors

The Board of Directors regularly carries out reviews to ensure that the membership structure of the Board and its committees is sufficiently balanced.

Its diversity policy is notably structured around principles and objectives related to (i) the size of the Board and the representation of the Company's various stakeholders, (ii) the proportion of independent Directors, (iii) the depth and fit of the Directors' skills and expertise, (iv) international experience, and (v) gender balance.

These principles and objectives set the framework for future changes in the Board's membership structure and enable it to draw up candidate profiles to meet those objectives as the need arises. For the purpose of preparing such profiles it uses the skills matrix set out in section 6.2.2, which it regularly reviews and monitors.

The resolutions relating to the Board's membership structure that will be put to shareholders at the May 28, 2020 Annual General Meeting (see sections 6.2.6.2 and 8.2.1) contribute to the implementation of the Board's diversity policy.

Membership structure of the Board of Directors

Diverse profiles

When implementing the above diversity policy, the Appointments and Compensation Committee submits recommendations to the Board, in some cases with the assistance of an external firm, concerning the selection of candidates for appointment or re-appointment as Directors. These recommendations are based on criteria such as:

- independence;
- skills that match the Company's overall strategy and that round out or strengthen the skills of the Board's existing members;
- specific expertise (e.g., financial and accounting, R&T, digital, etc.), particularly to strengthen the membership structure of the Board's Committees;
- additional skills on top of the candidates' main expertise, and a willingness to become involved in the Board's other missions and responsibilities;
- significant international experience during their careers (irrespective of nationality);
- executive experience acquired in major industrial corporations (international, French or non-French), and an understanding of the Group's business sector;
- gender balance;
- the ability to work as part of a collegiate body such as the Board of Directors, and to constructively challenge the Company's executive management team;
- availability.

The Board of Directors also endeavors to have a diverse age profile (the average age of its members is currently 61).

Gender balance on the Board

The Board of Directors comprises six women and eleven men. This means that the proportion of women Directors on the Board is 40% (6/15) including the Directors representing employee shareholders or 38.5% (5/13) excluding Directors representing employee shareholders.

Until the introduction of the Pacte Act of May 22, 2019, Directors representing employee shareholders were included in the calculation for the 40% gender parity requirement applicable to corporate boards under French law.

Under the Pacte Act, these Directors are no longer included in the calculation. The Act states that the exclusion applies from the "end of the current term of office of the Director representing employees".

Consequently, for companies that have a gender diversity policy or are taking a pro-active approach to promote gender parity on their boards, including for Directors representing employee shareholders, this change in calculation method could adversely affect their gender parity ratios.

On July 25, 2019, Éliane Carré-Copin (who had retired) was replaced by her deputy, Fernanda Saraiva, in accordance with the provisions of the Company's bylaws concerning Directors representing employee shareholders. This replacement resulted in Safran having to immediately exclude, as per the new legal requirements, the Directors representing employee shareholders from the calculation for the 40% statutory gender parity requirement. Consequently, despite the fact that a woman was appointed to replace another woman, this change automatically lowered the gender parity ratio for Safran's Board of Directors to 38.5%.

Since then, as there are currently no vacant seats on the Board, and the maximum number of Board members as permitted under the Company's bylaws has been reached (13 members, including

the Directors linked to the French State, and excluding the Directors representing employees and employee shareholders), Safran has been unable to restore its gender parity ratio to the 40% required under French law.

If the resolutions presented by the Board of Directors at the Annual General Meeting on May 28, 2020 – which include the appointment of an additional woman independent Director – are approved by the shareholders, this situation will be rectified (see sections 6.2.6.2 and 8.2.1.3). Safran has suspended the payment of Directors' compensation until such rectification takes place.

In addition, and with the same objective of promoting gender parity among all of its members – including Directors representing employee shareholders – the Board has decided to recommend to shareholders at the May 28, 2020 Annual General Meeting that they appoint a man and a woman to replace the Directors representing employee shareholders whose terms of office are due to expire at the close of that Meeting (see sections 6.2.6.2 and 8.2.1.5).

The gender diversity policy applicable more widely to Safran's management bodies, as presented by the Chief Executive Officer to the Board of Directors, is described in section 5.7.4.1.

Training

Directors' training takes the following different forms:

- Each new Director is given a welcome pack containing the initial information they need for performing their directorship duties. This pack includes the schedule of Board meetings, the Code of Ethics, the Company's bylaws, the Board's Internal Rules, the Ethical Guidelines, and other documents describing the Group and its businesses, such as the most recent Registration Document. It also includes the main documents presented to the Board of Directors before the arrival of the new Director, when these documents are of particular importance or relate to long-term issues (such as files for the Board of Directors' strategy seminar, the Group's medium-term business plan, financial presentations and outlooks, "Capital Markets Day" presentations, etc.). Directors are also provided with press reviews and regular reports about the Group's financial communications.
- They are offered specific training sessions and in-house presentations about the Group, its businesses and industry, as well as about accounting, financial and operational issues that are specific to Safran.
- The Directors are also regularly given presentations during Board meetings about the Group's operations (historical information, positioning, results, competitive environment, challenges and risks).
- The Directors representing employees and Directors representing employee shareholders are offered additional training, notably in the fields of finance and accounting. These training sessions can also cover broader issues such as (i) the roles and responsibilities, operating procedures and rights and obligations of Boards of Directors, Board Committees and Directors in general, (ii) the Group's businesses and organizational structure, and (iii) any other topic that may enhance the skills and effectiveness of the Directors concerned in performing their Board duties.
- Visits to the Group's sites both in and outside France are regularly organized so that Board members can learn about or hone their knowledge of Safran's various sites and businesses. For example, in 2019, the Directors visited the Group's sites at Villaroche (Safran Aircraft Engines) and Issoudin (Safran Seats).
- Regular updates are given at each Board meeting about the Group's operations and strategy.
- Specific meetings of the Board or the Board Committees may also be called to discuss particular issues.

6.2.5 Additional disclosures about Directors

Duration of the terms of office of the members of the Board of Directors

Following the resolution adopted at the Annual General Meeting of April 23, 2015 to reduce Directors' terms of office from five to four years, Directors are now appointed for four-year terms as recommended in the AFEP-MEDEF Code.

Consequently, all of the Directors who have been appointed or re-appointed since that date have four-year terms.

Information on service contracts between the members of the Board of Directors or Executive Management and the Company or any of its subsidiaries

There are no service contracts between the members of the Board of Directors or Executive Management and Safran or any of its subsidiaries providing for the award of benefits.

Disclosure of family ties and the absence of convictions involving members of the Board of Directors or Executive Management

To the best of Safran's knowledge:

- there are no family ties between members of the Board of Directors or Executive Management;
- no member of the Board of Directors or Executive Management:
 - has been convicted of fraud,
 - has been a manager of a company that has filed for bankruptcy or been placed in receivership or liquidation,
 - has been subject to an official public incrimination and/or sanctions by any statutory or regulatory authorities, or
 - has been disqualified by a court of law from acting as a member of an administrative, management or supervisory body, or from participating in the conduct of a company's business.

Managing conflicts of interest of members of the Board of Directors and Executive Management

Safran has not been notified of any:

- potential conflicts of interest between the duties, with respect to Safran, of any of the members of the Board of Directors or Executive Management and their private interests and/or other duties;
- arrangements or agreements with major shareholders, customers, suppliers or other parties pursuant to which any members of the Board of Directors or Executive Management were selected.

The management of conflicts of interest within the Board of Directors is organized as follows (Articles 7.2 to 7.5 of the Board of Directors' Internal Rules):

- all members of the Board of Directors must inform the Board of Directors of any actual or potential conflicts of interest between themselves (or any other individual or corporation with which they have a business relationship) and Safran, or any of the companies in which Safran holds an interest, or any of the companies with which Safran is planning to enter into an agreement of any sort;
- in the event that a member of the Board of Directors suspects the existence of a conflict of interest, or a potential conflict of interests, he/she must immediately inform the Chairman of the Board of Directors (or if the Chairman is unavailable, the Vice-Chairman, or failing that, the Lead Independent Director), whose responsibility it is to decide whether or not a conflict of interests exists and if so, to inform the Board of Directors and thus instigate the conflicts of interest management process;
- in the event that the member of the Board of Directors concerned is the Chairman of the Board of Directors him/herself, then he/she must inform the Vice-Chairman of the Board of Directors or, failing that, the Lead Independent Director;
- any member of the Board of Directors involved in an actual or potential conflict of interest related to an agreement that the Company is planning to enter into must abstain from voting on decisions relating to said agreement and from taking part in any discussions preceding the vote;
- in addition, the Chairman of the Board of Directors, the members of the Board of Directors, the Chief Executive Officer and, where appropriate, the Deputy Chief Executive Officer(s) will not be obliged to transmit, to any member(s) of the Board of Directors whom they have serious reason to suspect may be subject to conflicts of interest, any information or documents relating to the agreement or operation causing the conflict of interest in question, and they will inform the Board of Directors of the non-transmission.

Internal charter on regulated and unregulated related-party agreements

On February 26, 2020 the Board of Directors adopted an internal charter on "regulated" (i.e., subject to approval) and "unregulated" (i.e., entered into in the ordinary course of business on arm's length terms and therefore not subject to approval) related-party agreements. The purpose of this charter is to reiterate the regulatory framework applicable in France to regulated and unregulated related-party agreements and to set out the procedure applied by the Company to (i) qualify a related-party agreement as regulated or unregulated, and (ii) regularly assess whether agreements qualified as unregulated fulfill the conditions required for such qualification. The charter is available on Safran's website (under Group/Corporate Governance). It describes the processes for identifying any related-party agreements that could qualify as regulated, as well as the qualification criteria to be used and the procedures for the Board's regular reviews of these agreements. At the same time as the Board adopted this charter, an internal procedure was sent to the various departments within the Company and to its subsidiaries, which sets out the underlying principles of the charter and how it will be implemented.

6.2.6 Changes in the membership structure of the Board of Directors

6.2.6.1 Changes in the membership structure of the Board of Directors in 2019 and since January 1, 2020

Name	Departure				Appointment				Re-appointment			
	Board of Directors	Audit and Risk Committee	Appointments and Compensation Committee	Innovation and Technology Committee	Board of Directors	Audit and Risk Committee	Appointments and Compensation Committee	Innovation and Technology Committee	Board of Directors	Audit and Risk Committee	Appointments and Compensation Committee	Innovation and Technology Committee
Ross McInnes									May 23, 2019			
Philippe Petitcolin									May 23, 2019			
Éliane Carré-Copin	July 25, 2019											
Hervé Chaillou					Nov. 20, 2019			Feb. 14, 2020				
Jean-Lou Chameau									May 23, 2019		May 23, 2019	May 23, 2019
Hélène Dantoine					March 13, 2019	May 23, 2019	May 23, 2019		May 23, 2019			
Patrick Gandil	Feb. 7, 2019			Feb. 7, 2019								
Laurent Guillot					May 23, 2019	May 23, 2019						
Vincent Imbert		May 23, 2019	May 23, 2019						May 23, 2019			May 23, 2019
Caroline Laurent	May 23, 2019											
Brigitte Lesschaeve	Nov. 19, 2019			Nov. 19, 2019								
Daniel Mazaltarim									Nov. 20, 2019		Nov. 20, 2019	
Fernanda Saraiva					July 25, 2019							

Hélène Dantoine – who was initially appointed as a Director representing the French State by way of a ministerial decree dated March 15, 2019 – was re-appointed as such by way of a ministerial decree dated May 23, 2019, for the standard four-year term of office applicable to Safran's Directors.

At the May 23, 2019 Annual General Meeting, the shareholders:

- re-appointed Ross McInnes, Philippe Petitcolin and Jean-Lou Chameau as Directors, for four-year terms;
- appointed Laurent Guillot as an independent Director for a four-year term;
- re-appointed Vincent Imbert as the Director put forward by the French State, for a four-year term.

As Éliane Carré-Copin retired in 2019, she informed the Board of Directors that she was resigning from her position as a Director representing employee shareholders. At its meeting on July 25, 2019, the Board of Directors appointed her deputy⁽¹⁾, Fernanda Saraiva, to replace her, for the remainder of Éliane Carré-Copin's term of office, i.e., until the Annual General Meeting to be held on May 28, 2020.

The terms of office of the Directors representing employees, Daniel Mazaltarim and Brigitte Lesschaeve, ended on November 19, 2019. Daniel Mazaltarim was re-elected and Hervé Chaillou was elected as a new Director representing employees, both for four-year terms commencing November 20, 2020, following an election process involving all of the employees of Safran and its direct

and indirect subsidiaries whose registered offices are located in France (see section 6.2.3).

The profiles of the above-mentioned Directors are set out in sections 6.2.1 and 6.2.2 of this Universal Registration Document.

See sections 6.2.1 and 6.2.2 of the 2018 Registration Document for the profiles of the Directors whose terms of office ended in 2019.

6.2.6.2 Changes in the membership structure of the Board of Directors to be put forward at the Annual General Meeting of May 28, 2020

Appointment of an additional woman independent Director

At the Annual General Meeting of May 28, 2020, the Board of Directors will put forward Patricia Bellinger for appointment as an additional woman independent Director (see section 8.2.1.3). If appointed, she will also be asked to join the Appointments and Compensation Committee.

Patricia Bellinger has all of the qualities that the Company has identified it is looking for in a new Director and that were sought in the selection process. In addition to her independent status, the Appointments Committee was particularly impressed with the depth and breadth of her career and her diverse

⁽¹⁾ In accordance with Article 14.8 of the Company's bylaws and the applicable legal provisions (Article L.225-23, paragraph 1, of the French Commercial Code).

experience, as well as her time in industry, her HR/Diversity/Talent Management expertise (in terms of both strategic and people-centric issues), her multilingualism, and her knowledge of French corporate governance.

As the Board already has the maximum number of Directors allowed under the Company's bylaws (i.e., a maximum of 13 members not including the Directors representing employee shareholders and the Directors representing employees), in order to be able to put forward Patricia Bellinger as an additional woman independent Director, the Board will ask the shareholders to amend the Company's bylaws to raise the maximum number of Directors to 14, not including the Directors representing employee shareholders and the Directors representing employees.

If the shareholders follow the Board's recommendations and adopt the corresponding resolutions, the proportion of independent directors will be increased to 64.30%⁽¹⁾ and the proportion of women on the Board to 42.86%⁽²⁾ (see section 6.2.4.2).

Expiry of the terms of office of the two Directors representing employee shareholders

At the Annual General Meeting on May 28, 2020, the shareholders will be asked to replace the Directors representing employee shareholders (see section 8.2.1.5).

As the terms of office of the current Directors representing employee shareholders are due to expire at the close of that Meeting, in accordance with Article 14.8 of the Company's bylaws, the following procedure was launched during the year in order to nominate the candidates to replace them:

- Following a call for candidates, the supervisory boards of the corporate mutual funds (FCPEs) set up as part of the Group's employee share ownership program – whose investments mainly comprise shares in the Company – validly designated three candidates to be put forward for appointment as Directors representing employee shareholders.
- Group employees who hold Safran shares in registered form, delivered under certain free share plans, were also asked to vote, and validly designated one candidate to be put forward for appointment as a Director representing employee shareholders.

Consequently, four names will be put to the shareholders' vote at the May 28, 2020 Annual General Meeting, of whom two have been approved by the Board of Directors.

6.2.6.3 Expiration dates of Directors' terms of office

The table below sets out the expiration dates of the terms of office of Safran's Directors.

Director	2020	2021	2022	2023
Ross McInnes				√ ⁽⁴⁾
Philippe Petitcolin				√ ⁽⁴⁾
Hélène Auriol Potier		√ ⁽²⁾		
Hervé Chaillou				√ ⁽⁵⁾
Jean-Lou Chameau				√ ⁽⁴⁾
Monique Cohen			√ ⁽³⁾	
Hélène Dantoine				√ ⁽⁴⁾
Odile Desforges		√ ⁽²⁾		
Didier Domange			√ ⁽³⁾	
F&P represented by Robert Peugeot			√ ⁽³⁾	
Laurent Guillot				√ ⁽⁴⁾
Vincent Imbert				√ ⁽⁴⁾
Gérard Mardiné	√ ⁽¹⁾			
Daniel Mazaltarim				√ ⁽⁵⁾
Patrick Pélatá		√ ⁽²⁾		
Fernanda Saraiva	√ ⁽¹⁾			
Sophie Zurquiyah		√ ⁽²⁾		

(1) At the close of the Annual General Meeting to be held in 2020 to approve the 2019 financial statements.

(2) At the close of the Annual General Meeting to be held in 2021 to approve the 2020 financial statements.

(3) At the close of the Annual General Meeting to be held in 2022 to approve the 2021 financial statements.

(4) At the close of the Annual General Meeting to be held in 2023 to approve the 2022 financial statements.

(5) At November 19, 2023.

6.2.6.4 Process for selecting Directors

Other than for Directors whose nominations are subject to specific provisions of the law or the Company's bylaws (see section 6.2.3), the process for selecting Directors to be put forward for appointment is carried out on behalf of the Board of Directors by the Appointments and Compensation Committee. This Committee conducts the selection process under the

supervision of the Company's Chairman and the Chair of the Appointments and Compensation Committee, who is the Lead Independent Director.

The main steps in the process – which mainly concerns selecting independent Directors – are usually as follows:

- determining the profiles sought and the related essential and additional skills and attributes (specifications), taking

(1) In accordance with the AFEP-MEDEF Code, Directors representing employee shareholders and Directors representing employees are not taken into account when calculating the percentage of independent Directors.

(2) In accordance with the Pacte Act, Directors representing employee shareholders and Directors representing employees are not included in this calculation.

Operating procedures and work of the Board of Directors and the Board Committees

into account (i) the principles and objectives of the Board of Directors' diversity policy (see section 6.2.4.2), (ii) the aim of achieving a balanced membership structure for the Board, and (iii) any specific requirements expressed, for example during the Board's assessment of its operating procedures;

- selecting a specialized firm or consultant to help with the process if necessary;
- drawing up and reviewing lists of potential candidates and performing the necessary checks (compliance with specifications, independence, analysis of business relations);
- short-listing potential candidates based on their files;
- organizing meetings and interviews with the shortlisted candidate(s);

■ issuance by the Appointments and Compensation Committee of its recommendation to the Board of Directors (initial selection);

■ decision by the Board of Directors (final selection of the candidate), and candidate put forward for appointment (or for ratification of the Board's appointment) by the shareholders at the Annual General Meeting, with the reasons for the Board's choice of candidate included in its report to the Annual General Meeting.

See sections 6.2.6.2 and 8.2.1 for information concerning the changes in the Board's membership structure that will be put forward for shareholders' approval at the next Annual General Meeting.

6.3 OPERATING PROCEDURES AND WORK OF THE BOARD OF DIRECTORS AND THE BOARD COMMITTEES

6.3.1 Summary table of attendance at meetings of the Board of Directors and the Board Committees in 2019

The following table shows the number of meetings of the Board and its Committees that took place in 2019 and the attendance rates of each Director.

Director	Number of Board of Directors' meetings attended	Attendance rate (%)	Number of Audit and Risk Committee meetings attended	Attendance rate (%)	Number of Appointments and Compensation Committee meetings attended	Attendance rate (%)	Number of Innovation and Technology Committee meetings attended	Attendance rate (%)
Total number of meetings in 2019	10	95	5	82	9	98	2	90
Ross McInnes	10	100						
Philippe Petitcolin	10	100						
Hélène Auriol Potier	9	90			9	100	1	50
Éliane Carré-Copin ⁽¹⁾	6/6	100						
Hervé Chaillou ⁽²⁾	1/1	100						
Jean-Lou Chameau	10	100			9	100	2	100
Monique Cohen	9	90			9	100		
Hélène Dantoine ⁽³⁾	7/8	88	2/3	67	6/6	100		
Odile Desforges	10	100	5	100				
Didier Domange	10	100			9	100		
F&P represented by Robert Peugeot	9	90	3	60				
Patrick Gandil ⁽⁴⁾	1/1	100						
Laurent Guillot ⁽⁵⁾	6/6	100	3/3	100				
Vincent Imbert ⁽⁶⁾	9	90	2/2	100	3/3	100	2	100
Caroline Laurent ⁽⁷⁾	2/4	50						
Brigitte Lesschaeve ⁽⁸⁾	9/9	100					2	100
Gérard Mardiné	9	90	3	60				
Daniel Mazaltarim ⁽⁹⁾	10	100			4/4	100		
Fernanda Saraiva ⁽¹⁰⁾	4/4	100						
Patrick Pélatà	10	100			8	89	2	100
Sophie Zurquiyah	9	90	5	100				

(1) Director representing employee shareholders until July 25, 2019.

(2) Director representing employees since November 20, 2019.

(3) Director representing the French State since March 13, 2019 and a member of the Audit and Risk Committee and the Appointments and Compensation Committee since May 23, 2019.

(4) Director until February 7, 2019.

(5) Director and a member of the Audit and Risk Committee since May 23, 2019.

(6) Member of the Audit and Risk Committee and the Appointments and Compensation Committee until May 23, 2019.

(7) Director from February 7, 2019 to May 23, 2019.

(8) Director representing employees and a member of the Innovation and Technology Committee until November 19, 2019.

(9) Member of the Appointments and Compensation Committee. Attends only the "compensation" portion of Appointments and Compensation Committee meetings.

(10) Director representing employee shareholders since July 25, 2019.

6.3.2 Board of Directors' Internal Rules

In addition to the provisions of the law and the Company's bylaws that govern its operating procedures, on April 21, 2011 the Board of Directors approved a set of Internal Rules that provide a number of specific terms and conditions relating to Board meetings, list the operations that require the Board's prior approval, define the duties and operating procedures of the Board Committees, and set out the rules for allocating compensation between Board members based on the maximum amount set by shareholders at the Annual General Meeting.

These Internal Rules are available on the Company's website (www.safran-group.com, in the Group/Governance/Board of Directors section, in French only).

The Internal Rules have been regularly updated since they were first adopted in order to take into account changes in regulations, the AFEP-MEDEF Corporate Governance Code and Safran's internal organizational structure and operating procedures.

The most recent update was carried out on December 19, 2019, mainly to align their wording with the Pacte Act and the AFEP-MEDEF Corporate Governance Code. The Board took this opportunity to (i) include, in the description of the Board's powers, the principles of taking into account the Company's best interests and the social and environmental aspects of its activities, and (ii) specify in the Internal Rules that presentations given to the Board on projects must contain information about the project's social and environmental aspects where such information is relevant.

6.3.3 Operating procedures and work of the Board of Directors

Indicators

	2018	2019
Number of meetings	10	10
Average attendance rate	95%	95%
Number of Directors	16 ⁽²⁾	17
Percentage of independent Directors ⁽¹⁾	58.3% (7 out of 12)	61.5% (8 out of 13)

(1) Excluding Directors representing employee shareholders and Directors representing employees.

(2) Due to the termination of Lucie Munies's duties (representative of the French State until October 31, 2018) and pending the appointment by the French State of its new representative (which took place on March 13, 2019 with the appointment of Hélène Dantoine).

Duty of confidentiality

Members of the Board of Directors and all individuals who attend meetings of the Board and its Committees are subject to strict duties of confidentiality and discretion with respect to the information provided to them in this context. The Directors must take all necessary measures to ensure that the files and documents communicated to them remain confidential.

In addition to this duty of confidentiality, Board members undertake not to make any public disclosures of information, in their capacity as Board members, relating to any issues concerning the Company and/or the Group (irrespective of whether or not such information concerns matters discussed in Board meetings), without obtaining the Chairman's prior approval. The Chairman of the Board is the only Board member who has the powers to communicate information on behalf of the Board of Directors.

Board of Directors' meetings

The Board of Directors meets at least once every quarter and meetings may be called by any means.

The agenda for Board meetings is put forward by the Board Secretary to the Chairman and reflects the work of the Board Committees and proposals made by members of the Board of Directors.

Before each meeting, the Board members receive the agenda as well as documents providing them with the information they need on the matters to be discussed during the meeting.

They may request any additional documents they consider useful.

Meetings can be called by any means whatsoever. The Board of Directors' Internal Rules state that Directors may participate in meetings by video-conference or any other means of telecommunications.

The presence of at least half of the Board's members is necessary for a meeting to be validly constituted. Decisions are made by way of a majority vote of the members present or represented and the Chairman has a casting vote in the event of a split decision.

If a Director is unable to attend a meeting, he or she may give proxy to another Board member, it being specified that each Director may only hold one proxy.

Minutes are drawn up for each Board meeting and forwarded to all members of the Board in order that they may be approved at the following meeting.

In addition, the Chairman keeps the Board of Directors informed, by any means, of all significant events concerning the Group and its financial position. The Directors receive a copy of Safran's press releases, a press review and stock market reports on Safran's share performance.

Operating procedures and work of the Board of Directors and the Board Committees

Work of the Board of Directors in 2019

The Board of Directors met 10 times in 2019, with an average attendance rate of 95%.

In accordance with the provisions of the Internal Rules, certain deliberations of the Board of Directors were prepared based on recommendations and proposals put forward by the Board Committees in their area of specialization. These Committees reported on their findings and submitted their opinions and proposals to the Board.

The main work conducted by the Board of Directors in 2019 was as follows:

Corporate governance and compensation

As is the case every year, the Board of Directors' work on corporate governance mainly included reviewing the membership structure of the Board and its Committees, examining the independence status of Directors, preparing the Annual General Meeting and setting the compensation for the Chairman and the Chief Executive Officer and for the Directors.

The Board's work during the year also covered:

- the succession plans for the Chairman and the Chief Executive Officer and the selection of the future Chief Executive Officer;
- decisions on whether to re-appoint the Chairman of the Board of Directors and extend the Chief Executive Officer's term of office;
- decisions concerning the membership structure of the Board of Directors, notably increasing the number of independent Directors;
- an update on the operating procedures of the Board and its Committees, which was an opportunity to review the observations and areas for improvement identified during the last formal assessment procedure, and place on record the corresponding measures taken and ensuing changes;
- the compensation policies for the Chairman and the Chief Executive Officer as well as their compensation packages;
- the allocation of performance shares to Group senior managers (see section 6.6.4.2), including the Chief Executive Officer (see section 6.6.2.2) under the 2019 Long-Term Incentive Plan;
- preparation of an employee share issue to be carried out in 2020;
- a review of the related-party agreements and commitments that were entered into or remained in force in 2019 (with the Board concluding that they continue to meet the criteria that led the Board to approve them, and therefore should be maintained in force);
- a review of the results of the consultation process with Safran's Central Works Council concerning (i) the Group's annual report on gender equality in the workplace and equal pay, and (ii) its policies regarding compensation, gender equality in the workplace and equal pay.

Two meetings referred to as "executive sessions" were held in 2019. These take place without any executive or in-house Directors present and the other members of the Board generally discuss the operating procedures of the Board and its Committees, the performance of the Chairman and the Chief Executive Officer and the work carried out on the succession plans, and identify issues to be addressed at subsequent Board meetings.

Corporate governance and succession plans for the Chairman and the Chief Executive Officer:

Anticipating and ensuring a smooth succession process for the Chairman and the Chief Executive Officer is one of the Board's main responsibilities.

- On the recommendation of the Appointments and Compensation Committee, in 2019 the Board reviewed and approved a succession plan aimed at covering any unforeseeable or sooner-than-expected vacancies (notably due to death, incapacity or resignation) for the positions of Chairman of the Board of Directors and Chief Executive Officer. This plan sets out several possible solutions that could be envisaged if any of these events were to occur, and can remain in force without requiring an annual review. However, the Board of Directors would need to carry out another analysis at the time any such unforeseen or sooner-than-expected vacancy occurred, before deciding on the course of action to take.
- In 2019, the Board decided to renew the term of office of the Chairman of the Board of Directors, following a process that involved the Lead Independent Director and was carried out within a timeframe that allowed other options to be envisaged.
- Also during the year, the Board appointed the Chief Executive Officer's successor, with effect from January 1, 2021. The appointment process was carried out by the Chairman of the Board of Directors and the Lead Independent Director, assisted by a specialized firm. It began with drawing up a framework for the methods and timings of the process as well as Safran's objectives and the profile it was seeking. The Appointments and Compensation Committee then interviewed and evaluated both internal and external candidates before putting forward its recommendation to the Board (see section 6.1.1).

Industrial and commercial matters

Updates are provided at Board meetings on the Group's industrial and commercial situation, and a progress report is given on programs under development.

Throughout the year, the Board was briefed by the Chief Executive Officer on the Group's significant events as well as on the general operating context (notably for the aviation industry), the integration of Zodiac Aerospace's operations, business developments, divestments, the progress of major programs, negotiations or signatures of key agreements, market trends, and the competitive environment. There were also regular updates on the situation concerning the Boeing 737 MAX program.

Additionally, targeted presentations were given about certain businesses and their outlook, such as Safran Electronics & Defense's "Flight Control System", Safran Corporate Venture and the "civil aftermarket" business.

Strategy

Determining the Group's overall strategy is one of the essential roles of the Board of Directors.

The Board's work on strategy is primarily conducted via residential strategy seminars which are organized on an annual basis. The Chairman and the Chief Executive Officer prepare these seminars and determine the particular topics and issues to be addressed, taking into account the issues identified by Executive Management and the priorities expressed by the Directors. Four or five topics are examined each year. The 2019 seminar took place at the Safran University site.

The beneficial in-depth discussions that these seminars promote and the strategic goals decided on are used as a basis for dealing with and continuously monitoring the strategic issues addressed at each Board meeting (via Board agenda items). At Board meetings, the Chairman and the Chief Executive Officer regularly provide a status report on strategic projects (strategic agreements and partnerships, major development projects or programs, external growth projects, negotiations in progress and any difficulties encountered). The Board is given presentations on these projects at the various stages of their development. Certain Board meetings may be dedicated to a particular strategic or M&A project. The Chief Executive Officer regularly gives an update on launches of new projects and structural programs. Lastly, the Board examines on an annual basis the results of the consultation with the Group's Social and Economic Committee on the strategic goals set for the Company and the Group.

In certain cases, the Board's work on strategic issues is carried out with the assistance on an ad hoc basis of special committees specifically set up to analyze strategic operations or monitor preliminary studies on strategic matters (such as strategic partnerships and agreements or transactions affecting the Group's scope of consolidation).

The way the work on the Group's overall strategy is structured means that all of the Directors are directly involved in one of the Board's fundamental missions rather than giving this responsibility to a smaller-scale strategy committee.

Economic and financial matters

As is the case every year, as well as approving the annual and interim financial statements, preparing the Annual General Meeting (profit appropriation and dividend payment) and the Registration Document (now called the Universal Registration Document) including the Annual Financial Report and the Integrated Report, in 2019 the Board's work on financial matters primarily covered reviewing and approving the Group's four-year medium-term plan (MTP), approving and tracking annual budgets and reviewing financial communications (including the financial forecasts contained in such communications and their underlying assumptions).

This work also concerned:

- the operational reorganization of the Group's equipment activities and changes to segment reporting applied in the financial statements as from the first half of 2019;
- the Group's foreign currency hedging policy;
- implementing the share buyback program (in accordance with the authorization given by shareholders at the Annual General Meeting);
- preparing an employee share issue to be carried out in 2020;
- reviewing the reports of the Audit and Risk Committee (also covering the Group's risk management, audit and internal control policy).

In accordance with the applicable laws, the Board's prior authorization is required for guarantees, endorsements and sureties granted in Safran's name. Each year, the Board sets a blanket ceiling up to which guarantees, endorsements and sureties may be granted by the Chief Executive Officer, and any commitments exceeding this ceiling must be specifically authorized by the Board. The Board once again set this blanket ceiling at €500 million for 2020 (with no ceiling on guarantees, endorsements and sureties given to tax and customs authorities).

The Board was briefed during the year by the Chief Executive Officer and Chief Financial Officer, notably at the quarterly business report presentations, about the Group's financial position, any financial guarantees granted and any disputes and litigation in process.

The Statutory Auditors attended the Board of Directors' meeting of February 26, 2019, when they reported on their audit work on the parent company and consolidated financial statements for 2018 and presented their audit findings. They certified the 2018 parent company and consolidated financial statements without qualification. They also attended the Board meeting of September 4, 2019 to present their work on the consolidated financial statements for the first half of 2019.

Corporate Social Responsibility (CSR)

The Board of Directors sets the Company's overall business strategy and oversees its implementation, in accordance with the Company's best interests and taking into account the social and environmental aspects of its activities. From a practical perspective, the way these aspects are taken into account in the work of the Board and its Committees can be illustrated as follows.

Certain topics discussed at the Board's strategy seminars dedicated to setting the Group's strategic objectives factor in environmental aspects that are key to the Group's operations and business development, and to the aviation industry in general.

The Group's medium-term business plan – which is presented to and approved annually by the Board – includes an HR/social section, on which additional presentations may be given.

When presentations on certain investments or programs are given to the Board for its approval, the related CSR aspects, impacts or consequences are also presented where relevant. These principles have been written into the Board of Directors' Internal Rules (see section 6.3.2). Consequently, the description of the Board's powers in the Internal rules now includes the principles of taking into account the Company's best interests and the social and environmental aspects of its activities, and the Internal Rules now specify that presentations given to the Board on projects must contain information about the project's social and environmental aspects where such information is relevant.

A general presentation on CSR is included once a year on the Board's agenda, at the Board meeting held to review the Group's CSR process, main CSR goals (HR, social and environmental), CSR policy, the related objectives and results, and a summary of the CSR work plan.

In addition, presentations are given or focus discussions carried out about specific issues such as gender parity, equal opportunities, environmental policies and climate strategy (decarbonization trajectory).

The Board also reviews and validates the Universal Registration Document, which sets out in its "Corporate Social Responsibility" chapter the Group's CSR policy, relevant HR, social and environmental information, and the non-financial information statement. The Group's integrated report – which includes summarized CSR information – is also presented to the Board of Directors.

Lastly, nine Directors have been identified as having ESG-CSR-HR skills and expertise.

Acting within their specific remits, the Board's Committees likewise address CSR issues as part of their work. For instance:

- the Innovation and Technology Committee monitors objectives, trends, developments, progress and the overall direction of roadmaps concerning topics that include major environmental issues (CO₂, hybridization, etc.);

Operating procedures and work of the Board of Directors and the Board Committees

the Audit and Risk Committee's risk review work includes analyzing CSR-HR risks, such as workplace health and safety risks and risks concerning personal safety and talent management, and it regularly has focus discussions on the main risks contained in the Group's risk map;

the Appointments and Compensation Committee includes CSR and HR objectives (continuous CSR and HR measures and priority action plans) in its recommendations to the Board concerning the individual objectives applicable to the Chief Executive Officer's annual variable compensation.

6.3.4 Committees of the Board of Directors

The Board of Directors' Internal Rules provide for the Board's decisions regarding certain issues to be prepared by specialized committees that review matters within their remit and submit their opinions, proposals and recommendations to the Board.

The Board is assisted in its work by three standing committees:

- the Audit and Risk Committee;
- the Appointments and Compensation Committee;
- the Innovation and Technology Committee.

The role, organization and operating procedures of each of these standing committees are set out in the Board of Directors' Internal Rules.

In its area of expertise, each Committee carries out in-depth work and analysis prior to the Board of Directors' discussions and contributes to the preparation of the Board's decisions. It makes proposals and recommendations to the Board, and gives its opinion on the matters under review.

As such, each Committee may offer its services to the Board for the purpose of conducting internal or external studies that may provide the Board with helpful information for its decisions.

At each Board meeting, the Chair of each Committee – or any other Committee member designated if the Chair is unable to do so – reports to the Board on the Committee's work, proposals and recommendations.

The Board of Directors may set up further standing Committees at any time, at its sole discretion, and may amend the Board's Internal Rules for the purpose of specifying the roles and responsibilities, resources, membership structure and operating procedures of such new Committees. It may also set up temporary special committees, on an ad hoc basis, to analyze, deal with or monitor specific issues or projects.

Audit and Risk Committee

Indicators

	2018	2019
Number of meetings	5	5
Average attendance rate	96%	82%
Number of members	5	6
Percentage of independent members ⁽¹⁾	75% (3 out of 4)	80% (4 out of 5)

(1) Excluding Directors representing employee shareholders and Directors representing employees.

Membership structure

The Audit and Risk Committee has at least three members, including its Chair. These members are selected from among the Directors, other than the Chairman of the Board of Directors, who do not have management duties within Safran. Two-thirds of the members on this Committee, including its Chair, must be independent Directors. In addition, in accordance with the law, at least one of the Committee's independent members must have specific skills in finance, accounting or certified public accounting.

The Audit and Risk Committee meets at least four times a year, and the Statutory Auditors are always invited to its meetings, except where a joint meeting is held with another Committee.

Hélène Dantoine and Laurent Guillot joined the Audit and Risk Committee on May 23, 2019. Vincent Imbert was a member of the Audit and Risk Committee until May 23, 2019.

The number of Audit and Risk Committee members has therefore been increased from five to six, 80% of whom are independent (not including the Director representing employee shareholders in accordance with the recommendations of the AFEP-MEDEF Code and Article 28.2 of the Board of Directors' Internal Rules).

At the filing date of this Universal Registration Document	Independent	Date of appointment	Expiration of term of office	Seniority as a Committee member
Odile Desforges, Chair	X	May 28, 2013	2021	6 years
Hélène Dantoine		May 23, 2019	2023	<1 year
Laurent Guillot	X	May 23, 2019	2023	<1 year
Gérard Mardiné, Director representing employee shareholders		May 19, 2016	2020	4 years
Robert Peugeot (representative of F&P)	X	May 25, 2018	2022	2 years
Sophie Zurquiyah	X	June 15, 2017	2021	3 years

Operating procedures and work of the Board of Directors and the Board Committees

Roles and responsibilities	The main roles of the Audit and Risk Committee – which acts under the responsibility of the Board of Directors – are to examine the financial statements and address issues related to the preparation and auditing of accounting and financial information. It monitors the financial reporting process and issues any recommendations required to guarantee the integrity of the information concerned. In this regard it is responsible for: ■ reviewing the draft interim and annual parent company and consolidated financial statements before they are submitted to the Board of Directors, and in particular: · ensuring that the accounting policies adopted to prepare the parent company and consolidated financial statements are relevant and are applied consistently, and · examining any problems encountered related to applying accounting policies. In this respect, it also monitors the plans and measures put in place for applying the main planned changes in accounting policies, including the application of new international financial reporting standards; ■ reviewing the financial documents issued by Safran in connection with the end of the annual and interim reporting periods; ■ reviewing draft financial statements prepared for the requirements of specific transactions, such as asset contributions, mergers, spin-offs, or payments of interim dividends; ■ reviewing the financial aspects of certain operations proposed by Executive Management and submitted to the Board of Directors (some of which for prior authorization), such as: · capital increases, · equity investments, and · acquisitions or divestments; ■ assessing the reliability of the systems and procedures used to prepare the financial statements and the validity of the accounting treatment applied for major transactions; ■ ensuring that the parent company and consolidated financial statements are audited by the Statutory Auditors; ■ reviewing the methods and procedures used for reporting purposes and for adjusting accounting information from the Group's foreign companies. The Audit and Risk Committee is also tasked with verifying the effectiveness of Safran's internal control and risk management systems. In this regard it is responsible for: ■ assessing, with the people responsible for such activities, the Group's internal control systems; ■ reviewing, with the people responsible for such activities at Group level and with the assistance of Internal Audit: · internal control objectives and contingency and action plans, · the findings of audits and actions carried out by the relevant managers within the Group, and · the recommendations made and follow-up of such audits and actions, by the relevant managers; ■ reviewing Internal Audit methods and results; ■ checking that the procedures used by Internal Audit lead to the preparation of financial statements that: · present a fair view of the Company, and · comply with accounting rules; ■ reviewing the relevance of risk analysis and monitoring procedures, ensuring the implementation of a procedure for identifying, quantifying and preventing the main risks arising in the Group's businesses; and ■ reviewing and managing the rules and procedures applicable to conflicts of interest. Lastly, the Audit and Risk Committee is tasked with ensuring the effectiveness of Safran's external audits and monitoring the work of the Statutory Auditors. In this regard it is responsible for: ■ overseeing the Statutory Auditor selection procedure and issuing a recommendation on the Statutory Auditors to be put forward for appointment or re-appointment by shareholders at the Annual General Meeting; ■ ensuring that the independence criteria for the Statutory Auditors are respected, drawing on information exchanges and substantiations provided by the Auditors for this purpose; ■ reviewing the fees paid to the Statutory Auditors, which should not call into question their independence or objectivity; ■ regularly reviewing with the Statutory Auditors: · the audit plans and their findings, and · their recommendations and the follow-up thereof; ■ factoring in the observations and findings issued following any audits performed by the French Accounting Oversight Board (<i>Haut Conseil du Commissariat aux Comptes</i> – H3C); ■ without prejudice to the powers of the Board of Directors, approving the provision of non-audit services as authorized under the applicable regulations, including examining and validating the related methods and procedures and ensuring they are respected; ■ hearing the presentation of the Statutory Auditors on their audit engagement and reporting to the Board of Directors on (i) the findings of their audit of the financial statements, (ii) how their audit contributed to the integrity of the Company's financial information, and (iii) the role that the Committee played in overseeing this process, notably based on the additional report that is prepared by the Statutory Auditors on an annual basis. The Audit and Risk Committee reports to the Board of Directors on a regular basis on its work and immediately informs the Board of any difficulties that it may encounter. These reports are added to the minutes of the relevant Board of Directors' meetings or are included in an appendix to these minutes.

Operating procedures and work of the Board of Directors and the Board Committees

Main work carried out in 2019

The Audit and Risk Committee met five times in 2019 in order to address the above topics, with an average attendance rate of 82%.

The Statutory Auditors and the Government Commissioner attended all of these meetings.

During the meetings the Committee:

- reviewed the interim and annual parent company and consolidated financial statements, and was briefed by the Chief Financial Officer on the Group's off-balance sheet commitments, with the attendance of the Group Management and Accounts Director and the Group Chief Accounting Officer. The review enabled the Committee to have discussions with the Statutory Auditors without any members of Executive Management being present;
- carried out a preliminary review of the 2019 results;
- reviewed the draft 2020 budget;
- prepared for the Annual General Meeting of May 23, 2019 (reviewing the appropriation of profit, draft resolutions, the Board of Directors' report on the draft resolutions, related-party agreements which were signed or remained in force in 2019, the management report, the corporate governance report, and the draft Universal Registration Document including the Annual Financial Report);
- examined the Group's risks (with the attendance of the Risk Management and Insurance Director), changes in the risk map (with focus discussions on certain specific risks), and the Group's insurance coverage;
- was given a presentation on the Group's information systems security;
- was given an update on the Group's internal control and internal audit situation (with the attendance of the Head of Audit and Internal Control), monitored the compliance and anti-fraud system, examined the draft 2020 audit plan, and conducted a preliminary review of the findings of the 2019 internal control audit;
- monitored the Statutory Auditors' independence and reviewed their audit fees, audit methods and non-audit services;
- tracked and verified the EUR/USD exchange rate and the currency hedges in place (with the attendance of the Group Treasurer);
- analyzed the Group's liquidity and investment strategy (making adjustments to the related internal rules);
- reviewed the Group's financial communications, particularly related to the annual and interim financial statements;
- examined management forecasts;
- reviewed the ceiling applicable to guarantees, endorsements and sureties;
- checked, authorized and monitored non-audit services provided by the Statutory Auditors.

The Statutory Auditors (who attend all of the Committee's meetings) gave the Committee presentations on their work concerning the annual and interim financial statements and internal control. In addition, the Committee regularly meets with the Statutory Auditors without any members of Executive Management being present.

In principle, a period of 48 hours is provided for between the Committee's examination of the annual and interim financial statements and the Board of Directors' meetings at which they are approved.

Appointments and Compensation Committee

Indicators

	2018	2019
Number of meetings	4	9
Average attendance rate	96%	98%
Number of members	7	7
Percentage of independent members ⁽¹⁾	66.66% (4 out of 6)	66.66% (4 out of 6)

(1) Excluding Directors representing employee shareholders and Directors representing employees.

Operating procedures and work of the Board of Directors and the Board Committees

Membership structure	The Appointments and Compensation Committee has at least three members, including its Chair. The majority of the members must be independent Directors. On May 26, 2019, Hélène Dantoine replaced Vincent Imbert as a member of the Appointments and Compensation Committee. The Appointments and Compensation Committee has seven members, four of whom are independent, i.e., 66.66% of the Committee (excluding the Director representing employees). The Chairman of the Board of Directors is not a member of this Committee but is involved in the work it carries out in relation to nominating candidates and determining compensation. The Chief Executive Officer is also involved in the Committee's work in relation to nominating candidates.				
	At the filing date of this Universal Registration Document	Independent	Date of appointment	Expiration of term of office	Seniority as a Committee member
	Monique Cohen, Chair	X	June 15, 2017	2022	3 years
	Hélène Auriol Potier	X	June 15, 2017	2021	3 years
	Jean-Lou Chameau	X	May 26, 2015	2023	4 years
	Hélène Dantoine		May 23, 2019	2023	<1 year
	Didier Domange		May 25, 2018	2022	2 years
	Daniel Mazaltarim (Director representing employees) ⁽¹⁾		Feb. 26, 2018	2023	2 years
	Patrick Pélatà	X	June 15, 2017	2021	3 years
	(1) Daniel Mazaltarim only attends the "compensation" part of Appointments and Compensation Committee meetings.				
Roles and responsibilities	Appointments The Appointments and Compensation Committee has the following roles and responsibilities with respect to appointments: ■ assisting the Board of Directors in its choice of: · members of the Board of Directors, · members of the Committees of the Board of Directors, and · the Chief Executive Officer and, where applicable, the Deputy Chief Executive Officer(s); ■ selecting potential members of the Board of Directors who meet the applicable independence criteria and submitting the list of nominees to the Board of Directors; ■ preparing succession plans for the positions of Chairman, Chief Executive Officer, and, where applicable, any Deputy Chief Executive Officer(s); ■ helping the Board prepare succession plans for the Group's key operations managers and support function managers.				
	Compensation The Appointments and Compensation Committee is also responsible for making recommendations and proposals to the Board of Directors about compensation for which Directors may be eligible, such as: ■ the allocation of the Directors' compensation; ■ any other components of compensation, including the terms and conditions of any benefits payable at the end of their term of office, particularly conditions based on appropriate benchmarks; ■ any compensation payable to any Board Advisors (<i>censeurs</i>); ■ any amendments to pension and personal risk insurance plans; ■ benefits-in-kind and various financial benefits; and ■ where appropriate: · stock option grants, and · free share grants. More generally, the Appointments and Compensation Committee is also responsible for making recommendations to the Board of Directors relating to: ■ the compensation policies for the Chairman and the Chief Executive Officer; ■ the compensation policy for senior managers; and ■ profit-sharing systems set up for the employees of Safran and other Group entities, including: · employee savings plans, · supplementary pension plans, · employee rights issues, and · stock option and/or free share grants and any other employee share ownership arrangements. The Appointments and Compensation Committee also makes recommendations to the Board of Directors on any performance criteria to be applied for stock option and/or free share plans, particularly based on appropriate benchmarks. In general, the Appointments and Compensation Committee is involved in preparing any resolutions submitted for shareholder approval at the Annual General Meeting that relate to the above topics.				

Operating procedures and work of the Board of Directors and the Board Committees

Main work carried out in 2019	In 2019, the Appointments and Compensation Committee met nine times, with an average attendance rate of 98%. Its main work carried out in 2019 concerned the following: ■ the membership structure of the Board of Directors and the Board Committees, and the process for identifying and selecting Director candidates; ■ the appointment of a new independent Director; ■ the succession plans for the Chairman and the Chief Executive Officer (see section 6.3.3) and, more particularly, the process for appointing the future Chief Executive Officer (see section 6.1.1); ■ re-appointment of the Chairman and the Chief Executive Officer; ■ the renewal of the Chairman's term of office; ■ the extension of the Chief Executive Officer's term of office; ■ reviewing the Directors' independence status; ■ the Board of Directors' operating procedures; ■ the compensation policies and the compensation packages of the Chairman and the Chief Executive Officer (including for the future Chief Executive Officer); ■ the Group's policy related to long-term incentive plans; ■ the launch of a performance share plan for certain Group managers and senior executives, and the Chief Executive Officer (2019 LTI Plan); ■ setting the amount of Directors' compensation for 2019; ■ preparing the Annual General Meeting and the annual Universal Registration Document (including the corporate governance report); ■ preparing an employee share issue to be carried out in 2020; ■ amendments to be made to the Board of Directors' Internal Rules.

Innovation and Technology Committee

Indicators

	2018	2019
Number of meetings	2	2
Average attendance rate	91%	90%
Number of members	5	5
Percentage of independent members ⁽¹⁾	60%	75%

(1) Excluding Directors representing employee shareholders and Directors representing employees.

Membership structure	The Innovation and Technology Committee has at least three members, including its Chairman. Brigitte Lesschaeve's term of office as a Director representing employees ended on November 19, 2019, and Hervé Chaillou joined the Committee on February 14, 2020. The Committee therefore still has five members, three of whom are independent, i.e., 75% (not including the Director representing employees).				
	At the filing date of this Universal Registration Document	Independent	Date of appointment	Expiration of term of office	Seniority as a Committee member
	Patrick Péлата, Chairman	X	Oct. 26, 2017	2021	<3 years
	Hélène Auriol Potier	X	Oct. 26, 2017	2021	<3 years
	Jean-Lou Chameau	X	Oct. 26, 2017	2023	3 years
	Vincent Imbert		May 25, 2018	2023	2 years
	Hervé Chaillou		Feb. 14, 2020	2023	<1 year
Roles and responsibilities	The Innovation and Technology Committee is responsible for analyzing, examining and giving its opinion on the following matters: ■ the Group's medium- and long-term strategic goals and choices concerning: · innovation, research and technology, and · developments of new products and services; ■ technological trends and developments that could affect the Group's strategic and industrial goals and choices, as well as other players' technological positioning and the associated risks and opportunities; ■ progress made by the Group in its main innovation and technology roadmaps; ■ ensuring that the Group has suitable organization structures and resources in place to meet the roadmaps' objectives over time.				
Main work carried out in 2019	In 2019, the Innovation and Technology Committee met twice, with an average attendance rate of 90%. Its main work carried out in 2019 concerned the following: ■ monitoring the action plans put in place in line with the strategic goals defined by the Board, notably relating to additive manufacturing, electric hybridization, digital technologies and data management; ■ the Group's R&T plan; ■ competitor analysis; ■ presentations on the development of Safran's innovation ecosystem; ■ the connected aircraft.				

6.3.5 Assessment by the Board of Directors of its operating procedures

As recommended in the AFEP-MEDEF Code of Corporate Governance for Listed Corporations in France, which Safran uses as its framework Corporate Governance Code, the Board of Directors must carry out a formal assessment at least every three years in order to review its operating procedures, verify that key issues are properly prepared and discussed and measure the actual contribution of each Director to the Board's work. The assessment can be carried out with the help of an external consultant, overseen by the Appointments and Compensation Committee or an independent Director.

In 2018, the Board of Directors used the services of an external consultancy firm to help it perform this assessment and give it an outside view of the practices and operating procedures of other boards.

As well as covering the operating procedures of the Board and its Committees, the 2018 assessment included an appraisal, carried out by the selected consultancy firm, of each Director's actual contribution to the Board's work. The Chairman and Lead Independent Director gave the individual feedback on this appraisal to each Director.

The main observations made in the 2018 assessment, both by the Company's institutional shareholders and its Directors, were as follows:

- the separation of the roles of Chairman of the Board of Directors and Chief Executive Officer has proved very satisfactory and efficient;
- the Directors consider that the Board is of a high standard and that its operating procedures work well (in terms of professionalism, a good balance between operations and strategy, and high-quality documents);
- the Chairman was praised for his ability to lead and co-ordinate the Board's work and share information (governance culture, acting in the best interests of the Company and its stakeholders);
- the Chief Executive Officer is unanimously respected for his leadership skills and best governance practices;
- there is particular satisfaction with the way strategic issues are addressed, and with the quality of the annual strategy seminar (which is considered to be one of the Board's strongest points);
- the Directors are satisfied with the Board's membership structure, despite its significant size (although the Board is larger than many other company boards, this does not pose a problem for anyone);
- the structure and operating procedures of the Board Committees are satisfactory.

The main identified areas for improvement were as follows:

- continue to hone the process for re-appointing and selecting Directors (defining candidate profiles further in advance of the Appointments and Compensation Committee launching the recruitment process);
- schedule the succession planning process for the Chief Executive Officer, to be launched and overseen by the Chairman and the Lead Independent Director;
- give the Board additional information about the Group's digital/IT issues and its related action plan, as well as about its HR strategy;

- draw up a forward-looking plan for the Innovation and Technology Committee and systematically follow up on the conclusions of the strategy seminar.

The main areas for improvement suggested by the institutional shareholders were as follows:

- increasing the number of independent Directors on the Board to provide greater assurance of a challenge to Executive Management;
- reducing the representation of the French State on the Board;
- further strengthening the Board's membership structure by having more Directors with executive management experience in major corporations and in-depth knowledge of international markets;
- deepening discussions with shareholders about governance matters.

Specific measures and action plans relating to these areas for improvement have been launched,

At its meeting on December 19, 2019, the Board devoted an agenda item to discussing and reviewing the observations and areas for improvement raised in the assessment and set out above.

The Board confirmed that it still agrees with the general observations about the Board and the Company's governance system and that the measures taken (or in progress) met the requirements that had been expressed.

These measures and action plans notably entailed:

- the launch by the Appointments and Compensation Committee of the process for re-appointing and selecting Directors. Under this process, the Committee identifies the Board's needs, defines and validates the target profiles and specifications, and entrusts the candidate selection procedure to an external consultant, with a focus on increasing the number of independent Directors;
- putting in place and successfully carrying out the process for selecting the future Chief Executive Officer;
- increasing the number of independent Directors, following the nomination at the 2019 Annual General Meeting of Laurent Guillot, and the proposal that will be put forward at the 2020 Annual General Meeting to appoint a new woman independent Director (which will increase the size of the Board), following a stricter selection process initiated by the Chairman and the Lead Independent Director (see sections 6.2.6.2 and 8.2.1.3);
- HR/CSR presentations given to the Board of Directors on the Group's HR strategy and policy, notably regarding the skills plan and equal opportunities;
- drawing up a two-year road map for the work of the Innovation and Technology Committee;
- putting in place new and more comprehensive roadshows led by the Chairman of the Board for the Group's main investors and shareholders, covering a wide presentation of governance practices (the Board's roles and involvement, notably in setting strategic goals) as well as expected developments and issues related to the preparation of the Annual General Meeting.

6.4 APPLICATION OF THE AFEP-MEDEF CORPORATE GOVERNANCE CODE

Safran uses the AFEP-MEDEF Corporate Governance Code as its corporate governance framework (see section 6.1 of this Universal Registration Document).

Certain recommendations of the Code, or guidelines adopted subsequently for its application, have not been implemented, the reasons for which are given in the following table.

AFEP-MEDEF Code recommendations	Safran practices – Reasons
Article 21. Termination of employment contract in the event of appointment as a corporate officer When an employee is appointed as Chairman and/or Chief Executive Officer, it is recommended that his or her employment contract with the Company or any other Group company should be terminated. This recommendation applies to the Chairman of the Board of Directors and the Chief Executive Officer of companies that have a Board of Directors.	Philippe Petitcolin's employment contract was suspended on April 23, 2015, when he was appointed Chief Executive Officer. The Group has chosen to suspend, rather than terminate, employment contracts due to the fact that terminating an employment contract could deter Group employees from moving into top executive positions on account of the rights they could lose upon such termination (depending on their age and length of service with the Group). This is in line with the Group's policy of favoring internal promotion of talent wherever possible, which enables it to propose corporate officers' positions to its senior managers who have the highest level of savoir-faire, share and relay the Group's culture and values, and have an in-depth knowledge of its markets. Ross McInnes' employment contract with Safran (which had been suspended since April 21, 2011) was terminated on May 23, 2019 as requested by the Chairman himself when his term of office was renewed (see sections 6.6.2.1 and 6.6.2.3).
Article 22. Requirement to hold shares The Board of Directors should set a minimum number of shares that the Chairman and/or the Chief Executive Officer are required to hold as registered shares until the end of their term of office.	In accordance with Article 11.1 of the Board's Internal Rules, this minimum shareholding requirement is considered satisfied when the corporate officer concerned holds units in corporate mutual funds that are invested in Safran shares, provided the number of units held in such funds represents at least 500 shares. Article 11.2 of the Internal Rules states that if stock options or performance shares are granted to the Chairman and/or the Chief Executive Officer, they must keep a significant proportion of the vested shares in registered form until their duties as a corporate officer cease. The applicable proportion is set by the Board of Directors. The Chairman of the Board of Directors was previously a Group employee. Consequently, in his capacity as an employee he acquired units – and/or invested his profit-sharing bonuses – in corporate mutual funds invested in Safran shares. He supplemented these investments by participating in the Safran Sharing 2014 offer (see sections 5.3.4, 6.3 and 7.3.7.2 of the 2014 Registration Document).

6.5 DIRECTORS' INTERESTS IN THE COMPANY'S SHARE CAPITAL

6.5.1 Compulsory shareholdings

In accordance with Article 14.5 of the Company's bylaws, each Director – other than the representative of the French State and the Directors put forward by the French State in accordance with Articles 4 and 6 of the *ordonnance* dated August 20, 2014, Directors representing employee shareholders and Directors representing employees – is required to own a certain number of Safran shares, in accordance with the terms and conditions set down in the Board of Directors' Internal Rules. Article 11.1 of the Board's Internal Rules states that this minimum number of shares corresponds to 500 and that the minimum shareholding

obligation can be met through units held in Group corporate mutual funds (FCPE) invested in Safran shares, provided that the number of units held is equivalent to at least 500 shares.

Article 14.8 of the bylaws and Article 11.1 of the Board's Internal Rules specify that each Director representing employee shareholders is required to hold – either individually or through a corporate mutual fund set up as part of the Group's employee share ownership plan – at least one share or a number of units in the fund equivalent to at least one share.

6.5.2 Code of Ethics

Safran has a Code of Ethics relating to share transactions and the prevention of insider trading, which was drawn up in compliance with the recommendations published by the French financial markets authority (*Autorité des marchés financiers* – AMF) and was initially adopted by the Board of Directors on July 27, 2011. The Code – which is in question-and-answer form – sets out the obligations of Group employees and corporate officers and Directors, the specific measures taken by Safran to prevent

insider trading, and the penalties for any failure to fulfill the stated obligations.

The Code also specifies the “closed period” (preceding the publication of annual and interim results and quarterly revenue figures) during which corporate officers and other insiders must refrain from carrying out transactions in Safran shares.

As well as respecting the obligations in the Code of Ethics, corporate officers and other senior managers are also required to comply with the additional rules set out in an addendum to the Code, which among other things prohibit speculative trading in Safran shares and state the applicable disclosure requirements in the event that such officers or managers carry out any transactions in Safran shares.

Both the Code and its addendum are regularly updated in line with legislative and regulatory changes and the AMF's guidelines. They were last updated in July 2019, in order to take into account new legislation⁽¹⁾ that amends the restrictions on sales of free shares.

All of Safran's corporate officers and other Group insiders individually receive a copy of the Code of Ethics and its addendum and are informed of the closed periods that are determined in line with the annual financial calendar.

In order to provide information on the Code of Ethics and its addendum to all employees, an internal procedure based on these documents has been drawn up and posted on the Group's intranet, which is accessible to all employees in France and in most of the other countries where Safran operates. The closed periods are appended to this procedure as they are set.

6.5.3 Transactions in the Company's shares carried out by corporate officers and senior managers

In accordance with the applicable regulations, when the aggregate amount of transactions carried out by any corporate officer or senior manager exceeded €20,000 in 2019, the person concerned disclosed the corresponding transaction(s).

The transactions carried out in 2019 in Safran shares and related financial instruments by the Company's corporate officers and senior managers and persons having close personal links with them, as defined in paragraphs a) to c) of Article L.621-18-2 of the French Monetary and Financial Code (*Code monétaire et financier*), and of which the Company is aware, are as follows:

Name	Purchase of shares ⁽¹⁾ (number of shares)	Sale of shares (number of shares)	Purchase of units in Group corporate mutual funds invested in Safran shares ⁽²⁾ (number of shares corresponding to mutual fund units purchased)	Buybacks of units in Group corporate mutual funds invested in Safran shares (number of shares corresponding to mutual fund units sold)
Philippe Petitcolin	1,446	-	243	-
Stéphane Abrial ⁽³⁾	-	-	97	-
Olivier Andriès	452	-	199	-
Bernard Delpit	503	-	92	-
Alex Fain	352	-	33	-
Brigitte Lesschaeve ⁽⁴⁾	-	-	88	-
Gérard Mardiné	-	-	14	205

(1) In respect of performance units (PUs) granted under the multi-year variable compensation plan set up in 2015 (see section 6.6.2.2) and performance share rights granted under the 2017 Long-Term Incentive Plan (see section 6.6.3.2).

(2) Investment of discretionary and statutory profit-share in the Group employee savings plan - Company top-up contributions - Automatic reinvestment in the plan of dividends attached to shares invested in the plan.

(3) Stéphane Abrial retired on September 1, 2019.

(4) Brigitte Lesschaeve's term of office as a Director representing employees ended on November 19, 2019.

6.6 COMPENSATION POLICY AND COMPENSATION PACKAGES FOR CORPORATE OFFICERS

6.6.1 Compensation policy for corporate officers

This section constitutes the report on the compensation policy for corporate officers required under Article L.225-37-2 of the French Commercial Code. It was prepared by the Board of Directors with the assistance of the Appointments and Compensation Committee.

In compliance with the new Article L.225-37-2 of the French Commercial Code, the Board of Directors determines a compensation policy for the corporate officers, which sets out

the principles and criteria used to determine, allocate and award the fixed, variable and exceptional components of their total compensation and benefits. By nature and by construction, the components of the policies are specific and different, depending on whether they concern the Chairman, the Chief Executive Officer or the Directors, all of whom are corporate officers. These policies are submitted for shareholders' approval each year at the Annual General Meeting.

(1) French Act no. 2019-744 of July 19, 2019 on simplifying, clarifying and updating corporate law.

Compensation policy and compensation packages for corporate officers

Taking into account the regulatory changes introduced in 2019 concerning the compensation of corporate officers of listed companies⁽¹⁾, these policies describe:

- the principles and rules for determining the compensation and benefits for all corporate officers;
- the main differences compared with the compensation policies approved at the May 23, 2019 Annual General Meeting;
- the specific compensation policy for the Chairman of the Board of Directors;
- the specific compensation policy for the Chief Executive Officer, which may be adapted and applied to any Deputy Chief Executive Officer(s) when appropriate;
- the specific compensation policy for Directors.

The 2020 policies have been approved by the Board of Directors and will be submitted to a shareholder vote at the Annual General Meeting on May 28, 2020.

6.6.1.1 Principles and rules for defining the compensation policies

In the best interests of the Company as well as its shareholders, employees and other stakeholders, the compensation policies for corporate officers must be competitive in order to attract, motivate and retain the best profiles and talent (which may come from within or outside the Group) for key positions.

These policies are defined by the Board of Directors and are reviewed annually based on recommendations issued by the Appointments and Compensation Committee.

The main principles applied are detailed below.

Compliance

The policies are defined based on the guidelines in the AFEP-MEDEF Code, which recommends applying the principles of comprehensiveness, balance, comparability, consistency, transparency and proportionality.

Comprehensiveness – Balance

All components of compensation and benefits should be exhaustively analyzed on a component-by-component basis and an overall consistency analysis should then be performed to achieve the best balance between these components.

Alignment of interests – Transparency

Compensation and benefits packages need to take into account the necessity for companies to attract, motivate and retain talent but also the interests of shareholders and other stakeholders, particularly in relation to transparency and performance criteria.

Proportionality, comparability and competitiveness

Compensation levels should be set in line with the duties and responsibilities assigned to the officer concerned as well as the work performed and the results achieved.

Market practices should also be taken into account.

Safran regularly carries out benchmark surveys, assisted by consulting firms, in order to measure the levels and structures of its compensation packages compared with panels of peer companies selected for their size and international scope. The surveys are performed both for the French market, in which case the peer companies comprise large industrial groups, and

for the international market (the Aerospace, Technology and Defense sectors). The composition of these panels is regularly reviewed by the Committee responsible for compensation and may change to factor in changes in the structure or operations of the Group or of the peer companies concerned.

Where relevant, depending on the corporate officer concerned (Chairman or Chief Executive Officer), the Committee may also examine or take into consideration the application – after appropriate adjustments – of the compensation policy's structure and components to certain Company employees or employee categories, the existence of specific systems in favor of certain employee categories (such as discretionary or statutory profit-sharing, or pension arrangements), and information about compensation multiples (ratio between the compensation of the Chairman and the Chief Executive Officer and that of employees).

The above-mentioned benchmark surveys are used as the basis for analyzing, and making any changes to, the components of the compensation and benefits of the Chairman and the Chief Executive Officer.

Governance

The compensation policies for corporate officers are defined by the Board of Directors, based on recommendations issued by the Appointments and Compensation Committee, and are then put to the shareholders' vote at the Annual General Meeting.

The Appointments and Compensation Committee verifies that all of the principles described above are properly applied, both for the purpose of the Committee's work in general and for the recommendations it makes to the Board in relation to defining the policies and implementing them for setting the amounts or values of compensation and benefits packages.

Implementing the principles and rules above when defining the compensation policies for corporate officers helps to provide assurance that the policies (i) are aligned with the Company's best interests, (ii) are consistent with its strategy (notably its business strategy by applying exacting performance criteria to corporate officers that are closely linked to the Group's performance and objectives), and (iii) contribute to supporting the Company's long-term development.

The Chairman and the Chief Executive Officer do not take part in any discussions or votes on the policies concerning themselves, which therefore avoids any conflicts of interest.

6.6.1.2 Main differences between the 2020 compensation policies and those approved at the May 23, 2019 Annual General Meeting

The changes made by the Board of Directors, which will apply as from 2020, to the policies approved at the May 23, 2019 Annual General Meeting are as follows:

- in accordance with the new regulations⁽¹⁾ reforming say-on-pay votes relating to corporate officers in France (*ex ante* and *ex post* votes):
 - since the regulations now cover all corporate officers, including the Directors, a specific compensation policy for Directors has been added. This policy describes the allocation principles, rules and criteria applicable to the annual fixed amount allocated by the Annual General Meeting for the Directors' compensation (formerly "attendance fees"),

(1) Ordonnance 2019-1234 dated November 27, 2019 and Decree no. 2019-1235 dated November 27, 2019.

- the commitments previously governed by the related-party commitments procedure (pension and personal risk insurance benefits, indemnities or benefits payable for the termination of office or a change in duties) are no longer subject to this procedure (repeal of Article L.225-42-1 of the French Commercial Code),
 - a description of these commitments' main terms and conditions is now provided in the compensation policies applicable to the Chairman and the Chief Executive Officer that are put to the vote at the Annual General Meeting,
 - the conditions for applying the compensation policy to newly appointed corporate officers and corporate officers whose term has expired have been clarified and grouped together, along with details of the way in which significant exceptional circumstances or events would be dealt with;
- the specific compensation policies for the Chairman and the Chief Executive Officer are unchanged in substance.

6.6.1.3 Compensation policy for the Chairman of the Board of Directors

At the date of this Universal Registration Document, this policy solely concerns Ross McInnes in his role as Chairman of the Board of Directors.

Compensation package structure

The structure of the compensation package of the Chairman of the Board of Directors (who is a non-executive Director) comprises, on a recurring basis, annual fixed compensation which is paid in cash. He is not allocated any compensation in his capacity as a Director.

The Chairman of the Board of Directors does not receive any annual or multi-annual variable compensation and he is not a beneficiary of any long-term compensation plans (performance share plans). The Chairman is covered by the supplementary pension schemes and personal risk insurance plan implemented by the Group.

The compensation and benefits awarded, or awardable, to the Chairman of the Board of Directors are described below.

Annual fixed compensation

The Chairman of the Board's annual fixed compensation takes into account the responsibilities required for this type of corporate office as well as the individual qualities of the holder of the position and the benchmark surveys carried out by the Company.

Consequently, it is set based on the following:

- the Chairman of the Board's roles and responsibilities, which are provided for by law, Safran's bylaws and the Board of Directors' Internal Rules, and are aimed at ensuring that the Company is governed effectively and that its various governing bodies (Board of Directors and the Board Committees and Shareholders' Meetings) operate properly;
- any specific assignments allocated by the Board of Directors and which the Chairman of the Board carries out in cooperation with Executive Management;
- the Chairman's individual skills, experience, expertise and background;
- benchmark surveys related to compensation payable for comparable duties and companies.

The Board of Directors has decided that, as a general rule, the Chairman of the Board's annual fixed compensation may only be revised on the expiration of his term of office.

However, as an exception to this rule, his compensation may be revised during his term and before his re-appointment if the scope of his duties as Chairman of the Board changes significantly – which could be related to changes within the Company itself – or if a major difference is identified compared with market practices. Any adjustments made to his annual fixed compensation as a result of any specific circumstances would be publicly disclosed.

Information on the current Chairman of the Board of Directors' fixed compensation for 2019 is set out in section 6.6.2.1 of this Universal Registration Document.

Directors' compensation (formerly "attendance fees")

Irrespective of whether or not the role of Chairman is separate from that of Chief Executive Officer, the Chairman is not entitled to receive any compensation in his capacity as a Director (formerly "attendance fees"). He is therefore not included in the allocation of Directors' compensation carried out in accordance with the rules provided for in the compensation policy for Directors (see section 6.6.1.5) and described in the Board of Directors' Internal Rules (see section 6.3.2).

No annual variable compensation, multi-year variable compensation or long-term incentive plan

In line with his position as a non-executive Director, the Chairman of the Board of Directors does not receive any annual short-term variable compensation (cash-settled) or any multi-year variable compensation, and neither is he a beneficiary of any long-term compensation plans (performance share plans).

Exceptional compensation

The Board of Directors has decided against including an exceptional component in the compensation policy for the Chairman.

Benefits-in-kind

The Chairman of the Board of Directors has the use of a company car.

He is also entitled to be reimbursed for expenses incurred in connection with his role as Chairman and he is provided with the material resources required for performing his duties.

Supplementary pension system

Safran's policy is to align the post-employment benefits of the Chairman and the Chief Executive Officer with those of the Group's managerial-grade staff. This is in line with Safran's internal promotion policy built on helping in-house executives with considerable experience and expertise, often acquired during their many years' service with the Group, to move seamlessly into corporate officer positions and to grant corporate officers similar entitlements to those of the plan's other beneficiaries.

For information purposes, it is hereby disclosed that:

- the Chairman's employment contract with Safran was initially suspended on April 21, 2011, when he became a corporate officer (see section 6.4).

In line with the internal promotion policy referred to above, the Board opted to enable the Chairman to move into a corporate officer position without losing the existing benefit entitlements that he had accrued over time. The Chairman's employment contract was subsequently terminated on May 23, 2019, as decided by the Chairman himself when his term of office was renewed (see section 6.4);

Compensation policy and compensation packages for corporate officers

in accordance with the applicable law, some of the benefits described below for which the Chairman of the Board of Directors is currently eligible have already been submitted for shareholder approval by way of the special vote required for related-party commitments, in accordance with the procedure that was in force at the date on which the Board decided to extend these benefits to the Chairman. He was already eligible for some of these benefits prior to his appointment as Chairman.

No specific supplementary pension system has been put in place for the Chairman of the Board of Directors.

However, the Chairman may be a beneficiary of the supplementary pension plans set up in France for all Group managerial-grade staff, subject to the same terms and conditions as the other plan members, if the Board of Directors:

- authorizes the Chairman to join the plans; or
- authorizes him to continue to be a beneficiary if he was already a beneficiary prior to his appointment as Chairman.

The supplementary pension plans applicable in France to the Group's managerial-grade staff, including the Chairman, are as follows:

"Article 83" defined contribution plans

Two defined contribution supplementary pension plans in force at January 1, 2018 are applicable in France for all Group managerial-grade staff:

- the "Article 83 Core Plan", which is financed through employer contributions equal to 1.5% of salary Tranche⁽¹⁾ A, 4% of Tranches B and C and no contributions on Tranche D;
- the "Article 83 Additional Plan", which provides for contribution rates of 6.5% on Tranche A and 4% on Tranches B and C.

The Chairman is eligible for these plans under the same terms and conditions as the other plan members.

The "Article 83 Core Plan" contributions are based on the compensation subject to social security contributions that the Chairman receives for his role as Chairman of the Board of Directors.

The "Article 83 Additional Plan" contributions are based on the compensation subject to social security contributions that the Chairman receives for his role as Chairman of the Board of Directors, capped at eight times the annual social security ceiling (PASS).

Information on the expenses recognized by the Company in relation to the Article 83 plans of which the current Chairman is a member, as well as the theoretical estimated amount⁽²⁾ at December 31, 2019 of the annuity that could be paid to him under those plans are disclosed in section 6.6.2.1 of this Universal Registration Document.

"Article 82" defined contribution plan

The Chairman is a beneficiary of Safran's defined contribution supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 82 of the French Tax Code (the "Article 82 Plan"), subject to the same terms and conditions as the other plan members.

The contributions to the plan are based on the fixed compensation that Ross McInnes receives for his role as Chairman of the Board of Directors.

The Article 82 Plan was put in place to compensate for the closure of Safran's Article 39 defined benefit plan as from January 1, 2017 (see below).

Unlike the Article 39 defined benefit plan, the Article 82 Plan does not provide a guaranteed level of retirement benefits. It is a voluntary plan which eligible beneficiaries can decide whether or not to sign up to.

Eligible beneficiaries correspond to top executives (*hors statut*) whose reference compensation (fixed compensation and annual bonus) for the calendar year preceding the assessment date (Y-1) is equal to or higher than seven times the social security ceiling (PASS) for Y-1. The reference compensation for Y-1 is used to calculate the contributions to the plan. This reference compensation corresponds to the beneficiary's full-time basic fixed compensation plus the short-term bonus for the year concerned and excludes any other components of compensation.

In order for entitlements to accrue under the plan, the Company is required to:

- pay monthly contributions to an insurer, the rate of which is set based on the beneficiary's reference compensation for year Y-1 (Insurer Contribution) and which may represent up to 12.735% of that reference compensation; and
- pay a cash amount to the beneficiary corresponding to the Insurer Contribution (Additional Payment) so that the beneficiary can pay the applicable tax (the plan provides for up-front taxation so that the capital accrued and received on the beneficiaries' retirement is net of tax and social security contributions).

The above payments are borne in full by the Company and are subject to social security contributions in the same way as salaries.

Information on the expenses recognized by the Company in relation to the Article 82 Plan of which the current Chairman is a member, as well as the theoretical estimated amount⁽²⁾ at December 31, 2019 of the annuity that could be paid to him under that plan are disclosed in section 6.6.2.1 of this Universal Registration Document.

"Article 39" defined benefit plan (closed to new entrants and entitlements frozen)

The Chairman was previously a beneficiary of Safran's defined benefit supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 39⁽³⁾ of the French Tax Code (the "Article 39 Plan"), subject to the same terms and conditions as the other plan members. Mr. McInnes was originally a beneficiary of this plan in his former capacity as Deputy Chief Executive Officer. The commitment given by the Company to enable Mr. McInnes to continue to be a beneficiary of this plan was approved at the Annual General Meeting of May 19, 2016.

This plan was closed to new entrants and existing entitlements frozen as from December 31, 2016. The Article 82 defined contribution plan described above was set up to compensate for this closure.

(1) To calculate the amount of pension contributions, the pension funds divide gross annual salary into three tranches, A, B and C. The portion of salary attributed to each tranche determines the amount of the contributions. Tranche A corresponds to the portion of salary below the social security ceiling. Tranche B corresponds to the portion of salary between one and four times the social security ceiling. Tranche C corresponds to the portion of salary between four and eight times the social security ceiling.

(2) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions.

(3) Defined benefit plan meeting the conditions set out in Article L.137-11 of the French Social Security Code (Code de la sécurité sociale).

Compensation policy and compensation packages for corporate officers

However, further to a decision taken by the Board on March 23, 2017, the Chairman could still be eligible for any pension entitlement he had accrued under the plan at December 31, 2016 provided the applicable terms and conditions are met, it being specified that:

- the reference compensation used to calculate the conditional entitlements will be calculated based on the average of beneficiaries' gross fixed and variable compensation for the years 2014 to 2016 (revalued annually using the actuarial assumptions applied to calculate retirement benefit provisions);
- the seniority taken into account for the plan – which represents an additional 1.8% of the reference compensation per year of service, capped at 18% – will have a cut-off date of December 31, 2016 and no additional conditional entitlements will be accrued under the plan for any service after that date. Consequently, the seniority taken into account for the Chairman will correspond to 14%;
- the overall replacement rate may not exceed 35% of the reference compensation;
- the supplementary pension annuity is capped at three times the annual social security ceiling (PASS) in force at the date that the general social security retirement pension is paid (the value of the PASS in 2020 is €41,136);
- the payment of the supplementary pension annuity is subject to beneficiaries completing their careers with the Group and being entitled to retire under French social security rules having completed the required number of working years.

Information on the expenses recognized by the Company for the Chairman in relation to this frozen Article 39 Plan, as well as the theoretical estimated amount⁽¹⁾ at December 31, 2019 of the annuity that could be paid to him under that plan are disclosed in section 6.6.2.1 of this Universal Registration Document.

Personal risk insurance plan

The Chairman of the Board of Directors is a beneficiary of the personal risk insurance plan set up in France for all Group managerial-grade staff, subject to the same terms and conditions as the other plan members.

The contributions to this plan are based on the compensation subject to social security contributions that Ross McInnes receives for his role as Chairman of the Board of Directors.

Information on the expenses recognized by the Company in relation to the personal risk insurance plan of which the current Chairman is a member is disclosed in section 6.6.2.1 of this Universal Registration Document.

Indemnities or benefits payable for termination of office, change in duties or non-compete agreements

The Chairman of the Board of Directors is not eligible for any indemnities or benefits if his office is terminated or if there is a change in his duties. Similarly, he is not entitled to any non-compete indemnity.

6.6.1.4 Compensation policy for the Chief Executive Officer

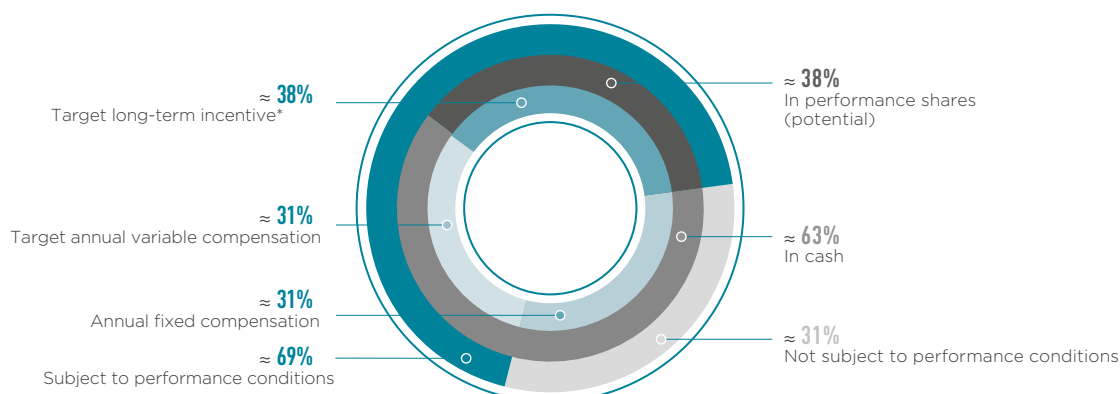
At the date of this Universal Registration Document, this policy solely concerns Philippe Petitcolin in his role as Chief Executive Officer.

Compensation package structure

The structure of the Chief Executive Officer's compensation package comprises, on a recurring basis, annual fixed compensation (cash-settled), as well as annual variable compensation and performance shares awarded under a long-term incentive plan. This structure is applied to all of the Company's senior managers as adapted to each individual.

The underlying aim is to closely align the Company's interests with those of its shareholders by achieving a balance between short-term and long-term performance, as assessed by the Board of Directors. Compensation subject to performance conditions accounts for the largest proportion of the Chief Executive Officer's overall compensation package.

Presentation of the Chief Executive Officer's recurring compensation structure



* Value at grant date in accordance with IFRS

The Chairman is covered by the supplementary pension schemes and personal risk insurance plan implemented by the Group. The compensation and benefits awarded to the Chief Executive Officer or for which he is eligible are detailed below.

(1) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions.

Compensation policy and compensation packages for corporate officers

Annual fixed compensation

The Chief Executive Officer's annual fixed compensation takes into account the responsibilities required for this type of corporate office as well as the individual qualities of the holder of the position and the benchmark surveys carried out by the Company.

Consequently, it is set based on the following:

- the level and complexity of the assignments and responsibilities related to the position, in view of the fact that the Chief Executive Officer has the broadest powers to act in all circumstances in the Company's name and to represent the Company in its dealings with third parties;
- the Chief Executive Officer's individual skills, experience, expertise and background;
- benchmark surveys related to compensation payable for comparable duties and companies.

The Board of Directors has decided that, as a general rule, the Chief Executive Officer's annual fixed compensation may only be revised on the expiration of his term of office.

However, as an exception to this rule, his compensation may be revised during his term and before his re-appointment if the scope of his duties as Chief Executive Officer changes significantly – which could be related to changes within the Company itself – or if a major difference is identified compared with market practices. Any adjustments made to his annual fixed compensation as a result of any specific circumstances would be publicly disclosed.

The Chief Executive Officer's annual fixed compensation is used as a reference for determining the target and maximum percentages of his annual variable compensation and the valuation of his compensation under the long-term incentive plan.

Information on the current Chief Executive Officer's fixed compensation for 2019 is provided in section 6.6.2.2 of this Universal Registration Document.

Annual variable compensation

Objectives of and principles used to determine the Chief Executive Officer's annual variable compensation

The principle of annual variable compensation is used to incentivize the Chief Executive Officer to achieve the annual performance targets that are set for him by the Board of Directors in line with Safran's overall business strategy.

The potential amount of this variable compensation is determined taking into account market practices and corresponds to a percentage of his fixed compensation, as recommended in the AFEP-MEDEF Code.

It is contingent on achieving pre-defined performance levels based on a number of objectives which are collective and individual, financial and non-financial and quantitative and qualitative. The objectives relate to key indicators that reflect the Group's overall performance as well as the contribution expected from the Chief Executive Officer, in line with Safran's overall business strategy.

During the first quarter of each year, acting on the recommendations of the Committee responsible for compensation, the Board of Directors either confirms or sets these objectives as well as their weighting and the applicable performance levels, i.e.:

- the lowest performance level, under which no variable compensation is paid;

- the target level, corresponding to when an objective is reached; and
- the maximum level applicable if an objective is exceeded.

The quantitative financial performance objectives – which are based on financial indicators – are set precisely, by reference to the budget approved in advance by the Board of Directors (as adjusted, if necessary, to take into account exceptional circumstances or events), and are subject to the performance thresholds set out below.

The achievement rates of the performance objectives are assessed by the Board of Directors, based on the review and recommendations of the Appointments and Compensation Committee. The review is carried out on an objective by objective basis, for all of the financial and individual and qualitative and quantitative objectives, as well as on an aggregate basis. The results of this assessment are published in a press release.

Detailed description of the Chief Executive Officer's annual variable compensation

The Board of Directors has decided that the Chief Executive Officer's variable compensation will be based on the following:

Target annual variable compensation and maximum amount ("Cap")

The Chief Executive Officer's "target" variable compensation – i.e., the amount payable if the achievement rate is 100% for all of the financial and individual performance objectives set out below – corresponds to 100% of his annual fixed compensation (the "Target").

If the Chief Executive Officer outperforms his objectives, his "maximum" variable compensation (the "Cap") – i.e., the amount payable if the achievement rate is 130% for all of the financial and individual performance objectives set out below – will represent a maximum of 150% of his annual fixed compensation.

Structure

The Chief Executive Officer's annual variable compensation is determined as follows:

- two-thirds is contingent on quantitative financial performance objectives based on recurring operating income (ROI)⁽¹⁾⁽²⁾, free cash flow (FCF)⁽³⁾ and working capital, calculated by reference to operating assets (Inventories)⁽⁴⁾ and Unpaid Receivables⁽⁵⁾;
- one-third is contingent on quantitative and qualitative individual objectives.

This annual variable compensation structure is also used for the Group's senior managers, adapted to each individual.

Quantitative financial performance objectives

The following parameters apply:

- Weightings:
 - ROI: 60%;
 - FCF: 30%; and
 - working capital: 10%, with 5% based on Inventories and 5% based on Unpaid Receivables.

(1) Adjusted recurring operating income (see section 2.1.2 of this Universal Registration Document).

(2) Operating income before capital gains or losses on disposals/impact of changes in control, impairment charges, transaction and integration costs and other items.

(3) Free cash flow (see section 2.2.3 of this Universal Registration Document) corresponds to cash flow from operating activities less changes in working capital and acquisitions of property, plant and equipment and intangible assets.

(4) Inventories and work in progress, as described in section 3.1, Note 1.o of this Universal Registration Document and broken down in section 3.1, Note 17.

(5) Receivables unpaid at their due date, as measured at the end of the reference period.

■ Triggering thresholds (Thresholds) based on the objectives in the annual budget (Objective(s)):

- 80% of the ROI Objective;
- 65% of the FCF Objective;
- 135% of each of the working capital Objectives, i.e., Inventories and Unpaid Receivables (if the level is higher than 135% for either of these Objectives, no variable compensation will be due as anything over 135% for these two metrics corresponds to underperformance).

■ Calculation methods for the Thresholds and Caps:

- the Threshold for each performance metric triggers the entitlement to variable compensation (starting at 0 from the Threshold to 100% if the budget Objective is achieved);
- if an Objective is exceeded, the variable compensation allocated in respect of that Objective will be increased beyond 100% in proportion to the extent to which the Objective is exceeded (but capped at a maximum of 130% irrespective of the extent to which the Objective is exceeded). Consequently:
 - if 130% (or more) of the ROI Objective is achieved, the Cap for this metric will be payable,
 - if 130% (or more) of the FCF Objective is achieved, the Cap for this metric will be payable,
 - if 70% (or less) of each of the working capital Objectives is achieved (Inventories and Unpaid Receivables), the Cap for each of these metrics will be payable.

Based on these indicators, an overall percentage achievement level of the financial objectives is obtained which is then applied for determining the amount due.

The applicable indicators are usually set by the Board of Directors in the first quarter of the year concerned and they may be changed from one year to the next.

Individual objectives (qualitative and quantitative)

These objectives are set by the Board of Directors and relate to strategic, business and managerial areas specific to the coming year. For example, they can be based on the implementation of strategic decisions validated by the Board of Directors, major industrial and commercial developments and programs, organizational and management measures or initiatives that factor in the Group's CSR and sustainable development policy.

These objectives are not related to routine tasks but to specific actions for which the Board of Directors expects a particular level of performance.

When setting these individual objectives, the Board is careful to factor in the Group's CSR and sustainable development targets and to ensure that some of the objectives are quantifiable, bearing in mind that two-thirds of the Chief Executive Officer's annual variable compensation is based on the achievement of quantitative objectives relating to financial performance.

Information on the current Chief Executive Officer's individual objectives for 2020 is provided in section 6.6.2.2 of this Universal Registration Document.

Payment condition

In accordance with the law, the payment of the Chief Executive Officer's annual variable compensation for 2019 (payable in 2020) is subject to approval by the shareholders in an Ordinary General Meeting.

Long-term incentive plan (performance share grants)

Objective

The Board of Directors considers that the long-term incentive system – which also applies to other key positions within the Company – is particularly suited to the position of Chief Executive Officer in view of the direct contribution expected from him to the Group's long-term performance. In addition, the system is based on performance share grants which strengthen the motivation and teamwork of beneficiaries and foster their loyalty, while at the same time aligning their interests with those of the Company and its shareholders. These share grants are also in line with the Board's strategy of linking the incentives of senior managers to Safran's share performance – with the inherent risks and rewards that this involves – in order to encourage long-term reasoning in their actions.

The Board of Directors may only grant performance shares if it has been given the necessary authorizations by way of a two-thirds majority vote of shareholders in an Extraordinary General Meeting.

Detailed description of performance share grants

Performance share grants made to the Chief Executive Officer are subject to the following principles and criteria:

Cap

The number of performance shares granted to the Chief Executive Officer may not:

- represent more than the equivalent of 120% of his annual fixed compensation, based on the accounting value, in accordance with IFRS 2⁽¹⁾, estimated prior to the grant;
- exceed 5% of the total performance shares making up each grant. In addition, the resolutions submitted to shareholders in an Extraordinary General Meeting for the purpose of authorizing such grants will set a maximum percentage of the Company's capital that the performance shares may represent.

Performance conditions

Performance shares granted to the Chief Executive Officer will only vest if the relevant internal and external performance conditions are met. The achievement of these conditions will be assessed over three full consecutive fiscal years, including the year in which the performance shares are granted.

Standard conditions

The two "standard" internal performance conditions count for 70% of the total vested shares and are based on:

- ROI, for 50%;
- FCF, for 50%;
- the achievement levels for these conditions are measured by reference to the average of the targets for ROI and FCF set for the fiscal year in which the grant takes place and for the following two fiscal years, as contained in the most recent medium-term plan (MTP) approved by the Board of Directors before the grant date (as adjusted, if necessary, to take into account exceptional circumstances or events). The following achievement levels have been set for these conditions:
 - lowest achievement level: if 80% of the MTP target is achieved, 40% of the shares contingent on that target will vest,
 - target achievement level: if 100% of the MTP target is achieved, 80% of the shares contingent on that target will vest,

(1) See section 3.1, Note 1.r of this Universal Registration Document.

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- highest achievement level (cap): if 125% of the MTP target is achieved, 100% of the shares contingent on that target will vest,
- between the lowest achievement level and the target level, and between the target level and the highest achievement level, the number of shares that will vest will vary in linear fashion. Below the lowest achievement level, none of the shares contingent on the internal performance condition concerned will vest.

The external performance condition counts for 30% of the total vested shares and is based on Safran's total shareholder return (TSR) performance as measured relative to a panel of companies or reference indices. The composition of this panel may change in order to factor in changes in the structure or operations of the Group or of the companies and indices concerned.

The following achievement levels have been set for this condition:

- lowest achievement level: if Safran's TSR is equal to that of the peer companies, 40% of the shares contingent on the external performance condition will vest;
- target achievement level: if Safran's TSR is 8 points higher than that of the peer companies, 80% of the shares contingent on the external performance condition will vest;
- highest achievement level: if Safran's TSR is 12 points higher than that of the peer companies, 100% of the shares contingent on the external performance condition will vest;
- between the lowest achievement level and the target level, and between the target level and the highest achievement level, the number of shares that will vest will vary in linear fashion. Below the lowest achievement level, none of the shares contingent on the external performance condition will vest.

As well as the portion attributed to the "standard" performance conditions, the Board of Directors may, at its discretion, apply demanding, quantifiable additional performance conditions for which it would define the parameters, to take into account the Group's medium-term priorities and challenges. In such a case, the additional performance conditions and their parameters would be disclosed and their weighting would reduce the weighting of the "standard" internal performance conditions.

Such additional performance conditions would not therefore affect the cap on the value of grants to be made as defined above.

The achievement rate of each performance condition is assessed by the Board of Directors, based on the review and recommendations of the Appointments and Compensation Committee. The results of this assessment are published in a press release.

Vesting and lock-up periods

The shares granted to the Chief Executive Officer are subject to a vesting period set by the Board of Directors, which may not be less than three years.

In addition, any shares granted to the Chief Executive Officer will be subject to a lock-up period of at least one year following their vesting date.

Other conditions

The Chief Executive Officer:

- is required to hold in registered form a proportion of his vested shares, as set by the Board of Directors, until his term of office as Chief Executive Officer ends.

The Board has decided that following the lock-up period and until his term of office ends, the Chief Executive Officer will be required to hold in registered form 40% of the vested performance shares granted to him under performance share plans, until the number of shares he holds represents the equivalent of one year of his most recent annual fixed compensation.

- must give a formal undertaking to refrain from using instruments to hedge the risks related to these shares until after the end of the lock-up period.

Information on performance share grants made to the Chief Executive Officer during the year is provided in section 6.6.2.2 of this Universal Registration Document.

Under the rules of the performance share plan, the shares will only vest if the beneficiary still forms part of the Group on the vesting date, apart from in a limited number of usual cases (death, disability, retirement of the beneficiary and a specific decision by the Board of Directors). In particular:

- In the event of his death before the end of the vesting period, the Chief Executive Officer's heirs or beneficiaries may ask for the performance shares to be attributed (and delivered) to them. If the achievement rate of the performance conditions is not yet known at that date, the performance conditions will be deemed to have been met.
- If the Chief Executive Officer retires before the end of the vesting period, and provided that he has been with the Group for at least one year before retirement, he will retain his rights proportionately to the time he was with the Group during the vesting period.
- The Board of Directors may grant exemptions from the continuing service condition and the requirements set out above, and may decide to maintain all or part of the beneficiary's entitlements, in accordance with terms and conditions set by the Board.

Multi-year variable compensation

The Board of Directors has decided not to put in place a multi-year variable compensation plan as it considers that share-based payments such as performance share grants are more in line with shareholders' interests (see the long-term incentive plan above).

Exceptional compensation

The Board of Directors has decided against including an exceptional component in the compensation policy for the Chief Executive Officer.

Directors' compensation (formerly "attendance fees")

The Chief Executive Officer does not receive any compensation in his capacity as a Director of the Company (formerly "attendance fees"). He is therefore not included in the allocation of Directors' compensation carried out in accordance with the rules provided for in the compensation policy for Directors (see section 6.6.1.5) and described in the Board of Directors' Internal Rules (see section 6.3.2).

Benefits-in-kind

The Chief Executive Officer has the use of a company car.

He is also entitled to be reimbursed for expenses incurred in connection with his role as Chief Executive Officer and he is provided with the material resources required for performing his duties.

Supplementary pension system

Safran's policy is to align the post-employment benefits of the Chairman and the Chief Executive Officer with those of the Group's managerial-grade staff. This is in line with Safran's internal promotion policy built on helping in-house executives with considerable experience and expertise, often acquired during their many years' service with the Group, to move seamlessly into corporate officer positions and to grant corporate officers similar entitlements to those of the plan's other beneficiaries.

For information purposes, it is hereby disclosed that:

- the Chief Executive Officer's employment contract with Safran has been suspended (but not terminated) since April 23, 2015, when he became a corporate officer (see section 6.4). In line with the internal promotion policy referred to above, the Board opted to enable the Chief Executive Officer to move into a corporate officer position without losing the existing benefit entitlements that he had accrued over time;
- in accordance with the applicable law, some of the benefits described below for which the Chief Executive Officer is currently eligible have already been submitted for shareholder approval by way of the special vote required for related-party commitments, in accordance with the procedure that was in force at the date on which the Board decided to extend these benefits to the Chief Executive Officer. He was already eligible for these benefits prior to his appointment as Chief Executive Officer.

No specific supplementary pension plan has been put in place for the Chief Executive Officer.

However, the Chief Executive Officer may be a beneficiary of the supplementary pension plans set up in France for all Group managerial-grade staff, subject to the same terms and conditions as the other plan members, if the Board of Directors:

- authorizes the Chief Executive Officer to join the plans, or
- authorizes him to continue to be a beneficiary if he was already a beneficiary prior to his appointment as Chief Executive Officer.

The Chief Executive Officer is a beneficiary under the same plans as described in section 6.6.1.3 above concerning the compensation policy for the Chairman.

Defined contribution plans (Article 83 Core Plan, Article 83 Additional Plan and Article 82 defined contribution plan)

The Chief Executive Officer is eligible for these plans under the same terms and conditions as the other plan members.

The "Article 83 Core Plan" contributions are based on the compensation subject to social security contributions that the Chief Executive Officer receives for his role as Chief Executive Officer.

The "Article 83 Additional Plan" contributions are based on the compensation subject to social security contributions that the Chief Executive Officer receives for his role as Chief Executive Officer, capped at eight times the annual social security ceiling (PASS).

The contributions to the Article 82 defined contribution plan are based on the annual fixed compensation and the annual variable compensation (subject to performance conditions) that the Chief Executive Officer receives for his role as Chief Executive Officer.

Information on the expenses recognized by the Company in relation to the Article 83 and Article 82 plans, of which the current Chief Executive Officer is a member, as well as the theoretical estimated amounts⁽¹⁾ at December 31, 2019 of the annuities that could be paid to him under those plans is disclosed in section 6.6.2.2 of this Universal Registration Document.

"Article 39" defined benefit plan (closed to new entrants and entitlements frozen)

The Chief Executive Officer was previously a beneficiary of Safran's defined benefit supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 39 of the French Tax Code (the "Article 39 Plan", see section 6.6.1.3), subject to the same terms and conditions as the other plan members. Mr. Petitcolin was originally a beneficiary of this plan in his former capacity as a Company employee.

This plan is now closed to new entrants and the benefit entitlements have been frozen, including for the Chief Executive Officer. However, he could still be eligible for the pension entitlement he had accrued at December 31, 2016 provided the applicable terms and conditions are met (see section 6.6.1.3). The Chief Executive Officer's seniority taken into account for this plan represents an additional 18% of the reference compensation (corresponding to the cap provided for in the plan).

Information on the expenses recognized by the Company for the Chief Executive Officer in relation to this frozen Article 39 plan, as well as the theoretical estimated amount⁽¹⁾ at December 31, 2019 of the annuity that could be paid to him under that plan are disclosed in section 6.6.2.2 of this Universal Registration Document.

Personal risk insurance plan

The Chief Executive Officer is a beneficiary of the personal risk insurance plan set up in France for all Group managerial-grade staff, subject to the same terms and conditions as the other plan members.

The contributions to this plan are based on the compensation subject to social security contributions that the Chief Executive Officer receives for his role as Chief Executive Officer.

Information on the expenses recognized by the Company in relation to the personal risk insurance plan of which the current Chief Executive Officer is a member is disclosed in section 6.6.2.2 of this Universal Registration Document.

Indemnities or benefits payable for termination of office, change in duties, or non-compete agreements

The Chief Executive Officer is not eligible for any indemnities or benefits if his office is terminated or if there is a change in his duties. Similarly, he is not entitled to any non-compete indemnity.

For information purposes, it is hereby disclosed that the current Chief Executive Officer has a permanent employment contract with Safran, which is currently suspended but has not been terminated. See sections 6.4 and 6.6.2.2, "Indemnities or benefits payable for the termination of office or a change in duties", for related information.

Exceptional circumstances or events

If any significant exceptional circumstances or events occur, i.e., circumstances or events that are out of the ordinary or beyond the Company's control, whose effects are not taken into account or reflected in the original parameters, criteria or benchmarks or those on which the current compensation policy concerning annual variable compensation and long-term incentive bonuses is based, the Board of Directors may decide, on the recommendation of the Appointments and Compensation Committee, to adapt and adjust these parameters, criteria or benchmarks, notably by raising or lowering the performance targets, to take the impact of these circumstances or events into account.

(1) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions.

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In this case:

- the Board of Directors will ensure that these adjustments (i) are designed to restore, to a reasonable extent, the original balance or objective, as adjusted for the expected impact of the event over the period concerned and (ii) maintain alignment with the Company's interests, strategy and outlook;
- the adjustments and the reasons therefor will be disclosed in a press release.

Adaptation of the compensation policy for the Chief Executive Officer in the event of a new Chief Executive being appointed or the duties of an existing Chief Executive Officer ceasing during the year

If a new Chief Executive Officer is appointed or the duties of an existing Chief Executive Officer cease during the course of a year, the above principles will apply on a proportionate basis for the period during which he performs his duties.

In the case of a new appointment, these principles will be applied by taking as the reference point the annual fixed compensation decided by the Board of Directors when the new Chief Executive Officer is appointed.

However, if an appointment takes place during the second half of the year, the assessment of the Chief Executive Officer's performance for the purpose of calculating his or her annual variable compensation will be carried out by the Board of Directors on a discretionary basis, on the recommendation of the Appointments and Compensation Committee. The rationale underpinning the determination of the performance criteria achievement rate would be disclosed in a press release.

Concerning long-term incentive plans (which take the form of performance share grants), the plan rules provide for a limited number of exceptions to the continuing service condition, as stated above, notably the possibility for the Board of Directors to grant exemptions from the continuing service condition. Accordingly, the Board may decide that on the expiration of the Chief Executive Officer's term of office, he may retain all or some of his entitlement to the long-term incentive plan benefits he has accrued, based on terms and conditions set by the Board. The rationale underpinning this decision, as well as the decision about what happens to the vested rights under the plan, would be disclosed in a press release.

Adaptation of the policy for Deputy Chief Executive Officers

If the Company appoints any Deputy Chief Executive Officers, the compensation structure, principles and criteria provided for in the compensation policy for the Chief Executive Officer would apply to them. The Board of Directors would then adapt this policy in line with the specific situation of the Deputy Chief Executive Officer concerned in order to set the objectives, performance levels, indicators, and structure of their compensation packages and the maximum that their variable compensation may represent as a proportion of their annual fixed compensation (it being specified that this proportion and the amount of their annual fixed compensation may not be higher than those set for the Chief Executive Officer).

6.6.1.5 Compensation policy for Directors

Principles

Article 17 of the Company's bylaws provides for compensation to be paid to the Directors.

In accordance with the law, the shareholders in a General Meeting set the aggregate annual amount of compensation that may be allocated to the Directors as consideration for their duties (the

"Aggregate Compensation"). The Aggregate Compensation is set by way of a resolution put to the shareholders' vote. The Aggregate Compensation approved by the shareholders remains unchanged and applies for each successive fiscal year until decided otherwise by way of a new resolution adopted by the shareholders at a General Meeting.

The rules for allocating the Aggregate Compensation (the "Allocation Rules") are set by the Board of Directors and are also submitted to shareholders via the vote to approve the Directors' compensation policy.

The Allocation Rules take into account Directors' actual attendance at meetings of the Board and its Committees, and therefore include a significant variable portion. The amount of compensation paid to each Director must be adapted to their specific level of responsibility and the time they devote to their duties.

The Aggregate Compensation is allocated between the Directors by the Board, by applying the Allocation Rules, resulting in the individual amounts provided for in accordance with said rules.

The individual amounts paid to each Director are set out in the corporate governance report (see section 6.6.3).

The Chairman of the Board of Directors and the Chief Executive Officer do not receive any compensation amounts out of the Aggregate Compensation, as stipulated in their compensation policies (see sections 6.6.1.2 and 6.6.1.3 of the 2018 Registration Document and sections 6.6.1.3 and 6.6.1.4 of this Universal Registration Document).

In accordance with the applicable regulations, the Directors' compensation allocated to the representative of the French State and Directors put forward by the French State are paid to the French Treasury when those Directors act in the capacity of public agents.

The cases in which the payment of compensation to Directors must be suspended are also set out in the applicable regulations.

Allocation Rules

In accordance with the Allocation Rules set by the Board of Directors⁽¹⁾, the Aggregate Compensation is allocated as follows (which may not necessarily represent the full amount of the Aggregate Compensation):

- The representative of the French State appointed pursuant to Article 4 of *ordonnance* 2014-948 dated August 20, 2014 and the Director(s) appointed pursuant to Article 6 of said *ordonnance* do not directly receive Directors' compensation when they act in the capacity of public agents. Instead, their portion of the Aggregate Compensation is paid directly by the Company to the French Treasury. For compensation allocated to Directors appointed pursuant to Article 6 of said *ordonnance* who are not public agents, the same applies to any amount that exceeds the cap set in the ministerial decree of December 18, 2014 implementing section V of Article 6 of said *ordonnance*.
- Irrespective of whether or not the role of Chairman of the Board of Directors is separate from that of Chief Executive Officer, the Chairman and the Chief Executive Officer (if he is a Director) are not entitled to Directors' compensation and are not included in the allocation of compensation carried out by the Board in accordance with the Allocation Rules.
- For membership of the Board of Directors:
 - Annual fixed compensation:
 - Each Director (excluding the Chairman and the Chief Executive Officer if he is a Director) and any Board Advisors (*censeurs*) is entitled to annual fixed compensation whose amount is set by the Board of Directors.

(1) Rules set on February 26, 2018 and applicable as from 2018.

- If a new Director is appointed (or elected) during a given year, or if a directorship ceases during a given year, this annual fixed compensation is calculated proportionately based on the number of Board meetings held during the year.

Variable compensation per Board meeting:

- Each Director (excluding the Chairman and the Chief Executive Officer if he is a Director) and any Board Advisors (*censeurs*) is entitled to variable compensation for each Board meeting he or she attends, the amount of which is set by the Board of Directors.

■ For membership of the Board Committees – Variable compensation per Committee meeting:

- Each Director (including the Chair(s) of temporary committees, but excluding the Chairman and the Chief Executive Officer if he is a Director) is entitled to variable compensation for each meeting he or she attends of any Committee(s) of which he or she is a member (or each meeting of any temporary committee that he or she chairs). The amount of this variable compensation is set by the Board of Directors.
- Each Chair of a standing Board committee (excluding, where applicable, the Chairman and the Chief Executive Officer if he is a Director) is entitled to a higher amount of variable compensation for each standing Committee meeting that he or she chairs. The amount of this variable compensation is set by the Board of Directors.

■ Additional compensation for geographical distance:

- Directors residing outside Metropolitan France are entitled to an additional amount of variable compensation per Board and Committee meeting that he or she physically attends. The amount of this additional variable compensation is set by the Board of Directors.

■ Cap and potential adjustment:

- A maximum annual gross amount of Directors' compensation is set per Director by the Board of Directors. If the application of the Allocation Rules leads to an individual annual gross amount of Directors' compensation exceeding this cap, the individual allocation of the Director(s) concerned will be reduced to this cap, before any adjustment is made.
- If the application of the Allocation Rules leads to a total amount of compensation to be allocated that is higher than the Aggregate Compensation set by the shareholders, said total amount will be decreased by reducing, on an equal proportionate basis, each individual allocation (rounded down to the nearest euro where necessary), such that the total amount allocated is equal to the Aggregate Compensation.

■ Each year, the Board of Directors places on record the overall and individual allocation of the Directors' compensation resulting from the application of the Allocation Rules. Where appropriate, the Board may decide to allocate any residual unallocated amount corresponding to the difference between the Aggregate Compensation set by the shareholders and the total allocated amount resulting from the application of the Allocation Rules.

Reimbursement of expenses

Each member of the Board of Directors is entitled to reimbursement of travel expenses incurred in connection with their directorship, subject to providing the appropriate receipts.

Specific or one-off assignments

Directors may be allocated additional compensation if they carry out specific assignments, such as those performed by the Vice-Chairman or the Lead Independent Director. In such a case, the Board may decide to set specific amounts for this purpose that will be taken into account when applying the Allocation Rules for the Aggregate Compensation.

Directors may also be paid additional compensation for any one-off assignments they may carry out, in which case the payment of this additional compensation will be subject to the procedure applicable to related-party agreements.

Additional information

For information purposes, it is hereby disclosed that:

■ The amount of the Aggregate Compensation to be allocated among the Directors, as approved by the shareholders at the 2016 Annual General Meeting and still applicable for 2019, is €1,000,000.

■ The Board of Directors has decided to recommend an increase in the amount of the Aggregate Compensation to €1,100,000. This increase – which must be approved in a separate resolution from the resolution concerning the Directors' compensation policy – will be put to the shareholders in the 11th resolution of the Annual General Meeting to be held on May 28, 2020 (see section 8.2.1.7). The purpose of this modest increase in the Aggregate Compensation compared with the amount set in 2016 is solely to take into account the increase in the number of Directors (with the appointment of an additional Director, as proposed in the 4th resolution, see section 6.2.6.2). In light of the current unique circumstances, the Board of Directors considers that it would not be appropriate at this time to recommend to the Annual General Meeting a more significant increase in the Aggregate Compensation, which would have enabled Safran to offer its Directors average compensation that is more closely aligned with the practices of comparable French companies. The matter will be re-examined in 2021.

In parallel with this proposal, the Board has set the amounts of the Directors' fixed compensation and their variable compensation based on attendance at Board and/or Committee meetings, for the purpose of applying the Allocation Rules. The amounts set by the Board give even greater weighting to the variable compensation based on Directors' attendance at meetings and therefore take into account their actual related workload. These amounts – which will apply from 2020 – are presented below.

■ Amounts set for the purpose of applying the Allocation Rules, it being specified that the total amount of the allocations to the Directors may not exceed the maximum amount of the Aggregate Compensation in force, as set by the Annual General Meeting:

	2019 (in €)	2020 and subsequent years (in €)
Amounts set for the purpose of applying the Allocation Rules:		
Annual fixed compensation per Director (full-year basis) (excluding the Chairman and the Chief Executive Officer)	11,000	11,000
For attendance at Board meetings:		
■ Variable compensation per Board meeting for the Directors: (no Directors' compensation for the Chairman and the Chief Executive Officer)	3,700	5,000
For attendance at meetings of the standing Board committees and special temporary committees:		
■ Variable compensation per meeting for the Chairs of the standing committees	7,400	9,000
■ Variable compensation per meeting for committee members (including for the Chairs of special temporary committees)	3,700	5,000

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Amounts set for the purpose of applying the Allocation Rules:	2019 (in €)	2020 and subsequent years (in €)
Additional compensation for geographical distance, based on physical attendance per Board and/or committee meeting		
■ Cross-Atlantic travel or equivalent		+€3,500
■ Travel from a European country	+€1,250	+€1,250
Annual cap on individual Directors' compensation paid out of the Aggregate Compensation	€100,000	€130,000

■ If there are any major changes in the membership structure and work of the Board or the Board Committees or if their Chair changes during a given year, or if any significant exceptional circumstances or events occur, the Board may adjust these amounts accordingly, provided the weighting of the variable portion of Directors' compensation still represents the majority of the individual amounts allocated. In all circumstances,

any such adjustments may not result in the total final allocation exceeding the amount of the Aggregate Compensation in force at the time the adjustment(s) are made.

The table summarizing the Directors' compensation paid or payable to members of the Board of Directors for 2018 and 2019 is provided in section 6.6.3 below.

6.6.2 Compensation and benefits of the Chairman and the Chief Executive Officer for 2019 (and components of compensation and benefits for 2020 that have already been set)

The following section sets out the compensation and benefits of the Chairman of the Board of Directors and the Chief Executive Officer for 2019, as well as the components of their compensation and benefits for 2020 that had already been set by the Board of Directors at the publication date of this Universal Registration Document.

Where appropriate, payment of the variable and exceptional components of compensation for 2019 is subject to shareholder approval at the Annual General Meeting of May 28, 2020.

6.6.2.1 Compensation and benefits of the Chairman of the Board of Directors for 2019 (and components of his compensation and benefits for 2020 that have already been set)

In his role as Chairman of the Board of Directors, in 2019 Ross McInnes received a fixed amount of annual compensation. He does not receive any variable compensation or Directors' compensation (formerly "attendance fees"). Ross McInnes continued to be a beneficiary of the Group's personal risk insurance plan and supplementary pension plan, subject to the same terms and conditions as the other plan members. In addition, he had the use of a company car as a benefit-in-kind.

The structure of Ross McInnes' compensation package for 2019 is in line with the compensation policy described in section 6.6.1.2 of the 2018 Registration Document, which was approved by the shareholders at the Annual General Meeting of May 23, 2019.

The compensation and benefits of the Chairman of the Board of Directors are summarized in the tables in section 6.6.2.3 of this Universal Registration Document.

Fixed compensation for 2019 and 2020

At its meeting on February 26, 2019, acting on the recommendation of the Appointments and Compensation Committee, the Board of Directors decided to keep Ross McInnes' annual fixed compensation at €450,000 for 2019, i.e., unchanged from 2018.

The amount of the Chairman's annual fixed compensation will also remain unchanged for 2020.

Directors' compensation (formerly "attendance fees") for 2019

The Chairman did not receive any compensation in his capacity as a Director in 2019, in accordance with the compensation policy approved at the Annual General Meeting of May 23, 2019 (see section 6.6.1.2 of the 2018 Registration Document and section 6.6.1.3 of this Universal Registration Document).

Personal risk insurance plan

At its meeting on April 23, 2015, the Board of Directors decided to authorize the Chairman to continue to be a beneficiary of Safran's personal risk insurance plan set up in France for all Group managerial-grade staff (see section 6.6.1.3 of this Universal Registration Document), subject to the same terms and conditions as the other plan members. The Chairman was previously a beneficiary of this plan in his former capacity as a Company employee, then as Deputy Chief Executive Officer.

The commitment given by the Company to enable Mr. McInnes to continue to be a beneficiary of this plan was approved at the Annual General Meeting of May 19, 2016, pursuant to the legal provisions applicable at that date.

The corresponding expense recognized in the 2019 financial statements amounted to €6,436.

Supplementary pension system in 2019

No specific supplementary pension system was in place for the Chairman of the Board of Directors in 2019.

"Article 83" defined contribution plans

In accordance with a decision taken by the Board of Directors on February 26, 2018, the Chairman is a beneficiary of Safran's two defined contribution supplementary pension plans set up in France for all Group managerial-grade staff pursuant to Article 83 of the French Tax Code (the "Article 83 plans") and in force at January 1, 2018 (see section 6.6.1.3 of this Universal Registration Document), subject to the same terms and conditions as the other plan members.

The commitment given by the Company to enable Mr. McInnes to continue to be a beneficiary of these plans was approved at the Annual General Meeting of May 25, 2018, pursuant to the legal provisions applicable at that date.

The expenses recorded in the 2019 financial statements relating to the contributions paid for Ross McInnes under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €11,955 and €13,981 respectively.

At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuities that could be paid to Ross McInnes under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €7,352 and €1,811 respectively.

“Article 82” defined contribution plan

In accordance with a decision taken by the Board of Directors on March 23, 2017, the Chairman is a beneficiary of Safran's defined contribution supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 82 of the French Tax Code (the “Article 82 Plan”), subject to the same terms and conditions as the other plan members (see section 6.6.1.3 above).

Under the Article 82 Plan, the Insurer Contribution and Additional Payment for the Chairman for 2019 totaled €43,762.56 each (i.e., €87,525.12 altogether), corresponding in each case to 9.725% of his reference compensation (19.45% in total).

At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to the Chairman under the Article 82 Plan was €5,095.

“Article 39” defined benefit plan (closed to new entrants and entitlements frozen)

The Chairman was previously a beneficiary of Safran's defined benefit supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 39⁽²⁾ of the French Tax Code (the “Article 39 Plan”), subject to the same terms and conditions as the other plan members. Mr. McInnes was originally a beneficiary of this plan in his former capacity as Deputy Chief Executive Officer. The commitment given by the Company to enable Mr. McInnes to continue to be a beneficiary of this plan was approved at the Annual General Meeting of May 19, 2016.

This plan was closed to new entrants and existing entitlements frozen as from December 31, 2016. The Article 82 defined contribution plan described in section 6.6.1.3 above was set up to compensate for this closure.

However, further to a decision taken by the Board on March 23, 2017, the Chairman could still be eligible for any pension entitlement he had accrued under the plan at December 31, 2016 provided the applicable terms and conditions are met.

At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to Ross McInnes corresponded to the cap set in the plan, i.e., €123,408 (corresponding to three times the annual social security ceiling [PASS], based on the 2020 value of the PASS).

Concerning the above-described Article 82 Plan and the Article 39 Plan (closed)

As a reminder, in 2017, the Board decided to change Safran's supplementary pension system. The new system involved (i) closing the Article 39 defined benefit plan to new entrants and freezing existing entitlements and, (ii) to compensate for the closure of this plan, setting up new plans, including the Article 82 Plan. The resolution relating to the Chairman remaining a beneficiary under the new system was submitted to shareholders at the June 15, 2017 Annual General Meeting in accordance with the legal provisions applicable at that date and was rejected. At its July 27, 2017 meeting, the Board of Directors ratified its decision to include the Chairman as a beneficiary under the new supplementary pension system, subject to the same terms and conditions as the other managerial-grade beneficiaries. This decision was in line with Safran's internal promotion policy built on helping in-house executives to move seamlessly into corporate officer positions and to grant corporate officers similar entitlements to those of the plan's other beneficiaries.

The decision was also taken based on the Board's knowledge of the Chairman's involvement and length of service with the Group. In addition, the Board noted that it would have very little financial impact on the Company.

The shareholders subsequently approved a resolution authorizing the Chairman to be included as a beneficiary under the new supplementary pension system, through the adoption of the 12th resolution of the May 23, 2019 Annual General Meeting relating to the compensation policy for the Chairman, which included said supplementary pension benefits.

Indemnities or benefits payable for the termination of office or a change in duties – Non-compete indemnities

The Chairman of the Board of Directors is not eligible for any indemnities or benefits if his office is terminated or if there is a change in his duties. Similarly, he is not entitled to any non-compete indemnity.

As previously announced (see sections 6.1.1 and 8.2.1 of the 2018 Registration Document), the Chairman terminated his employment contract when his term of office was renewed on May 23, 2019.

He did not receive any severance pay or other specific benefits on the termination of his employment contract. At that date, he lost the entitlements to severance pay and retirement bonuses associated with his employment contract (see section 6.6.2.1 of the 2018 Registration Document for details of these entitlements; concerning the payment of accrued vacation pay for the vacation entitlement not taken as of the contract termination date, see the summary table on the Chairman's compensation in section 6.6.2.3).

6.6.2.2 Compensation and benefits of the Chief Executive Officer for 2019 (and components of his compensation and benefits for 2020 that have already been set)

In his role as Chief Executive Officer, Philippe Petitcolin's compensation package for 2019 included annual fixed compensation, annual variable compensation and performance shares awarded under a long-term incentive plan. Ross McInnes continued to be a beneficiary of the Group's personal risk insurance plan and supplementary pension plan, subject to the same terms and conditions as the other plan members. In addition, he had the use of a company car as a benefit-in-kind.

The structure of Philippe Petitcolin's compensation package for 2019 is in line with the compensation policy described in section 6.6.1.3 of the 2018 Registration Document, which was approved by the shareholders at the Annual General Meeting of May 23, 2019.

The compensation and benefits of the Chief Executive Officer are summarized in the tables in section 6.6.2.3 of this Universal Registration Document.

Fixed compensation for 2019 and 2020

At its meeting on February 26, 2019, acting on the recommendation of the Appointments and Compensation Committee, the Board of Directors decided to keep Philippe Petitcolin's annual fixed compensation at €800,000 for 2019, i.e., unchanged from 2018.

The amount of the Chief Executive Officer's annual fixed compensation will also remain unchanged for 2020.

(1) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

(2) Defined benefit plan meeting the conditions set out in Article L.137-11 of the French Social Security Code.

Compensation policy and compensation packages for corporate officers

Annual variable compensation for 2019

The Chief Executive Officer's annual variable compensation for 2019 was determined based on the terms and conditions set out in the compensation policy approved by the shareholders at the Annual General Meeting of May 23, 2019, as described in section 6.6.1.3 of the 2018 Registration Document.

For 2019, the Chief Executive Officer's gross annual variable compensation could have totaled €800,000 (corresponding to 100% of his annual fixed compensation [the "Target"] if all of the applicable objectives had been achieved, or it could have increased to above €800,000 if the objectives had been exceeded, subject to 150% of his annual fixed compensation (the "Cap").

At its meeting on March 26, 2020, the Board of Directors reviewed the achievement of the financial and individual objectives set for the variable compensation payable to the Chief Executive Officer for 2019, after consultation with the Appointments and Compensation Committee. Following this review, it set Philippe Petitcolin's variable compensation for 2019 at €964,444, i.e., 121% of his annual fixed compensation.

This amount reflects:

- an overall achievement rate of 114% for the portion related to the Group's financial performance (accounting for two-thirds of the Chief Executive Officer's variable compensation), for which the objectives related to:
 - recurring operating income (ROI) (60% weighting): 113% achievement,
 - free cash flow (FCF) (30% weighting): 119% achievement;
 - working capital, comprising the following components:
 - operating assets (Inventories) (5% weighting): 94% achievement, and
 - unpaid receivables (5% weighting): 115% achievement;
- an overall achievement rate of 109% for the portion related to individual quantitative and qualitative performance objectives (accounting for one-third of the Chief Executive Officer's variable compensation):

Individual performance objectives for 2019:

As described in section 6.6.2.2 of the 2018 Registration Document, these objectives related to:

	Performance
Integration of Zodiac Aerospace within the Group: industrial and managerial optimization (quantitative and qualitative)	Outperformed
Business development: position the Group with regard to particular aircraft programs (qualitative)	Partially achieved
R&T strategy: long-term R&T roadmap (qualitative)	Outperformed
Digitalization: Group digital roadmap (qualitative)	Achieved
CSR-human capital: continuous corporate social responsibility and human capital measures and priority action plans	
■ Environment – carbon footprint management system: pinpoint action plans to roll out as from 2020 (qualitative)	Achieved
■ Safety: further reduction in the frequency rate of occupational accidents (quantitative)	Outperformed
■ Safety: ergonomics in industrial projects: Factory of the Future training roadmap (quantitative)	Achieved
■ Human capital: gender balance plan with regard to executive positions (qualitative)	Achieved
TOTAL:	109%

The exact content and achievement rates for each of these individual objectives cannot be given in more detail for confidentiality reasons in view of their strategic and competitive sensitivity.

Payment of the Chief Executive Officer's annual variable compensation for 2019 is subject to shareholders' approval at the Annual General Meeting to be held on May 28, 2020.

Annual variable compensation for 2020

The Chief Executive Officer's variable compensation for 2020 will be set based on the terms and conditions of the compensation policy applicable at the time, as approved by shareholders at the Annual General Meeting. It will be determined as follows:

- two-thirds will be contingent on the following quantitative financial performance objectives:
 - recurring operating income (60% weighting),
 - free cash flow (30% weighting), and
 - working capital (10% weighting), comprising operating assets (Inventories) and unpaid receivables;
- one-third will be contingent on quantitative and qualitative individual objectives, set by the Board of Directors on March 26, 2020:

Individual performance objectives for 2020:	Weighting
Overcome and manage the Covid-19 crisis (quantitative and qualitative)	20%
Prepare a smooth management transition (qualitative)	40%
Business activities & R&T:	20%
■ Business: relations with aircraft manufacturers and capex levels (qualitative and quantitative)	
■ R&T: Safran's climate program, core digital transformation projects and program support (qualitative and quantitative)	
CSR & human capital:	20%
■ Environment (qualitative and quantitative): • deployment of low carbon project, related objectives and Scope 3 definition; • alignment of CSR policy and organization with the Group's climate and environmental strategy	
■ Safety: further reduction in the frequency rate of occupational accidents (quantitative)	
■ Human capital: hiring-related initiatives (schools, gender balance and internationalization) (quantitative)	
TOTAL:	100%

No further details can be provided on the Chief Executive Officer's individual objectives for reasons of strategic and competitive sensitivity.

The achievement of the financial and individual objectives set for the Chief Executive Officer's variable compensation for 2020 will be reviewed by the Board of Directors, after consultation with the Appointments and Compensation Committee. Payment of this annual variable compensation for 2020 will be subject to shareholders' approval at the 2021 Annual General Meeting.

Directors' compensation (formerly "attendance fees") for 2019

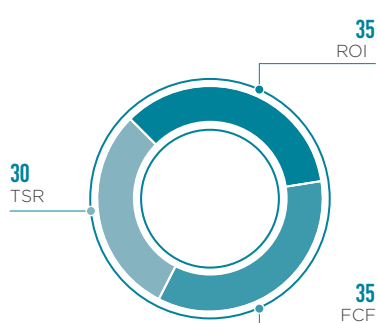
The Chief Executive Officer did not receive any Directors' compensation for 2019, in accordance with the compensation policy approved at the Annual General Meeting of May 23, 2019 (see section 6.6.1.3 of the 2018 Registration Document and section 6.6.1.3 of this Universal Registration Document).

2019 Long-Term Incentive Plan (performance shares)

At its meeting on March 27, 2019, acting on the recommendation of the Appointments and Compensation Committee, the Board of Directors used the authorization granted by the shareholders in the 17th resolution of the May 25, 2018 Annual General Meeting to grant performance shares to certain Group managers and senior executives (see section 6.6.4.2 below).

As part of this overall grant, the Board granted 13,350 performance shares to the Chief Executive Officer, representing less than 5% of the total grant, which complied with the compensation policy approved at the May 23, 2019 Annual General Meeting⁽¹⁾.

All of the performance shares granted to the Chief Executive Officer are subject to the condition that he is still with the Group when the shares vest and to the achievement of internal and external performance conditions (see section 6.6.1.3 of the 2018 Registration Document and section 6.6.4.2 of this Universal Registration Document).



The two “standard” internal performance conditions count for 70% of the total vested shares and are based on:

- ROI, for 50%; and
- FCF, for 50%.

The external performance condition counts for 30% of the total vested shares and is based on Safran’s total shareholder return (TSR) performance as measured relative to a composite index that enables simultaneous comparison with the European market, the US market and the reference index for the French market. This composite index is made up of:

- the STOXX® Europe TMI Aerospace & Defense index (Stoxx A&D Net Return);
- the S&P Aerospace & Defense Industry Select index (S&P A&D);
- the CAC 40 index (CAC 40 Gross Return).

Each of these three indices counts for one-third of the composite index.

Under the rules of the performance share plan, the shares will only vest if the beneficiary still forms part of the Group on the vesting date, apart from in a limited number of cases (death, disability, retirement of the beneficiary or a specific decision by the Board of Directors).

The vesting period has been set at three years (2019-2021) and the number of shares that will ultimately vest will depend on the extent to which the applicable conditions are met over that period.

The vesting period will be followed by a one-year lock-up period.

The Board also confirmed that following this lock-up period and until his term of office ends, the Chief Executive Officer will be required to hold in registered form 40% of the vested performance shares granted under this plan and any future plans until the number of shares he holds represents the equivalent of one year of his most recent annual fixed compensation.

The estimated accounting value of these performance shares, as measured at the grant date (i.e., March 27, 2019) in accordance with IFRS 2 (see section 3.1, Note 1.r of this Universal Registration Document) corresponds to €959,989.

Further details of this performance share plan are provided in the tables in sections 6.6.2.3 and 6.6.4.2 of this Universal Registration Document.

2015 Long-Term Incentive Plan – multi-year variable compensation

On the recommendation of the Appointments and Compensation Committee, at its July 29, 2015 meeting, the Board of Directors decided to introduce a multi-year variable compensation system in the form of the 2015 Performance Unit (PU) plan, designed to recognize contributions to the Group’s operating performance and the creation of shareholder value, as measured over several years. This multi-year compensation plan applied to the Chief Executive Officer and other members of Safran’s Executive Committee. The Chief Executive Officer was granted 17,050 PUs under the plan.

The number of PUs that ultimately vested was based on the extent to which internal and external performance conditions were met, as measured over a period of three years (2015-2017).

The main characteristics and terms and conditions of this plan, including the grant to the Chief Executive Officer, are described in sections 6.3.1.2 and 6.3.3.3 of the 2015 Registration Document.

Acting on the recommendation of the Appointments and Compensation Committee, on March 22, 2018 the Board of Directors noted the overall achievement rate for these conditions at the end of the specified period and determined the resulting number of PUs to be vested by the Chief Executive Officer at 8,678 PUs. This corresponded to an overall achievement rate of 50.9% for the performance conditions (see section 6.6.2.2 of the 2017 Registration Document).

This plan was presented to and approved by the shareholders at the Annual General Meeting of May 19, 2016 (in the 18th resolution), in accordance with the “say-on-pay” rules applicable at that date.

At the May 25, 2018 Annual General Meeting, in the *ex post* say-on-pay vote (11th resolution), the shareholders voted in favor of the components of the compensation paid or awarded to the Chief Executive Officer for 2017.

As provided for in the relevant plan, payments were made in two installments (in October 2018 and October 2019), each one corresponding to 50% (i.e., 4,339) of the vested PUs. One-third of each installment was paid in Safran shares, with the remaining two-thirds paid in cash.

The first installment of 4,339 PUs was settled at end-October 2018 (see section 6.6.2.2 of the 2018 Registration Document).

The second installment of 4,339 PUs was settled at end-October 2019, corresponding to €409,793.87 paid in cash and the delivery of 1,446 Safran shares, representing total compensation of €614,634.23.

(1) The number of performance shares granted to the Chief Executive Officer may not represent more than the equivalent of 120% of his annual fixed compensation, based on the accounting value (in accordance with IFRS 2 – see section 3.1, Note 1.r of this Universal Registration Document), as estimated at the grant date.

Summary table of multi-year variable compensation allocated to the Chief Executive Officer

	Period in which performance units were granted	Number of performance units granted	Value on grant date	Conditions
Philippe Petitcolin	2015	17,050	€701,620 ⁽¹⁾	The number of performance units that ultimately vested depended on the extent to which internal and external performance conditions were met, as measured over a period of three years (2015-2017). At its meeting of March 22, 2018, and after having noted the achievement rate associated with the performance conditions, the Board of Directors determined that 8,678 performance units ultimately vested for the Chief Executive Officer at the end of the specified 2015-2017 period. The first installment was settled in October 2018 and corresponded to €341,458.73 paid in cash and the delivery of 1,446 Safran shares. The second installment was settled in October 2019 and corresponded to €409,793.87 paid in cash and the delivery of 1,446 Safran shares. A plan description is included in section 6.3.3.3 of the 2015 Registration Document.

(1) The value was measured at the grant date in accordance with IFRS 2.

Personal risk insurance plan

As decided by the Board of Directors on April 23, 2015, the Chief Executive Officer is a beneficiary of Safran's personal risk insurance plan set up in France for all Group managerial-grade staff (see section 6.6.1.4 above), subject to the same terms and conditions as the other plan members. The Chief Executive Officer was previously a beneficiary of this plan in his former capacity as a Company employee.

The commitment given by the Company to enable Mr. Petitcolin to continue to be a beneficiary of this plan was approved at the Annual General Meeting of May 19, 2016, pursuant to the legal provisions applicable at that date.

The corresponding expense recognized in the 2019 financial statements amounted to €6,203.

Supplementary pension system in 2019

No specific supplementary pension system was in place for the Chief Executive Officer in 2019.

"Article 83" defined contribution plans

In accordance with a decision taken by the Board of Directors on February 26, 2018, the Chief Executive Officer is a beneficiary of Safran's two defined contribution supplementary pension plans set up in France for all Group managerial-grade staff pursuant to Article 83 of the French Tax Code (the "Article 83 plans") and in force at January 1, 2018 (see section 6.6.1.4 below), subject to the same terms and conditions as the other plan members.

The commitment given by the Company to enable Mr. Petitcolin to continue to be a beneficiary of these plans was approved at the Annual General Meeting of May 25, 2018, pursuant to the legal provisions applicable at that date.

The expenses recorded in the 2019 financial statements relating to the contributions paid for Philippe Petitcolin under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €28,164 and €13,981 respectively.

At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuities that could be paid to Philippe Petitcolin under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €28,497 and €1,968 respectively.

"Article 82" defined contribution plan

In accordance with a decision taken by the Board of Directors on March 23, 2017 the Chief Executive Officer is a beneficiary of Safran's defined contribution supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 82 of the French Tax Code (the "Article 82 Plan"), subject to the same terms and conditions as the other plan members (see section 6.6.1.4).

The commitment given by the Company to enable Mr. Petitcolin to continue to be a beneficiary of this plan was approved at the Annual General Meeting of June 15, 2017, pursuant to the legal provisions applicable at that date.

Under the Article 82 Plan, the Insurer Contribution and Additional Payment for the Chief Executive Officer for 2019 totaled €200,894.64 each (i.e., €401,789.28 altogether), corresponding in each case to 12.735% of his reference compensation (25.47% in total).

At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to the Chief Executive Officer under the Article 82 Plan was €29,666.

"Article 39" defined benefit plan (closed to new entrants and entitlements frozen)

The Chief Executive Officer was previously a beneficiary of Safran's defined benefit supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 39 of the French Tax Code (the "Article 39 Plan", see section 6.6.1.4), subject to the same terms and conditions as the other plan members. Mr. Petitcolin was originally a beneficiary of this plan in his former capacity as a Company employee.

This plan is now closed to new entrants and the benefit entitlements have been frozen, including for the Chief Executive Officer. However, he could still be eligible for the pension entitlement he had accrued at December 31, 2016 provided the applicable terms and conditions are met.

At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to Philippe Petitcolin corresponded to the cap set in the plan, i.e., €123,408 (corresponding to three times the annual social security ceiling [PASS], based on the 2020 value of the PASS).

(1) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

Compensation policy and compensation packages for corporate officers

The commitment given by the Company to enable Mr. Petitcolin to continue to be a beneficiary of this plan was approved at the Annual General Meeting of June 15, 2017, pursuant to the legal provisions applicable at that date.

Indemnities or benefits payable for the termination of office or a change in duties – Non-compete indemnities

The Chief Executive Officer is not eligible for any indemnities or benefits if his office is terminated or if there is a change in his duties. Similarly, he is not entitled to any non-compete indemnity.

Philippe Petitcolin's employment contract with Safran has been suspended since April 23, 2015 (see sections 6.6.2.3 and 6.4).

This contract will resume if he ceases to be a corporate officer of the Company, and if it is then terminated at Safran's initiative, he may be entitled to termination benefits under the applicable collective bargaining agreement as well as to a six-month notice period. Based on Mr. Petitcolin's seniority within the Company

at the date his employment contract was suspended, and the amount of his compensation at that date, in accordance with the collective bargaining agreement applicable to engineers and managerial-grade employees in the metallurgy industry, his termination benefits could represent a maximum gross amount of €906,044.67. These termination benefits are payable in accordance with general French labor law.

If Philippe Petitcolin ceases to be a corporate officer of the Company his employment contract will resume, and when he retires he may be entitled to a statutory retirement bonus. Based on Mr. Petitcolin's seniority within the Company at the date his employment contract was suspended, and the amount of his compensation at that date, in accordance with the collective bargaining agreement applicable to engineers and managerial-grade employees in the metallurgy industry, his statutory retirement bonus could represent a maximum gross amount of €201,343.26. This retirement bonus is payable pursuant to general French labor law.

6.6.2.3 Summary tables for 2019

Summary tables showing the individual compensation and benefits of Ross McInnes, Chairman of the Board of Directors

Summary table of compensation, stock options and performance shares granted in 2019 to the Chairman of the Board of Directors

Summary of compensation, stock options and performance shares granted	2018	2019
Compensation allocated for the year	€465,809.61 ⁽¹⁾	€565,346.27 ⁽²⁾
Value of multi-year variable compensation allocated during the year	N/A	N/A
Value of stock options granted during the year	N/A	N/A
Value of performance shares granted during the year	N/A	N/A
TOTAL	€465,809.61	€565,346.27

(1) Including €12,897.48 corresponding to the Additional Payment under the Article 82 defined contribution plan, enabling payment of the tax due under this plan, which is taxed upfront (see section 6.6.2.1).

(2) Including €43,762.56 corresponding to the Additional Payment under the Article 82 defined contribution plan, (see section 6.6.2.1) and €66,666.80 in compensation paid for accrued vacation days when his employment contract was terminated on May 23, 2019.

Summary table of compensation of the Chairman of the Board of Directors

Summary of compensation (gross)	2018		2019	
	Amounts allocated for the year	Amounts paid during the year	Amounts allocated for the year	Amounts paid during the year
Fixed compensation	€450,000	€450,000	€450,000	€450,000
Annual variable compensation	N/A	N/A	N/A	N/A
Multi-year variable compensation	N/A	N/A	N/A	N/A
Exceptional compensation	N/A	N/A	N/A	N/A
Directors' compensation	N/A	€73,513.88	N/A	N/A
Benefits-in-kind ⁽¹⁾	€2,912.13	€2,912.13	€4,916.91	€4,916.91
Additional Payment provided for under a defined contribution supplementary pension plan ⁽²⁾	€12,897.48	€12,897.48	€43,762.56	€43,762.56
Other	N/A	N/A	N/A	€66,666.80 ⁽³⁾
TOTAL	€465,809.61	€539,323.49	€498,679.47	€565,346.27

(1) Company car.

(2) Corresponding to the Additional Payment under the Article 82 defined contribution plan, enabling payment of the tax due under this plan, which is taxed upfront (see section 6.6.2.1).

(3) When the Chairman's employment contract was terminated on May 23, 2019 (see sections 6.4 and 6.6.2.1), the number of days' paid leave that he had accumulated under his employment contract until April 21, 2011 (the date on which the employment contract was suspended) was placed on record. He was paid compensation for these accrued vacation days when his contract was terminated.

Compensation policy and compensation packages for corporate officers

Summary table showing the individual compensation and benefits of Philippe Petitcolin, Chief Executive Officer

Summary table of compensation, stock options and performance shares granted in 2019 to the Chief Executive Officer

Summary of compensation, stock options and performance shares granted	2018	2019
Compensation allocated for the year	€1,936,136.28 ⁽¹⁾	€1,971,214.76 ⁽²⁾
Value of multi-year variable compensation allocated during the year	N/A	N/A
Value of stock options granted during the year	N/A	N/A
Value of performance shares granted during the year ⁽³⁾ (see section 6.6.4.2)	€956,205	€959,989
TOTAL	€2,892,341.28	€2,931,203.76

(1) Including €171,349.44 corresponding to the Additional Payment under the Article 82 defined contribution plan, enabling payment of the tax due under this plan, which is taxed upfront (see section 6.6.2.2 and the table below).

(2) Including (i) €200,894.64 corresponding to the Additional Payment under the Article 82 defined contribution plan (see section 6.6.2.2) and (ii) €614,634.23 corresponding to the payment of the remaining amount due under the 2015 Long-Term Incentive Plan (see section 6.6.2.2).

(3) In accordance with IFRS 2, the value of the performance shares was measured at the grant date and not based on compensation received by the beneficiary during the year (see section 3.1, Note 1.r).

Summary table of compensation of the Chief Executive Officer

Summary of compensation (gross)	2018		2019	
	Amounts allocated for the year	Amounts paid during the year	Amounts allocated for the year	Amounts paid during the year
Fixed compensation	€800,000	€800,000	€800,000	€800,000
Annual variable compensation	€960,000	€777,500	€964,444	€960,000
Multi-year variable compensation	N/A	512,140.96 ⁽¹⁾	N/A	€614,634.23 ⁽²⁾
Exceptional compensation	N/A	N/A	N/A	N/A
Directors' compensation	N/A	€36,314.09	N/A	N/A
Benefits-in-kind ⁽³⁾	€4,786.84	€4,786.84	€5,876.12	€5,876.12
Additional Payment provided for under a defined contribution supplementary pension plan ⁽⁴⁾	€171,349.44	€171,349.44	€200,894.64	€200,894.64
TOTAL	€1,936,136.28	€2,302,091.33	€1,971,214.76	€2,581,404.99

(1) Payment in October 2018 of the first installment under the 2015 Long-Term Incentive Plan (see section 6.6.2.2), corresponding to a total of €512,140.96, with two-thirds paid in cash, i.e., €341,458.73, and one-third paid in the form of the delivery of 1,446 Safran shares.

(2) Payment in October 2019 of the second installment under the 2015 Long-Term Incentive Plan (see section 6.6.2.2), corresponding to a total of €614,634.23, with two-thirds paid in cash, i.e., €409,793.87, and one-third paid in the form of the delivery of 1,446 Safran shares.

(3) Company car.

(4) Corresponding to the Additional Payment under the Article 82 defined contribution plan, enabling payment of the tax due under this plan, which is taxed upfront (see section 6.6.2.2).

Summary table of performance shares granted during 2019 to the Chief Executive Officer

	Plan date	Number of shares granted	Value of shares (measured using the method applied for the consolidated financial statements) ⁽¹⁾ (in €)	Vesting date	End of lock-up period	Performance conditions
Philippe Petitcolin	March 27, 2019 Board meeting	13,350	€959,989	March 29, 2022	March 30, 2023 ⁽²⁾	All the shares are subject to the performance conditions described in section 6.6.4.2
TOTAL		13,600	€956,205			

(1) In accordance with IFRS 2, the value of the performance shares was measured at the grant date and not based on compensation received by the beneficiary during the year (see section 3.1, Note 1.r).

(2) The Chief Executive Officer is, however, required to hold in registered form 40% of the delivered performance shares for the time that he is in office and until these shares represent an amount that is equivalent to one year's worth of his most recent annual fixed compensation.

Performance shares that became available for the Chief Executive Officer in 2019

Performance shares that became available for the Chief Executive Officer	Plan date	Total number of shares that became available (delivered shares)
Philippe Petitcolin	2016 Plan – July 28, 2016	20,691

At its meeting on July 28, 2016, the Board of Directors decided to grant 27,390 performance shares to the Chief Executive Officer, Philippe Petitcolin, under the 2016 Long-Term Incentive Plan. The number of performance shares to be delivered at the end of the three-year vesting period depended on the extent to which internal (recurring operating income and free cash flow) and external (total shareholder return [TSR]) performance conditions were met over the 2016-2018 period.

At its meeting on March 27, 2019, on the recommendation of the Appointments and Compensation Committee, the Board of Directors noted that the overall achievement rate for all of the Plan's performance conditions was 75.54%, corresponding to:

- recurring operating income (35% weighting): 107.8% achievement, representing a vesting rate of 86% for the shares contingent on this condition;

- free cash flow (35% weighting): 105.8% achievement, representing a vesting rate of 85% for the shares contingent on this condition;

- TSR (30% weighting): 2.49 points higher than that of the peer companies, representing a vesting rate of 52.5% for the shares contingent on this condition.

Consequently, 20,691 performance shares were delivered to the Chief Executive Officer at the end of the vesting period, on July 30, 2019 (number of rights initially granted multiplied by the overall performance condition achievement rate). For the Chief Executive Officer, the vesting period is followed by a one-year lock-up period. Accordingly, the delivered performance shares will be transferable as from July 31, 2020.

Performance shares that became available for the Chief Executive Officer in 2020

Performance shares that became available for the Chief Executive Officer	Plan date	Total number of shares that became available (delivered shares)
Philippe Petitcolin	2017 Plan – March 23, 2017	26,062

At its meeting on March 23, 2017, the Board of Directors decided to grant 27,165 performance shares to the Chief Executive Officer, Philippe Petitcolin, under the 2017 Long-Term Incentive Plan. The number of performance shares to be delivered at the end of the three-year vesting period depended on the extent to which internal (recurring operating income and free cash flow) and external (total shareholder return [TSR]) performance conditions were met over the 2017-2019 period.

At its meeting on March 26, 2020, on the recommendation of the Appointments and Compensation Committee, the Board of Directors noted that the overall achievement rate for all of the Plan's performance conditions was 95.94%, corresponding to:

- recurring operating income (35% weighting): 112.4% achievement, representing a vesting rate of 89.9% for the shares contingent on this condition;

- free cash flow (35% weighting): 123.1% achievement, representing a vesting rate of 98.5% for the shares contingent on this condition;

- TSR (30% weighting): 63.39 points higher than that of the peer companies, representing a vesting rate of 100% for the shares contingent on this condition.

Consequently, 26,062 performance shares were delivered to the Chief Executive Officer at the end of the vesting period, on March 25, 2020 (number of rights initially granted multiplied by the overall performance condition achievement rate). For the Chief Executive Officer, the vesting period is followed by a one-year lock-up period. Accordingly, the delivered performance shares will be transferable as from March 26, 2021.

Summary table of performance shares granted to the Chief Executive Officer (currently in the vesting period)

Grantee	Plan date	Total number of shares granted (currently in the vesting period)
Philippe Petitcolin	2018 Plan – July 24, 2018	13,600
Philippe Petitcolin	2019 Plan – March 27, 2019	13,350
TOTAL		26,950

Summary table of stock options granted in 2019 to the Chief Executive Officer

None.

Summary table of stock options exercised in 2019 by the Chief Executive Officer

None.

Compensation policy and compensation packages for corporate officers

Summary table of employment contracts, supplementary pension plans and termination benefits of the Chairman of the Board of Directors and the Chief Executive Officer

Name	Position	Employment contract	Supplementary pension plan	Indemnities or benefits payable for termination of office, change in duties, or non-compete agreements
Ross McInnes	Chairman of the Board of Directors	No ⁽¹⁾	Yes ⁽³⁾	No
Philippe Petitcolin	Chief Executive Officer	Yes, suspended ⁽²⁾	Yes ⁽³⁾	No ⁽⁴⁾

(1) Employment contract suspended from April 21, 2011 until May 23, 2019 and terminated on May 23, 2019, when the Chairman's term of office was renewed (see sections 6.4 and 6.6.2.1). The Chairman did not receive any severance pay or other specific benefits on the termination of his employment contract. At that date, he lost the entitlements to severance pay and retirement bonuses associated with his employment contract (see section 6.6.2.1 of the 2018 Registration Document). Compensation was paid to him for paid leave that he had accrued and not taken prior to the suspension of his employment contract.

(2) Employment contract suspended since April 23, 2015, the date on which he was appointed Chief Executive Officer (see section 6.4).

(3) No pension plan has been set up specifically for the Chairman of the Board of Directors or the Chief Executive Officer. They are beneficiaries, subject to the same terms and conditions as the other plan members. They remain potential beneficiaries of the defined benefit supplementary pension plan which has now been closed and whose benefit entitlements were frozen at December 31, 2016 (see sections 6.6.2.1 and 6.6.2.2).

(4) See section 6.6.2.2, "Indemnities or benefits payable for the termination of office or a change in duties".

6.6.2.4 Pay ratios between the level of compensation of the Chairman and the Chief Executive Officer and the average and median compensation of Safran's employees

Compensation multiples (ratios between the compensation of the Chairman and the Chief Executive Officer and the average and median compensation of Safran's employees) and annual changes in compensation and the Group's performance

1) Calculation method:

The multiples shown have been calculated based on the following compensation and benefits paid or awarded for the years 2015 to 2019: fixed compensation, annual variable compensation, the Additional Payment under the Article 82 defined contribution plan, Directors' compensation (formerly "attendance fees"), employee

share ownership and long-term incentive plans (performance share grants measured at fair value at the grant date).

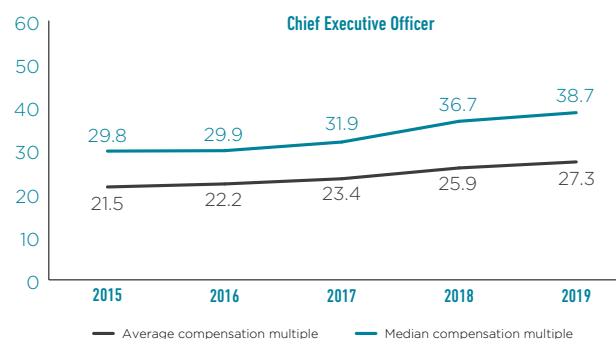
For any given year Y, the number of employees taken into account for the calculation corresponds to those who were with the Group for the whole of years Y-1 and Y.

2) Safran SA ratios:

Scope:

In accordance with the applicable regulations, the scope used for calculating these pay ratios corresponds to Safran SA (France), a listed company and head of the Safran Group (around 1,700 employees, representing 4% of the Group's headcount in France).

Compensation multiples for the past five years (Safran SA)

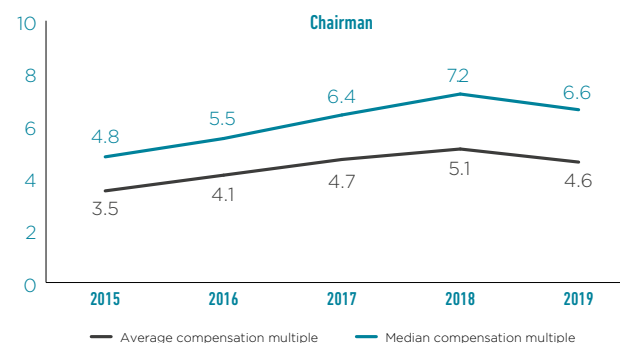


Observation:

For 2015, the multiple was calculated based on the cumulative compensation paid to Jean-Paul Herteman (Chairman and Chief Executive Officer until April 23, 2015) and Philippe Petitcolin (Chief Executive Officer since April 23, 2015), proportionately to the respective durations of their terms of office.

For 2016, Jean-Paul Herteman's annual variable compensation relating to 2015 (paid in 2016) for his role as Chief Executive Officer has been taken into account in the calculation.

Compensation multiples for the past five years (Safran SA)



Observation:

For the 2015 multiple, Ross McInnes' compensation in his capacity as Chairman (which took effect on April 23, 2015) has been annualized for the purpose of the calculation.

3) Ratio for the “France” scope

Scope:

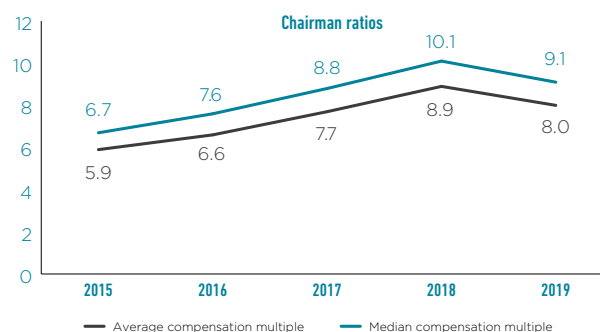
On a voluntary basis, the ratios have also been calculated for all Safran Group companies in France (representing an average of 34,334 employees over the five year period).

Employees in the former Zodiac Aerospace scope have been taken into account from the date of acquisition of this group, in 2018.

Compensation multiples for the past five years (France)



Compensation multiples for the past five years (France)



Observation:

For the 2015 multiple, Ross McInnes' compensation in his capacity as Chairman (which took effect on April 23, 2015) has been annualized for the purpose of the calculation. The increase in the multiple between 2017 and 2018 was mainly due to an increase in the Chairman's annual fixed compensation, from €350,000 to €450,000.

4) Annual changes in compensation and the Group's performance

The following table presents year-on-year changes in the Group's performance and in paid and awarded compensation and benefits.

	2015-2016	2016-2017	2017-2018	2018-2019
Change in Group performance				
Adjusted attributable profit	+22%	+33%	-17%	+35%
Changes in compensation				
Chairman	+13%	+19%	+13%	-8%
Chief Executive Officer	-1%	+9%	+15%	+7%
Average compensation of Safran Group employees in France	+1%	+3%	-2%	+3%

Over the past five years, changes in the Group's profit have reflected a series of non-recurring events that make each year-on-year comparison atypical. They include numerous changes in scope of consolidation (contribution of space activities to the ASL joint venture in 2016, divestment of the security activities in 2017 and acquisition of the former Zodiac Aerospace activities in 2018) and changes in accounting standards (including the impact of the transition to IFRS 15, "Revenue from Contracts with Customers" in 2018). While profit from operations, which reflects the Group's recurring performance, has grown steadily, growth in profit has been more volatile as a result of the non-recurring events of recent years.

In particular, the negative growth in 2018 versus 2017 (-17%) was due to the high basis of comparison created by the recognition of a significant one-off capital gain in 2017.

At the same time, the decline in the average compensation of Safran Group employees in France between 2017 and 2018 is explained by the inclusion of former Zodiac Aerospace employees whose average annual pay was lower than that of Safran employees in France.

6.6.3 Directors' compensation (formerly "attendance fees")

Article 17 of Safran's bylaws provides for the payment of compensation to Directors for the duties they perform. The rules for allocating this compensation are set by the Board of Directors.

On February 26, 2018, the Board of Directors amended the rules for allocating Directors' compensation (formerly "attendance fees"), effective from 2018. These new rules give an even greater weighting to the variable portion based on Directors' attendance at meetings of the Board and Board Committees and remove the entitlement to Directors' compensation for the Chairman and the Chief Executive Officer.

The rules applicable for allocating the Directors' compensation (formerly "attendance fees"), as approved by the Board of Directors, are those currently described in the Board's Internal Rules.

Under the new legal rules concerning Directors' compensation⁽¹⁾, a compensation policy must now be prepared for Directors and submitted for an *ex-ante* vote by shareholders at the

Annual General Meeting. The specific compensation policy for Directors will be put to the vote at the Annual General Meeting of May 28, 2020 (14th resolution).

This policy, which is presented in section 6.6.1.5, will therefore apply from 2020, subject to approval at the Annual General Meeting. The allocation principles and rules described in this policy are the same as those currently set out in the Board of Directors' Internal Rules, which were applied for the 2019 allocation.

When setting this policy, the Board of Directors considered that the principles provided for in the allocation rules currently contained in the Board's Internal Rules are still relevant. The policy also mentions the amounts currently associated with the allocation rules, which were applied for the 2019 allocation, and sets out, for information purposes, the amounts that will be used as from 2020.

On March 26, 2020, the Board of Directors set the individual allocations of Directors' compensation for 2019, as shown opposite.

(1) Ordonnance 2019-1234 dated November 27, 2019 and Decree no. 2019-1235 dated November 27, 2019.

6.6.3.1 Summary table of compensation paid to the members of the Board of Directors

	Amount of compensation			
	2018		2019	
	Gross amount	Net amount paid in 2019	Gross amount	Net amount paid in 2020
NON-EXECUTIVE DIRECTORS (EXCLUDING THE REPRESENTATIVE OF THE FRENCH STATE AND DIRECTORS PUT FORWARD BY THE FRENCH STATE)				
Hélène Auriol Potier	€66,500.00	€46,550.00 ⁽¹⁾	€76,734.00	€53,714.02
Éliane Carré-Copin (Director until July 25, 2019)	€44,300.00	€31,010.00 ⁽¹⁾⁽²⁾	€27,183.00	€19,027.84
Hervé Chaillou (Director since November 20, 2019)	-	-	€4,530.00	€3,751.20
Jean-Lou Chameau	€70,200.00	€49,140.00 ⁽¹⁾	€83,719.00	€58,603.11
Monique Cohen	€85,000.00	€59,500.00 ⁽¹⁾	€94,384.00	€66,068.90
Odile Desforges	€81,300.00	€56,910.00 ⁽¹⁾	€80,227.00	€56,158.57
Didier Domange	€42,100.00	€29,470.00 ⁽¹⁾	€76,734.00	€53,714.02
F&P, represented by Robert Peugeot	€49,500.00	€49,500.00	€52,289.00	€52,288.82
Laurent Guillot (Director since May 23, 2019)	-	-	€37,659.00	€26,361.49
Brigitte Lesschaeve (Director until November 19, 2019)	€43,200.00	€35,769.60 ⁽¹⁾⁽³⁾	€47,758.00	€39,543.94
Gérard Mardiné	€66,500.00	€55,062.00 ⁽³⁾	€52,289.00	€43,295.14
Daniel Mazaltarim	€62,800.00	€51,998.40 ⁽¹⁾⁽³⁾	€59,273.00	€49,078.24
Fernanda Saraiva (Director since July 25, 2019)	-	-	€18,122.00	€15,004.81
Patrick Pélatà	€73,900.00	€51,730.00 ⁽¹⁾	€87,211.00	€61,047.66
Sophie Zurquiyah	€66,550.00	€46,585.00 ⁽¹⁾	€59,273.00	€41,491.27
Total compensation paid to non-executive Directors excluding the representative of the French State and Directors put forward by the French State	€800,250.00	€598,193.00	€857,385	€639,149.03
Amount paid to the French Treasury ⁽⁴⁾	€164,000.00	€164,000.00	€142,614.00	€142,614.44
Total compensation paid to non-executive Directors	€964,250.00	€762,193.00	€1,000,000	€781,763.47
THE CHAIRMAN AND THE CHIEF EXECUTIVE OFFICER				
Ross McInnes	-	-	-	-
Philippe Petitcolin	-	-	-	-
Total compensation paid to the Chairman and the Chief Executive Officer			-	-
TOTAL COMPENSATION PAID TO MEMBERS OF THE BOARD OF DIRECTORS	€964,250.00	€762,193.00	€1,000,000	€781,763.47

(1) After the 17.2% deduction for social security contributions and the 12.8% tax deduction applicable for individuals domiciled in France for tax purposes.

(2) Director representing employee shareholders who pays her compensation to charities (after taxes and social security contributions).

(3) As the Directors representing employees requested that their compensation be paid over to their trade union, these amounts were exempt from tax and social security contributions.

(4) For the representative of the French State and Directors put forward by the French State.

Payment of the Directors' compensation (formerly "attendance fees") for 2019 is suspended until the Board's gender parity situation is rectified (return to a minimum of at least 40% women – see section 6.2.4.2). The Directors' compensation will therefore only be paid after the May 28, 2020 Annual General Meeting, if the shareholders at that Meeting follow the Board of Directors' recommendations (see sections 6.2.4.2 above and 8.2.1.3).

6.6.3.2 Compensation in 2019 of Directors representing employee shareholders and Directors representing employees

Brigitte Lesschaeve, who was a Director representing employees until November 19, 2019, received €74,499 in gross compensation for 2019 (until November 19) under her employment contract with Safran Landing Systems. She also received statutory and discretionary profit-sharing as well as a Company top-up contribution to the Group savings plan on the same basis and under the same terms as the other employees of the Group's companies. At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to Brigitte Lesschaeve under the defined contribution supplementary pension plan of which she is a beneficiary (Article 83 Core Plan) was €1,206.

Fernanda Saraiva, who has been a Director representing employees since July 25, 2019, received €33,510 in gross compensation for 2019 (as from July 25) under her employment contract with Safran Helicopter Engines. She also received statutory and discretionary profit-sharing as well as a Company top-up contribution to the Group savings plan on the same basis and under the same terms as the other employees of the Group's companies. At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to Fernanda Saraiva under the defined contribution supplementary pension plan of which she is a beneficiary (Article 83 Core Plan) was €1,502.

Hervé Chaillou, who has been a Director representing employees since November 20, 2019, received €7,193 in gross compensation for 2019 (for the months of November and December) under his employment contract with Safran Aircraft Engines. He also received statutory and discretionary profit-sharing as well as a Company top-up contribution to the Group savings plan on the same basis and under the same terms as the other employees of the Group's companies. He was not a beneficiary of Safran's defined contribution supplementary pension plans (Article 83).

Daniel Mazaltarim, a Director representing employees, received €101,358 in gross compensation in 2019 under his employment contract with Safran Aircraft Engines. He also received statutory and discretionary profit-sharing as well as a Company top-up contribution to the Group savings plan on the same basis and under the same terms as the other employees of the Group's companies. At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to Daniel Mazaltarim under the defined contribution supplementary pension plan of which he is a beneficiary (Article 83 Core Plan) was €2,097.

Éliane Carré-Copin, who was a Director representing employee shareholders until July 25, 2019, received €41,853 in gross compensation for 2019 (until July 25) under her employment contract with Safran. She also received statutory and discretionary profit-sharing as well as a Company top-up contribution to the Group savings plan on the same basis and under the same terms as the other employees of the Group's companies. As Éliane Carré-Copin retired during 2019, she received €12,816 in compensation for accrued vacation and a €17,965 end-of-contract bonus. She is receiving an annuity representing an initial amount of €1,656 under the defined contribution supplementary pension plan (Article 83 Core Plan).

Gérard Mardiné, a Director representing employee shareholders, received €138,600 in gross compensation in 2019 under his employment contract with Safran Electronics & Defense. He also received statutory and discretionary profit-sharing as well as a Company top-up contribution to the Group savings plan on the same basis and under the same terms as the other employees of the Group's companies. At December 31, 2019, the estimated theoretical amount⁽¹⁾ of the annuity that could be paid to Gérard Mardiné under the defined contribution supplementary pension plan of which he is a beneficiary (Article 83 Core Plan) was €2,930.

6.6.4 Long-term incentive plan

6.6.4.1 Stock options

No stock options were granted during 2019 and there are currently no stock options outstanding.

When the merger of Zodiac Aerospace into Safran was completed on December 1, 2018, Safran took over from Zodiac Aerospace with respect to all of the obligations resulting from the commitments given by Zodiac Aerospace to holders of Zodiac Aerospace stock options outstanding at the merger completion date. Consequently, the outstanding Zodiac Aerospace stock options are now exercisable for ordinary Safran shares based on the exchange ratio used for the merger. The characteristics of the plans in force are described in section 7.3.7.3. Neither the Chairman nor the Chief Executive Officer hold any of these stock options.

6.6.4.2 2019 performance share plan

Performance share grants are a common method used by companies in order to strengthen the motivation and teamwork of beneficiaries and foster their loyalty, while at the same time aligning their interests with those of the Company and its shareholders.

In the 17th resolution of the May 25, 2018 Annual General Meeting, the Company's shareholders authorized the Board of Directors to grant performance shares to (i) employees or certain categories of employees of the Company and/or of other entities in the Group, and/or (ii) executive corporate officers of the Company and/or of other entities in the Group (excluding the Chairman of the Company's Board of Directors when the duties of Chairman of the Board and Chief Executive Officer are separated), provided said corporate officers are eligible for such grants under the applicable law. The shareholders gave full powers to the Board of Directors to determine the beneficiaries of the grants.

The total number of performance shares granted could not exceed 0.4% of the Company's capital as at the date on which the Board of Directors decides to make the share grants (main ceiling), or two-thirds of this percentage in any given fiscal year (sub-ceiling).

In addition, it was specified that for each grant of performance shares the maximum number of shares granted to each of the Company's corporate officers could not exceed 5% of the total number of shares making up the grant (representing a sub-ceiling of 0.01% of the Company's capital per corporate officer per fiscal year).

(1) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

Acting on the recommendation of the Appointments and Compensation Committee, at its March 27, 2019 meeting, the Board of Directors decided to grant 732,130 performance shares to certain Group managers and senior executives under the 2019 Long-Term Incentive Plan, which is designed to recognize contributions to the Group's operating performance and the creation of shareholder value, as measured over a period of several years.

The shares granted could either be new shares or existing shares previously bought back by the Company.

The main conditions and characteristics of these share grants authorized by the Board are the same as those presented at the Annual General Meeting of May 23, 2019 (see section 8.2.2 of the 2018 Registration Document) and are set out below.

Conditions

The vesting of all of the performance shares granted is subject to the achievement of internal and external performance conditions, which are similar for all beneficiaries and are assessed over three full consecutive fiscal years, including 2019, the year in which the performance shares were granted. In addition, the shares will only vest if the beneficiary still forms part of the Group at the vesting date. The applicable conditions are described in section 6.6.4.2.

Standard internal conditions applying to all beneficiaries:

These standard internal performance conditions count for at least 70% of the total for all beneficiaries.

The two standard internal performance conditions are based on:

- ROI (adjusted recurring operating income, as defined in section 2.1.2);
 - FCF (free cash flow, as defined in section 2.2.3);
- each count for half of the weighting assigned to these two conditions.

The achievement levels for these conditions will be measured by reference to the average of the targets for ROI and FCF set for the fiscal year in which the grant takes place and for the following two fiscal years, as contained in the most recent medium-term plan (MTP) approved by the Board of Directors before the grant date. The following achievement levels have been set for these conditions:

- lowest achievement level: if 80% of the MTP target is achieved, 40% of the shares contingent on that target will vest;
- target achievement level: if 100% of the MTP target is achieved, 80% of the shares contingent on that target will vest;
- highest achievement level (cap): if 125% of the MTP target is achieved, 100% of the shares contingent on that target will vest;
- between the lowest achievement level and the target level, and between the target level and the highest achievement level, the number of shares that will vest will vary in linear fashion. Below the lowest achievement level, none of the shares contingent on the internal performance condition concerned will vest.

The performance criteria would be measured by comparing results against a same-scope reference base. If an entity is deconsolidated, the reference bases used for past grants will be adjusted to exclude the amounts related to the deconsolidated entity for the years concerned. For the first performance share grant after a new entity has been consolidated, additional performance conditions may be added in line with the method presented in the paragraph above. Past grants will continue to be measured based on the previous scope of consolidation (i.e., not including the newly-consolidated entity).

External performance condition:

The external performance condition counts for 30% of the total vested shares for the Chief Executive Officer and is based on Safran's total shareholder return (TSR) performance as measured relative to a composite index that enables simultaneous comparison with the European market, the US market and the reference index for the French market. This composite index is made up of:

- the STOXX® Europe TMI Aerospace & Defense index (Stoxx A&D Net Return);
- the S&P Aerospace & Defense Industry Select index (S&P A&D);
- the CAC 40 index (CAC 40 Gross Return).

Each of these three indices counts for one-third of the composite index.

The following performance achievement levels have been set for this condition:

- lowest achievement level: if Safran's TSR is equal to that of the composite index, 40% of the shares contingent on the external performance condition will vest;
- target achievement level: if Safran's TSR is 8 points higher than that of the composite index, 80% of the shares contingent on the external performance condition will vest;
- highest achievement level: if Safran's TSR is 12 points higher than that of the composite index, 100% of the shares contingent on the external performance condition will vest;
- between the lowest achievement level and the target level, and between the target level and the highest achievement level, the number of shares that will vest will vary in linear fashion. Below the lowest achievement level, none of the shares contingent on the external performance condition will vest.

Vesting and lock-up periods

The shares granted are subject to a three-year vesting period as set by the Board of Directors.

In addition, the shares granted to the Chief Executive Officer and members of Safran's Executive Committee are subject to a lock-up period of at least one year following their vesting date.

In accordance with the Board of Directors' Internal Rules, the Chief Executive Officer is required to hold in registered form a proportion of his vested shares, as set by the Board of Directors, until his term of office as Chief Executive Officer ends.

In addition, each beneficiary has given a formal undertaking not to hedge the risks related to the shares granted to them until those shares become freely transferable (i.e., at the end of either the vesting period or the lock-up period set by the Board of Directors, depending on the beneficiary concerned).

Performance shares granted to the Chief Executive Officer

On March 27, 2019, the Board of Directors decided to grant 13,350 performance shares to the Chief Executive Officer under the 2019 Long-Term Incentive Plan (see section 6.6.2.2), which represented less than 5% of the total grant and 0.003% of the Company's capital at the grant date.

Summary table of performance share plans at December 31, 2019

	2016 Plan – July 28, 2016	2017 Plan – March 23, 2017	2018 Plan – July 24, 2018	2019 Plan – March 27, 2019
Shareholder authorization	May 19, 2016	May 19, 2016	May 25, 2018	May 25, 2018
Grant date by the Board of Directors	July 28, 2016	March 23, 2017	July 24, 2018	March 27, 2019
Number of performance shares granted	558,840	567,747	574,712	732,130
■ Of which to corporate officers	27,390	27,165	13,600	13,350
■ Philippe Petitcolin	27,390	27,165	13,600	13,350
■ Of which to the ten employees (non-corporate officers) who received the most shares	57,300	58,980	61,713	57,200
Number of beneficiaries at the grant date	506	430	440	589
Vesting date	July 30, 2019	March 25, 2020	July 26, 2021	March 29, 2022
■ Availability date	July 30, 2019	March 25, 2020	July 26, 2021	March 29, 2022
■ Availability date for the Chief Executive Officer (end of lock-up period)	July 31, 2020	March 26, 2021	July 27, 2022	March 30, 2023
Availability date for other Executive Committee members	July 31, 2020	March 26, 2021	July 27, 2022	March 30, 2023
Performance conditions	See section 6.6.4.2 of the 2016 Registration Document ⁽¹⁾	See section 6.6.4.2 of the 2017 Registration Document ⁽²⁾	See section 6.6.4.2 of the 2018 Registration Document ⁽³⁾	See section 6.6.2.2 of this Universal Registration Document ⁽⁴⁾
Total number of shares canceled or forfeited	209,367	58,231	19,109	55,200
Number of performance shares vested at December 31, 2019	349,473	509,516	0	0
Number of performance shares outstanding at December 31, 2019	N/A	N/A	555,603	676,930

(1) Two internal conditions (ROI and FCF, together counting for 70% of the total vested shares) and one external condition (counting for 30%) based on Safran's TSR performance compared with a panel of peer companies operating in the same business sectors as Safran. These peer companies are: Airbus, BAe Systems, Boeing, Leonardo SPA, MTU Aero Engines, Rolls Royce and Thales. Gemalto and Zodiac Aerospace have been excluded from the panel since January 1, 2017.

(2) Two internal conditions (ROI and FCF, together counting for 70% of the total vested shares) and one external condition (counting for 30%) based on Safran's TSR performance compared with a panel of peer companies operating in the same business sectors as Safran. These peer companies are: Airbus, BAe Systems, MTU Aero Engines, Rolls Royce, Thales, Boeing, Leonardo SPA, Meggitt, Spirit Aerospace and Esterline (until it was delisted).

(3) As well as the standard internal performance conditions (ROI and FCF, counting for 45%, 70% or 80% of the total vested shares depending on the beneficiary), additional performance conditions have been added, applicable to a certain category of beneficiaries involved in integrating Zodiac Aerospace (including the Chief Executive Officer). These additional conditions count for 25%, reducing the weighting of the standard conditions to 45%. The external condition (counting for 30% or 20% depending on the beneficiary) is based on Safran's TSR performance compared with that of a composite index combining three indices (each counting for one-third): STOXX® Europe TMI Aerospace & Defense (Stoxx A&D Net Return), S&P Aerospace & Defense Industry Select (S&P A&D) and the CAC 40 (CAC 40 Gross Return).

(4) Two internal conditions (ROI and FCF, together counting for 70% or 80% of the total vested shares depending on the beneficiary) and one external condition (counting for 30% or 20% depending on the beneficiary) based on Safran's TSR performance compared with a composite index combining three indices (each counting for one-third): STOXX® Europe TMI Aerospace & Defense (Stoxx A&D Net Return), S&P Aerospace & Defense Industry Select (S&P A&D) and the CAC 40 (CAC 40 Gross Return).

6.6.4.3 2020 performance share plan

At its March 26, 2020 meeting, using the authorization granted in the 30th resolution of the Annual General Meeting of May 23, 2019, the Board of Directors authorized grants of performance shares to certain managers and senior executives of the Group (2020 Long-Term Incentive Plan). The vesting period has been set at three years (2020-2022) and the number of shares that will ultimately vest will depend on the extent to which the applicable conditions are met over that period. No performance shares were granted to the Chief Executive Officer under the 2020 Long-Term Incentive Plan given that his term of office expires at the end of 2020 (i.e., within less than a year of the grant date).

6.7 CROSS-REFERENCE TABLE FOR THE CORPORATE GOVERNANCE REPORT PREPARED IN ACCORDANCE WITH ARTICLE L.225-37 OF THE FRENCH COMMERCIAL CODE

This report was reviewed by the Appointments and Compensation Committee (for the parts falling within its remit), before being submitted to the Board of Directors, which approved it at its meeting on March 26, 2020.

Cross-reference table

The table below lists the references to the sections of this Universal Registration Document in which information is provided on the topics required in the corporate governance report.

Topics required in the corporate governance report	Section(s) of the 2019 Universal Registration Document
Framework Corporate Governance Code	Sections 6.1 and 6.4
Structure of Executive Management	Section 6.1.1
Powers and responsibilities of the Chief Executive Officer and restrictions on these powers and responsibilities	Sections 6.1.3 and 6.1.4.2
Membership structure of the Board of Directors	Section 6.2
Offices and positions held by Safran's Directors	Section 6.2.2
Organization and operating procedures of the Board of Directors and the Board Committees	Section 6.3
Self-assessment by the Board of its operating procedures	Section 6.3.5
Diversity policy	Sections 6.2.4.2 and 5.7.4.1
Compensation policies for the corporate officers and related resolutions presented at the Annual General Meeting	Sections 6.6 and 8.2.1.8
Compensation and benefits of corporate officers	Sections 6.6.2 and 6.6.4
Related-party agreements	Sections 7.1.4 and 8.3
Procedure for assessing related-party agreements concerning routine operations	Section 6.2.5
Commitments given by the Company to its corporate officers	Sections 6.6.2 and 8.3
Terms and conditions of shareholders' participation in General Meetings and any restrictions on such participation	Section 7.1.2.2
Ownership structure	Section 7.3
Authorizations currently in force granted to the Board of Directors	Section 8.2.5
Items with a potential impact in the event of a public offering	Sections 7.1.2.2, 7.1.4.2 and 7.1.2.6

Cross-reference table for the corporate governance report prepared in accordance with Article L.225-37 of the French Commercial Code

The table below sets out the references to the sections of this Universal Registration Document corresponding to the components of the compensation of corporate officers referred to in sub-section I of Article L.225-37-3 of the French Commercial Code, as presented in the corporate governance report, and which will be submitted for shareholder approval in the 10th resolution of the May 28, 2020 Annual General Meeting (see section 8.2.1.6).

Sub-section I of Article L.225-37-3 of the French Commercial Code	Topics required in the corporate governance report	Section(s) of the 2019 Universal Registration Document
1	Annual compensation and benefits	Section 6.6.2
2	Relative proportions of fixed compensation and annual variable compensation	Section 6.6.2.2
3	Use of the possibility of requesting the restitution of variable compensation	N/A
4	Commitments given by the Company corresponding to compensation components, indemnities or benefits payable or potentially payable on account of the commencement, termination or change of duties or subsequent thereto	Section 6.6.2
5	Total compensation paid or allocated by an entity included in the Company's scope of consolidation	N/A
6	For the Chairman and the Chief Executive Officer, the ratios between each of their levels of compensation and the average and median compensation of the Company's employees (on a full-time equivalent basis) other than the corporate officers	Section 6.6.2.4
7	Year-on-year changes in compensation, the Company's performance, the average compensation of the Company's employees (on a full-time equivalent basis) other than its executives, and the ratios referred to in point 6, during at least the past five years, all presented aggregately and in a way that enables meaningful comparisons	Section 6.6.2.4
8	Explanation of how compensation packages comply with the applicable compensation policy, including how they contribute to the Company's long-term performance, and how the performance criteria have been applied	Section 6.6.2
9	Explanation of how the general vote on compensation taken at the last Annual General Meeting has been taken into account	N/A (resolutions approved at the May 23, 2019 Annual General Meeting)
10	Any differences compared with the procedure for implementing the compensation policy or any exemptions (applied in accordance with the second paragraph of sub-section III of Article L.225-37-2 of the French Commercial Code)	N/A
11	Suspension and restitution of Directors' compensation due to non-compliance with the legislation on gender parity on the Board of Directors (in compliance with the provisions of the second paragraph of Article L.225-45 of the French Commercial Code)	Section 6.2.4.2



7

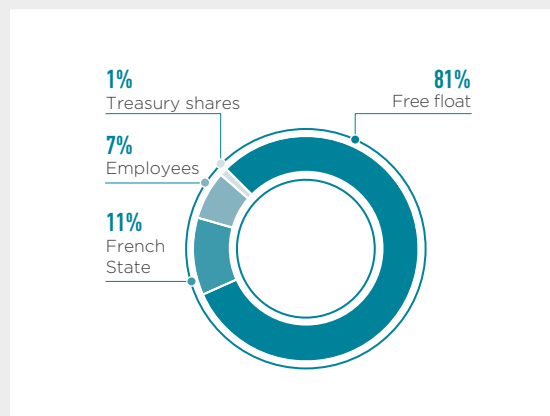
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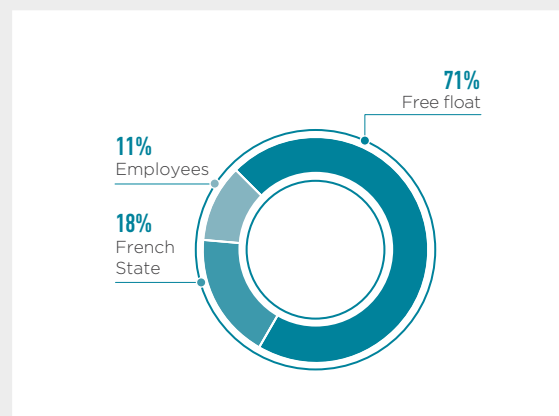
FOREWORD

MAIN DATA OVER THREE YEARS

■ BREAKDOWN OF SHARE CAPITAL AT DECEMBER 31, 2019



■ BREAKDOWN OF EXERCISABLE VOTING RIGHTS AT DECEMBER 31, 2019



At December 31, 2019, Safran's share capital amounted to €85,446,831, comprising 427,234,155 shares, made up of:

- 400,583,097 fully paid-up ordinary shares with a par value of €0.20 each; and
- 26,651,058 fully paid-up (unlisted) Class A Preferred Shares with a par value of €0.20 each.

■ SAFRAN SHARE PRICE

Main stock market data over three years	2017	2018	2019
NUMBER OF SHARES AS OF DECEMBER 31	417,029,585	435,767,951	427,234,155
SAFRAN SHARE PRICE (in €)			
High	92.250	122.250	150.850
Low	61.510	81.040	101.100
Closing	85.910	105.400	137.650
MARKET CAPITALIZATION AS OF DECEMBER 31 (in € millions)	35,827	45,930	58,809

7.1 GENERAL INFORMATION AND BYLAWS

7.1.1 General information

Corporate name

Safran.

Registered office

2, boulevard du Général-Martial-Valin, 75015 Paris – France.

Tel.: +33 (0)1 40 60 80 80

Legal form

Safran is a French *société anonyme* (joint-stock corporation).

Registration

The Company is registered with the Paris Trade and Companies Registry under number 562 082 909.

Its legal entity identifier (LEI) is 969500UIC89GT3UL7L24.

Incorporation date and term

The Company was incorporated on August 16, 1924.

The Company's term has been set at 99 years from the date of registration with the Trade and Companies Registry, i.e., expiring on August 28, 2023, unless said term is extended or the Company is wound up in advance.

Corporate purpose

Under Article 3 of the bylaws, the Company's purpose, in any and all countries, for its own account, on behalf of third parties, or directly or indirectly in conjunction with third parties, is to carry out research, design, development, testing, manufacturing, sales, maintenance and support operations for high-technology activities, and notably for:

- all aviation and aerospace activities for the civilian and military markets, particularly those related to:
 - aviation and aerospace propulsion solutions, including the operation of systems that produce or use energy, and equipment designed to be used with such systems, and
 - equipment and sub-systems used in aircraft, helicopters, launch vehicles and missiles;
 - all air, land and naval defense activities, particularly those related to:
 - optronics, avionics and navigation solutions and services, and
 - electronics and critical software for aerospace and defense applications;
 - all security activities, particularly those related to:
 - multi-biometric identification solutions, identity management solutions, smart cards and secure transactions, and
 - detection solutions for explosives and illicit substances;
- and generally, to conduct any and all transactions of a commercial, industrial or financial nature or involving movable assets or real estate that relate directly or indirectly to the above corporate purpose or to anything incidental or conducive to the achievement of said corporate purpose.

At the Annual General Meeting on May 28, 2020 (17th resolution – see section 8.2.2), the shareholders will be invited to simplify the corporate purpose, notably by deleting the reference to security activities, which were sold in 2017.

Fiscal year

The fiscal year begins on January 1 and ends on December 31.

7.1.2 Principal provisions of the bylaws

At the Annual General Meeting of May 23, 2019, the shareholders approved an amendment to Article 14.8 of the bylaws clarifying the procedures for the appointment of Directors representing employee shareholders.

Article 6 of the bylaws was amended following the capital reduction decided by the Board of Directors on December 19, 2019 (see sections 7.2.1 and 7.2.7.1). This article was also regularly updated to reflect successive capital increases resulting from the exercise of stock options (see section 7.3.7.3).

7.1.2.1 Board of Directors

Membership structure

Under the terms of Article 14 of the bylaws, the Company is administered by a Board of Directors with at least three and no more than 13 members, including, where applicable, a representative appointed by the French State and/or Directors put forward by the French State in accordance with Articles 4 and/or 6 of French government *ordonnance* (order) 2014-948 of August 20, 2014 regarding the governance of companies in which the French State has a stake and regarding corporate actions involving these companies. A proposal to increase the maximum number of Board members from 13 to 14 will be put to the shareholders at the Annual General Meeting of May 28, 2020 (see section 8.2.2).

The maximum number of 13 Board members may be increased to allow for the inclusion of Directors representing employee shareholders, appointed as provided for in Article 14.8 of the bylaws, and Directors representing employees, appointed as provided for in Article 14.9 of the bylaws.

The Board of Directors appoints a Chairman and, if applicable, a Vice-Chairman from among its members, who must be individuals.

Representatives of employee shareholders

The Safran Board of Directors includes one or several Directors representing employee shareholders, who are elected by the Annual General Meeting in accordance with Article 14.8 of the bylaws.

Representatives of employees

In accordance with the law on securing employment of June 14, 2013, the Safran Board of Directors includes Directors representing employees, who are elected under Article 14.9 of the Company's bylaws.

Shareholding

Under Article 14.5 of the bylaws, each member of the Board of Directors shall be required to own a certain number of shares in the Company for his/her entire term of office in accordance with the terms and conditions set down in the Board of Directors' Internal Rules. As an exception, this shareholding obligation shall not apply to the representative of the French State and/or Directors put forward by the French State in accordance with Articles 4 and/or 6 of French government *ordonnance* (order) 2014-948 of August 20, 2014, or Directors representing employees or Directors representing employee shareholders. However, under Article 14.8 of the bylaws, each Director representing employee shareholders shall be required to hold – either individually or through a corporate mutual fund set up as part of the Group's employee share ownership program – at least one share or a number of units in the fund equivalent to at least one share.

Term of office – age limit

Members of the Board of Directors are appointed by the Ordinary Shareholders' Meeting for a term of four years, ending at the close of the Ordinary Shareholders' Meeting held during the year in which their term of office expires in order to approve the financial statements for the previous year. Members of the Board of Directors may be re-appointed, it being specified that:

- the number of Directors (both individuals and permanent representatives of legal entities) over the age of 70 may not exceed one-quarter of the total number of Directors in office, rounded up to the nearest whole number where appropriate;
- no Director over the age of 70 may be appointed if such appointment would raise the number of Directors over the age of 70 to more than one quarter of the total number of Directors in office, rounded up to the nearest whole number where appropriate;
- if the number of Directors over the age of 70 exceeds one quarter of the total number of Directors in office, and if no Director over the age of 70 resigns, the oldest Board member shall automatically be deemed to have resigned.

Article 15 of the bylaws stipulates that the duties of the Chairman and Vice-Chairman shall end no later than at the close of the first Ordinary Shareholders' Meeting following the date on which they reach the age of 75.

Meetings

Under the terms of Article 18 of the bylaws, the Board of Directors shall meet as often as required in the interests of the Company and at least four times a year. Meetings shall be called by the Chairman, or if he is unable to do so, by the Vice-Chairman.

If the Board has not met for more than two months, a group of at least one-third of the Directors may ask the Chairman to call a meeting to discuss a specific agenda.

The Chief Executive Officer or the Deputy Chief Executive Officer(s) may also request that the Chairman call a Board meeting to consider a specific agenda.

In both of these cases the Chairman is bound by such requests and must call a Board meeting within seven days of receiving the request (or within a shorter timeframe in the event of urgency).

Board meetings shall only be validly constituted if at least half of the Directors are present.

Directors who participate in Board meetings by videoconference or any other telecommunications media that comply with the technical criteria set in the applicable laws and regulations shall be considered as being physically present for the purposes of calculating the quorum and voting majority, in accordance with the terms and conditions set out in the Board of Directors' Internal Rules.

Directors may give written proxy to another Director to represent them at Board meetings, provided that no Director holds more than one proxy at any single meeting.

At the Annual General Meeting on May 28, 2020, shareholders will be asked to approve the insertion in the bylaws of an article allowing the Board of Directors to make decisions by means of a written consultation when this is allowed by law (see section 8.2.2).

Powers

Under Article 19 of the bylaws, the Board of Directors shall determine the Company's overall business strategy and oversee its implementation. Subject to the powers directly vested in Shareholders' Meetings (appointment of Directors and Statutory Auditors, approval of the financial statements and related-party agreements, decisions that amend the bylaws), the Board is responsible for dealing with all matters concerning the efficient running of the Company and for making all related decisions, within the scope of the Company's corporate purpose.

Subject to the applicable laws and regulations and the terms and conditions set out in the Board of Directors' Internal Rules, the roles and responsibilities of the Board of Directors shall include, but shall not be limited to:

- calling the Annual General Meeting and setting its agenda;
- approving the Group's annual budget presented by the Chief Executive Officer as well as any amendments thereto;
- approving the Group's medium-term business plan;
- approving the financial statements of the Company and the Group and drawing up the annual management report;
- authorizing related-party agreements governed by Article L.225-38 of the French Commercial Code (*Code de commerce*);
- selecting the Company's management structure;
- appointing and removing from office (i) the Chairman of the Board of Directors, and the Vice-Chairman (if any), and (ii) the Chief Executive Officer and, on the recommendation of the Chief Executive Officer, the Deputy Chief Executive Officer(s) (if any);
- determining the powers of the Chief Executive Officer and, in agreement with the Chief Executive Officer, of the Deputy Chief Executive Officer(s) (if any);
- appointing Directors prior to ratification by shareholders;
- setting the compensation payable to the Chairman of the Board of Directors and the Vice-Chairman (if any), and the Chief Executive Officer and the Deputy Chief Executive Officer(s) (if any);
- appointing the members of the Audit and Risk Committee and the members of any other Board committees set up in accordance with the provisions of the bylaws and the Board of Directors' Internal Rules;
- allocating among its members the aggregate annual amount of compensation allocated to the Directors as consideration for their duties (formerly "attendance fees");
- deciding on issues of debt securities not carrying rights to shares;
- deciding whether to allocate compensation to any Board Advisors (*censeurs*);
- giving the Chief Executive Officer authorization (which may be delegated) to grant guarantees and endorsements, setting for each fiscal year:
 - an overall ceiling and, where appropriate,
 - a maximum amount per transaction;
- authorizing in advance any transactions that would result in exceeding the above-mentioned overall ceiling or maximum amount per transaction set by the Board, as indicated in the point above.

In addition to the legal and regulatory requirements concerning prior authorizations that must be obtained from the Board of Directors, a number of specific transactions must also be approved by the Board before they can be carried out by the Chief Executive Officer or a Deputy Chief Executive Officer, as required by the internal procedures of the Company and Group. These transactions are listed in the Board of Directors' Internal Rules (see section 6.1.4.2).

The Board of Directors shall perform any checks and controls that it deems appropriate. Each Director shall be provided with all the information required to carry out his/her duties and may request any documents he or she deems useful.

Aggregate Remuneration awarded to the Directors as consideration for their duties

Under Article 17 of the bylaws, at the Annual General Meeting, the Company's shareholders shall set the aggregate annual amount of compensation allocated to the Directors as consideration for their duties, effective for the current year and, if appropriate, subsequent years until the shareholders decide otherwise.

The Board of Directors shall allocate the Aggregate Remuneration among its members as it deems fit, in accordance with the compensation policy for Directors (see section 6.6.1.5) and the rules (the "Allocation Rules") set out in the Board's Internal Rules (see section 6.6.3).

Board Advisors

Under Article 20 of the bylaws, shareholders in an Ordinary Shareholders' Meeting may appoint up to two Board Advisors to attend Board meetings in an advisory capacity. However, if the French State's interest in the Company's capital falls below 10%, the French State would automatically be entitled to appoint a Board Advisor and the maximum number would be increased to three. Board Advisors are appointed for four years and may be re-appointed. Any Board Advisor reaching the age of 70 shall be deemed to have resigned.

Executive Management

Under Article 21 of the bylaws, the Company's management shall be placed under the responsibility of either:

- the Chairman of the Board of Directors; or
- another individual appointed by the Board, who shall hold the title of Chief Executive Officer and who may or may not be a Director.

Under Article 22 of the bylaws, the Chief Executive Officer shall have the broadest powers to act in all circumstances in the Company's name. The Chief Executive Officer shall exercise these powers within the scope of the Company's corporate purpose and subject to:

- the powers expressly vested by the applicable laws and regulations in Shareholders' Meetings and the Board of Directors; and
- any restrictions placed on his powers and any matters that require the prior approval of the Board of Directors in accordance with the Board of Directors' Internal Rules.

The Board of Directors shall determine compensation payable to the Chief Executive Officer and the length of his term of office. The age limit for the Chief Executive Officer is set at 68 years.

Deputy Chief Executive Officer(s)

Under Article 23 of the bylaws, at the proposal of the Chief Executive Officer, the Board of Directors may appoint up to three Deputy Chief Executive Officers (who may or may not be Directors) to assist the Chief Executive Officer in his duties.

In agreement with the Chief Executive Officer, the Board of Directors shall determine the scope and duration of the powers vested in the Deputy Chief Executive Officer(s). The Board of Directors shall also set their compensation, in accordance with Article 24 of the bylaws.

The Deputy Chief Executive Officer(s) shall have the same powers as the Chief Executive Officer with respect to third parties.

The age limit for holding office as Deputy Chief Executive Officer is set at 68 years.

7.1.2.2 General Shareholders' Meetings

Convening and participating

General Shareholders' Meetings shall be called in accordance with the applicable laws and regulations.

The conditions for the participation of shareholders in General Meetings are governed by the legal provisions and regulations in effect and by Articles 30 *et seq.* of Safran's bylaws. Any shareholder, regardless of the number of shares held, is entitled to attend General Meetings, on proof of identity and of his/her capacity as a shareholder, provided that the shareholder's shares are registered in his/her name in Safran's share register managed by BNP Paribas Securities Services, or in the securities accounts managed by the authorized intermediary, no later than zero hours (CET) on the second business day preceding the meeting.

Proxy/postal voting forms for General Shareholders' Meetings may be sent in paper form or, by decision of the Board of Directors published in the notice of meeting, by electronic mail in accordance with the applicable laws and regulations.

Where a shareholder electronically submits a proxy or postal voting form, the shareholder's signature must be a secure electronic signature or be subject to a reliable identification procedure to ensure signature security, for example by registering a unique identification code and password.

Shareholders who have not paid up the amounts due on their shares within 30 days of a notice to pay issued by the Company shall not be entitled to participate in General Shareholders' Meetings and the shares concerned shall be deducted from the total of the Company's outstanding shares for the purposes of calculating the quorum.

Exercising voting rights – double voting rights – restriction on voting rights

Under Article 31 of the bylaws, each shareholder shall have a number of votes corresponding to the number of shares held or represented by proxy, unless otherwise provided for in the applicable laws or regulations.

The General Shareholders' Meeting of June 21, 1974 decided to allocate double voting rights in respect of all fully paid-up shares registered in the name of the same holder for at least two years (Article 31.8 of the bylaws).

In the event of a capital increase paid up by capitalizing retained earnings, profits or additional paid-in capital, the registered bonus shares allocated in respect of shares carrying double voting rights shall also carry double voting rights.

Double voting rights shall be forfeited if registered shares are converted into bearer shares or transferred. However, registered shares shall not be stripped of double voting rights and the qualifying period shall continue to run following a transfer of shares included in the estate of a deceased shareholder, or in connection with the settlement of the marital estate, or an *inter vivos* gift to a spouse or a relative in the direct line of succession.

Any merger or demerger of the Company shall have no impact on double voting rights, which may be exercised in the surviving company if its bylaws so provide.

In accordance with the law, double voting rights may not be abolished by the Extraordinary Shareholders' Meeting unless

this decision is first approved by a special meeting of holders of shares with double voting rights.

Under Article 31.12 of the bylaws, no shareholder may exercise more than 30% of the total voting rights attached to all of the Company's shares. The voting rights exercised by a shareholder for this purpose shall include the voting rights exercised directly by the shareholder himself/herself and in the capacity as proxy for another shareholder that are attached to shares (i) that he/she holds directly or indirectly and (ii) that are owned by another shareholder for which he/she is acting as proxy.

For the purposes of these provisions:

- the total number of voting rights attached to the Company's shares taken into account shall be calculated as at the date of the General Shareholders' Meeting concerned and the shareholders shall be informed thereof at the start of the meeting;
- the number of voting rights held directly or indirectly shall mean those voting rights attached to shares held by:
 - a private individual, either personally or as part of jointly-owned property, or
 - a company, group of entities, association or foundation;
 as well as voting rights attached to shares held by a company that is controlled – within the meaning of Article L.233-3 of the French Commercial Code – by a company, private individual, association, group of entities or foundation;
- the restrictions set out above shall not include voting rights exercised by the Chairman of a General Shareholders' Meeting when said voting rights are (i) attached to shares for which a proxy form has been returned to the Company without any named proxy, and (ii) do not individually infringe the specified restrictions.

The restrictions provided for above shall automatically become null and void, without the requirement for a new decision by shareholders in an Extraordinary Shareholders' Meeting, in the event that an individual or entity – acting alone or in concert with one or more other individuals or entities – acquires an interest in the Company representing two-thirds of the Company's capital or voting rights following a public tender offer for all of the Company's shares.

7.1.2.3 Rights and restrictions attached to shares

Under Article 9 of the bylaws:

- fully paid-up ordinary shares may be held either in registered or bearer form, at the shareholder's discretion, subject to compliance with the provisions of the applicable laws and regulations and the Board of Directors' Internal Rules concerning the form of shares held by certain categories of shareholder;
- Class A Preferred Shares must be held in registered form. These Preferred Shares were issued on February 13, 2018 in connection with the acquisition of Zodiac Aerospace (see section 2.5 of the 2017 Registration Document)⁽¹⁾.

Under Article 12 of the bylaws, each share shall entitle its holder to a proportion of the Company's profits, net assets and any liquidation surplus equal to the proportion of capital represented by the share.

Where a shareholder must own a specific number of shares to exercise a particular right, notably in the event of an exchange or allocation of shares, a stock-split, reverse stock-split, a capital increase or reduction, a merger, demerger, partial asset transfer,

(1) Zodiac Aerospace was acquired through a Cash Offer with a Subsidiary Exchange Offer. The 26,651,058 Safran preferred shares were issued in consideration for the Zodiac Aerospace shares tendered to the Subsidiary Exchange Offer.

dividend payment or any other corporate action, any shares held that fall below the required number shall not confer any rights on their holders with respect to the Company, and the shareholders concerned shall be personally responsible for obtaining the necessary number of shares or rights, including through purchases or sales of shares or rights where required.

Non-transferability of Class A Preferred Shares

Class A Preferred Shares have the following characteristics:

- under Articles 11.2 and 12 of Safran's bylaws, Class A Preferred Shares are non-transferable for a period of thirty-six (36) months (the "Non-transferability Period") as from the date of their issue (i.e., as of February 13, 2018);
- during the Non-transferability Period, they may not be transferred in any way except in connection with (i) an inheritance, settlement of marital property or donation, (ii) a universal asset transfer (*transmission universelle de patrimoine*), (iii) a contribution to a public offer on the Company's entire share capital, or (iv) the enforcement of a pledge;
- according to the 32nd resolution of the June 15, 2017 Annual General Meeting creating this share category, Class A Preferred Shares are not admitted to trading on the Euronext Paris market;
- under Article 12.7 of Safran's bylaws, each Class A Preferred Share will automatically become transferable, rank *pari passu* with the Company's ordinary shares and be converted into one ordinary share at the earlier of the following two dates:
 - the end of the Non-transferability Period,
 - the date at which the Company were to be merged into another company not controlled by it within the meaning of Article L.233-3 of the French Commercial Code.

The shares will then be admitted to trading on Euronext Paris pursuant to the 32nd resolution of the Annual General Meeting of June 15, 2017.

It should be noted that the conversion of Class A Preferred Shares into ordinary shares will have no impact on the double voting rights attached to the Class A Preferred Shares or on the minimum holding period required to qualify for double voting rights provided for in Article 31.8 of the bylaws, under the conditions provided for by law;

- under Article 7.2 of Safran's bylaws, in the event of a capital increase through the issue of ordinary shares with pre-emptive subscription rights, the holders of Class A Preferred Shares will have, under the conditions set out in the applicable laws and regulations, a pre-emptive right to subscribe to ordinary shares in proportion to the number of Class A Preferred Shares held, exercisable under the same conditions as the pre-emptive subscription rights attached to ordinary shares.

7.1.2.4 Conditions governing changes to share capital and shareholders' rights

The Company's bylaws do not require that the conditions to change share capital and shareholders' rights be more restrictive than prevailing legislation. These changes are subject to the approval of the shareholders at the Extraordinary Shareholders' Meeting deliberating in accordance with the rules of quorum and majority set out in the applicable laws and regulations.

Special Shareholders' Meeting for holders of Class A Preferred Shares

Under Article 36 of the amended bylaws, holders of Class A Preferred Shares are consulted, under the conditions provided for by law, on matters falling specifically within their remit under the terms of the law. Special Shareholders' Meetings are called for holders of Class A Preferred Shares to decide on any changes in the rights attached to this class of share.

7.1.2.5 Disclosure obligation in the event of exceeding the threshold for ownership set out in the bylaws

Under Article 13 of the bylaws, in addition to the disclosures required under the applicable laws and regulations when certain ownership thresholds are crossed, any person or legal entity, acting alone or in concert with others, that becomes the owner – directly or indirectly through one or more companies controlled by said person or entity within the meaning of Article L.233-3 of the French Commercial Code – of 1% or more of the Company's capital or voting rights or any multiple thereof, as calculated in accordance with Articles L.233-7 and L.233-9 of the French Commercial Code and the General Regulations of the French financial markets authority (Autorité des marchés financiers – AMF), must notify the Company of the total number of shares and voting rights held as well as the total number of securities held that carry deferred rights to the Company's capital and the potential voting rights attached thereto.

Said notification shall be sent to the Company by registered letter with recorded delivery within four trading days of the relevant threshold being crossed.

The same disclosures are required – within the same timeframe and in accordance with the same conditions – in cases where a shareholder's interest falls below any of the thresholds referred to above.

The sanctions provided for by law in the event of a failure to comply with the disclosure requirements applicable when a legal threshold is crossed shall also apply if a shareholder does not comply with the disclosure requirements applicable in the bylaws, where requested by one or more shareholders holding at least 5% of the Company's capital or voting rights (with said request duly recorded in the minutes of the relevant General Shareholders' Meeting).

7.1.2.6 Provisions that could delay, postpone or prevent a change in control of the Company

The provisions of the bylaws or other contractual documents related to the Company that could delay, postpone or prevent a change in the Company's control are as follows: (i) the granting of double voting rights to any shareholder owning fully paid-up shares which the shareholder must prove have been registered in the name of the same shareholder for at least two years, (ii) the restriction on voting rights provided for by Article 31.12 of the bylaws (see section 7.1.2.2), (iii) an agreement between Safran and the French State (see section 7.1.4.2).

7.1.3 Information on investments

7.1.3.1 Direct and indirect investments as of December 31, 2019

The direct and indirect investments which meet the criteria defined by the European Securities and Markets Authority (ESMA) in its March 2013 recommendation are set out in section 3.1, Note 37 and section 3.3, Note 3.1.

7.1.3.2 Investments

In accordance with the provisions of Article L.233-6 of the French Commercial Code, in 2019 Safran acquired the following investments within the meaning of said Article:

- acquisition of a stake of around 5.5% in Electric Power Systems by Safran Corporate Ventures;
- acquisition of an additional stake in Cailabs by Safran Corporate Ventures, raising its interest to around 14.60%;
- acquisition of an additional stake in Oxis Energy Ltd by Safran Corporate Ventures, raising its interest to around 9%;
- acquisition of an additional stake in Turbotech by Safran Corporate Ventures, raising its interest to around 24.87%;
- acquisition of an additional stake in Diotasoft by Safran Corporate Ventures, raising its interest to around 19.80%.

7.1.4 Relations with related parties

Related parties (as defined by the Group in accordance with IAS 24) and quantitative information concerning related-party transactions are presented in section 3.1, Note 33.

7.1.4.1 Relations with the French State

In 2019, Safran generated adjusted revenue of €887 million with the French State and entities in which it has interests, primarily in military areas.

The Aerospace Propulsion business (see section 1.2.1) develops, manufactures and maintains aircraft engines for the French armed forces. It is the industrial prime contractor for this equipment in major aviation projects.

In the Aircraft Equipment (sections 1.2.2.1, 1.2.2.2 and 1.2.2.3)/Defense (section 1.2.2.5)/Aerosystems (section 1.2.2.4) segment:

- Safran participates in major French military aviation programs, in terms of landing gear and braking systems;
- Safran applies the following technology on behalf of French government agencies in the areas of national defense:
 - inertia for independent positioning, navigation and guidance systems for all types of vehicles and engines; inertia for flight command systems for helicopters,
 - flight command systems for helicopters,
 - optronics and signal processing for monitoring, observation, day/night imaging, warning and guidance systems,
 - information technologies and systems integration;
- Safran supplies safety and protection systems (mainly lifejackets and rafts, as well as oxygen systems and masks) and fuel management systems.

7.1.4.2 Agreement with the French State relating to strategic assets and subsidiaries

In order to protect national interests and preserve national independence, and in the context of the proposed combination of Sagem and Snecma's businesses through the merger of these two companies, the French State reminded these companies of its right to a "golden share" with regard to Snecma of the kind defined in Article 10 of Law 86-912 of August 6, 1986. In exchange for the waiver of this right to a "golden share", the French State required sufficient contractual rights to ensure national interests are protected.

In view of this, a three-way agreement in lieu of a "golden share" was entered into by Sagem and Snecma (now Safran) and the French State on December 21, 2004 (the "2004 Agreement").

In view of the 2005 merger of Snecma and Sagem that led to the creation of Safran, and the various transactions completed by Safran since that date which have substantially altered the Group's scope, Safran and the French State decided to amend the 2004 Agreement with six successive addendums between 2011 and 2016.

In 2018, Safran and the French State wished to consolidate the 2004 Agreement and its amendments into a single document (the "Agreement") and to update its contents.

The new Agreement was signed on March 26, 2018, canceling and replacing the 2004 Agreement as from that date. It was authorized by the Board of Directors on March 22, 2018 and approved by the Annual General Meeting on May 25, 2018.

The Agreement notably provides as follows:

On corporate governance matters:

- Safran's competent bodies shall be invited to appoint the French State as a Director if its interest in the Company's share capital is less than 10% but more than 1%;
- Safran's competent bodies shall in addition be invited to appoint a member proposed by the French State to the Board of Directors if its interest in the Company's share capital is more than 5%, the shareholders will thus be invited to approve the terms of office of these Directors;
- at the request of the French State, the Board of Directors shall be invited to appoint one of the persons referred to above to any Board committees that may be set up for the purpose of addressing matters directly related to its rights under the Agreement;
- the French State shall be entitled to appoint a non-voting representative to the Boards of Directors or equivalent bodies of Safran's strategic subsidiaries (Safran Ceramics and Safran Power Units) and subsidiaries owning sensitive defense assets.

On strategic or sensitive defense assets and the entities that hold such assets:

- the French State shall have a prior right of approval over:
 - sales of assets (other than those that do not affect the defense activities) owned by strategic subsidiaries and accordingly identified as strategic; sales of shares in strategic subsidiaries Safran Ceramics and Safran Power Units; and sales of shares in ArianeGroup Holding,
 - sales of certain assets identified as defense sensitive (such as engines, components and systems, high precision inertial navigation and missile guidance systems, financed directly or indirectly by the French Defense Ministry) owned by Group entities,
 - sales of shares in Safran Electronics & Defense, which owns sensitive defense assets,

- acquisitions of interests resulting in a holding of more than 33.33% or more than 50% of the share capital or voting rights of the other Group companies that own sensitive defense assets,
 - projects conferring special management or information rights over strategic or sensitive defense assets or rights of representation on the administrative or management bodies of Safran Ceramics, Safran Power Units, ArianeGroup Holding or another entity owning sensitive defense assets controlled by Safran,
- the French State's failure to respond within a period of 30 business days shall be deemed to constitute agreement, except in the case of proposals to sell shares in ArianeGroup Holding, in which case failure to respond shall be deemed to constitute refusal;

- the French State shall be informed beforehand of any proposal by a strategic subsidiary or an entity controlled by Safran that owns sensitive defense assets to sell assets that do not fall into these protected categories but whose sale could have a material impact on the independent management on French territory of the entity's strategic assets or sensitive defense assets;
- in the event a third party acquires more than 10% or a multiple of 10% of the capital or voting rights of Safran, and failing an agreement on other ways of protecting national interests in connection with the strategic assets, the French State shall be entitled to purchase the securities and assets of the strategic subsidiaries Safran Ceramics and Safran Power Units and the stake in ArianeGroup Holding at a price to be set by a panel of experts.

7.1.4.3 Other related-party agreements

The related-party agreements authorized in previous years and which had continuing effect during 2019, are presented in the Statutory Auditors' special report in section 8.3 of this Universal Registration Document.

7.2 INFORMATION ON SHARE CAPITAL

7.2.1 Share capital

As of December 31, 2019, following the transactions described below, Safran's share capital amounted to €85,446,831, comprising 427,234,155 fully paid-up shares with a par value of €0.20 each, made up of:

- 400,583,097 fully paid-up ordinary shares with a par value of €0.20;
- 26,651,058 fully paid-up Class A Preferred Shares with a par value of €0.20.

Pursuant to a decision of the Board of Directors' meeting of December 19, 2019, the share capital was reduced by €1,712,571.20 through the cancellation of 8,562,856 ordinary shares held by Safran in treasury (see section 7.2.7.1).

New ordinary shares were issued at regular intervals during 2019 upon exercise of stock options (see section 7.3.7.3). The resulting capital increases were automatically considered as having been

completed upon receipt by the Company of notification that the options were being exercised, together with the corresponding share subscription form and the subscription price. The total amount by which the capital was increased in 2019 was €5,812, corresponding to the issuances of 29,060 new shares.

On February 29, 2020, additional new ordinary shares were issued upon exercise of stock options (see section 7.3.7.3), increasing the capital to €85,447,187.80, comprising 427,235,939 fully paid-up shares with a par value of €0.20 each, made up of:

- 400,584,881 fully paid-up ordinary shares with a par value of €0.20; and
- 26,651,058 fully paid-up Class A Preferred Shares with a par value of €0.20.

7.2.2 Authorizations granted to the Board of Directors with respect to share capital increases

The authorizations with respect to share capital increases currently in force, already granted by shareholders to the Board of Directors, are summarized in section 8.2.5 of this Universal Registration Document.

The authorization to make free share grants of the Company's existing shares or shares to be issued granted to the Board of Directors in the 30th resolution of the May 23, 2019 Annual General Meeting was used in March 2020 (see section 7.3.7.1).

The other authorizations with respect to share capital increases granted to the Board of Directors by the May 23, 2019 Annual General Meeting were not used in 2019 nor as of the filing date of this Universal Registration Document.

7.2.3 The Company's securities

7.2.3.1 Other securities not representing the Company's capital

Other securities issued by Safran not representing the Company's capital as of the date of this Universal Registration Document are set out in section 3.1, Note 27 and section 3.3, Note 3.9.

7.2.3.2 Securities carrying rights to shares of the Company

On June 21, 2018, Safran issued bonds convertible into and/or exchangeable for new and/or existing shares, maturing on June 21, 2023 (OCÉANE 2023). The issue was carried out by way of a private placement in France and outside France – apart from in the United States, Canada, Australia, South Africa and Japan – among persons or entities falling within the scope of Article L.411-2-II of the French Monetary and Financial Code (*Code monétaire et financier*) (version in force at the date

of the issue). The placement corresponded to an amount of €699,999,983.10, represented by 4,996,431 bonds with a nominal unit value of €140.10. In the event that Safran decided to provide only new shares upon the exercise of the conversion rights for all the OCÉANE 2023 bonds, the maximum dilution as estimated based on the Company's capital and the OCÉANE 2023 bond conversion ratio as of February 29, 2020, would be 1.17%. The terms and conditions of this issue are described in section 3.1, Note 27 and section 3.3, Note 3.9. Reports were drawn up by the Board of Directors and the Statutory Auditors on the use made of this authorization. These reports are set out in section 1.8 of Safran's 2018 interim financial report (available in the Finance section of Safran's website).

7.2.3.3 Credit ratings

Safran has not, at this time, sought a rating from a financial rating agency.

7.2.4 History of the share capital since 2005

Date	Transaction	Safran share price (in €)	Amount of share capital (in €)	Number of shares	Additional paid-in capital (cumulative, in €)
Situation as of December 31, 2019		0.20	85,446,831	427,234,155⁽¹⁾	45,924,921.38
December 31, 2019	Cumulative increases in share capital and additional paid-in capital resulting from the exercise of stock options in December 2019, placed on record on January 9, 2020	0.20	85,446,831	427,234,155	45,924,921.38
December 19, 2019	Capital reduction by canceling treasury shares	0.20	85,446,697.20	427,233,486	-
November 30, 2019	Cumulative increases in share capital and additional paid-in capital resulting from the exercise of stock options in the period to November 30, 2019, placed on record on December 19, 2019	0.20	87,159,268.40	435,796,342	45,853,157.75
December 17, 2018	Capital reduction by canceling treasury shares	0.20	87,153,590.20	435,767,951 ⁽¹⁾	-
December 1, 2018	Merger of Zodiac Aerospace into Safran	0.20	89,434,167	447,170,835 ⁽¹⁾	43,515,615.37
February 13, 2018	Settlement of Class A Preferred Shares delivered in exchange as part of the Safran subsidiary exchange offer for Zodiac Aerospace shares	0.20	88,736,128.60	443,680,643 ⁽¹⁾	5,526,723
May 11, 2005	Merger of Snecma into Sagem SA, now Safran	0.20	83,405,917	417,029,585	3,288,568
March 17, 2005	Settlement of Sagem shares delivered in exchange as part of the Sagem public exchange offer for Snecma shares	0.20	73,054,834	365,274,170	3,214,696
Situation as of January 1, 2005		0.20	35,500,000	177,500,000	163,366

(1) Including 26,651,058 Class A Preferred Shares (see section 7.2.1).

7.2.5 Pledging of shares

To the best of the Company's knowledge, 1,166,152 shares representing 0.27% of the share capital were pledged as of December 31, 2019, compared with 274,859 shares representing 0.06% of the share capital as of December 31, 2018.

7.2.6 Treasury shares

SITUATION AS OF DECEMBER 31, 2019

	Number of shares	% share capital	Carrying amount as of Dec. 31, 2019 (in €)	Total nominal value (in €)
Treasury shares, held directly	2,550,082	0.60	297,326,467.48	510,016.40
Treasury shares, held indirectly	-	-	-	-
TOTAL	2,550,082	0.60	297,326,467.48	510,016.40

Information on share capital

7.2.7 Share buyback programs

The Annual General Meeting of May 23, 2019, in its 14th resolution, authorized the Board of Directors, for a period of 18 months, to set up a share buyback program with the following main characteristics:

Purpose of the program:

- to maintain a liquid market in the Company's shares via a liquidity agreement that complies with the Code of Ethics drawn up by the French association of financial and investment firms (*Association française des marchés financiers* – AMAFI) approved by the AMF, and entered into with an investment services firm;
- for allocation or sale to employees and/or corporate officers of the Company or of other Group companies, in accordance with the terms and conditions provided for by law, notably in connection with a profit-sharing plan, free share grant plan, stock option plan, the Group employee savings plan, or any company employee savings plan in place within the Group;
- for delivery on exercise of rights attached to securities redeemable, convertible, exchangeable or otherwise exercisable for shares of the Company;
- to hold shares in treasury for subsequent delivery as payment or exchange for external growth transactions;
- for cancellation, pursuant to the authorization in effect granted by the Annual General Meeting.

Maximum percentage of share capital to be bought back:

- 10% of share capital.

Maximum purchase price per share:

- €155.

Total maximum amount that may be invested in the share buyback program:

- €6.7 billion.

As of May 23, 2019, this program had terminated the previous share buyback program authorized by the Annual General Meeting of November 27, 2018 (1st resolution), with the same objectives, a maximum purchase price of €140 per share and a total maximum amount of €6.2 billion to be invested in the buyback program.

7.2.7.1 Treasury share transactions in 2019

Liquidity agreement

The liquidity agreement has been managed by Oddo since February 1, 2012.

On February 18, 2019, Safran announced that a new liquidity agreement had been signed with Oddo, with retroactive effect from January 1, 2019. This agreement canceled and replaced the one in place since February 1, 2012. The following resources were allocated to the agreement when it was signed (corresponding to the resources held under the previous agreement as of December 31, 2018): €15,899,312.46 in cash and 314,000 Safran shares.

Share buybacks

As part of the €2.3 billion share buyback program announced on May 24, 2017, during 2019:

- a share purchase agreement was signed with an investment services firm on January 10, 2019 for an initial buyback tranche of up to €600 million, expiring on May 10, 2019 at the latest;

- a share purchase agreement was signed with an investment services firm on May 27, 2019 for a further buyback tranche of up to €150 million, expiring on June 28, 2019 at the latest;
- a share purchase agreement was signed with an investment services firm on July 1, 2019 for another buyback tranche of up to €400 million, expiring on September 4, 2019 at the latest;
- a share purchase agreement was signed with an investment services firm on September 17, 2019 for a final buyback tranche of up to €220 million, expiring on December 13, 2019 at the latest. In an addendum dated September 20, 2019, the expiration date of this final buyback tranche was extended until December 31, 2019 and the maximum amount was increased to €450 million. In addition, as well as being bought back for cancellation as part of the €2.3 billion share buyback program, the shares in this final tranche could also be purchased for allocation or sale to employees or corporate officers.

The above four tranches of shares were bought back in the periods specified.

In all, 8,562,856 shares were bought back in 2019 for the purpose of being canceled, for a total of €1,076 million. The entire €2.3 billion share buyback program announced on May 24, 2017 was therefore completed in October 2019. Under the program, a total of 19,965,740 shares were bought back for an amount of exactly €2,299,965,267. All of these shares have been canceled (see section 7.2.1 of this Universal Registration Document and section 7.2.7 of the 2018 Registration Document).

In 2019, Safran purchased 2,487,628 treasury shares under the liquidity agreement, of which:

- 883,070 shares were purchased between January 1 and May 23, 2019, at an average price of €117.34;
- 1,604,558 shares were purchased between May 24 and December 31, 2019, at an average price of €135.20.

Sales of shares

In 2019, Safran sold 2,572,531 treasury shares under the above-mentioned liquidity agreement:

- 1,029,022 shares were sold between January 1 and May 23, 2019, at an average price of €116.72;
- 1,543,509 shares were sold between May 24 and December 31, 2019, at an average price of €135.14.

Cancellation of shares

A total of 8,562,856 ordinary shares held in treasury were canceled on December 19, 2019, representing a capital reduction of €1,712,571.20 (see section 7.2.1).

Delivery of free shares

At its meeting on July 28, 2016, the Board of Directors decided to award performance shares to 500 managers and senior executives of the Group ("2016 Long-Term Incentive Plan"). Contingent on the continuing service condition, the number of performance shares that were ultimately delivered at the end of the three-year vesting period depended on the extent to which internal and external performance conditions were met over the 2016-2018 period (see section 7.3.7.1 of the 2016 Registration Document). A total of 349,473 ordinary shares were delivered in 2019 to recipients of performance share rights under the 2016 Long-Term Incentive Plan (including 20,691 shares delivered to the Chief Executive Officer, see section 6.6.2.2).

Following the merger of Zodiac Aerospace into Safran with effect from December 1, 2018, the unvested rights of participants in Zodiac Aerospace free share plans were replaced with rights to Safran ordinary shares, based on the exchange ratio used for the merger (see section 7.3.7.1 of the 2018 Registration Document). In 2019, 72,203 ordinary Safran shares were delivered to these participants.

Situation as of December 31, 2019

As of December 31, 2019, Safran directly held 2,550,082 of its own shares, representing 0.60% of its capital.

These treasury shares were held for the following purposes:

- for allocation or sale to employees: 2,307,785 shares, representing 0.54% of the Company's capital;
- to cover exchangeable debt securities: 13,200 shares, representing 0.003% of the Company's capital;
- to maintain a liquid market in the Company's shares via a liquidity agreement: 229,097 shares, representing 0.05% of the Company's capital;
- for cancellation: 0.

Situation as of February 29, 2020

As of February 29, 2020, Safran directly held 2,601,542 of its own shares, representing 0.61% of its capital.

These treasury shares were held for the following purposes:

- for allocation or sale to employees: 2,348,315 shares, representing 0.55% of the Company's capital;
- to cover exchangeable debt securities: 13,200 shares, representing 0.003% of the Company's capital;
- to maintain a liquid market in the Company's shares via a liquidity agreement: 240,027 shares, representing 0.06% of the Company's capital;
- for cancellation: 0.

7.2.7.2 Description of the share buyback program to be approved by the Annual General Meeting of May 28, 2020

Under the 15th resolution, the Annual General Meeting of May 28, 2020 is invited to authorize a new share buyback program. Drafted in accordance with the provisions of Article 241-2 of the AMF's General Regulations, the program's description is presented below and will not be published separately pursuant to Article 241-3 of said Regulations.

The number of shares and percentage of share capital held directly or indirectly by the Company as of February 29, 2020 are set forth in section 7.2.7.1.

Objectives of the share buyback program

In accordance with Regulation (EU) no. 596/2014 of the European Parliament, the AMF's General Regulations and market practices permitted by the AMF, the objectives of the share buyback program to be approved by the Annual General Meeting of May 28, 2020 are to purchase shares:

- to maintain a liquid market in the Company's shares via a liquidity agreement that complies with the AMAFI Code of Ethics, approved by the AMF, and entered into with an investment services firm;

- for allocation or sale to employees and/or corporate officers of the Company or of other Group companies, in accordance with the terms and conditions provided for by law, notably in connection with a profit-sharing plan, free share grant plan, stock option plan, the Group employee savings plan, or any company employee savings plan in place within the Group;
- for delivery on exercise of rights attached to securities redeemable, convertible, exchangeable or otherwise exercisable for shares of the Company;
- to hold shares in treasury for subsequent delivery as payment or exchange for external growth transactions;
- for cancellation in accordance with the authorization granted in the 29th resolution of the Annual General Meeting of May 23, 2019.

The program is also designed to enable any current or future market practices permitted by the AMF to be carried out and, more generally, to enable any other authorized operations or operations that would be authorized in the future by the applicable regulations. The Company will inform its shareholders in a press release prior to carrying out any such operations.

Maximum percentage of share capital, maximum number and purchase price, and characteristics of the shares the Company wishes to acquire

The number of shares that may be bought back under the program may not exceed 10% of the Company's total shares. This ceiling is reduced to 5% for shares acquired for the purpose of being held in treasury for subsequent delivery as payment or exchange for external growth transactions. When shares are bought back for the purpose of maintaining a liquid market in the Company's shares via a liquidity agreement, the number of shares included for the calculation of the 10% ceiling corresponds to the number of shares purchased less any shares sold during the authorization period.

Under no circumstances may the use of this authorization have the effect of increasing the number of Safran shares held by the Company, either directly or indirectly, to more than 10% of its share capital.

For information purposes, as of December 31, 2019, the Company's capital comprised 427,234,155 shares. Given the 2,550,082 shares already directly held by the Company at this date, the maximum number of shares the Company could acquire in connection with this buyback program would be 40,173,333 shares.

Generally, Safran sets the maximum purchase price at around 130% of the highest closing price of the Safran share over the 12 months preceding the pricing date. However, as a result of the brutal and sudden stock market correction in response to the Covid-19 health crisis, Safran has adjusted its practice and shortened the period over which the reference price is determined. Accordingly, based on an average price over the three months preceding March 25, 2020, shares may not be purchased at a price of more than €165 per share and the maximum amount that may be invested in the program is €7 billion. This price does not represent a target price.

The maximum number of shares and the maximum purchase price as indicated above may be adjusted to reflect the impact on the share price of any share capital transactions carried out by the Company.

Share ownership

Share buyback program procedures

Shares may be purchased, sold, or transferred in one or several transactions and by any method allowed under the laws and regulations applicable at the transaction date, including over-the-counter and through a block trade for all or part of the program, as well as via the use of derivative financial instruments.

The Board of Directors may use this authorization at any time subject to the limitations set down by the applicable regulations, except during, or in the run-up to, a public offer for the Company's shares.

Term of the share buyback program

This new share buyback program shall be valid for a period of 18 months as from the approval of the Annual General Meeting of May 28, 2020, i.e., until November 27, 2021 at the latest.

7.3 SHARE OWNERSHIP

7.3.1 Breakdown of share capital and voting rights

To the best of the Company's knowledge, Safran's share capital and voting rights were held as follows as of December 31, 2019:

Shareholders	Shares		Exercisable voting rights		Theoretical voting rights ⁽³⁾	
	Number	% capital	Number	%	Number	%
Free float	347,840,451	81.42	376,557,055	71.07	376,557,055	70.73
o/w The Capital Group Companies, Inc.	34,920,730 ⁽²⁾	8.01	34,920,730 ⁽²⁾	6.53	34,920,730 ⁽²⁾	6.44
o/w BlackRock, Inc.	25,908,335 ⁽⁴⁾	6.06	25,908,335 ⁽⁴⁾	4.89	25,908,335 ⁽⁴⁾	4.87
French State	47,983,131	11.23	95,966,262	18.11	95,966,262	18.03
Employees ⁽¹⁾	28,860,491	6.75	57,301,029	10.82	57,301,029	10.76
o/w FCPE Safran Investissement	19,244,100	4.50	38,501,700	7.27	38,501,700	7.23
Treasury shares, held directly	2,550,082	0.60	-	-	2,550,082	0.48
Treasury shares, held indirectly	-	-	-	-	-	-
TOTAL	427,234,155	100.00	529,824,346	100.00	532,374,428	100.00

(1) Employee shareholding within the meaning of Article L.225-102 of the French Commercial Code.

(2) Number of shares and voting rights as of September 25, 2019 declared by The Capital Group Companies, Inc. on behalf of Capital Research and Management Company and its clients and managed funds.

(3) Calculated based on all shares with voting rights, including treasury shares stripped of voting rights (Article 223-11 of the AMF's General Regulations).

(4) Number of shares and voting rights as of December 30, 2019 declared by BlackRock, Inc. on behalf of its clients and managed funds.

To the best of the Company's knowledge, no shareholder apart from those listed in the table above held more than 5% of Safran's share capital or voting rights as of December 31, 2019.

Double voting rights

As of December 31, 2019, 105,140,273 shares are entitled to double voting rights pursuant to Article 31.8 of the Company's bylaws.

The main Safran shareholders do not have different voting rights from those of other shareholders. Any shareholder may be entitled to double voting rights in accordance with the conditions stipulated in Article 31.8 of the Company's bylaws (see section 7.1.2.2).

7.3.2 Breakdown of share ownership

According to a survey on identifiable bearer shares carried out by Euroclear France, as of December 31, 2019, Safran's free-float shareholders break down as approximately 86% institutional investors, 6% other institutional holdings, around 5% individual investors and 3% unidentified.

The breakdown of the institutional investors identified by geographic area is as follows: 49% are from North America, 22% are from the United Kingdom and Ireland, 17% are from France and 12% are from other countries.

Individual shareholders represent around 5% of Safran's share capital, the majority of them being French.

7.3.3 Change in the breakdown of share capital and voting rights over the last three years

Shareholders	December 31, 2017			December 31, 2018			December 31, 2019		
	Number of shares	% capital	% voting rights ⁽²⁾	Number of shares	% capital	% voting rights ⁽²⁾	Number of shares	% capital	% voting rights ⁽²⁾
Free float	320,032,130	76.74	66.12	356,388,863	81.79	71.05	347,840,451	81.42	71.07
o/w The Capital Group Companies, Inc.	— ⁽³⁾	— ⁽³⁾	— ⁽³⁾	27,134,320 ⁽⁴⁾	6.12 ⁽⁴⁾	5.22 ⁽⁴⁾	34,920,730	8.01	6.44
o/w BlackRock, Inc.	20,885,775 ⁽⁵⁾	5.01 ⁽⁵⁾	4.11 ⁽⁵⁾	26,530,694 ⁽⁶⁾	5.98 ⁽⁶⁾	5.10 ⁽⁶⁾	25,908,335 ⁽⁷⁾	6.06	4.89
French State	58,393,131	14.00	22.97	47,983,131	11.01	18.36	47,983,131	11.23	18.11
Employees ⁽¹⁾	30,861,700	7.40	10.91	29,956,234	6.87	10.59	28,860,491	6.75	10.82
o/w FCPE Safran Investissement	20,736,800	4.97	8.16	20,371,400	4.67	7.79	19,244,100	4.50	7.27
Treasury shares, held directly	7,742,624	1.86	—	1,439,723	0.33	—	2,550,082	0.60	—
Treasury shares, held indirectly	—	—	—	—	—	—	—	—	—
TOTAL	417,029,585	100.00	100.00	435,767,951	100.00	100.00	427,234,155	100.00	100.00

(1) Employee shareholding within the meaning of Article L.225-102 of the French Commercial Code.

(2) Exercisable voting rights.

(3) Less than 5%.

(4) Number of shares and voting rights as of September 25, 2019 declared by The Capital Group Companies, Inc. on behalf of Capital Research and Management Company and its clients and managed funds.

(5) Number of shares and voting rights as of September 14, 2017 (AMF notice 217C2147) disclosed by BlackRock, Inc. on behalf of its clients and managed funds.

(6) Number of shares and voting rights as of November 27, 2018 (AMF notice 218C1901) declared by BlackRock, Inc. on behalf of its clients and managed funds.

(7) Number of shares and voting rights as of December 30, 2019 declared by BlackRock, Inc. on behalf of its clients and managed funds.

7.3.4 Disclosure thresholds

7.3.4.1 Significant movements during 2019

Disclosure of the crossing of legal thresholds

The main legal thresholds that were crossed and disclosed in 2019 were as follows:

1. TCI Fund Management Limited, acting on behalf of the clients and funds that it manages, disclosed that it had exceeded the 5% threshold of voting rights on February 21, 2019, holding on that date, on behalf of said clients and funds, 16,624,819 shares and 31,033,662 voting rights, representing 3.82% of the Company's share capital and 5.77% of its voting rights.

2. BlackRock, Inc. made several disclosures, on behalf of the clients and funds that it manages, that it had both exceeded and fallen below the 5% legal threshold. Most recently, it disclosed that it had fallen below the 5% threshold of voting rights on March 4, 2019, holding 26,142,191 shares representing 6% of the Company's share capital and 4.99% of its voting rights at that date on behalf of said clients and funds.

Share ownership

Disclosure of the crossing of thresholds set out in the bylaws

In addition to the legal threshold disclosures described above, the following are the material crossings of thresholds set out in the bylaws, as disclosed to Safran:

Shareholder	Date of crossing	Reported bylaw threshold crossed	Upward or downward	Reported number of shares post-crossing	Reported % of capital post-crossing	Reported % of voting rights ⁽¹⁾ post-crossing
French State ⁽²⁾	January 7, 2019	11% of the Company's capital	Upward	47,983,131	11.01	18.31
French State ⁽²⁾	July 4, 2019	18% of voting rights	Downward	47,983,131	11.01	17.70
Egerton Capital	June 18, 2019	1% of voting rights	Upward	3,301,749	0.76	1.02
The Capital Group Companies, Inc.	September 25, 2019	8% of the Company's capital	Upward	34,920,730	8.01	-
The Capital Group Companies, Inc.	June 11, 2019	6% of voting rights	Upward	32,369,748	6.02	-
Amundi	April 25, 2019	1% of the Company's capital	Downward	4,229,882	0.97	-
Tweedy Browne Company LLC	April 26, 2019	1% of the Company's capital and voting rights	Downward	3,972,441	0.91	0.62
GIC Private Limited	January 24, 2019	1% of the Company's capital	Downward	4,340,320	0.99	0.82
Lone Pine Capital LLC	October 10, 2019	1% of voting rights	Downward	5,377,001	1.23	0.99
BlackRock, Inc.	December 30, 2019	6% of the Company's capital	Downward	25,908,335	5.95	4.79

(1) Theoretical voting rights.

(2) Passive crossing of threshold.

7.3.4.2 Significant movements since January 1, 2020

The main legal or bylaw thresholds that were crossed and declared between January 1, 2020 and March 1, 2020 were as follows:

- The French State disclosed that on January 7, 2020 its interest had increased (without any action on its part) to above the 18% threshold of voting rights specified in the bylaws; at that date, it held 47,983,131 shares and 95,966,262 voting rights, representing 11.23% of the Company's capital and 18.03% of the voting rights.
- Lone Pine Capital LLC disclosed, on behalf of its managed funds, that on January 15, 2020 its interest had fallen to below the 1% threshold of share capital specified in the bylaws; at that date, it held 4,126,600 shares and the same number of voting rights, representing 0.97% of the Company's capital and 0.77% of the voting rights.
- In connection with the creation of a major public bancassurance group, La Banque Postale/CNP Assurances (involving the acquisition by Caisse des Dépôts et Consignations [CDC] of a majority stake in La Poste), CDC disclosed to the Company on several occasions that it had increased or reduced its interest in the Company to above or below the 2% threshold specified in the bylaws. The most recent change was on February 18, 2020, when its interest fell below 2% threshold of voting rights specified in the bylaws; at that date, it held directly or indirectly through CNP Assurances, which it controls, 7,450,948 Safran shares and 10,798,948 voting rights, representing 1.74% of the Company's capital and 1.93% of the voting rights.
- BlackRock, Inc. disclosed to the Company on several occasions, on behalf of its clients and managed funds, that its interest had increased or reduced to above and below the 6% threshold specified in the bylaws and to above and below the 5% legal threshold. The most recent change was on February 20, 2020, when its interest increased to above the 5% legal threshold of voting rights; at that date, it held 26,830,988 Safran shares and the same number of voting rights, representing 6.28% of the Company's capital and 5.04% of the voting rights.

- Following the acquisition of double voting rights on February 14, 2020:

- FFP Invest disclosed that its individual interest had increased to above the 1% threshold of voting rights specified in the bylaws; at that date, it held 3,207,261 shares and 6,039,285 voting rights, representing 0.75% of the Company's capital and 1.08% of the voting rights.

- Fonds Stratégique de Participations, FFP, FFP Invest and F&P, acting in concert, disclosed that their combined interest had increased to above the 2% threshold of voting rights specified in the bylaws; at that date, they held 6,431,229 shares and 11,307,019 voting rights, representing 1.51% of the Company's capital and 2.02% of the voting rights.

- TCI Fund Management Limited disclosed, on behalf of the funds that it manages, that on February 28, 2020 that its interest had increased to above the 4% threshold of share capital specified in the bylaws; at that date, it held 17,094,191 shares, representing 4% of the Company's capital and 5.92% of the voting rights.

- Following the acquisition of double voting rights, Fonds Stratégique de Participations (FSP - Compartiment Participation 3) disclosed that on March 1, 2020 its individual interest had increased to above the 1% threshold of voting rights specified in the bylaws; at that date, it held 3,223,000 shares and 5,796,160 voting rights, representing 0.75% of the Company's capital and 1.04% of the voting rights.

7.3.4.3 Trigger level for mandatory bids – grandfather clause

No shareholder benefits from a “grandfather” clause providing an exception from the legal trigger level for mandatory filing of a public offer.

The French State, a shareholder of the Company, benefited from a grandfather clause from February 2011 to March 2013 (described in section 7.3.4.3 of the 2013 Registration Document).

7.3.5 Control of the Company – shareholders' agreement

As of the date of filing of this Universal Registration Document, no shareholder held, directly or indirectly, jointly or in concert with another shareholder, a percentage of voting rights conferring control of the Company.

To the best of the Company's knowledge, there are no current shareholder agreements relating to Safran shares.

7.3.6 Agreements whose implementation could lead to a change in control of the Company

To the best of the Company's knowledge, there are no agreements whose implementation at a later date could lead to a change in control of the Company.

7.3.7 Employee shareholders

7.3.7.1 Free share grants

At its March 27, 2019 meeting, using the authorization granted in the 17th resolution of the Annual General Meeting of May 25, 2018, the Board of Directors authorized a grant of performance shares to certain managers and senior executives of the Group (2019 Long-Term Incentive Plan, as described in section 6.6.4.2 of this Universal Registration Document). The number of performance shares to be delivered after the three-year vesting period will depend on the extent to which the different performance conditions, applicable over 2019-2021 and described in section 6.6.4.2 of this Universal Registration Document, are achieved. Under the 2019 Long-Term Incentive Plan, 13,350 performance shares were granted to the Chief Executive Officer (see section 6.6.2.2 of this Universal Registration Document).

At its March 26, 2020 meeting, using the authorization granted in the 30th resolution of the Annual General Meeting of May 23, 2019, the Board of Directors authorized grants of performance shares to certain managers and senior executives of the Group (2020 Long-Term Incentive Plan). The vesting period has been set at three years (2020-2022) and the number of shares that will ultimately vest will depend on the extent to which the applicable performance conditions are met over that period. No performance shares were granted to the Chief Executive Officer under the 2020 Long-Term Incentive Plan given that his term of office expires at the end of 2020 (i.e., within less than a year of the grant date).

Safran affiliates did not grant free shares during the year.

7.3.7.2 Other transactions

Following the sale by the French State of 2.64% of the Company's share capital on December 1, 2015 (see section 7.3.4.1 of the 2015 Registration Document), 1.39% of the capital on November 23, 2016 (see section 7.3.4.1 of the 2016 Registration Document) and 2.35% of the capital on October 1, 2018 (see section 7.3.4.1 of the 2018 Registration Document), a total of 3,023,333 additional shares (1,222,222 shares sold by the French State on December 1, 2015, 644,444 shares sold by the French State on November 23, 2016 and 1,156,667 shares sold by the French State on October 1, 2018) will be offered to current and former employees of Safran and its subsidiaries at a later date, in accordance with Article 31.2 of French government *ordonnance* (order) 2014-948 of August 20, 2014 regarding the governance of companies in which the French State has a stake and regarding corporate actions involving these companies, as amended by French Act 2015-990 of August 6, 2015 on growth, business and equal economic opportunities.

At its meeting on December 19, 2019, the Board of Directors decided to use the authorization given in the 14th resolution of the Annual General Meeting of May 23, 2019 (or any other resolution to the same effect) by setting up a €160 million employee shareholding plan, "Safran Sharing 2020". Under the terms of the plan, employees have the opportunity to acquire up to 1.8 million shares currently held in treasury at a price set by the method prescribed in Article L.3332-19 of the French Labor Code (*Code du travail*) (see section 5.7.2.3).

Relations with shareholders

7.3.7.3 Stock options

No authorizations for the Board of Directors to give stock options granting entitlement to subscribe for new shares of the Company or to purchase existing shares were in force as of December 31, 2019 or the date of this Universal Registration Document.

No stock option plan granting entitlement to purchase existing shares is currently in progress.

When the merger of Zodiac Aerospace into Safran was completed on December 1, 2018, Safran took over from Zodiac Aerospace with respect to all of the obligations resulting from the commitments given by Zodiac Aerospace to holders of Zodiac Aerospace stock options outstanding at the merger completion date. Consequently, the outstanding Zodiac Aerospace stock options are now exercisable for ordinary Safran shares, based on the exchange ratio used for the merger. The plans in progress at December 31, 2019 were as follows:

Zodiac Aerospace stock subscription options exercisable for Safran shares	Plan 12 Zodiac Aerospace	Plan 13 Zodiac Aerospace	Plan 14 Zodiac Aerospace
Date of the (Zodiac Aerospace) Shareholders' Meeting	01/10/2011	01/10/2011	01/08/2014
Date of the (Zodiac Aerospace) Supervisory Board or Management Board meeting	05/13/2013	12/04/2013	02/12/2015
Option exercise start date	05/13/2014	12/04/2014	02/12/2016
Option expiration date	05/13/2021	12/04/2021	02/12/2023
Corporate officers concerned	0	0	0
Option subscription price	€68.89	€88.67	€107.47
Number of shares subscribed at December 31, 2019	114,642	64,419	15,836
Total number of options canceled or forfeited	18,855	40,009	41,007
Options outstanding at December 31, 2019	15,001	43,773	139,982
Maximum number of Safran shares to which the options outstanding at December 31, 2019 grant entitlement	15,001	43,773	139,982

Safran affiliates do not grant stock subscription or purchase options.

7.3.8 Temporary transfer of Safran shares

In accordance with French law, any individual or legal entity (with the exception of the investment services firms described in paragraph IV-3 of Article L.233-7 of the French Commercial Code) holding alone or in concert a number of shares representing more than 0.5% of the Company's voting rights pursuant to one or more temporary transfers or similar transactions within the meaning of Article L.225-126 of the aforementioned Code, is required to notify the Company and the AMF of the number of shares owned on a temporary basis no later than the second business day preceding the Shareholders' Meeting at zero hours.

If no notification is sent, any shares acquired under a temporary transfer will be stripped of voting rights at the Shareholders' Meeting concerned and at any Shareholders' Meeting that may be held until such shares are resold or returned.

No disclosures of temporary transfers were notified to the Company in 2019.

No disclosures of temporary transfers were notified to the Company between January 1, 2020 and the filing date of this Universal Registration Document.

7.4 RELATIONS WITH SHAREHOLDERS**7.4.1 Accessible financial information**

The following financial information and financial publications are available on Safran's website, at www.safran-group.com:

- the annual report (including the sustainable development report);
- the Universal Registration Document (including the annual financial report) and the half-year financial report filed with the AMF;

- financial press releases and financial publications (results, Capital Markets Day, roadshow, etc.);
- documents relating to the Shareholders' Meeting;
- the shareholders' newsletter, the shareholders' guide, the site visit program (reserved for members of the Safran Shareholders' Club).

The information can be mailed upon request from the Financial Communications Department.

7.4.2 Relations with institutional investors and financial analysts

To ensure good relations with the financial community, the Financial Communications Department regularly organizes events to enable financial analysts and institutional investors to meet with Executive Management.

In 2019, Executive Management participated in conference calls during which it presented the customary financial data (quarterly revenue, first-half and annual results) and answered questions from investors and financial analysts.

During the year, Executive Management and the Financial Communications Department also participated in meetings with the financial community (financial analysts and institutional investors) in the form of conference calls and roadshows in France and abroad. These regular contacts contribute to developing a relationship of trust.

7.4.3 Relations with individual shareholders

Safran organized three meetings for individual shareholders in 2019, in Biarritz on June 27, in Strasbourg on December 4 and in Lille on December 10, with a view to developing a close, trust-based relationship with them.

To further strengthen these relationships, Safran offers site visits or conferences on economic issues to members of the Shareholders' Club. Six half-day visits and one conference on economic issues were organized in 2019, during which 130 people got an insider's view of the Group's business activities.

7.4.4 Provisional shareholders' calendar

First-quarter 2020 revenue: April 29, 2020

Ordinary and Extraordinary Shareholders' Meeting: May 28, 2020 at 2:00 p.m. at Campus Safran – 32, rue de Vilgénis – 91300 Massy

First-half 2020 results: July 30, 2020

7.4.5 Investor relations' contacts

2, boulevard du Général-Martial-Valin

75724 Paris Cedex 15 – France

Tel.: +33 (0)1 40 60 80 80

Website: safrangroup.com

Investors and analysts

■ E-mail: investor.relation@safrangroup.com

Individual shareholders and Shareholders' Club

■ Toll-free number (France only): 0 800 17 17 17
 ■ E-mail: actionnaire.individuel@safrangroup.com

7.5 STOCK MARKET INFORMATION

The Safran share (ISIN code: FR0000073272 – Ticker symbol: SAF) is listed on compartment A of the Euronext Paris Eurolist market and is eligible for deferred settlement (see Euronext notice 2005-1865 of May 11, 2005).

Since September 19, 2011, the Safran share has been included in the CAC 40, CAC 40 Equal Weight, CAC Large 60, SBF 120, CAC All-Tradable, CAC All-Share, CAC Industrials, CAC Aero & Def., Euronext 100 and Euronext FAS IAS indices. The Safran share has been included in the LC 100 Europe index since March 21, 2011 and the Euro STOXX 50 index since September 21, 2015.

Main stock market data over three years	2017	2018	2019
Number of shares as of December 31	417,029,585	435,767,951	427,234,155
Safran share price (in €)			
High	92.250	122.250	150.850
Low	61.510	81.040	101.100
Closing	85.910	105.400	137.650
Market capitalization as of December 31 (in € millions)	35,827	45,930	58,809

Change in share price from January 1, 2019 to February 29, 2020	Average share price* (in €)	High (€)	Low (€)	Average daily transactions (in number of shares)	Average market capitalization** (in € millions)
2019					
January	108.239	115.050	101.100	815,030	47,167
February	116.258	120.600	112.050	747,230	50,661
March	119.264	122.350	115.700	830,125	51,972
April	124.090	129.900	119.700	756,617	54,075
May	122.711	130.000	116.300	736,285	53,474
June	126.085	133.950	116.200	809,223	54,946
July	131.120	137.200	127.350	737,687	57,140
August	127.173	132.650	121.650	768,634	55,420
September	140.369	145.400	129.200	820,411	61,172
October	140.435	146.050	136.650	721,316	61,201
November	147.538	150.850	142.150	556,227	64,297
December	142.800	149.500	134.850	782,152	61,009
2020					
January	141.282	150.700	135.450	788,983	60,361
February	142.780	152.300	121.650	1,029,437	60,001

Source: Euronext.

(*) Average closing price.

(**) Based on the number of outstanding shares (published monthly on the Company's website, in the section Finance/Publications/Regulated Information).



8

ANNUAL GENERAL MEETING

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Presentation of the resolutions

- Approval of the parent company and consolidated financial statements for the year ended December 31, 2019.
- Appropriation of profit for the year.
- Appointment of a new independent Director.
- Appointments of Directors representing employee shareholders.
- Approval of the components of compensation and benefits paid or awarded to corporate officers.
- Compensation policies.
- Authorization for the Board of Directors to carry out a share buyback program.
- Amendments to the Company's bylaws.
- Powers to carry out formalities.

15	Ordinary resolutions
2	Extraordinary resolutions
1	Resolution concerning powers to carry out formalities

The Annual General Meeting will be held on May 28, 2020 at 2:00 p.m. at the Safran Campus – 32, rue de Vilgénis, 91300 Massy (France).

IMPORTANT

Due to the evolving coronavirus outbreak and as part of the efforts to prevent the spread of the epidemic, the date, venue and conditions of shareholder attendance are highly likely to change for public health reasons and/or regulatory/legal reasons.

In particular, it may be necessary to hold the Meeting behind closed doors (without any shareholders being physically present) if the current situation persists (or to restrict the number of shareholders admitted to the Meeting in accordance with decisions by the public authorities or for safety reasons).

Accordingly, the Company is asking all shareholders to prepare for the possibility that they will not be able to physically participate in the Meeting.

Shareholders are therefore strongly encouraged to vote by post (or online before the Meeting), or to give proxy to the Chairman of the Meeting.

Shareholders are also invited to regularly check the 2020 Annual General Meeting section of the Company's website. The latest information can be found at: <https://www.safran-group.com/finance/general-meeting>

Dividend

At the Annual General Meeting on May 28, 2020, the Board of Directors will recommend that the full amount of profit for 2019 be allocated to retained earnings.

Year	2016	2017	2018
Dividend per share	€1.52	€1.60	€1.82

8.1 AGENDA

Ordinary resolutions

First resolution:	Approval of the parent company financial statements for the year ended December 31, 2019
Second resolution:	Approval of the consolidated financial statements for the year ended December 31, 2019
Third resolution:	Appropriation of profit for the year
Fourth resolution:	Appointment of Patricia Bellinger as an independent Director
Fifth resolution:	Ratification of the appointment of Fernanda Saraiva as a Director representing employee shareholders
Sixth resolution:	Appointment of Marc Aubry as a Director representing employee shareholders
Seventh resolution:	Appointment of Anne Aubert as a Director representing employee shareholders
Resolution A:	Re-appointment of Fernanda Saraiva as a Director representing employee shareholders (resolution not recommended by the Board of Directors)
Resolution B:	Appointment of Carlos Arvizu as a Director representing employee shareholders (resolution not recommended by the Board of Directors)
Eighth resolution:	Approval of the fixed, variable and exceptional components of the total compensation and benefits paid during or awarded for 2019 to the Chairman of the Board of Directors
Ninth resolution:	Approval of the fixed, variable and exceptional components of the total compensation and benefits paid during or awarded for 2019 to the Chief Executive Officer
Tenth resolution:	Approval of the disclosures required under Article L.225-37-3 I of the French Commercial Code concerning the compensation of corporate officers
Eleventh resolution:	Aggregate Compensation allocated to the Directors as consideration for their duties
Twelfth resolution:	Approval of the compensation policy applicable to the Chairman of the Board of Directors
Thirteenth resolution:	Approval of the compensation policy applicable to the Chief Executive Officer
Fourteenth resolution:	Approval of the compensation policy applicable to the Directors
Fifteenth resolution:	Authorization for the Board of Directors to carry out a share buyback program

Extraordinary resolutions

Sixteenth resolution:	Amendment of Articles 14.1 and 14.2 of the bylaws, to increase the maximum number of Directors (excluding Directors representing employee shareholders and Directors representing employees) from 13 to 14
Seventeenth resolution:	Amendment of the bylaws: simplification of the corporate purpose and alignment with legal and regulatory provisions

Resolution concerning powers to carry out formalities

Eighteenth resolution:	Powers to carry out formalities

8.2 REPORT OF THE BOARD OF DIRECTORS ON THE RESOLUTIONS PROPOSED TO THE ANNUAL GENERAL MEETING AND TEXT OF THE PROPOSED RESOLUTIONS

The proposed resolutions that will be submitted for shareholder approval at Safran's Annual General Meeting on May 28, 2020 are presented below.

Each of the resolutions is preceded by an explanatory paragraph providing a description of the resolution and setting out the reasons why it is being proposed.

8.2.1 Ordinary resolutions

8.2.1.1 Approval of the parent company and consolidated financial statements for the year ended December 31, 2019

Presentation of the first and second resolutions

The shareholders are invited to approve the parent company and consolidated financial statements for the year ended December 31, 2019 as well as the expenses incurred during the year that are not deductible for tax purposes (company vehicles):

- the parent company financial statements show that the Company ended 2019 with profit of €1,297 million;
- the consolidated financial statements show attributable profit for the year amounting to €2,447 million.

Text of the first resolution

Approval of the parent company financial statements for the year ended December 31, 2019

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the management report prepared by the Board of Directors and

the Statutory Auditors' report on the parent company financial statements, the shareholders approve the parent company financial statements for the year ended December 31, 2019 as presented – showing profit for the year of €1,296,554,954.50 – together with the transactions reflected in those financial statements and referred to in those reports.

Pursuant to Article 223 *quater* of the French Tax Code (*Code général des impôts*), the shareholders approve the non-deductible expenses governed by Article 39-4 of said Code, which totaled €655,591 and gave rise to a tax charge of €225,719.98.

Text of the second resolution

Approval of the consolidated financial statements for the year ended December 31, 2019

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the management report prepared by the Board of Directors and the Statutory Auditors' report on the consolidated financial statements, the shareholders approve the consolidated financial statements for the year ended December 31, 2019 as presented, together with the transactions reflected in those financial statements and referred to in those reports.

8.2.1.2 Appropriation of profit for the year

Presentation of the third resolution

The Company's distributable profit for 2019 totals €2,658 million, breaking down as €1,297 million in profit for the year plus €1,361 million in retained earnings brought forward from the previous year.

In a spirit of responsibility vis-à-vis Safran's stakeholders, at its meeting on March 26, 2020, the Board of Directors decided not to propose to the Annual General Meeting the payment of a dividend in 2020 in respect of 2019.

This decision preserves the Group's resources in order to protect employees, maintain continuity of its operations, notably for its suppliers, support its customers and ensure liquidity in uncertain times.

Accordingly, the full amount of profit for 2019 would be allocated to retained earnings.

Text of the third resolution

Appropriation of profit for the year

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, and based on the Board of Directors' recommendation, the shareholders resolve to appropriate the profit for the year ended December 31, 2019 as follows:

Profit for 2019	€1,296,554,954.50
Retained earnings ⁽¹⁾	€1,361,537,796.44
Profit available for distribution	€2,658,092,750.94
Appropriation:	
Dividend	€0
Retained earnings	€2,658,092,750.94

(1) Including €7,838,268.62 corresponding to the 2018 dividend due on shares held in treasury at the dividend payment date and after allocating the amount of €1,074,034,248.80 representing the difference between the carrying amount of the 8,562,856 treasury shares canceled on December 19, 2019 and their nominal amount.

Consequently, the shareholders resolve to allocate the full amount of profit for 2019 to retained earnings.

The shareholders note that dividends paid for the past three years were as follows:

	Number of shares carrying dividend rights ⁽¹⁾	Net dividend per share	Total payout
2018	431,474,040	€1.82	785,282,752.80 ⁽³⁾
2017	434,570,199	€1.60	€695,312,318.40 ⁽³⁾
2016	409,239,433 ⁽²⁾	€1.52	€626,602,111.28 ⁽⁴⁾

(1) Total number of shares carrying dividend rights less the number of Safran shares held in treasury at the dividend payment date.

(2) An interim dividend (€0.69) was paid on 415,845,481 shares and the remainder of the dividend (€0.83) was paid on 409,239,433 shares.

(3) Subject to the flat-rate tax provided for in Article 200 A of the French Tax Code or, on a discretionary basis, tax levied at the progressive rate after the 40% tax relief provided for in Article 158, 3-2° of the French Tax Code.

(4) Fully eligible for the 40% tax relief provided for in Article 158, 3-2° of the French Tax Code.

8.2.1.3 Appointment of a new independent Director

Presentation of the fourth resolution

To strengthen its membership, the Board has decided to propose the appointment of an additional woman independent Director.

The shareholders are therefore invited to appoint Patricia Bellinger as Director. If appointed, Patricia Bellinger will also become a member of the Appointments and Compensation Committee.

Patricia Bellinger has all of the qualities that the Company has identified it is looking for in a new Director and that were sought in the selection process. In addition to her independent status, the Appointments Committee and the Board were particularly impressed with the depth and breadth of her career and her diverse experience, as well as her time in industry, her HR/Diversity/Talent Management expertise (in terms of both strategic and people-centric issues), her multilingualism, and her knowledge of French corporate governance.

As the Board already has the maximum number of Directors allowed under the Company's bylaws (i.e., a maximum of 13 members not including the Directors representing employees and the Directors representing employee shareholders), in order to be able to put forward Patricia Bellinger as an additional woman independent Director, the Board will ask the shareholders to amend the Company's bylaws to raise the maximum number of Directors to 14, not including the Directors representing employees and the Directors representing employee shareholders (see section 8.2.2 below).

If the shareholders follow the Board's recommendations and adopt the corresponding resolutions, the proportion of independent Directors will be increased to 64.30%⁽¹⁾ and the proportion of women on the Board to 42.86%⁽²⁾ (see section 6.2.4.2).

The profile of Patricia Bellinger is set out in section 8.2.4.1.

Text of the fourth resolution

Appointment of Patricia Bellinger as a Director

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and subject to approval of the 16th resolution below, the shareholders appoint Patricia Bellinger as a Director, for a four-year term expiring at the close of the Annual General Meeting to be held to approve the financial statements for the year ending December 31, 2023.

8.2.1.4 Ratification of the appointment of Fernanda Saraiva as a Director representing employee shareholders

Presentation of the fifth resolution

The shareholders are invited to ratify the temporary appointment of Fernanda Saraiva as a Director by the Board of Directors on July 25, 2019, it being specified that her term of office will expire at the close of the Annual General Meeting of May 28, 2020.

Having noted the decision by Éliane Carré-Copin to retire and, consequently, to resign from her position as a Director representing employee shareholders, at its meeting on July 25, 2019, the Board of Directors decide to appoint her deputy, Fernanda Saraiva, to replace her for the remainder of her term of office, i.e., until the close of the 2020 Annual General Meeting, as provided for in Article 14.8 of the Company's bylaws and the applicable law.

The profile of Fernanda Saraiva is set out in section 6.2.2.

Text of the fifth resolution

Ratification of the appointment of Fernanda Saraiva as a Director representing employee shareholders

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the Board of Directors' report, the shareholders ratify the Board's decision of July 25, 2019 to appoint Fernanda Saraiva as a Director representing employee shareholders on a temporary basis, to replace Éliane Carré-Copin for the remainder of her term of office, i.e., until the close of this Annual General Meeting.

(1) In accordance with the AFEP-MEDEF Code, Directors representing employee shareholders and Directors representing employees are not taken into account when calculating the percentage of independent Directors.

(2) In accordance with the Pacte Act, Directors representing employees and employee shareholders are not included in this calculation.

8.2.1.5 Appointments of Directors representing employee shareholders

Presentation of the sixth and seventh resolutions and resolutions A and B

Expiry of the terms of office of the two Directors representing employee shareholders

The Board of Directors includes two Directors representing employee shareholders, Fernanda Saraiva and Gérard Mardiné, whose terms of office are due to expire at the close of the Annual General Meeting of May 28, 2020.

In accordance with the applicable law and Article 14.8 of Safran's bylaws, if the report presented by the Board at the Annual General Meeting shows that the shares held by employees of the Company – or of companies related to it within the meaning of Article L.225-180 of the French Commercial Code (*Code de commerce*) – represent more than 3% of the share capital, then one or more Directors representing employee shareholders must be appointed at an Ordinary General Meeting.

Consequently, at the Annual General Meeting on May 28, 2020, the shareholders will be asked to replace the Directors representing employee shareholders.

Candidates to replace the Directors representing employee shareholders

In application of the procedure specified in Article 14.8 of the Company's bylaws, prior to the Annual General Meeting, the Chairman of the Board of Directors:

- a. contacted the supervisory boards of the corporate mutual funds (FCPEs) set up as part of the Group's employee share ownership program – whose investments mainly comprise shares in the Company – to ask them to designate one or several candidates from among their members;
- b. organized elections, preceded by calls for candidates, for the designation of candidates by Safran employees who held registered shares received under certain free share plans (and who therefore qualified as direct shareholders of the Company within the meaning of Article L.225-102 of the French Commercial Code).

On completion of this process:

- the supervisory boards of the FCPEs representing employee shareholders validly designated three candidates from among their members:
 - Marc Aubry, Chairman of the Supervisory Board of the Safran Investissement corporate mutual fund,

- Fernanda Saraiva, member of the Supervisory Board of the Safran Investissement corporate mutual fund,
- Carlos Arvizu, member of the Supervisory Board of the Safran International corporate mutual fund;

- Safran employees who held registered shares received under certain free share plans validly elected one candidate, Anne Aubert (Safran Seats – Issoudun).

Each of these four nominations is valid in terms of the law and the Company's bylaws and therefore must be submitted to shareholders at the Annual General Meeting.

Approval by the Board of Directors of two candidates from among the four candidates presented to the Annual General Meeting

The Board of Directors considers that, in order for the Board to maintain a balanced membership structure, there should be no more than two Directors representing employee shareholders.

Consequently, shareholders are asked to note that only two of the four candidates are being recommended by Safran's Board of Directors.

Taking into account various factors, including the benefits of appointing Directors who are representative of employee shareholders and promoting diversity (particularly in terms of trade union representation) and gender balance in all of its components, and considering the candidates' different backgrounds and career paths, the Board of Directors decided to approve the candidatures of Marc Aubry and Anne Aubert.

Therefore, at the May 28, 2020 Annual General Meeting, the Board of Directors is inviting shareholders to:

- appoint Marc Aubry and Anne Aubert as Directors representing employee shareholders, for a four-year term expiring at the close of the 2024 Annual General Meeting, by voting for the 6th and 7th resolutions;
- reject the nominations of Fernanda Saraiva and Carlos Arvizu, by voting against resolutions A and B.

Text of the sixth resolution

Appointment of Marc Aubry as a Director representing employee shareholders

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, the shareholders approve the Board of Directors' proposal and appoint Marc Aubry

as a Director representing employee shareholders, to replace Fernanda Saraiva whose term of office is due to expire at the close of this Meeting.

Marc Aubry is appointed for a four-year term expiring at the close of the Annual General Meeting to be held to approve the financial statements for the year ending December 31, 2023.

Text of the seventh resolution

Appointment of Anne Aubert as a Director representing employee shareholders

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, the shareholders approve the Board of Directors' proposal and appoint Anne Aubert as a Director representing employee shareholders, to replace Gérard Mardiné whose term of office is due to expire at the close of this Meeting.

Anne Aubert is appointed for a four-year term expiring at the close of the Annual General Meeting to be held to approve the financial statements for the year ending December 31, 2023.

Text of Resolution A

Re-appointment of Fernanda Saraiva as a Director representing employee shareholders (resolution not recommended by the Board of Directors)

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, the shareholders

re-appoint Fernanda Saraiva as a Director representing employee shareholders, for a four-year term expiring at the close of the Annual General Meeting to be held to approve the financial statements for the year ending December 31, 2023.

Text of Resolution B

Appointment of Carlos Arvizu as a Director representing employee shareholders (resolution not recommended by the Board of Directors)

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, the shareholders appoint Carlos Arvizu as a Director representing employee shareholders, for a four-year term expiring at the close of the Annual General Meeting to be held to approve the financial statements for the year ending December 31, 2023.

8.2.1.6 Approval of the components of compensation and benefits paid during or awarded for 2019 to the corporate officers

Presentation of the eighth and ninth resolutions – Specific votes on the compensation of the Chairman of the Board of Directors and the Chief Executive Officer

At the Annual General Meeting of May 23, 2019, the shareholders were asked to approve the compensation policies adopted by the Board of Directors for (i) the Chairman of the Board of Directors, in the 12th resolution, and (ii) the Chief Executive Officer, in the 13th resolution (*ex-ante* vote).

The Board set the respective compensation packages for the Chairman and the Chief Executive Officer for 2019 in accordance with these policies.

For several years now, shareholders have been asked to vote on the components of compensation and benefits paid during or awarded for the previous year to the Chairman of the Board of Directors and to the Chief Executive Officer (*ex-post* vote)

In accordance with French government *ordonnance* (order) 2019-1234 dated November 27, 2019, the specific vote concerning each corporate officer required by Article L.225-100 III of the French Commercial Code now covers the fixed, variable and exceptional components of the total compensation and benefits **paid during 2019** (i.e., cash compensation paid to the officer in 2019, whatever the year to which it relates) or **awarded for 2019** (i.e., share-based and/or cash compensation awarded in respect of the work performed in 2019, the quantity and/or amount of which does not vest on the grant date and is therefore measured at the grant-date accounting value, if applicable) in their capacity as corporate officers.

At the Annual General Meeting, shareholders will be asked to approve the components of the compensation and benefits paid during or awarded for 2019 to the Chairman and the Chief Executive Officer in their capacity as corporate officers (*ex-post* vote), as fixed by the Board. These components may comprise:

- fixed compensation;
- variable compensation;
- performance shares;
- supplementary pension plans;
- benefits-in-kind.

The following tables summarize the various components of the compensation and benefits of the Chairman and the Chief Executive Officer, which are presented in detail in section 6.6.2 of this Universal Registration Document.

In accordance with the applicable law, payment of the corporate officers' variable compensation and any exceptional compensation for the previous year (year Y-1) is subject to the approval of the shareholders at the Annual General Meeting held the following year (year Y).

Payment of the Chief Executive Officer's annual variable compensation for 2019 is therefore subject to the approval of the shareholders at the Annual General Meeting of May 28, 2020.

Consequently:

- in the 8th resolution, the shareholders are asked to approve the fixed, variable and exceptional components making up the total compensation and benefits paid during or awarded for 2019 to Ross McInnes, Chairman of the Board of Directors; and
- in the 9th resolution, the shareholders are asked to approve the fixed, variable and exceptional components making up the total compensation and benefits paid during or awarded for 2019 to Philippe Petitcolin, Chief Executive Officer.

COMPONENTS OF THE COMPENSATION PAID DURING OR AWARDED FOR 2019 TO ROSS MCINNES, CHAIRMAN OF THE BOARD OF DIRECTORS

Compensation components put to the vote	Amounts paid during 2019	Amounts awarded for 2019 or accounting value	Presentation
Fixed compensation (2019)	€450,000 Awarded for 2019 and paid in 2019	See opposite	At its meeting on February 26, 2019, acting on the recommendation of the Appointments and Compensation Committee, the Board of Directors decided to keep the Chairman's annual fixed compensation at €450,000 for 2019, i.e., unchanged from 2018 (see section 6.6.2.1 of this Universal Registration Document).
Annual variable compensation (2019)	N/A⁽¹⁾	N/A	Ross McInnes does not receive any annual variable compensation.
Multi-year variable compensation	N/A	N/A	Ross McInnes does not receive any multi-year variable compensation.
Exceptional compensation	N/A	N/A	Ross McInnes did not receive any exceptional compensation.
Stock options, performance shares and any other long-term compensation	N/A	N/A	Ross McInnes does not receive any stock options.
	N/A	N/A	Ross McInnes does not receive any performance shares or any other long-term compensation.
Directors' compensation	N/A	N/A	Ross McInnes did not receive any compensation for his duties as member of the Board of Directors for 2019.
Benefits-in-kind	N/A	€4,916.91 (accounting value)	Ross McInnes has the use of a company car.
Termination benefits	N/A	N/A	Ross McInnes is not entitled to any termination benefits in his capacity as Chairman of the Board of Directors.
Supplementary pension			No specific supplementary pension system was in place for the Chairman of the Board of Directors.
	€0	N/A	“Article 83” defined contribution plans In accordance with a decision taken by the Board of Directors on February 26, 2018, the Chairman is a beneficiary of Safran's two defined contribution supplementary pension plans set up in France for all Group managerial-grade staff pursuant to Article 83 of the French Tax Code (the “Article 83 Core Plan” and the “Article 83 Additional Plan”) and in force at January 1, 2018 (see section 6.6.1.3 of this Universal Registration Document), subject to the same terms and conditions as the other plan members. The commitment given by the Company to enable Mr. McInnes to continue to be a beneficiary of these plans was approved at the Annual General Meeting of May 25, 2018, pursuant to the legal provisions applicable at that date. The expenses recorded in the 2019 financial statements relating to the contributions paid for Ross McInnes under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €11,955 and €13,981 respectively. At December 31, 2019, the estimated theoretical amount⁽²⁾ of the annuities that could be paid to Ross McInnes under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €7,352 and €1,811 respectively.

(1) Not applicable.

(2) In accordance with IFRS 2, the value of the performance shares was measured at the grant date (i.e., July 24, 2018) and not based on compensation received by the beneficiary during the year (see section 3.1, Note 1.r).

(3) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

Compensation components put to the vote	Amounts paid during 2019	Amounts awarded for 2019 or accounting value	Presentation
	Additional payment: €43,762.58	N/A ⁽¹⁾	“Article 82” defined contribution plan In accordance with a decision taken by the Board of Directors on March 23, 2017, the Chairman is a beneficiary of Safran’s defined contribution supplementary pension plan set up in France (see section 6.6.1.3 of this Universal Registration Document) for all Group managerial-grade staff pursuant to Article 82 of the French Tax Code (the “Article 82 Plan”), subject to the same terms and conditions as the other plan members. The Article 82 Plan was put in place to compensate for the closure of Safran’s Article 39 defined benefit plan as from January 1, 2017 (see below). In order for entitlements to accrue under the plan, the Company is required to: ■ pay monthly contributions to an insurer, the rate of which is set based on the beneficiary’s reference compensation for year Y-1 (Insurer Contribution) and which may represent up to 12.735% of that reference compensation; and ■ pay a cash amount to the beneficiary corresponding to the Insurer Contribution (Additional Payment) so that the beneficiary can pay the applicable tax (the plan provides for up-front taxation so that the capital accrued and received on the beneficiaries’ retirement is net of tax and social security contributions). Under the Article 82 Plan, the Insurer Contribution and Additional Payment for the Chairman for 2019 totaled €43,762.56 each (i.e., €87,525.12 altogether), corresponding in each case to 9.725% of his reference compensation (19.45% in total). At December 31, 2019, the estimated theoretical amount⁽²⁾ of the annuity that could be paid to Ross McInnes under the Article 82 Plan was €5,095.
	€0	N/A	“Article 39” defined benefit plan (closed to new entrants and entitlements frozen) The Article 39 defined benefit supplementary pension plan⁽³⁾ of which the Chairman was previously a beneficiary (further to the decision of the Board of Directors on April 23, 2015 and by the shareholders at the May 19, 2016 Annual General Meeting) is now closed to new entrants and the benefit entitlements have been frozen, including for the Chairman. However, he could still be eligible for any pension entitlement he had accrued under the plan at December 31, 2016 provided the applicable terms and conditions are met (see section 6.6.1.3 of this Universal Registration Document). At December 31, 2019, the estimated theoretical amount⁽²⁾ of the annuity that could be paid to the Chairman corresponded to the cap set in the plan, i.e., €123,408 (corresponding to three times the annual social security ceiling [PASS], based on the 2020 value of the PASS). Concerning the above-described Article 82 Plan and the Article 39 Plan (closed) As a reminder, in 2017, the Board decided to change Safran’s supplementary pension system. The new system involved (i) closing the Article 39 defined benefit plan to new entrants and freezing existing entitlements and, (ii) to compensate for the closure of this plan, setting up new plans, including the Article 82 Plan. The resolution relating to the Chairman remaining a beneficiary under the new system was submitted to shareholders at the June 15, 2017 Annual General Meeting and was rejected. At its July 27, 2017 meeting, the Board of Directors ratified its decision to include the Chairman as a beneficiary under the new supplementary pension system, subject to the same terms and conditions as the other managerial-grade beneficiaries. The shareholders subsequently approved the Chairman’s inclusion as a beneficiary under the new supplementary pension system, through the adoption of the 10th resolution of the May 23, 2019 Annual General Meeting relating to the components of compensation and benefits paid or awarded to the Chairman for 2018, which included said supplementary pension benefits.

(1) Not applicable.

(2) In accordance with IFRS 2, the value of the performance shares was measured at the grant date (i.e., July 24, 2018) and not based on compensation received by the beneficiary during the year (see section 3.1, Note 1.r).

(3) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

COMPONENTS OF THE COMPENSATION PAID DURING OR AWARDED FOR 2019 TO PHILIPPE PETITCOLIN, CHIEF EXECUTIVE OFFICER

Compensation components put to the vote	Amounts paid during 2019	Amounts awarded for 2019 or accounting value	Presentation
Fixed compensation (2019)	€800,000 Awarded for 2019 and paid in 2019	See opposite	At its meeting on February 26, 2019, acting on the recommendation of the Appointments and Compensation Committee, the Board of Directors decided to keep the Chief Executive Officer's annual fixed compensation at €800,000 for 2019, i.e., unchanged from 2018 (see section 6.6.2.2 of this Universal Registration Document).
Annual variable compensation (2019)	€960,000 (for information) Amount awarded for 2018 that was paid in 2019 (see section 6.6.2.2. of the 2018 Registration Document) Payment of his annual variable compensation for 2018 was approved by the shareholders at the Annual General Meeting of May 23, 2019	€964,444 Awarded for 2019 and payable in 2020 Payment of his annual variable compensation for 2019 is subject to the approval of the shareholders at the Annual General Meeting of May 28, 2020	The Chief Executive Officer's annual variable compensation for 2019 was determined by the Board of Directors in accordance with the compensation policy approved by the shareholders at the Annual General Meeting of May 23, 2019 (see section 6.6.1.3 of the 2018 Registration Document) and described in section 6.6.2.2 of this Universal Registration Document. At its meeting on March 26, 2020, the Board of Directors reviewed the achievement of the objectives set for the variable compensation payable to the Chief Executive Officer for 2019, after consultation with the Appointments and Compensation Committee. Following this review, it set Philippe Petitcolin's variable compensation for 2019 at €964,444, i.e., 121% of his annual fixed compensation. This amount reflects: ■ an overall achievement rate of 114% for the portion related to the Group's financial performance (accounting for two-thirds of the Chief Executive Officer's variable compensation), for which the objectives related to: · recurring operating income (ROI) (60% weighting): 113% achievement, · free cash flow (FCF) (30% weighting): 119% achievement, · working capital, comprising the following components: · operating assets (Inventories) (5% weighting): 94% achievement, and · unpaid receivables (5% weighting): 115% achievement; ■ an overall achievement rate of 109% for the portion related to individual quantitative and qualitative performance objectives (accounting for one-third of the Chief Executive Officer's variable compensation, see section 6.6.2.2 of this Universal Registration Document). The achievement rates for each of the individual objectives cannot be given in detail for confidentiality reasons in view of their strategic and competitive sensitivity.
Multi-year variable compensation	€614,634.23 Payment of the balance of the 2015 Long-Term Incentive Plan (two-thirds in cash and one-third in Safran shares) approved by the Annual General Meeting of May 19, 2016 (18 th resolution), in accordance with the rules applicable at that time concerning "say on pay" advisory votes, and by the Annual General Meeting of May 25, 2018 (11 th resolution) on compensation paid or awarded to the Chief Executive Officer for 2017 (ex-post vote)	N/A⁽¹⁾	No multi-year variable compensation was awarded to Philippe Petitcolin for 2019. Summary of 2015 Long-Term Incentive Plan On the recommendation of the Appointments and Compensation Committee, at its July 29, 2015 meeting, the Board of Directors decided to introduce a multi-year variable compensation system in the form of the 2015 Performance Unit (PU) plan. The main characteristics and terms and conditions of this plan, including the initial grant to the Chief Executive Officer, are described in sections 6.3.1.2 and 6.3.3.3 of the 2015 Registration Document. The Board of Directors' review of the performance condition achievement rates and the number of vested PUs are described in section 6.6.2.2 of the 2017 Registration Document and summarized in section 6.6.2.2 of this Universal Registration Document. As provided for in the plan rules, payments were made in two installments. The first installment was settled at end-October 2018 (see section 6.6.2.2 of the 2018 Registration Document). The second installment was settled in 2019, corresponding to €409,793.87 paid in cash and the delivery of 1,446 Safran shares, representing total compensation of €614,634.23.
Exceptional compensation	N/A	N/A	Philippe Petitcolin did not receive any exceptional compensation.

(1) Not applicable.

(2) In accordance with IFRS 2, the value of the performance shares was measured at the grant date (i.e., July 24, 2018) and not based on compensation received by the beneficiary during the year (see section 3.1, Note 1.r).

(3) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

Report of the Board of Directors on the resolutions proposed to the Annual General Meeting and text of the proposed resolutions

Compensation components put to the vote	Amounts paid during 2019	Amounts awarded for 2019 or accounting value	Presentation
Stock options, performance shares and any other long-term compensation	Stock options: N/A ⁽¹⁾	Stock options: N/A	Philippe Petitcolin did not receive any stock options.
	Performance shares: N/A	Performance shares: €959,989 (accounting value on grant date)	On the recommendation of the Appointments and Compensation Committee, at its March 27, 2019 meeting, the Board of Directors used the authorization granted in the 17 th resolution of the May 25, 2018 Annual General Meeting to grant 13,350 performance shares to Philippe Petitcolin (see section 6.6.2.2 of this Universal Registration Document). The general terms and conditions of this performance share plan and the terms and conditions relating specifically to the Chief Executive Officer are described in section 6.6.4.2 of this Universal Registration Document. The estimated accounting value of these performance plans, as measured at the grant date, corresponds to €959,989 ⁽²⁾ .
	Other long-term compensation: N/A	Other long-term compensation: N/A	Philippe Petitcolin did not receive any other long-term compensation.
Directors' compensation	N/A	N/A	Philippe Petitcolin did not receive any compensation for his duties as member of the Board of Directors for 2019.
Value of benefits-in-kind	N/A	€5,876.12 (accounting value)	Philippe Petitcolin has the use of a company car.
Termination benefits	N/A		Philippe Petitcolin is not entitled to any termination benefits in his capacity as Chief Executive Officer.
Supplementary pension	N/A	€0	No specific supplementary pension plan was in place for the Chief Executive Officer. "Article 83" defined contribution plans In accordance with a decision taken by the Board of Directors on February 26, 2018, the Chief Executive Officer is a beneficiary of Safran's two defined contribution supplementary pension plans set up in France for all Group managerial-grade staff pursuant to Article 83 of the French Tax Code (the "Article 83 Core Plan" and the "Article 83 Additional Plan") and in force at January 1, 2018 (see section 6.6.1.4 of this Universal Registration Document), subject to the same terms and conditions as the other plan members. The commitment given by the Company to enable the Mr. Petitcolin to continue to be a beneficiary of these plans was approved at the Annual General Meeting of May 25, 2018, pursuant to the legal provisions applicable at that date. The expenses recorded in the 2019 financial statements relating to the contributions paid for Philippe Petitcolin under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €28,164 and €13,981 respectively. At December 31, 2019, the estimated theoretical amount ⁽³⁾ of the annuities that could be paid to Philippe Petitcolin under the Article 83 Core Plan and the Article 83 Additional Plan amounted to €28,497 and €1,968 respectively.

(1) Not applicable.

(2) In accordance with IFRS 2, the value of the performance shares was measured at the grant date (i.e., July 24, 2018) and not based on compensation received by the beneficiary during the year (see section 3.1, Note 1.r).

(3) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

(4) Defined benefit plan meeting the conditions set out in Article L.137-11 of the French Social Security Code (Code de la sécurité sociale).

Report of the Board of Directors on the resolutions proposed to the Annual General Meeting and text of the proposed resolutions

Compensation components put to the vote	Amounts paid during 2019	Amounts awarded for 2019 or accounting value	Presentation
	Additional payment: €200,894.64	N/A⁽¹⁾	“Article 82” defined contribution plan In accordance with a decision taken by the Board of Directors on March 23, 2017, the Chief Executive Officer is a beneficiary of Safran’s defined contribution supplementary pension plan set up in France (see section 6.6.1.4 of this Universal Registration Document) for all Group managerial-grade staff pursuant to Article 82 of the French Tax Code (the “Article 82 Plan”), subject to the same terms and conditions as the other plan members. In order for entitlements to accrue under the plan, the Company is required to: - pay monthly contributions to an insurer, the rate of which is set based on the beneficiary’s reference compensation for year Y-1 (Insurer Contribution) and which may represent up to 12.735% of that reference compensation; and - pay a cash amount to the beneficiary corresponding to the Insurer Contribution (Additional Payment) so that the beneficiary can pay the applicable tax (the plan provides for up-front taxation so that the capital accrued and received on the beneficiaries’ retirement is net of tax and social security contributions). The commitment given by the Company to enable Mr. Petitcolin to be a beneficiary under this plan was approved by the shareholders at the Annual General Meeting of June 15, 2017, pursuant to the legal provisions applicable at that time. Under the Article 82 Plan, the Insurer Contribution and Additional Payment for the Chief Executive Officer for 2019 totaled €200,894.64 each (i.e., €401,789.28 altogether), corresponding in each case to 12.735% of his reference compensation (25.47% in total). At December 31, 2019, the estimated theoretical amount⁽³⁾ of the annuity that could be paid to Philippe Petitcolin under the Article 82 Plan was €29,666.
	€0	N/A	“Article 39” defined benefit plan (closed to new entrants and entitlements frozen) The Chief Executive Officer was previously a beneficiary of Safran’s defined benefit supplementary pension plan set up in France for all Group managerial-grade staff pursuant to Article 39⁽⁴⁾ of the French Tax Code (the “Article 39 Plan”, see section 6.6.1.4 of this Universal Registration Document), subject to the same terms and conditions as the other plan members. Mr. Petitcolin was originally a beneficiary of this plan in his former capacity as a Company employee. This plan is now closed to new entrants and the benefit entitlements have been frozen, including for the Chief Executive Officer. However, he could still be eligible for the pension entitlement he had accrued at December 31, 2016 provided the applicable terms and conditions are met (see section 6.6.1.3 of this Universal Registration Document). The commitment given by the Company to enable Mr. Petitcolin to be a beneficiary under this plan was approved by the shareholders at the Annual General Meeting of June 15, 2017, pursuant to the legal provisions applicable at that time. At December 31, 2019, the estimated theoretical amount⁽³⁾ of the annuity that could be paid to Philippe Petitcolin corresponded to the cap set in the plan, i.e., €123,408 (corresponding to three times the annual social security ceiling [PASS], based on the 2020 value of the PASS).

(1) Not applicable.

(2) In accordance with IFRS 2, the value of the performance shares was measured at the grant date (i.e., July 24, 2018) and not based on compensation received by the beneficiary during the year (see section 3.1, Note 1.r).

(3) Calculated based on the assumption that the annuity would be received as from January 1, 2020, irrespective of the eligibility conditions (in accordance with Article D.225-29-3 of the French Commercial Code).

Text of the eighth resolution

Approval of the fixed, variable and exceptional components of the total compensation and benefits paid during or awarded to the Chairman of the Board of Directors for 2019

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, in accordance with Article L.225-100 III of the French Commercial Code, the shareholders approve the fixed, variable and exceptional components making up the total compensation and benefits paid during or awarded to Ross McInnes, Chairman of the Board of Directors, for 2019, as presented in the Board of Directors' corporate governance report prepared in application of Article L.225-37 of the French Commercial Code and set out in chapter 6 (section 6.6.2.1) of the 2019 Universal Registration Document.

Text of the ninth resolution

Approval of the fixed, variable and exceptional components of the total compensation and benefits paid during or awarded to the Chief Executive Officer for 2019

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, in accordance with Article L.225-100 III of the French Commercial Code, the shareholders approve the fixed, variable and exceptional components making up the total compensation and benefits paid during or awarded to Philippe Petitcolin, Chief Executive Officer, for 2019, as presented in the Board of Directors' corporate governance report prepared in application of Article L.225-37 of the French Commercial Code and set out in chapter 6 (section 6.6.2.2) of the 2019 Universal Registration Document.

Presentation of the tenth resolution – Vote on the total compensation of corporate officers

In accordance with French government *ordonnance* 2019-1234 dated November 27, 2019 concerning the compensation packages of corporate officers of listed companies, shareholders are now required to vote on the aggregate compensation and benefits paid during the previous year or awarded for that year to all corporate officers, executive and non-executive.

The disclosures on which the shareholders are required to vote are presented in sections 6.6.2 and 6.6.3 of this Universal Registration Document.

In addition to the disclosures concerning the compensation and benefits of the Chairman and the Chief Executive Officer, which will be put to the vote in the 8th and 9th resolutions presented above, they include disclosures on the compensation allocated to the Directors (section 6.6.3), pay ratios between the level of compensation of the Chairman and the Chief Executive Officer and the average and median compensation of Safran's employees (section 6.6.2.4), and a certain number of other disclosures required under the applicable regulations (set out in Article L.225-37-3 I of the French Commercial Code).

A concordance table for all of these disclosures is provided in section 6.7 of this Universal Registration Document.

Text of the tenth resolution

Approval of the disclosures required under Article L.225-37-3 I of the French Commercial Code concerning the compensation of corporate officers

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings, in accordance with Article L.225-100 II of the French Commercial Code, having considered the Board of Directors' corporate governance report, including the disclosures about the compensation paid during or awarded for 2019 to the corporate officers as consideration for their duties, the shareholders approve the disclosures required under Article L.225-37-3 I of the French Commercial Code, as presented to the Annual General Meeting in the aforementioned corporate governance report.

8.2.1.7 Aggregate Compensation allocated to the Directors as consideration for their duties

Presentation of the eleventh resolution

The shareholders are invited to increase the aggregate annual amount of compensation to be allocated to the Directors as consideration for their duties (the "Aggregate Compensation") to €1,100,000 for 2020 and until the amount is revised by decision of the Annual General Meeting.

The purpose of this modest increase in the Aggregate Compensation compared with the amount set in 2016 is solely to take into account the increase in the number of Directors (with the appointment of an additional Director, as proposed in the 4th resolution above, see section 6.2.6.2).

In light of the current unique circumstances, the Board of Directors considers that it would not be appropriate at this time to recommend to the Annual General Meeting a more significant increase in the Aggregate Compensation, which would have enabled Safran to offer its Directors average compensation that is more closely aligned with the practices of comparable French companies. The matter will be re-examined in 2021.

In parallel with this proposal and for the first time, the Board of Directors is submitting to the Annual General Meeting its compensation policy for the Directors (see the 14th resolution below), describing the principles applicable to the Aggregate Compensation and the rules for its allocation among the Directors, as well as – for information purposes – the amounts set by the Board for the implementation of the allocation rules (see section 6.6.1.5 of this Universal Registration Document).

Text of the eleventh resolution

Aggregate Compensation allocated to the Directors as consideration for their duties

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the Board of Directors' report, the shareholders set at €1,100,000 the Aggregate Compensation to be allocated by the Board of Directors among its members as consideration for their duties for 2020 and each subsequent year until the shareholders decide otherwise.

8.2.1.8 Compensation policies

Presentation of the twelfth to fourteenth resolutions

In compliance with Article L.225-37-2 of the French Commercial Code, the Board of Directors determines a compensation policy for the corporate officers, which sets out the principles and criteria used to determine, allocate and award the fixed, variable and exceptional components of their total compensation and benefits.

By nature and by construction, taking into account compensation-related governance rules, the components of the policies are specific and different, depending on whether they concern the Chairman, the Chief Executive Officer or the Directors, all of whom are corporate officers. These policies are submitted for shareholders' approval each year at the Annual General Meeting.

These specific policies, which take into account the regulatory changes concerning the compensation of corporate officers of listed companies applicable from 2019⁽¹⁾, are disclosed in section 6.6.1 of this Universal Registration Document. This section presents:

- the principles and rules for determining the compensation and any benefits of corporate officers;
- the main differences compared with the compensation policies approved at the May 23, 2019 Annual General Meeting;
- the specific compensation policy for the Chairman of the Board of Directors;
- the specific compensation policy for the Chief Executive Officer, which may be adapted and applied to any Deputy Chief Executive Officer(s) when appropriate;
- the specific compensation policy for the Directors.

At the May 28, 2020 Annual General Meeting, shareholders are invited to approve the compensation policies that will be applicable to the Chairman of the Board of Directors (12th resolution) and the Chief Executive Officer (13th resolution), as well as the compensation policy that will be applicable to the Directors (14th resolution).

Text of the twelfth resolution

Approval of the compensation policy applicable to the Chairman of the Board of Directors

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the Board of Directors' report on the compensation policy applicable to corporate officers prepared in accordance with Article L.225-37-2 of the French Commercial Code, the shareholders approve the compensation policy applicable to the Chairman of the Board of Directors, as presented in sections 6.6.1.1 and 6.6.1.3 of the 2019 Universal Registration Document.

Text of the thirteenth resolution

Approval of the compensation policy applicable to the Chief Executive Officer

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the Board of Directors' report on the compensation policy applicable to corporate officers prepared in accordance with Article L.225-37-2 of the French Commercial Code, the shareholders approve the compensation policy applicable to the Chief Executive Officer, as presented in sections 6.6.1.1 and 6.6.1.4 of the 2019 Universal Registration Document.

Text of the fourteenth resolution

Approval of the compensation policy applicable to the Directors

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the Board of Directors' report on the compensation policy applicable to corporate officers prepared in accordance with Article L.225-37-2 of the French Commercial Code, the shareholders approve the compensation policy applicable to the Directors, as presented in sections 6.6.1.1 and 6.6.1.5 of the 2019 Universal Registration Document.

(1) French government ordonnance 2019-1234 dated November 27, 2019 and Decree no. 2019-1235 dated November 27, 2019.

8.2.1.9 Authorization for the Board of Directors to carry out a share buyback program

Presentation of the fifteenth resolution

Share buyback programs

The Company needs to have the necessary flexibility to react to changes in financial markets by buying back Safran shares.

The shareholders are therefore invited to renew the authorization given to the Board of Directors to carry out a share buyback program, with the following main conditions:

- the number of shares that may be bought back may not exceed 10% of the Company's total outstanding shares (for information purposes, 42,723,415 shares based on the issued capital at December 31, 2019) and the Company may at no time, directly or indirectly, hold a number of Safran shares representing more than 10% of the Company's capital;
- the shares may be purchased, sold or transferred by any authorized method, including through block trades for all or some of the program, subject to the regulations in force at the date on which the authorization is implemented.

Subject to the limits authorized by the applicable laws and regulations, the Board of Directors may use this authorization at any time, except during, or in the run-up to, a public offer for the Company's shares.

Generally, Safran sets the maximum purchase price at around 130% of the highest closing price of the Safran share over the 12 months preceding the pricing date. However, as a result of the brutal and sudden stock market correction in response to the Covid-19 health crisis, Safran has adjusted its practice and shortened the period over which the reference price is determined. Accordingly, based on an average price over the three months preceding March 25, 2020, the Board of Directors proposes setting the maximum purchase price at €165 and the maximum total amount that may be invested in the program at €7 billion. The price of €165 does not represent a target price.

The buyback program would be used to purchase shares for the following purposes:

- to maintain a liquid market in the Company's shares via a liquidity agreement entered into with an investment services firm;
- for allocation or sale to employees and/or certain corporate officers, notably in connection with a profit-sharing plan, free share grants or the Group employee savings plan;
- for delivery on exercise of rights attached to securities redeemable, convertible, exchangeable or otherwise exercisable for shares of the Company;
- for delivery in payment or exchange for external growth transactions; and
- for cancellation in accordance with the authorization granted in the 29th resolution of the Annual General Meeting of May 23, 2019.

This program is also designed to enable any future market practices permitted by the French financial markets authority (*Autorité des marchés financiers* – AMF) to be carried out and, more generally, to enable any other authorized operations or operations that may be authorized in the future by the applicable regulations. The Company will inform its shareholders in a press release prior to carrying out any such operations.

This authorization would be given for a period of 18 months and would supersede the previous authorization granted for the same purpose in the 14th resolution of the Annual General Meeting of May 23, 2019.

Report on the utilization in 2019 of previous shareholder-approved share buyback programs

Four tranches of the €2.3 billion share buyback program announced on May 24, 2017 were completed in 2019 through investment service providers (see section 7.2.7 of this Universal Registration Document).

In all, 8,562,856 shares were bought back for the purpose of being canceled, for a total of €1,076 million.

The entire €2.3 billion share buyback program announced on May 24, 2017 was therefore completed in October 2019. Under this program, a total of 19,965,740 shares were bought back for an amount of exactly €2,299,965,267. All of these shares have been canceled (see section 7.2.1 of this Universal Registration Document and section 7.2.7 of the 2018 Registration Document).

In 2019, the aggregate number of shares purchased under the liquidity agreement entered into with Oddo BHF SCA amounted to 2,487,628.

The total number of shares sold under this liquidity agreement during the year amounted to 2,572,531.

At December 31, 2019, Safran held 2,550,082 of its own shares, representing 0.60% of its capital.

These treasury shares were held for the following purposes:

- for allocation or sale to employees: 2,307,785 shares, representing 0.54% of the Company's capital;
- to cover exchangeable debt securities: 13,200 shares, representing 0.003% of the Company's capital;
- to maintain a liquid market in the Company's shares via a liquidity agreement: 229,097 shares, representing 0.05% of the Company's capital;
- for cancellation: 0.

Text of the fifteenth resolution

Authorization for the Board of Directors to carry out a share buyback program

Deliberating in accordance with the rules of quorum and majority applicable to Ordinary General Meetings and having considered the Board of Directors' report, the shareholders grant the Board of Directors – or any representative duly empowered in accordance with the law – an authorization to purchase, directly or indirectly, the Company's shares in accordance with the conditions set out in Articles L.225-209 *et seq.* of the French Commercial Code and EC Regulation No. 596/2014 dated April 16, 2014, as well as any other laws and regulations that may be applicable in the future.

The authorization may be used to purchase shares:

- to maintain a liquid market in the Company's shares via a liquidity agreement that complies with the Code of Ethics drawn up by the French association of financial and investment firms (*Association française des marchés financiers* – AMAFI) approved by the AMF, and entered into with an investment services firm;
- for allocation or sale to employees and/or corporate officers of the Company or of other Group companies, in accordance with the terms and conditions provided for by law, notably in connection with a profit-sharing plan, free share grant plan, stock option plan, the Group employee savings plan, or any company employee savings plan in place within the Group;
- for delivery on exercise of rights attached to securities redeemable, convertible, exchangeable or otherwise exercisable for shares of the Company;
- to hold in treasury for subsequent delivery in payment or exchange for external growth transactions; and
- for cancellation, pursuant to the share capital reduction authorization in effect, granted by the Annual General Meeting.

This authorization is also designed to enable any future market practices permitted by the AMF to be carried out and, more generally, to enable any other operations authorized by the applicable regulations. The Company will inform its shareholders in a press release prior to carrying out any such operations.

Shares may be purchased, sold, or transferred by any method allowed under the applicable laws and regulations, on one or more occasions, including, in accordance with the regulations in

force at the date of this Meeting, over the counter and through block trades for all or part of the program, as well as through the use of derivative financial instruments.

The Board of Directors may use this authorization at any time subject to the limitations set down by the applicable laws and regulations, except during, or in the run-up to, a public offer for the Company's shares.

The number of shares that may be bought back under this authorization may not exceed 10% of the Company's total outstanding shares (for information purposes, 42,723,415 shares based on the issued capital at December 31, 2019). This ceiling is reduced to 5% for shares acquired for the purpose of being held in treasury for subsequent delivery in payment or exchange for external growth transactions. When shares are bought back for the purpose of maintaining a liquid market in the Company's shares via a liquidity agreement, the number of shares included in the calculation of the 10% ceiling corresponds to the number of shares purchased less any shares sold during the period covered by this authorization.

Under no circumstances may the Company hold, either directly or indirectly, more than 10% of its capital.

The shares may not be purchased at a price of more than €165 per share and the maximum amount that may be invested in the program is €7 billion. However, the Board of Directors may adjust this maximum purchase price to take into account the impact on the share price of any corporate actions.

The shareholders give full powers to the Board of Directors – or any representative duly empowered in accordance with the law – to carry out this share buyback program, set the applicable terms and conditions, make the required adjustments as a result of any corporate actions, place any and all buy and sell orders, enter into any and all agreements notably for the keeping of registers of share purchases and sales, make any and all filings with the AMF and any other organization, carry out all other formalities, and generally do everything necessary to use this authorization.

This authorization is given for a period of 18 months from the date of this Meeting and supersedes the authorization given to the Board of Directors for the same purpose in the 14th resolution of the Annual General Meeting of May 23, 2019.

8.2.2 Extraordinary resolutions

Presentation of the sixteenth resolution

To strengthen its membership, the Board has decided to propose the appointment of an additional woman independent Director (see 4th resolution above).

However, the bylaws state that the Board of Directors shall have a maximum of 13 members, not including Directors representing employees and Directors representing employee shareholders.

As the Board currently has 13 serving members, the shareholders are invited to increase the maximum number to 14 (including the Directors linked to the French State and excluding the Directors representing employees and the Directors representing employee shareholders), to enable an additional woman independent Director to be appointed.

Text of the sixteenth resolution

Amendment of Articles 14.1 and 14.2 of the bylaws, to increase the maximum number of Directors (excluding Directors representing employee shareholders and Directors representing employees) from 13 to 14

Deliberating in accordance with the rules of quorum and majority applicable to Extraordinary General Meetings and having considered the Board of Directors' report, the shareholders resolve to increase the maximum number of Directors (excluding Directors representing employee shareholders and Directors representing employees) from 13 to 14, and accordingly to amend Articles 14.1 and 14.2 of the bylaws as follows:

Previous wording

14.1. The Company shall be administered by a Board of Directors with at least three and no more than thirteen members, including, where applicable, a representative appointed by the French State and/or Directors put forward by the French State in accordance with Articles 4 and/or 6 of French government *ordonnance* 2014-948 dated August 20, 2014.

14.2. The maximum number of thirteen Board members may be increased to allow for the inclusion of any Directors representing employee shareholders, elected as provided for in Article 14.8 below, and any employee representative Directors in general, elected as provided for in Article 14.9 below.

New wording

14.1. The Company shall be administered by a Board of Directors with at least three and no more than **fourteen** members, including, where applicable, a representative appointed by the French State and/or Directors put forward by the French State in accordance with Articles 4 and/or 6 of French government *ordonnance* 2014-948 dated August 20, 2014.

14.2. The maximum number of **fourteen** Board members may be increased to allow for the inclusion of any Directors representing employee shareholders, elected as provided for in Article 14.8 below, and any employee representative Directors in general, elected as provided for in Article 14.9 below.

Presentation of the seventeenth resolution

The shareholders are invited first to simplify the wording of the corporate purpose in the Company's bylaws, notably by deleting the reference to security activities, which are no longer relevant since the Group sold its detection businesses and its identity and security businesses in 2017 (see section 1.2 of the 2017 Registration Document).

They are also invited to align the bylaws with the latest legal and regulatory provisions as follows:

- The legal threshold in terms of the number of Directors triggering the obligation to have two Directors representing employees has been lowered from 12 to 8 (Article L.225-27-1 of the French Commercial Code, resulting from the Pacte Act 2019-486 dated May 22, 2019). This change in the law has no impact on the membership of the Board of Directors. However, Article 14.9.1 of the Company's bylaws refers to the previous threshold of 12 members and therefore needs to be aligned with the new legal requirement.
- The term "attendance fees" has been replaced by the concept of Directors' "compensation", with the Pacte Act referring to the compensation allocated to Directors as consideration for their duties. The wording of Articles 15.1, 17.1, 17.2, 19.2 and 33.2 needs to be updated accordingly.
- Article 19.2 of the bylaws continues to refer to the "Chairman's report", which has been replaced by "corporate governance report" in the regulatory texts. The shareholders are invited to align this Article with the current regulations (French government *ordonnance* 2017-1162 dated July 12, 2017).

- In a restricted number of cases, the law permits the Board of Directors to make decisions based on a written consultation of its members (Soilhi Act 2019-744 dated July 19, 2019). These decisions concern the temporary appointment of Directors, authorizations for the Chief Executive Officer to issue the types of guarantees referred to in Article L.225-35 of the French Commercial Code, authorizations for the Chief Executive Officer to align the bylaws with the applicable laws and regulations, the calling of a General Meeting, and the transfer of the Company's registered office to a new location in the same *département*. The shareholders are accordingly invited to add a new article to the bylaws (Article 18.12). If this proposal is adopted, the Board of Directors may decide to implement this practical simplification by specifying in its Internal Rules (available in the Governance section of the Company's website) in what cases and by what method decisions could be made by written consultation.
- The law currently offers the Board of Directors the option of authorizing the Chief Executive Officer to issue all types of guarantees, for any amount, backing the commitments of controlled companies (Article L.225-35, paragraph 4 of the French Commercial Code). This authorization may be given annually, or indefinitely (in which case, the Chief Executive Officer is required to report annually to the Board on the use made of the authorization). The Board does not currently expect to use this option, but nonetheless proposes that Article 19.2 be amended to refer only to the conditions provided for by law, in order to align the bylaws and leave this practical simplification open to the Board.

Text of the seventeenth resolution

Amendment of the bylaws: simplification of the corporate purpose and alignment with legal and regulatory provisions

Deliberating in accordance with the rules of quorum and majority applicable to Extraordinary General Meetings and having considered the Board of Directors' report, the shareholders

resolve to simplify the wording of the corporate purpose in the Company's bylaws, notably by deleting the reference to security activities, and to align the bylaws with the latest legal and regulatory provisions.

The shareholders therefore resolve to amend Articles 3, 14.9.1, 15.1, 17.1, 17.2, 19.2 and 33.2 of the bylaws and to insert a new Article 18.12:

Previous wording	New wording
Article 3 – Corporate Purpose The Company's purpose is to engage in the following activities in any and all countries, for its own account, on behalf of third parties, or directly or indirectly in conjunction with third parties: to carry out research, design, development, testing, manufacturing, sales, maintenance and support operations for high-technology activities, and notably for: ■ all aviation and aerospace activities for the civilian and military markets, particularly those related to: • aviation and aerospace propulsion solutions, including the operation of systems that produce or use energy, and equipment designed to be used with such systems, and • equipment and sub-systems used in aircraft, helicopters, launch vehicles and missiles; ■ all air, land and naval defense activities, particularly those related to: • optronics, avionics and navigation solutions and services, and • electronics and critical software for aviation and defense applications; ■ all security activities, particularly those related to: • multi-biometric identification solutions, identity management solutions, smart cards and secure transactions, and • detection solutions for explosives and illicit substances; and generally, to conduct any and all transactions of a commercial, industrial or financial nature or involving movable assets or real estate that relate directly or indirectly to the above corporate purpose or to anything incidental or conducive to the achievement of said corporate purpose.	Article 3 – Corporate Purpose The Company's purpose is to engage in the following activities in any and all countries, for its own account, on behalf of third parties, or directly or indirectly in conjunction with third parties: to carry out research, design, development, testing, manufacturing, sales, maintenance and support operations for high-technology activities, and notably for: ■ all aviation and aerospace activities for the civilian and military markets; ■ all air, land and naval defense activities; and generally, to conduct any and all transactions of a commercial, industrial or financial nature or involving movable assets or real estate that relate directly or indirectly to the above corporate purpose or to anything incidental or conducive to the achievement of said corporate purpose.

Report of the Board of Directors on the resolutions proposed to the Annual General Meeting and text of the proposed resolutions

Previous wording

14.9.1. Number of employee representative Directors and terms and conditions of their election and appointment

In application of Article L.225-27-1 of the French Commercial Code, the Board of Directors shall include one or two employee representative Directors, depending on the total number of Board members.

The Board shall have one employee representative Director if it has twelve or fewer members on the date said Director is appointed, or two employee representative Directors if it has more than twelve members on that date. Directors representing employees or employee shareholders shall not be included for the purpose of determining the total number of Board members.

If, during the term of office of an employee representative Director, the total number of Board members falls to twelve or below (not including Directors representing employees or employee shareholders) the employee representative Director(s) shall nevertheless remain on the Board for the length of their scheduled term of office.

However, in such a case, if at the end of the term of office of the employee representative Director(s) the number of Board members has not been increased to above twelve (not including Directors representing employees or employee shareholders) as at the scheduled appointment date for the employee representative Director(s)' replacement(s), then the number of employee representative Directors shall be reduced to one.

If the total number of Board members is subsequently increased to more than twelve (not including Directors representing employees or employee shareholders), then a second employee representative Director shall be elected in accordance with the terms and conditions set out below. Such election shall be held within six months of the appointment by the Board or the election by shareholders of the new Director which resulted in the twelve-member threshold being exceeded.

15.1. [...].

The Board shall determine the compensation payable to the Chairman in addition to his portion of the aggregate amount of attendance fees paid to Board members.

[...]

17.1. At the Annual General Meeting, the Company's shareholders shall set an annual aggregate amount of attendance fees, effective for the current year and subsequent years until the shareholders decide otherwise.

17.2. The Board of Directors shall allocate the attendance fees among its members as it deems fit, in accordance with the rules set out in the Board's Internal Rules.

[...]

--

19.2. [...]:

- allocating attendance fees among the Board members, in accordance with the Board of Directors' Internal Rules;
- approving the report of the Chairman of the Board of Directors on the organization of the Board's work and internal control and risk management procedures;
- [...]
- giving the Chief Executive Officer authorization (which may be delegated) to grant guarantees and endorsements in the Company's name, setting an overall ceiling for each fiscal year and, where appropriate, a maximum amount per transaction;
- authorizing in advance any transactions that would result in exceeding the above-mentioned overall ceiling or maximum amount per transaction set by the Board.

33.2. [...]:

- set the aggregate amount of attendance fees to be allocated by the Board among its members in accordance with the Board of Directors' Internal Rules;

[...]

New wording

14.9.1. Number of employee representative Directors and terms and conditions of their election and appointment

In application of Article L.225-27-1 of the French Commercial Code, the Board of Directors shall include one or two employee representative Directors, depending on the total number of Board members.

The Board shall have one employee representative Director if it has **eight** or fewer members on the date said Director is appointed, or two employee representative Directors if it has more than **eight** members on that date. Directors representing employees or employee shareholders shall not be included for the purpose of determining the total number of Board members.

If, during the term of office of an employee representative Director, the total number of Board members falls to **eight** or below (not including Directors representing employees or employee shareholders) the employee representative Director(s) shall nevertheless remain on the Board for the length of their scheduled term of office.

However, in such a case, if at the end of the term of office of the employee representative Director(s) the number of Board members has not been increased to above **eight** (not including Directors representing employees or employee shareholders) as at the scheduled appointment date for the employee representative Director(s)' replacement(s), then the number of employee representative Directors shall be reduced to one.

If the total number of Board members is subsequently increased to more than **eight** (not including Directors representing employees or employee shareholders), then a second employee representative Director shall be elected in accordance with the terms and conditions set out below. Such election shall be held within six months of the appointment by the Board or the election by shareholders of the new Director which resulted in the twelve-member threshold being exceeded.

15.1. [...].

The Board shall determine the compensation payable to the Chairman in addition to his portion of the **aggregate annual amount of compensation allocated to the Directors as consideration for their duties**.

[...]

17.1. At the Annual General Meeting, the Company's shareholders shall set **the aggregate annual amount of compensation allocated to the Directors as consideration for their duties**, effective for the current year and subsequent years until the shareholders decide otherwise.

17.2. The Board of Directors shall allocate the **aggregate annual amount of compensation** among its members.

[...]

18.12 Where permitted by law, the Board of Directors' decisions may be made by written consultation, by the method specified in the Board of Directors' Internal Rules.

19.2. [...]:

- allocating **among its members the aggregate annual amount of compensation allocated to the Directors as consideration for their duties**;
- **approving the terms of its corporate governance report**;
- [...]

- giving the Chief Executive Officer authorization (which may be delegated) to grant guarantees and endorsements **under the conditions provided for by law**.

33.2. [...]:

- set the **aggregate annual amount of compensation allocated to the Directors as consideration for their duties**;

[...]

8.2.3 Powers

Presentation of the eighteenth resolution

The 18th resolution concerns the powers that are necessary to carry out the filing and other legal formalities required for the resolutions adopted at the meeting.

Text of the eighteenth resolution

Powers to carry out formalities

The shareholders give full powers to the bearer of an original, extract or copy of the minutes of this Meeting to carry out any and all filing, publication, declaration and other formalities required by the applicable laws and regulations.

8.2.4 Nominees to the Board of Directors

8.2.4.1 Appointment of a new independent Director proposed by the Board of Directors

The shareholders are invited to appoint Patricia Bellinger as an independent Director (see section 8.2.1.3 and profile below).



Patricia BELLINGER

Harvard University – Cambridge, Massachusetts (United States)

Number of Safran shares held: pursuant to the Board of Directors' Internal Rules, each Director is required to own at least 500 registered shares of the Company

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1961, Patricia Bellinger, a dual US and British national, is trilingual (English, French and Spanish) and tricultural. A graduate of Harvard University, she began her career in Madrid in 1986 by founding a casting agency, and continued to work in media and communications in Spain until 1995.

She then returned to the United States to join Bristol Myers Squibb (BMS), the pharmaceutical company, where she was successively Associate Director for Communications, Associate Director for Public Affairs and in 1998, Corporate Director of Culture and Diversity.

In 2000, she joined BP in London as Vice President for Diversity and Inclusion, and served as Group Vice President and Director of the BP Leadership Academy until 2007.

In March 2011, she was appointed Executive Director of Executive Education at Harvard Business School. In August 2013, she was also appointed Executive Director and an adjunct lecturer at the Center for Public Leadership at Harvard Kennedy School (CPL).

From September 2017 to June 2018, she was an adjunct lecturer and Senior Fellow at the Center for Public Leadership at Harvard Kennedy School (CPL).

Since July 2018, she has been the Chief of Staff and Strategic Advisor to the President of Harvard University.

In addition to her independent status, Patricia Bellinger would contribute to the Board the depth and breadth of her career and her diverse experience, as well as her time in industry, her HR/Diversity/Talent Management expertise (in terms of both strategic and people-centric issues), her multilingualism, and her knowledge of French corporate governance.

MAIN POSITION(S) HELD

- Chief of Staff and Strategic Adviser to the President of Harvard University.

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

None

NON-GROUP

- Member of the Corporate Board of the Sonepar Group
- Independent director and a member of the Nominating and Governance Committee of LBrands (listed company) (United States)
- Member of the Board of Trustees of uAspire (until end-June 2020) (United States)
- Member of the Advisory Board of the non-profit organization My Life My Choice (United States)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

- Director and member of the Compensation Committee of Sodexo until July 2018
- Member of the Diversity and Inclusion Advisory Board of Barilla SpA (Italy) until August 2018
- Director and Chair of the Nominating Governance and Compensation Committee of Pattern Energy Inc. (United States) until December 2018

8.2.4.2 Appointments of Directors representing employee shareholders

The Board of Directors supports the candidatures of Marc Aubry and Anne Aubert for appointment as Directors representing employee shareholders (see section 8.2.1.5).



Marc AUBRY

Safran Aircraft Engines – Établissement de Vernon – Plateau de l'Espace – 1, avenue Hubert-Curien – 27200 Vernon, France

Number of Safran shares held: 774⁽¹⁾

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1963, Marc Aubry is an engineer from École Nationale Supérieure d'Hydraulique et de Mécanique de Grenoble (ENSHMG) (major in water resources and planning) and has a post-graduate degree (DEA) in environment and engineering geophysics (major in hydrology).

Marc Aubry has worked with the Group for 31 years. Since 1990, he has occupied the position of Design Engineer in charge of the development of dynamic sealing for space engine turbopumps.

He has been the CFDT trade union representative since 1999 at the Vernon plant, before serving at the level of Safran Aircraft Engines and finally as Group trade union coordinator. His areas of expertise include social dialogue, compensation and benefits including employee savings plans, pension savings plans, employee share ownership, supplementary benefit plans and gender equality in the workplace.

From 2011 to 2016, he represented employee shareholders on the Board of Directors of Safran and served as a member of the Audit and Risk Committee.

Marc Aubry would bring to the Board his view of Safran from an employee shareholder's perspective, as well as an in-depth knowledge of the Group and its products and markets.

MAIN POSITION(S) HELD

- Design Engineer in charge of the development of dynamic sealing for space engine turbopumps at Safran Aircraft Engines

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Trade union representative and member of the Social and Economic Committee for Safran Aircraft Engines' Vernon plant
- Substitute member of Safran Aircraft Engines' Central Social and Economic Committee
- Chairman of the Supervisory Board of the Safran Investissement corporate mutual fund
- Member of the Supervisory Board of Safran Ouverture

NON-GROUP

- National secretary of the Fédération Générale des Mines et de la Métallurgie CFDT (trade union)
- Chairman of the Société Philharmonique de Vernon (non-profit organization)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Safran Group CFDT trade union coordinator until August 2019
- CFDT central trade union representative, Safran Aircraft Engines, until July 2019
- Chairman of the Economic Commission of Safran Aircraft Engines' Central Works Council until January 2019
- Director representing employee shareholders and a member of the Audit and Risk Committee until June 2016

NON-GROUP

None

(1) Including 734 shares via corporate mutual fund units (conversion based on the Safran share price at February 28, 2020).



Anne AUBERT

Safran Seats Z.I. La Limoise – Rue Robert-Maréchal-Senior, 36100 Issoudun, France

Number of Safran shares held: 3

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1971, Anne Aubert, a French national, has a degree in mechanical engineering from Compiègne University of Technology.

Anne Aubert has held a variety of front-line positions at Safran Seats' Issoudun plant since January 2012 and is currently head of Project Management Office Operations. She began her career with the Group managing Business Class seat programs, spending just over six years working with American, Chinese, French and Dutch airlines on Airbus and Boeing programs. She was then put in charge of the Airbus customer account, before becoming head of Project Management Office Operations in October 2019.

Anne Aubert would bring to the Board her view of Safran from an employee shareholder's perspective, as well as an in-depth knowledge of the Group and its markets.

MAIN POSITION(S) HELD

- Head of Project Management Office Operations at Safran Seats Issoudun

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

None

NON-GROUP

None

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Member representing employees on the Supervisory Board (until June 2018) and member of the Compensation Committee (until February 2018) of Zodiac Aerospace SA (listed company)

NON-GROUP

None

Report of the Board of Directors on the resolutions proposed to the Annual General Meeting and text of the proposed resolutions

Fernanda Saraiva and Carlos Arvizu are also candidates for appointment as Directors representing employee shareholders; **the Board of Directors does not support these candidates** (see section 8.2.1.5).



Fernanda SARAIVA

Director representing employee shareholders

Safran Helicopter Engines – Avenue Szydlowski- 64511 Bordes, France

Number of Safran shares held: 700⁽¹⁾

PROFILE – EXPERTISE AND EXPERIENCE

Born in 1968, Fernanda Saraiva is a graduate of the École Supérieur de Commerce in Pau, France.

She has been an employee of the Group for 29 years.

She started in 1991 as a sales assistant, specializing in sales negotiation in an intercultural environment and subsequently held several Program Sales Manager positions in cooperative programs.

She is currently Licensing Manager in the Aircraft Manufacturer Sales Department at Safran Helicopter Engines, a role she combines with her work with the CFE-CGC employees' union.

Fernanda Saraiva brings to the Board her view of Safran from an employee shareholder's perspective, as well as an in-depth knowledge of the Group and its markets.

MAIN POSITION(S) HELD (OUTSIDE THE COMPANY)

- Licensing Manager in the Aircraft Manufacturer Sales Department of Safran Helicopter Engines

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Director of Safran representing employee shareholders since July 2019
- Member of Safran Helicopter Engines' Social and Economic Committee at its Bordes site and its Central Social and Economic Committee
- Treasurer of Safran Helicopter Engines' Central Social and Economic Committee
- Deputy central trade union representative at Safran Helicopter Engines
- Member of the Safran Coordination Board
- Member of the Safran Investissement corporate mutual fund

NON-GROUP

- CFE-CGC trade union representative – Conseil National Aéronautique Espace Défense
- CFE-CGC trade union representative – Humanis Prévoyance

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

- Secretary of Safran Helicopter Engines' Central Works Council until November 2019
- CFE-CGC trade union representative on Safran's Group Works Council until September 2018
- Treasurer of Safran Helicopter Engines' Works Council until September 2017
- Local CFE-CGC trade union representative for Safran Helicopter Engines until July 2016

NON-GROUP

None

(1) Via corporate mutual fund units (conversion based on the Safran share price at December 31, 2019).



Carlos ARVIZU

Safran Electrical & Power – Nicolas Gogol 11322 – Complejo Industrial Chihuahua, Mexico

Number of Safran shares held: 37⁽¹⁾

PROFILE - EXPERTISE AND EXPERIENCE

Born in 1984 in Mexico City, Carlos Arvizu has a degree in industrial engineering from La Salle University of Chihuahua. He also has an MBA degree in finance from Universidad Autónoma de Chihuahua. He has been awarded various certifications, including Green Belt and Association for Supply Chain Management (APICS) certifications.

He is a member of the APICS Board of Directors (Chihuahua section) and has been an APICS instructor since 2017.

He began his career with Safran Electrical & Power in 2008, working in the supply chain before becoming logistics manager for the Chihuahua distribution center. Since 2017, he has been program manager in the Business Unit Power Division.

Carlos Arvizu would bring to the Board his view of Safran from an employee shareholder's perspective, as well as an in-depth knowledge of the Group and its markets.

MAIN POSITION(S) HELD

- Business Unit Power Division program manager at Safran Electrical & Power

OFFICES AND POSITIONS HELD IN FRENCH AND NON-FRENCH COMPANIES

CURRENT OFFICES AND POSITIONS

SAFRAN GROUP

- Member of the Supervisory Board of the Safran International corporate mutual fund

NON-GROUP

- Member of the Board of Directors of APICS Chihuahua (Mexico)

OFFICES AND POSITIONS THAT EXPIRED IN THE LAST FIVE YEARS

SAFRAN GROUP

None

NON-GROUP

None

(1) Via corporate mutual fund units (conversion based on the Safran share price at February 28, 2020).

8.2.5 Summary table of financial authorizations in force, already granted to the Board of Directors

The financial authorizations in force, already granted by shareholders to the Board of Directors, are summarized below.

Type of authorization	Date of authorization Term and expiration	Ceiling (maximum nominal amount of capital increases and maximum principal amount of debt securities authorized)	Amount used at December 31, 2019
Authorization for the Board of Directors to increase the Company's capital by issuing ordinary shares and/or securities carrying rights to shares of the Company, with pre-emptive subscription rights for existing shareholders, which may not be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (16 th resolution) 26 months, i.e., until July 22, 2021	€20 million €1.8 billion (debt securities)	None
Authorization for the Board of Directors to increase the Company's capital by issuing ordinary shares and/or securities carrying rights to shares of the Company, without pre-emptive subscription rights for existing shareholders, by way of a public offer, which may not be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (17 th resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾ €1.8 billion (debt securities) ⁽²⁾	None
Authorization for the Board of Directors to issue shares and/or securities carrying rights to shares of the Company, without pre-emptive subscription rights for existing shareholders, in the event of a public exchange offer initiated by the Company, which may not be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (18 th resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾⁽³⁾ €1.8 billion (debt securities) ⁽²⁾⁽⁴⁾	None
Authorization for the Board of Directors to increase the Company's capital by issuing ordinary shares and/or securities carrying rights to shares of the Company, without pre-emptive subscription rights for existing shareholders, through a private placement governed by Article L.411-2-II of the French Monetary and Financial Code, which may not be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (19 th resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾⁽³⁾ €1.8 billion (debt securities) ⁽²⁾⁽⁴⁾	None
Authorization for the Board of Directors to increase the number of securities included in an issue carried out with or without pre-emptive subscription rights for existing shareholders (pursuant to the 16 th , 17 th , 18 th or 19 th resolutions), which may not be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (20 th resolution) 26 months, i.e., until July 22, 2021	15% of the original issue ⁽⁵⁾	None
Authorization for the Board of Directors to increase the Company's capital by capitalizing reserves, retained earnings or additional paid-in capital, which may not be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (21 st resolution) 26 months, i.e., until July 22, 2021	€12.5 million ⁽¹⁾	None
Authorization for the Board of Directors to increase the Company's capital by issuing ordinary shares and/or securities carrying rights to shares of the Company, with pre-emptive subscription rights for existing shareholders, which may only be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (22 nd resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾ €2 billion (debt securities) ⁽²⁾	None
Authorization for the Board of Directors to increase the Company's capital by issuing ordinary shares and/or securities carrying rights to shares of the Company, without pre-emptive subscription rights for existing shareholders, by way of a public offer, which may only be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (23 rd resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾⁽³⁾⁽⁶⁾ €1.8 billion (debt securities) ⁽²⁾⁽⁴⁾⁽⁷⁾	None
Authorization for the Board of Directors to issue shares and/or securities carrying rights to shares of the Company, without pre-emptive subscription rights for existing shareholders, in the event of a public exchange offer initiated by the Company, which may only be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (24 th resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾⁽³⁾⁽⁶⁾⁽⁸⁾ €1.8 billion (debt securities) ⁽²⁾⁽⁴⁾⁽⁹⁾	None

Report of the Board of Directors on the resolutions proposed to the Annual General Meeting and text of the proposed resolutions

Type of authorization	Date of authorization Term and expiration	Ceiling (maximum nominal amount of capital increases and maximum principal amount of debt securities authorized)	Amount used at December 31, 2019
Authorization for the Board of Directors to increase the Company's capital by issuing ordinary shares and/or securities carrying rights to shares of the Company, without pre-emptive subscription rights for existing shareholders, through a private placement governed by Article L.411-2-II of the French Monetary and Financial Code, which may only be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (25 th resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾⁽³⁾⁽⁶⁾⁽⁸⁾ €1.8 billion (debt securities) ⁽²⁾⁽⁴⁾⁽⁹⁾	None
Authorization for the Board of Directors to increase the number of securities included in an issue carried out with or without pre-emptive subscription rights for existing shareholders (pursuant to the 22 nd , 23 rd , 24 th or 27 th resolutions), which may only be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (26 th resolution) 26 months, i.e., until July 22, 2021	15% of the original issue ⁽¹⁰⁾	None
Authorization for the Board of Directors to increase the Company's capital by capitalizing reserves, retained earnings or additional paid-in capital, which may only be used during, or in the run-up to, a public offer for the Company's shares	May 23, 2019 AGM (27 th resolution) 26 months, i.e., until July 22, 2021	€8 million ⁽¹⁾⁽⁶⁾	None
Authorization for the Board of Directors to increase the Company's capital by issuing ordinary shares to employees who are members of a Group employee savings plan, without pre-emptive subscription rights for existing shareholders	May 23, 2019 AGM (28 th resolution) 26 months, i.e., until July 22, 2021	1% of the Company's capital ⁽¹⁾	None
Authorization for the Board of Directors to grant existing or new shares of the Company, free of consideration, to employees and corporate officers of the Company and other Group entities, with a waiver of shareholders' pre-emptive subscription rights	May 23, 2019 AGM (30 th resolution) 26 months, i.e., until July 22, 2021	0.40% of the Company's capital at the grant date	Amount used at Dec. 31, 2019: None Amount used in Mar. 2020: 0.18% Amount remaining at Mar. 31, 2020: 0.22%

- (1) This amount is included in the €20 million ceiling for capital increases set in the 16th resolution of the May 23, 2019 AGM.
(2) This amount is included in the €1.8 billion ceiling for issues of debt securities set in the 16th resolution of the May 23, 2019 AGM.
(3) This amount is included in the €8 million ceiling for capital increases set in the 17th resolution of the May 23, 2019 AGM.
(4) This amount is included in the €1.8 billion ceiling for issues of debt securities set in the 17th resolution of the May 23, 2019 AGM.
(5) The ceilings applicable to the 16th, 17th, 18th and 19th resolutions of the May 23, 2019 AGM still apply if the option provided for in the 20th resolution of that AGM is used.
(6) This amount is included in the €8 million ceiling for capital increases set in the 22nd resolution of the May 23, 2019 AGM.
(7) This amount is included in the €2 billion ceiling for issues of debt securities set in the 22nd resolution of the May 23, 2019 AGM.
(8) This amount is included in the €8 million ceiling for capital increases set in the 23rd resolution of the May 23, 2019 AGM.
(9) This amount is included in the €1.8 billion ceiling for issues of debt securities set in the 23rd resolution of the May 23, 2019 AGM.
(10) The ceilings applicable to the 22nd, 23rd, 24th and 25th resolutions of the May 23, 2019 AGM still apply if the option provided for in the 26th resolution of that AGM is used.

8.3 STATUTORY AUDITORS' REPORT

Statutory Auditors' special report on related-party agreements

This is a free translation into English of the Statutory Auditors' special report on related-party agreements issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of your Company, we hereby report to you on related-party agreements and commitments.

It is our responsibility to report to shareholders, based on the information provided to us, on the main terms and conditions of agreements that have been disclosed to us or that we may have identified as part of our engagement, as well as the reasons given as to why they are beneficial for the Company, without commenting on their relevance or substance or identifying any undisclosed agreements. Under the provisions of Article R.225-31 of the French Commercial Code (*Code de commerce*), it is the responsibility of the shareholders to determine whether the agreements are appropriate and should be approved.

Where applicable, it is also our responsibility to provide shareholders with the information required by Article R.225-31 of the French Commercial Code in relation to the implementation during the year of agreements already approved by the Annual General Meeting.

We conducted the procedures we deemed necessary in accordance with the professional guidelines of the French National Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*) relating to this engagement. These procedures consisted in verifying the consistency of the information provided to us with the relevant source documents.

Agreements submitted for approval by the Annual General Meeting

We were not informed of any agreements authorized and entered into by the Board of Directors during the year to be submitted for the approval of the Annual General Meeting in accordance with Article L.225-38 of the French Commercial Code.

Agreements already approved by the Annual General Meeting

In accordance with Article R.225-30 of the French Commercial Code, we were informed that the following agreements, approved by the Annual General Meeting in prior years, remained in force during the year.

1. With the French State (shareholder holding more than 10% of the Company's voting rights)

Persons concerned

Hélène Dantoine, representative of the French State to the Board of Directors of your Company since March 13, 2019, Patrick Gandil, a Director put forward by the French State until February 7, 2019, and Vincent Imbert, a Director put forward by the French State.

a) Nature, purpose, terms and conditions

ArianeGroup Holding (AGH) Agreement, Arianespace Agreement, Pre-emption Agreement, addendum no. 6 to the Agreement of December 21, 2004 and addendum to the Environmental Guarantee Agreement (EGA).

On June 30, 2016, your Company and Airbus Group finalized the combination, carried out in two stages, of their launch vehicle business into Airbus Safran Launchers Holding (since renamed ArianeGroup Holding [AGH]) and its wholly-owned subsidiary Airbus Safran Launchers (since renamed ArianeGroup SAS [AGH SAS]).

In the first half of 2016, the following agreements and addendums, indivisible agreements required to establish the combination, were signed with the French State:

- AGH Agreement;
- Arianespace Agreement;
- Pre-emption Agreement;
- addendum no. 6 to the Agreement of December 21, 2004 (the "2004 Agreement", as described below in sections 1.4 and b);
- addendum to the Environmental Guarantee Agreement (EGA).

The AGH Agreement, the Arianespace Agreement and the Pre-emption Agreement as well as addendum no. 6 to the 2004 Agreement were authorized by the Board of Directors on December 17, 2015. They were signed on June 24, 2016 and entered into force on June 30, 2016. They were subsequently approved by the Annual General Meeting of June 15, 2017.

Effective from June 30, 2016, the protection of the French State's strategic interests is ensured via:

- **1.1 The AGH Agreement:** an agreement between the French State and AGH relating to protected assets and strategic subsidiaries and interests, entered into in the presence of Safran and Airbus Group.
- **1.2 The Arianespace Agreement:** an agreement between the French State and AGH relating to Arianespace Participation and Arianespace SA shares, entered into in the presence of Safran and Airbus Group.

The following agreements were entered into at the same time:

- **1.3 The Pre-emption Agreement:** an agreement between Safran, Airbus Group and the French State, which sets out the conditions under which Airbus Group and Safran may exercise a pre-emptive right on the shares of the other partner in AGH if the French State exercises any of the call options granted to it by Airbus Group and Safran. The French State may only buy back AGH shares once the pre-emptive rights of Safran and Airbus have been used or expire.
- **1.4 Addendum no. 6 to the 2004 Agreement between Safran and the French State:**

The 2004 Agreement was approved by shareholders at the May 11, 2005 Annual General Meeting. The agreement, as amended or supplemented by the three addendums signed in 2011 and approved at the May 31, 2012 Annual General Meeting and the two addendums signed in 2014 and approved at the April 23, 2015 Annual General Meeting as well as addendum no. 6, provided that:

- the French State shall be entitled to appoint a non-voting representative to the Safran Board of Directors should its interest in the Company's share capital fall below 10%;

- the French State shall be entitled to appoint a non-voting representative to the Boards of Directors or equivalent bodies of Safran's strategic subsidiaries and subsidiaries holding assets with a connection to French combat aircraft engines;
- the French State shall have a prior right of approval over (i) sales of certain strategic or defense sensitive assets, and (ii) acquisitions of interests resulting in crossing certain ownership or voting rights thresholds in your Company and other Group entities that own sensitive strategic assets.

The 2004 Agreement as amended by the six addendums, remained in force until March 22, 2018, when it was superseded by the Agreement of March 22, 2018 between your Company and the French State (see section b below).

- 1.5 Moreover, the EGA Addendum, an addendum to an Environmental Guarantee Agreement (EGA) with SNPE authorized by the Board of Directors on December 17, 2015, was signed on May 17, 2016 and entered into force on June 30, 2016. It was subsequently approved by the Annual General Meeting of June 15, 2017. Some sites transferred to AGH, as part of the above-described business combination, are covered by an Environmental Guarantee Agreement (EGA) granted to Safran by SNPE and counter-guaranteed by the French State. With the French State's approval, the addendum to the EGA was entered into between SNPE, AGH and Safran in order to transfer the benefit of the EGA to AGH for said sites (Safran being substituted by AGH).

b) Nature, purpose, terms and conditions

Consolidation and update of the 2004 Agreement related to strategic defense assets and subsidiaries and its addendums in a single document

When Snecma was privatized following its merger with Sagem, the French State agreed to waive its right, pursuant to Article 10 of the privatization act of August 6, 1986, to take a golden share in Snecma, provided that equivalent contractual rights were granted in an agreement. In order to protect France's national interests and preserve the country's independence, the French State entered into an agreement on December 21, 2004 with Sagem and Snecma related to strategic defense assets and subsidiaries (the "2004 Agreement"). The 2004 Agreement is designed to (i) give the French State control over the ownership and, where applicable, the devolution of all or part of certain assets and shares of subsidiaries or other equity investments held by the companies party to the 2004 Agreement, combined with certain acquisition thresholds, and (ii) to give the French State rights of representation on the governing bodies of the strategic subsidiaries and subsidiaries holding assets related to French combat aircraft engines.

The merger between Snecma and Sagem which created Safran in 2005 and the various transactions completed by Safran since then have significantly changed the Group's scope, prompting Safran and the French State to amend the 2004 Agreement through a series of six successive addendums.

Safran and the French State wished to consolidate the 2004 Agreement and its amendments into a single document (the "Agreement") and to update its contents. The Agreement was authorized by the Board of Directors at its meeting on March 22, 2018. It was signed by your Company on March 26, 2018.

The Agreement supersedes the 2004 Agreement, and notably provides as follows:

On corporate governance matters:

- Safran's competent bodies shall be invited to appoint the French State as a Director if its interest in the Company's share capital is less than 10% but more than 1%;
- Safran's competent bodies shall in addition be invited to appoint a member proposed by the French State to the Board of Directors if its interest in the Company's share capital is more than 5%;
- at the request of the French State, the Board of Directors shall be invited to appoint one of the persons referred to above to any Board committee that may be set up for the purpose of addressing matters directly related to its rights under the Agreement;
- the French State shall be entitled to appoint a non-voting representative to the Boards of Directors or equivalent bodies of Safran's strategic subsidiaries (Safran Ceramics and Safran Power Units) and subsidiaries owning sensitive defense assets.

On strategic or sensitive defense assets and the entities that hold such assets:

- the French State shall have a prior right of approval over:
- sales of assets (other than those that do not affect the defense activities) owned by strategic subsidiaries and accordingly identified as strategic; sales of shares in strategic subsidiaries Safran Ceramics and Safran Power Units; and sales of shares in AGH,
- sales by Group companies of certain assets identified as defense sensitive (such as engines, components and systems, high precision inertial navigation and missile guidance systems, financed directly or indirectly by the French Defense Ministry) owned by Group entities,
- sales of shares in Safran Electronics & Defense, which owns sensitive defense assets,
- acquisitions by Group companies of interests resulting in a holding of more than 33.33% or more than 50% of the share capital or voting rights of the other Group companies that own sensitive defense assets,
- projects conferring special management or information rights over strategic or sensitive defense assets or rights of representation on the administrative or management bodies of Safran Ceramics, Safran Power Units, AGH or another entity owning sensitive defense assets controlled by Safran;
- the French State's failure to respond within a period of 30 business days shall be deemed to constitute agreement, except in the case of proposals to sell shares in AGH, in which case failure to respond shall be deemed to constitute refusal;
- the French State shall be informed beforehand of any proposal by a strategic subsidiary or an entity controlled by Safran that owns sensitive defense assets, to sell assets that do not fall into these protected categories but whose sale could have a material impact on the independent management on French territory of the entity's strategic assets or sensitive defense assets;
- in the event a third party acquires more than 10% or a multiple of 10% of the capital or voting rights of Safran, and failing an agreement on other ways of protecting national interests in connection with the strategic assets, the French State shall be entitled to purchase the securities and assets of the strategic subsidiaries Safran Ceramics and Safran Power Units and the stake in AGH at a price to be set by a panel of experts.

The Agreement was approved by shareholders at the May 25, 2018 Annual General Meeting.

2. Between the French State, ArianeGroup Holding (AGH) and CNES, in the presence of Safran

Persons concerned

The French State (shareholder holding more than 10% of the Company's voting rights).

Hélène Dantoine, representative of the French State to the Board of Directors of your Company since March 13, 2019, Patrick Gandil, a Director put forward by the French State until February 7, 2019, and Vincent Imbert, a Director put forward by the French State.

Nature, purpose, terms and conditions

The CNES (French National Space Studies Center), the French State and AGH, in the presence of Airbus Group and Safran, signed the Arianespace Framework Protocol, which relates to the buying back by AGH of Arianespace shares and Ariane brand names held by CNES and establishes the principal terms and conditions of the sale to AGH of Arianespace shares held by CNES, as well as the parties' declarations and commitments. In its capacity as a shareholder of AGH, Safran undertakes to ensure that AGH fully complies with said agreement.

The protocol would provide for a new operating framework for European launchers.

The signature of the protocol was authorized by the Board of Directors on December 17, 2015. It was signed on February 8, 2016 and approved by the Annual General Meeting of May 19, 2016. It subsequently entered into force on June 30, 2016.

3. With a pool of banks including BNP Paribas

Person concerned

Monique Cohen, a Director of Safran and BNP Paribas.

Nature, purpose, terms and conditions

This agreement was authorized by the Board of Directors on October 29, 2015 and signed on December 4, 2015.

The facility amounts to €2,520 million and has a five-year term with two successive one-year extension options. It was granted by a pool of fifteen banks, including BNP Paribas, whose proportion of the facility is the same as that of the other banks that are parties to the agreement. Both one-year extension options have been exercised, extending the term to December 2022.

This revolving credit facility was put in place to ensure that the Group will have sufficient liquidity over the medium term and to enable it to cover its general financing requirements. By refinancing and replacing two existing facilities with shorter terms than the new facility, the Group was able to take advantage of the current favorable market interest rates.

It was approved by shareholders at the May 19, 2016 Annual General Meeting.

In respect of 2019, a €189,180.24 expense was recorded in Safran's financial statements corresponding to BNP Paribas' share of the no-use fee (split between lenders based on their respective commitments).

Courbevoie and Paris-La Défense, March 27, 2020

The Statutory Auditors

MAZARS

Gaël Lamant

Christophe Berrard

ERNST & YOUNG et Autres

Jean-Roch Varon

Nicolas Macé



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ADDITIONAL INFORMATION

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FOREWORD

PERSONS RESPONSIBLE

Person responsible for the Universal Registration Document

Philippe Petitcolin

Chief Executive Officer

Person responsible for the financial information

Bernard Delpit

Chief Financial Officer

STATUTORY AUDITORS

Statutory Auditors

Mazars

61, rue Henri-Regnault

92400 Courbevoie

Ernst & Young et Autres

1-2, place des Saisons – Paris-La Défense 1

92400 Courbevoie

The terms of office of the Statutory Auditors will expire at the close of the Annual General Meeting held to approve the financial statements for the year ending December 31, 2021.

CROSS-REFERENCE TABLES

- Share Registration Document cross-reference table
- Annual Financial Report cross-reference table
- Board of Directors' management report cross-reference table
- Corporate social responsibility cross-reference table

9.1 PERSONS RESPONSIBLE

9.1.1 Person responsible for the Universal Registration Document

Philippe Petitcolin

Chief Executive Officer of Safran

9.1.2 Declaration by the person responsible for the Universal Registration Document

"I hereby declare, having taken all reasonable care to ensure that such is the case, that the information contained in this Universal Registration Document is, to the best of my knowledge, in accordance with the facts and contains no omission likely to affect its import.

I further declare that to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial position and results of the Company and the undertakings in the consolidation taken as a whole, and that the management report (the cross-reference table for which is shown in section 9.5.3) includes a fair review of the development of the business, the results of operations and the financial position of the Company and of all the undertakings in the consolidation taken as a whole, and also describes the main risks and uncertainties to which they are exposed."

Paris, March 31, 2020

Chief Executive Officer,

Philippe Petitcolin

9.1.3 Person responsible for the financial information

Bernard Delpit

Chief Financial Officer

Telephone: +33 (0)1 40 60 81 24

Email: bernard.delpit@safrangroup.com

9.2 STATUTORY AUDITORS

For the period covered by the historical financial information, Safran's Statutory Auditors are as follows:

Statutory Auditors

Mazars	Ernst & Young et Autres
Represented by:	Represented by:
Gaël Lamant and Christophe Berrard	Jean-Roch Varon and Nicolas Macé
61, rue Henri-Regnault – 92400 Courbevoie	1-2, place des Saisons – Paris-La Défense 1 – 92400 Courbevoie
- Start date of first term of office: May 19, 2016 - Appointed by the Ordinary and Extraordinary Shareholders' Meeting of May 19, 2016 for a term of six years (2016 to 2021) - Expiration of term of office: close of the Annual General Meeting, held to approve the financial statements for the year ending December 31, 2021	- Start date of first term of office: May 19, 2016 - Appointed by the Ordinary and Extraordinary Shareholders' Meeting of May 19, 2016 for a term of six years (2016 to 2021) - Expiration of term of office: close of the Annual General Meeting, held to approve the financial statements for the year ending December 31, 2021

Mazars and Ernst & Young are members of the Versailles regional auditing body (*Compagnie régionale des commissaires aux comptes de Versailles*).

Alternate auditors

Gilles Rainaut	Auditex
60, rue du Général-Leclerc – 92100 Boulogne-Billancourt	1-2, place des Saisons – Paris-La Défense 1 – 92400 Courbevoie
- Start date of first term of office: May 19, 2016 - Appointed by the Ordinary and Extraordinary Shareholders' Meeting of May 19, 2016 for a term of six years (2016 to 2021) - Expiration of term of office: close of the Annual General Meeting, held to approve the financial statements for the year ending December 31, 2021	- Start date of first term of office: May 19, 2016 - Appointed by the Ordinary and Extraordinary Shareholders' Meeting of May 19, 2016 for a term of six years (2016 to 2021) - Expiration of term of office: close of the Annual General Meeting, held to approve the financial statements for the year ending December 31, 2021

New terms of office and non-renewal

None.

9.3 HISTORICAL FINANCIAL INFORMATION

In accordance with Article 19 of Regulation (EU) 2017/1129 of the European Parliament and of the Council, the following information is incorporated by reference in this Universal Registration Document:

For 2018

The information required in the management report is presented in section 9.5.3, the consolidated and parent company financial statements are presented in sections 3.1 and 3.3 and the corresponding Statutory Auditors' reports are presented in sections 3.2 and 3.4 of the 2018 Registration Document, which was filed with the AMF on March 29, 2019 under number D.19-0227.

For 2017

The information required in the management report is presented in section 9.5.1, the consolidated and parent company financial statements are presented in sections 3.1 and 3.3 and the

corresponding Statutory Auditors' reports are presented in sections 3.2 and 3.4 of the 2017 Registration Document, which was filed with the AMF on March 29, 2018 under number D.18-0225.

List of regulatory information published over the last 12 months

The list of regulatory information published by the Group from January 1, 2019 to the date of filing of this Universal Registration Document on March 31, 2020 is available on the Group's corporate website at www.safran-group.com/finance/informations-reglementees.

Date of latest financial information

December 31, 2018.

9.4 DOCUMENTS ON DISPLAY

Availability of documents and information concerning the Company

Safran's legal documents that must be made available to shareholders, in accordance with the applicable regulations, may be consulted at the registered office located at 2, boulevard du Général-Martial-Valin, 75015 Paris.

Safran provides its shareholders with a wide range of tools for the frequent communication of transparent and accessible information on the Group, its businesses and its results. The Group website (www.safran-group.com) contains information for the public, such as presentations to analysts, financial press releases, and Registration Documents (last five years).

9.5 CROSS-REFERENCE TABLES

9.5.1 Share Registration Document cross-reference table

This Universal Registration Document includes the information to be included in universal registration documents as set out in Annexes 1 and 2 of Delegated Regulation (EU) 2019/980.

The following table presents the cross-references between the two documents.

	EU Regulation 2019/980 Annex 1 headings	Section(s)	Pages
1	Persons responsible, third party information, experts' reports and competent authority approval		
1.1	Name and positions of the persons responsible	9.1.1	421
1.2	Declaration by the persons responsible	9.1.2	421
1.3	Statement or report attributed to a person as an expert	N/A	
1.4	Information sourced from a third party	3.2, 3.4, 5.10 and 8.3	191/219/278/414
1.5	Competent authority approval (AMF)	See AMF insert	1
2	Statutory Auditors		
2.1	Names and addresses of the issuer's auditors	9.2	422
2.2	Change in auditors, where applicable	9.2	422
3	Risk factors		
3.1	Description of the material risks specific to the issuer	4.3	229
4	Information about the issuer		
4.1	Legal and commercial name of the issuer	7.1.1	367
4.2	Place of registration of the issuer, its registration number and legal entity identifier (LEI)	7.1.1	367
4.3	Date of incorporation and the length of life of the issuer	7.1.1	367
4.4	Domicile and legal form of the issuer, legislation under which the issuer operates, its country of incorporation, address and telephone number of its registered office and website	7.1.1 and 7.4.5	367/383
5	Business overview		
5.1	Principal activities		
5.1.1	Nature of the issuer's operations and its principal activities	1.1.2 and 1.1.4	51/53
5.1.2	New products	1.2 and 2.1.3	54/94
5.2	Principal markets	1.2, 2.1.3 and 3.1 Note 5	54/94/139
5.3	Important events in the development of the issuer's business	2.1.3	94
5.4	Strategy and objectives	Strategy and business model	18
5.5	Extent to which the issuer is dependent on patents or licenses, industrial, commercial or financial contracts or new manufacturing processes	1.4.3	78
5.6	Competitive position	1.3	74

Cross-reference tables

	EU Regulation 2019/980 Annex 1 headings	Section(s)	Pages
5.7	Investments		
5.7.1	Material investments made	1.1.1, 1.4.5, 1.5.2 and 1.6	50/80/82/83
5.7.2	Material investments that are in progress or for which firm commitments have already been made	1.5.2	82
5.7.3	Information relating to the joint ventures and undertakings in which the issuer holds a proportion of the capital	1.1.3 and 3.1 Note 37	52/186
5.7.4	Environmental issues	Integrated report, 4.3.2.5 and 5.5	3/237/258
6	Organizational structure		
6.1	Brief description of the Group	1.1.2, 1.1.3 and 1.1.4	51/52/53
6.2	List of significant subsidiaries	1.1.3, 1.1.4, 3.1 Note 37 and 3.3 Note 3.1	52/53/186/204
7	Operating and financial review		
7.1	Financial position		
7.1.1	Development and performance of the issuer's business	2.1 and 2.2	89/108
7.1.2	Future development and activities in the field of research and development	1.4 and 5.5.2	74/259
7.2	Operating results		
7.2.1	Significant factors materially affecting the issuer's income from operations	2.1	89
7.2.2	Explanation of material changes in net sales or revenue	2.1	89
8	Capital resources		
8.1	Issuer's capital resources	3.1 Note 23 and 3.3 Note 3.7	161/209
8.2	Source and amounts of cash flows	3.1 (including the statement of cash flows)	120
8.3	Borrowing requirements and the funding structure of the issuer	3.1 Note 27 and 3.3 Note 3.9	169/212
8.4	Restrictions on the use of capital resources	N/A	
8.5	Information regarding the anticipated sources of funds	2.2.3, 2.1.4, 3.1 Note 21 and 3.1 Note 27	110/106/159/169
9	Regulatory environment		
9.1	Description of the regulatory environment	4.3	229
10	Trend information		
10.1	The most significant trends in production, sales and inventory, and costs and selling prices since the end of the last financial year and any significant change in the financial performance of the Group since the end of the last financial period to the date of the Universal Registration Document	2.1.4	106
10.2	Information on any known trends, uncertainties, demands, commitments, or events that are reasonably likely to have a material effect on the issuer's prospects for at least the current financial year	2.1.4	106
11	Profit forecasts or estimates		
12	Administrative, management and supervisory bodies and senior management		
12.1	Information relating to the members of the Board of Directors	6.1 and 6.2	288/291
12.2	Administrative and management bodies conflicts of interest	6.2.5	321
13	Remuneration and benefits		
13.1	Compensation paid and benefits in kind	6.6.2	296
13.2	Amounts set aside or accrued to provide pension, retirement or similar benefits	6.6.2	296

	EU Regulation 2019/980 Annex 1 headings	Section(s)	Pages
14	Board practices		
14.1	Date of expiration of the current terms of office	6.2.6.3	323
14.2	Members of the administrative or management bodies' service contracts with the issuer or any of its subsidiaries	6.2.5	321
14.3	Information about Board committees	6.3.4	328
14.4	Statement of compliance with the applicable corporate governance regime	6.4	334
14.5	Potential material impacts on the corporate governance – Future changes in board membership structure	6.1.1 and 6.2.6	288/322
15	Employees		
15.1	Number and breakdown of employees	5.7.4.4	274
15.2	Shareholdings and stock options	6.6.2.2, 6.6.2.3 and 7.3.7.3	347/351/382
15.3	Arrangements for involving the employees in the capital of the issuer	5.7.2.3	271
16	Major shareholders		
16.1	Major shareholders	7.3.1	372
16.2	Breakdown of voting rights	7.3.1	372
16.3	Controlling shareholder	7.3.5	381
16.4	Change in control	7.3.6	381
17	Related party transactions		
17.1	Details of related-party transactions	7.1.4	372
18	Financial information concerning the issuer's assets and liabilities, financial position and profits and losses		
18.1	Historical financial information		
18.1.1	Audited historical financial information covering the latest three financial years and the audit report in respect of each year	3.1 and 3.3	116/196
18.1.2	Change of accounting reference date	N/A	
18.1.3	Accounting standards	3.1 Note 1	123
18.1.4	Change of accounting framework	N/A	
18.1.5	Balance sheet, income statement, statement of changes in equity, cash flow statement, accounting policies and explanatory notes	3.1	116
18.1.6	Consolidated financial statements	3.1	116
18.1.7	Age of financial information	9.3	422
18.2	Interim and other financial information		
18.2.1	Quarterly, half-yearly or interim financial information	N/A	
18.3	Auditing of historical annual financial information		
18.3.1	Independent auditing of historical annual financial information	N/A	
18.3.2	Indication of other information in this Universal Registration Document that has been audited by the auditors	5.10.2 and 8.3	281/414
18.3.3	Indication of the source of information appearing in the Universal Registration Document that is not extracted from the issuer's audited financial statements and statement that the information is not audited	N/A	
18.4	Pro forma financial information		
18.4.1	Pro forma financial information and report	N/A	
18.5	Dividend policy		
18.5.1	Description of the issuer's policy	2.3.3	112
18.5.2	Amount of dividend	2.3.3 and 8.2.1.2	112/391
18.6	Legal and arbitration proceedings		
18.6.1	Information on any governmental, legal or arbitration proceedings which may have, or have had in the recent past, significant effects on the issuer and/or the Group's financial position or profitability	3.1 Note 35 and 3.3 Note 5.2	185/217
18.7	Significant change in the issuer's financial position		
18.7.1	Description of any significant change in the financial position of the Group which has occurred since the end of the last financial period	3.1 Note 36	185

Cross-reference tables

EU Regulation 2019/980 Annex 1 headings		Section(s)	Pages
19	Additional information		
19.1	Share capital	3.1 Note 23, 3.3 Note 3.7 7.2.1 and 7.2.2	161/209/373/374
19.1.1	Amount of issued capital	7.2.1	373
19.1.2	Securities not representing capital	3.1 Note 23, 3.3 Note 3.9 and 7.2.3.1	161/212/374
19.1.3	Shares held by the issuer	3.1 Note 23, 3.3 Note 3.7 and 7.2.6	161/209/375
19.1.4	Amount of any convertible securities, exchangeable securities or securities with warrants	3.1 Note 23, 3.3 Note 3.7 and 7.2.3.2	161/209/374
19.1.5	Information about the terms of any acquisition rights and/or obligations over authorized but unissued capital or any undertaking to increase the capital	N/A	
19.1.6	Information about any capital of any member of the Group which is under option or agreed conditionally or unconditionally to be put under option	N/A	
19.1.7	History of share capital	7.2.4	375
19.2	Bylaws	7.1.1 and 7.1.2	367/368
19.2.1	Corporate purpose	7.1.1	367
19.2.2	Rights, preferences and restrictions attached to shares	7.1.2.2 and 7.1.2.3	370/370
19.2.3	Change in control	7.1.2.6	371
20	Material contracts		
20.1	Summary of each material contract	7.1.4.2	372
21	Documents available		
21.1	Documents made available to the public	7.4 and 9.4	382/423

9.5.2 Annual Financial Report cross-reference table

This Universal Registration Document includes the information contained in the Annual Financial Report mentioned in paragraph 1 of Article L.451-1-2 of the French Monetary and Financial Code (*Code monétaire et financier*) and Article 222-3 of the AMF's General Regulations.

The following table presents the cross-references between the two documents.

Annual Financial Report headings	Section(s)	Pages
Declaration by the person responsible	9.1.2	421
Board of Directors' management report	See cross-reference tables, 9.5.3 and 9.5.4	427/428
Financial statements and reports	3	115
Parent company financial statements	3.3	196
Consolidated financial statements	3.1	116
Board of Directors' corporate governance report	6.7	361
Statutory Auditors' report on the Board of Directors' corporate governance report	3.4	219
Legal and arbitration proceedings		
Significant change in the issuer's financial or trading position		
Statutory Auditors' reports	3.2, 3.4 and 8.3	191/219/414
Audit fees	3.1 Note 38	190

9.5.3 Board of Directors' management report cross-reference table

This Universal Registration Document includes the information contained in the Board of Directors' management report provided for by Articles L.225-100, L.225-100-1, L.225-102 and L.225-102-1 of the French Commercial Code (*Code de commerce*).

The table below lists the references to excerpts of the Universal Registration Document corresponding to the various sections of the management report as approved by the Board of Directors.

	Board of Directors' management report headings	Section(s)	Pages
1	Group activities in 2019	Profile and 2.1	6/89
1.1	Summary of key figures by business (adjusted data)	Profile and 2.1.3	6/94
2	Human resources		
2.1	Headcount	5.7.4.4	274
2.2	Human resources policy	5.7.1	269
2.3	Labor relations	5.8	275
2.4	Statutory and optional profit-sharing schemes	5.7.2.3	270
2.5	Group employee savings plan and international Group employee savings plan	5.7.2.3	270
2.6	Importance of sub-contracting	5.4	256
2.7	Group ethics and values	5.3.1.2	251
3	Non-financial information statement and duty of care plan		
3.1	Non-financial information statement	5	241
3.2	Duty of care plan	5.2.2	248
4	Research and development		
4.1	Major technological focuses	1.4.1	75
4.2	Technical and scientific partnerships	1.4.2	78
4.3	Innovation and intellectual property	1.4.3	78
5	Operating and financial position		
5.1	Consolidated income statement	2.2 and 3.1	108/116
5.2	Consolidated balance sheet	2.2 and 3.1	108/116
5.3	Research and development expenditure	3.1 Note 12	150
5.4	Information concerning supplier payment periods	2.3.3	112
5.5	Parent company financial statements	2.3, 3.1 and 3.3	110/116/196
5.6	Non-deductible expenses	2.3.3	112
5.7	Proposed appropriation of profit	2.3.3 and 8.2.1	112/390
6	Risk factors		
6.1	Identified risk factors	4.2	227
6.2	General risk management policy	4.1	225
6.3	Insurance	4.4	339
6.4	Health, Safety and Environment	4.3.1, 5.5 and 5.6	229/258/265
7	Investments	7.1.3.2	372
8	Share capital and share ownership		
8.1	Breakdown of share capital and voting rights	7.3.1, 3.1 Note 23 and 3.3 Note 3.7	378/161/209
8.2	Shareholder agreements	7.3.5	381
8.3	Agreement with the French State	7.1.4.2	372
8.4	Undertaking to hold securities	7.3.6	381
8.5	Stock options	6.6.4.1 and 7.3.7.3	358/382

Cross-reference tables

	Board of Directors' management report headings	Section(s)	Pages
8.6	Free share grants	3.1 Note 23, 6.6.2.3, 6.6.4.2 and 7.3.7.1	161
8.7	Share buyback programs	7.2.7 and 8.2.1.9	376/402
8.8	Safran share	7.5	384
9	Corporate officers		
9.1	Terms of office and duties	6.2.2	296
9.2	Compensation and benefits	6.6	335
9.3	Transactions in the Company's shares	6.5.3	335
10	Outlook for 2020 and significant subsequent events	2.1.4	106
11	Principal provisions of the bylaws	7.1.2	368
	Appendices		
Appendix 1	List of subsidiaries and investments	3.1 Note 37	186
Appendix 2	Five-year financial summary of the Company	2.3.3	113
Appendix 3	Authorizations granted by the AGM to the Board of Directors with respect to share capital increases	8.2.5	412
Appendix 4	Dividends paid over the past three years	2.3.3 and 8.2.1.2	112/391

9.5.4 Corporate social responsibility cross-reference table

This Universal Registration Document includes the human resources, environmental and social information contained in the Board of Directors' management report in accordance with Article R.225-105-1 of the French Commercial Code.

The following table presents the cross-references between the two documents.

	Headings from Article R.225-105 of the French Commercial Code	Section(s)	Pages
1	Human resources information		
1.1	Employment		
1.1.1	Total headcount and breakdown of employees by gender, age and region	5.7.4.4	274
1.1.2	New hires and departures	5.7.4.4	274
1.1.3	Compensation and changes in compensation	5.7.4.4	274
1.2	Working hours		
1.2.1	Organization of working hours	5.7.1	268
1.2.2	Absenteeism	5.7.4.4	274
1.3	Labor relations		
1.3.1	Employer/employee relations, in particular procedures for informing, consulting and negotiating with employees	5.8.2 and 5.8.3	276/276
1.3.2	Collective bargaining agreements	5.8.3	276
1.4	Health and safety		
1.4.1	Occupational health and safety conditions	5.6.3	265
1.4.2	Agreements signed with trade unions and employee representatives concerning occupational health and safety	5.6.3 and 5.1.3	265/245
1.4.3	Occupational accidents, in particular frequency and severity, and occupational illnesses	5.6.4	267
1.5	Training		
1.5.1	Training policies	5.7.2.2	669
1.5.2	Total number of training hours	5.7.2.2	669

Headings from Article R.225-105 of the French Commercial Code		Section(s)	Pages
1.6	Equal opportunity		
1.6.1	Measures taken to promote professional equality between men and women	5.7.4.1	272
1.6.2	Measures taken to integrate and maintain employees with disabilities	5.7.4.2	273
1.6.3	Policy concerning the fight against discrimination	5.7.4	272
1.7	Promotion of and compliance with the core conventions of the International Labour Organization as regards:		
1.7.1	The respect for the freedom of association and the right to collective bargaining	5.8.1 and 5.1.3	275/245
1.7.2	The elimination of discrimination in respect of employment and occupation	5.1.3	245
1.7.3	The abolition of forced and compulsory labor	5.1.3	245
1.7.4	The effective abolition of child labor	5.1.3	245
2	Environmental information		
2.1	General environmental policy		
2.1.1	Organization of steps taken by the Company to address environmental issues and, where applicable, environmental assessment and certification procedures	5.5.2, 5.5.3 and 5.6.3	259/261/265
2.1.2	Initiatives taken to train and raise awareness among employees on environmental protection	5.5.2, 5.6.2 and 5.6.3	259/261/265
2.1.3	Resources assigned to the prevention of environmental risks and pollution	N/A	
2.1.4	Amount of provisions set aside for environmental risks, provided that this information is not likely to cause serious prejudice to the Company in the context of ongoing proceedings	N/A	
2.2	Pollution		
2.2.1	Measures taken to prevent, reduce and rectify emissions into air, water and soil that have a significant environmental impact	5.5.3	261
2.2.2	Steps taken to address noise pollution and any other form of pollution relating to a specific activity	5.5.3	261
2.3	Circular economy		
	Waste reduction and management		
2.3.1	Measures taken to reduce, recycle and eliminate waste	5.5.3	261
2.3.2	Initiatives to fight against food waste	N/A	
	Sustainable use of resources		
2.3.3	Water consumption and water supply in accordance with local regulations	5.5.3	261
2.3.4	Consumption of natural resources and measures taken to promote more efficient use	5.5.3	261
2.3.5	Energy consumption and measures taken to improve energy efficiency and use of renewable energy	5.5.3	261
2.3.6	Land use	5.5.3	261
2.4	Climate change		
2.4.1	The major sources of greenhouse gas generated by the Company's business, primarily through the use of products and services that it produces	5.5.2 and 5.5.4	259/264
2.4.2	Adapting to climate change	5.5.2	259
2.5	Protection of biodiversity		
2.5.1	Measures taken to protect and develop biodiversity	5.5.3	261
3	Information on social commitments to promote sustainable development		
3.1	Community, economic and social impact of the Company's activities on:		
3.1.1	Employment and regional development	5.9.1	276
3.1.2	Local community	5.9.1	276

Cross-reference tables

Headings from Article R.225-105 of the French Commercial Code		Section(s)	Pages
3.2	Relationships with people and organizations who benefit from the Company's activities, in particular integration associations, educational institutions, environmental protection associations, consumer and local residents' associations		
3.2.1	Status of dialogue with these people and organizations	5.7.4, 5.5.1 and 5.9	272/258/276
3.2.2	Partnership and corporate sponsorship programs	5.7.4 and 5.9	272/276
3.3	Sub-contractors and suppliers		
3.3.1	Integration of social and environmental issues in purchasing policies	5.2.2	248
3.3.2	Scale of outsourcing and measures taken to raise awareness among suppliers and sub-contractors with respect to corporate social responsibility	5.2.2 and 5.4.3	248/257
3.4	Fair practices		
3.4.1	Measures taken to fight against corruption	5.3	251
3.4.2	Measures taken to promote consumer health and safety	N/A	
3.5	Other action taken, pursuant to paragraph 3, to promote human rights	5.1.3	245
3.5.1	Report by the independent third party on the consolidated labor, environmental and social information included in the management report	5.10.2	281

9.6 GLOSSARY

The glossary definitions have been drawn from the following sources:

- Verminen
- Safran

9.6.1 Financial terms

Bonds convertible and/or exchangeable for new and/or existing shares (OCÉANE)

OCÉANE bonds in France are convertible bonds that offer bondholders either newly issued shares or existing shares held in a portfolio, for example as a result of a share buyback. In practice, OCÉANE bonds are rarely redeemed in existing shares as this results in the recognition of a capital gain or loss.

Cash-generating units (CGUs)

A CGU is the smallest identifiable group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets.

Corporate governance

Corporate governance is the system of rules, practices and processes by which a company is directed and controlled.

Corporate governance essentially involves balancing the interests of a company's many stakeholders, depending on a company's objectives.

Key stakeholders are shareholders who elect either the Board of Directors, which then grants a mandate to the management, or the Supervisory Board, which appoints members of the Management Board under various conditions specific to the legal status of the company concerned.

Other stakeholders include employees, suppliers, customers, banks and other lenders, the local community, the environment and third parties – in the broadest sense of the term – that may have dealings with the company on account of its businesses, behavior or achievements.

Corporate mutual funds

Corporate mutual funds, or *fonds commun de placement* (FCP), are a type of UCITS (undertakings for the collective investment in transferable securities).

Mutual funds have a specific legal status. A mutual fund is a collective of transferable securities which issues units (shares). It has no legal personality. Each shareholder has a co-ownership right to the fund's assets in proportion to the number of shares it holds in the fund.

Besides conventional mutual funds (money market, bond or share funds), commonly used by retail banks, certain "specific" mutual funds are associated with a greater degree of risk and are designed for well-informed investors (with the exception of corporate mutual funds [FCPE], which represent a sub-category in themselves).

Covenant

Covenants are designed to limit the effects of confiscation by shareholders of part of the value of receivables. There are commonly, but not always, four types of covenants concerning: investment policy, dividend policy, level of net debt and early repayment. Covenants are included in lending agreements and reduce management or shareholders' capacity to conduct

certain operations without having received prior approval of the creditors. Failure to comply with these covenants results in the debt immediately falling due.

Depreciation/amortization

Depreciation/amortization is a means of recording an asset's decrease in value for accounting purposes.

Dilution

Dilution is the effect of a financial transaction carried out by a company (capital increase or reduction, acquisition, etc.) or of an instrument (convertible bond, stock warrant, stock option, etc.) that will result in a decrease either in the control held by existing shareholders, or in the company's profitability or other significant input. In contrast, accretion increases one or more of these inputs.

Dividend

A dividend is a payment made by a company to its shareholders. Shareholders are paid dividends without being required to provide any consideration in return, and remain owners of their shares. The opposite situation is termed a share buyback. The shareholders themselves can decide, at shareholders' meetings, whether or not they consider the company is able to pay dividends without harming its operations.

EBITDA

EBITDA, or earnings before interest, taxes, depreciation and amortization, represents a company's net earnings before subtracting interest expenses, taxes, depreciation and amortization and provisions for non-current assets (but after additions to provisions for inventories and trade receivables).

Embezzlement

The act of a person holding public authority or discharging a public service mission receiving, requesting or ordering the collection of a sum which he or she knows is not due or which exceeds the amount that is due in respect of duties, contributions, taxes or public levies.

Equity

In accounting, capital, very similar to equity, represents the funds (liabilities) that belong to a company's shareholders, as opposed to debt owed to suppliers or banks for example. Capital is made up of share capital, reserves and retained earnings (profits not distributed as dividends), and profit for the fiscal year.

Equity is a slightly broader definition than capital, as it includes capital + issues of non-voting loan stock + contingent advances + rights of concession grantors. For most companies, equity and capital are virtually the same.

This notion is sometimes extended to "quasi equity", which includes stable sources of funds not qualifying as capital, such as current accounts with shareholders, non-voting loan stock and convertible bonds.

Facilitating payments

These payments are used to facilitate or expedite routine procedures or administrative formalities normally carried out by public officers (customs officers, agents responsible for issuing licenses, police officers, etc.). They include all payments unduly made in exchange for a standard task (for example, the issuing of authorizations, licenses or visas, or the processing of administrative or customs applications). Although such practices are tolerated in some countries, facilitating payments are considered a type of corruption in most countries and are as such strictly prohibited.

Favoritism

The act of a person holding public authority or discharging a public service mission or holding a publicly elected office or acting as a representative, administrator or agent of the State, a local authority, a public institution, a mixed-economy company of national interest discharging a public service mission or a local mixed-economy company, or any person acting on behalf of any of the above, obtaining or attempting to obtain from others an unjustified advantage through an act that breaches legal or regulatory provisions designed to guarantee freedom of access and equality for candidates in respect of tenders for public services and delegated public services.

Financial covenant

Financial covenants require the company to respect certain financial ratios.

Foreign Corrupt Practices Act (FCPA)

The Foreign Corrupt Practices Act is a 1977 United States federal law prohibiting companies and their individual officers from influencing foreign officials with any personal payments or rewards. As this law has international ramifications, it is said to be of near-universal jurisdiction. The Act concerns any corrupt practices committed by a US or foreign company or individual, either physically based in the United States or simply listed on a stock market in the United States, or participating in any capacity whatsoever on a financial market regulated in the United States. The Act is notably enforced by the Office of Foreign Assets Control.

Forward rate agreement (FRA)

A forward rate agreement (FRA) is a derivative product used on monetary markets, traded over the counter between two counterparties, the purpose of which is to lock in a future interest rate on a specified principal amount at the date of the FRA for a stated period of time. The interest rate is calculated and published by a third party and will only be known at a future date.

Free cash flow

Free cash flow represents cash flow from operating activities less any disbursements relating to acquisitions of property, plant and equipment and intangible assets.

Goodwill

Goodwill is the cost to purchase a business minus the fair value of the identifiable assets and liabilities obtained in the purchase. Goodwill is shown as a specific intangible asset. Under IFRS or US GAAP, goodwill is to be tested for impairment each year and this may result in the recognition of an impairment loss. Under French GAAP, goodwill is amortized on a straight-line basis, commonly over a period of between 5 and 40 years, and most frequently between 10 and 20 years. However, in some cases, goodwill may be allocated to the acquirer's consolidated equity, in which case it is no longer included as a separate caption.

Illegal taking of interest

(Article 432-12 of the French Criminal Code): The act of a person holding public authority or discharging a public service mission or holding a publicly elected office taking, receiving or keeping any interest whatsoever in a company or operation, either directly or indirectly, for which, at the time in question, he or she is responsible, in whole or in part, for the supervision, management, liquidation or payment. The applicable legislation also provides that any person who was previously responsible for managing or auditing a company must wait three years between the end of his or her public role and joining that company.

Influence peddling

The act of person holding public authority or discharging a public service mission or holding a publicly elected office seeking or providing directly or indirectly requesting or accepting, without right and at any time, offers, promises, donations, gifts or advantages, in order (i) carry out or abstain from carrying out an act relating to his or her duties, mission or office, or facilitated by his or her duties, mission or office, or (ii) to take advantage of his or her real or perceived influence with a view to obtaining from any public body or authority any distinction, employment, contract or any other favorable decision.

Institutional investor

Institutional investors are savings organizations whose obligations and/or assets are governed by laws and regulations. The return on their investments allow them to service their obligations in the medium or long term.

The singularity of institutional investors lies in the fact that they cannot directly access the capital they invest; they act on behalf of rights holders with which they have signed an agreement. Consequently, the management of any such assets is highly regulated and institutionalized.

Institutional investors are therefore different from (financial or non-financial) companies, which may hold on a proprietary basis various financial assets for short- or long-term investment.

The assets managed by institutional investors generally represent significant sums of money (around €1 billion).

Interest rate swaps

An interest rate swap involves an exchange of interest rates (but not capital) between two parties. It is particularly suited to managing a company's long-term interest rate risk. The swap market has seen fast-paced growth in recent years. Banks now play a decisive role in the swap market. Corporate cash managers appreciate the flexibility of a swap, which allows them to choose the term, the benchmark floating rate and notional amount of the instrument. A swap between a bank and a company can be settled at any time by calculating the present value of the fixed interest payments at the market interest rate compared to the initial notional amount. Swaps are also frequently used to manage interest rate risk on floating- or fixed-rate assets.

Knock-out barrier

Turbo warrants have two main features: an exercise price and a knock-out barrier.

- The exercise – or strike – price is used to determine the value of the turbo warrant.
- The knock-out barrier, as its name suggests, represents the level at which the warrant expires and can be hit at any time while the underlying instrument is traded. When the underlying instrument hits the barrier, the warrant expires ahead of term and can no longer be traded.

Minimum coupon

A coupon payment is the interest regularly paid to bondholders. Coupons may be paid at fairly long intervals or are sometimes capitalized and only paid once on the bond maturity date (zero-coupon bond).

Misappropriation of public funds

(Article 432-15 of the French Criminal Code [*Code pénal*]): The misappropriation of public funds refers to the act of a person holding public authority or discharging a public service mission “destroying, misappropriating or purloining a document or security, or public funds, or papers, documents or securities representing such funds, or any other object entrusted to such person by virtue of his or her duties or mission.”

Money market open-ended investment scheme (SICAV)

Like mutual funds, SICAV open-ended collective investment schemes are a type of undertaking for the collective investment in transferable securities (UCITS).

A SICAV is a company that pools the risks and rewards of an investment in transferable securities (shares, bonds etc.), negotiable debt securities, repos and other financial instruments authorized either by the regulations or by the SICAV’s bylaws. From the standpoint of French law, SICAVs are legal entities. The company has a Board of Directors and its shareholders have a right to vote at Annual General Meetings.

The SICAV is set up by a credit institution (sponsor) and a custodian which is responsible for ensuring the due and proper nature of management decisions.

Money market SICAVs are investment schemes that are invested in cash.

They tend to benefit from highly stable capital and steady growth in value, and an exit from the fund is permitted at any time.

Money market SICAVs mainly comprise:

- short-term negotiable debt securities and treasury bills;
- short-term bonds (bonds nearing maturity, and therefore with low risk of fluctuations in value) at fixed or floating rates.

Money market SICAVs are used to invest cash or capital that cannot yet be used for other purposes, over a very short period and at a low risk and similar performance to the money market.

They are either:

- conventional money market SICAVs maturing in three months or less;
- “dynamic” money market SICAVs with a maturity of up to two years.

The term of the products making up each money market SICAV will determine the fund’s sensitivity to changes in the money market rate. For the most sensitive funds, a slight share of the risk increases the potential yield.

Companies are required to recognize a capital gain upon the sale of money market SICAVs.

The return offered by these monetary SICAVs consists of an increase in the daily net asset value close to that offered by the money market.

Net debt

Net debt is the difference between financial debt and cash, cash equivalents and short-term investments.

Non-recurring income (loss)

Non-recurring income (loss) is a notion used in European accounting. It represents the income or loss derived by a company from one-off events that arose in the fiscal year in question. Non-recurring income (loss) only takes into account non-recurring items. Non-recurring income can include income earned on management transactions (e.g., the unexpected collection of a debt written off) or corporate actions (e.g., proceeds from sales of an asset such as a subsidiary, plant, production machinery, etc.). Similarly, non-recurring expenses can include expenses incurred on management transactions (e.g., restructuring costs) or capital transactions (e.g., residual value after accumulated depreciation of assets sold).

Non-voting loan stock

Non-voting loan stock represents a marketable security that confers neither voting nor ownership rights. In this sense, non-voting loan stock resembles an investment certificate.

Non-voting loan stock offers individuals or investors who are not partners/shareholders the opportunity to invest an unlimited amount in a company for potentially attractive returns.

Non-voting loan stock is particularly well suited for financing a company’s organic or acquisition-led growth and is treated as equity.

OPCVM

OPCVM are a French form of UCITS (undertakings for the collective investment in transferable securities) whose funds are invested in transferable securities or other financial instruments.

Operating income (loss)

Operating income (loss) is the income or loss derived by a company from the ordinary use of its factors of production. Operating income (loss) does not include financial income and expenses, non-recurring items, employee profit-sharing or income tax.

Profit attributable to owners of the parent (attributable profit)

Profit attributable to owners of the parent (attributable profit) corresponds to consolidated profit less non-controlling interests in the profit of fully consolidated companies. Attributable profit can exceed aggregate profit when fully consolidated subsidiaries with non-controlling interests report losses.

Public exchange offer

In finance, a public tender offer is an operation launched by a company, a financial group or other private institution in the form of a proposal made to the public to purchase, exchange or sell certain shares in a company in accordance with specific procedures that are regulated and controlled by stock market authorities, notably in terms of financial information to be published (in France by the AMF or in the United States by the SEC).

Public tender offers can take the form of a cash tender offer (*offre publique d’achat*, or OPA), an exchange offer (*offre publique d’échange*, or OPE) in which shares are offered as consideration instead of cash, an offer in cash and in shares (*offre publique mixte*), and an alternative offer (*offre publique alternative*) in cash or in shares.

Rating agency

A credit rating agency is a company that assigns credit ratings which rate the ability of a debtor – a company or local authority – to pay back a debt.

Recurring operating income

This represents operating income excluding non-recurring items that are no longer separated from recurring items under IFRS, a significant obstacle when analyzing this metric. Under IFRS, recurring operating income is therefore published by companies as an alternative performance measure.

Shared services center (SSC)

A shared services center is a center that provides operational services for several companies, sites or entities within a given group.

By delegating repetitive, low added-value operational tasks to an SSC, corporate departments can focus on tasks with higher added value.

A shared services center can include services relating to an entity's different internal departments, or may be dedicated to a specific function (finance, human resources, purchasing, legal, aftermarket services, etc.).

Term

The term of fixed-income instruments such as bonds is the average life of the associated cash flows, weighted by their present value. The longer the term of the instrument, the greater the risk.

Treasury shares

Treasury shares arise when a first company controls a second company that holds shares in the capital of the first company. To limit the impact of holding treasury shares, the voting rights attached to the shares are canceled. During a public tender offer, no changes may be made to the treasury share structure of the target company (increase in capital, reclassification of capital into "friendly hands").

UK Bribery Act (UKBA)

The UK Bribery Act 2010 establishes company liability for corrupt acts committed by persons acting on behalf of the company. It is described as the strictest corporate anti-corruption legislation in the world – going beyond the already extremely tough US equivalent, the 1977 Foreign Corrupt Practices Act in several respects. The UKBA was part of a major global step to reinforce the fight against corruption and legislation is likely to be further stepped up under the impetus of the OECD.

The UKBA was adopted by the Parliament of the United Kingdom on April 8, 2010 and came into force on July 1, 2011. This UK law repeals and replaces previous provisions by the four crimes of:

- bribery;
- being bribed;
- the bribery of foreign public officials; and
- the failure of a commercial organization to prevent bribery on its behalf.

This last crime brought in a new liability offense for companies, focusing on prevention rather than just repression. As a result, legal entities are required to put in place internal rules and procedures to prevent corruption ("adequate procedures"). In France, this is taken up by Article 8 of Act no. 2016-1691 of December 9, 2016 ("Sapin II") relating to transparency, anti-corruption measures and modernization of the economy. Guidance on adequate procedures was published by the UK Ministry of Justice on March 30, 2011.

Like the FCPA in the United States, the UKBA contains certain provisions with near-universal jurisdiction, allowing for the prosecution of an individual or company with links to the United Kingdom, regardless of where the crime occurred.

US Private Placement (USPP)

A USPP is a private placement of bonds in the United States and is an alternative means of financing to conventional bonds or bank loans. A USPP involves a small number of qualified investors not listed on the market.

Weighted average cost of capital (WACC)

The weighted average cost of capital (WACC) is a financial metric that represents the average annual yield expected by shareholders and creditors on their investment.

WACC measures a company's ability to put the capital provided to it by shareholders/investors to best use. It is an essential metric for identifying worthwhile future investments. WACC is calculated as the average cost of a company's capital and financial debt, i.e., the financial resources available for its investments.

In development projects or projects to upgrade industrial facilities, the discount rate – used in the calculations to assess the return on a project – is based on each entity's specific WACC. WACC is calculated by the Finance department. However, WACC as determined for activities exposed to market price uncertainties and volatility differs from the lower-risk WACC for "regulated" activities or long-term purchase agreements. WACC also varies depending on the country in which the investment is made. To simplify, for the net present value to be positive, the internal rate of return (IRR) must be higher than the WACC calculated: this means that the project considered will increase the value of the company.

For investments in a new company, WACC provides information for partners/shareholders on the appropriateness of the investment; for creditors, WACC is a measure of the risk they take in extending credit to the company.

Working capital (WC)

Working capital (WC) is a measure of the financial resources a company needs to cover gaps in liquidity caused by timing differences between outflows (operating expenses needed for production) and inflows (sales of goods and services) related to its activities. When inflows exceed outflows, this is known as "positive" working capital.

9.6.2 Technical terms

Additive manufacturing

ASTM International defines additive manufacturing as the use of computer-aided design to build objects layer by layer, as opposed to traditional manufacturing, which involves cutting, drilling or grinding away unwanted excess from a solid piece of material. Additive manufacturing is the industry term for what is more commonly known to as 3D printing.

AEW&C (Airborne Early Warning & Control) system

An airborne early warning and control system is an airborne radar picket system designed to detect aircraft, ships and vehicles at long ranges and perform command and control of the battlespace in an air engagement by directing fighter and attack aircraft strikes. AEW&C aircraft are used for air, sea and ground surveillance operations in a complex environment.

Afterburner (or reheat)

An afterburner, or reheat, is a system used in military supersonic aircraft to provide a temporary boost in thrust. Afterburning involves injecting and igniting additional fuel downstream of the turbine. The additional thrust is especially useful during takeoff on short runways such as those on aircraft carriers, and in combat situations.

Attitude control

An attitude control system is an important spacecraft component (on an artificial satellite, space probe, space station or manned spacecraft). Its purpose is to control the attitude (meaning the orientation in space) of the spacecraft and its instruments and solar panels consistent with mission specifications. An attitude control system comprises sensors (to determine the spacecraft's position), actuators (to reorient the vehicle) and software. Various technologies may be used. The attitude control system is a platform component on an artificial satellite.

Auxiliary power unit (APU)

In aeronautics, an auxiliary power unit (usually in the form of a turbogenerator) generates energy onboard an aircraft to power onboard systems (electrical power, pneumatic and hydraulic pressure, air conditioning) on the ground when the main engines are not running, thereby saving on fuel. APUs may or may not be used in flight. They are generally located at the rear of an aircraft, in the tail cone, and powered by jet fuel from the aircraft's tanks. Depending on the type of aircraft, APUs generate pneumatic, hydraulic or electrical power for starting the aircraft's engines.

Boundary layer ingestion

The boundary layer is the name given to the interface between a moving body and the fluid within which it moves. Viscosity effects are significant within the boundary layer, and this is an important consideration in fluid mechanics (aerodynamics, hydrodynamics), meteorology and oceanography.

In aerodynamics, this is an important factor in the performance of a lifting surface: for example, separation of the boundary layer from the surface of an aircraft wing causes a decrease in the lift and an increase in the drag of the wing, resulting in a significant decline in the aircraft's aerodynamic performance. Boundary layer separation occurs at large wing angles of incidence, as with the nose-up aircraft attitude on landing. If the angle is too wide, the boundary layer separates and causes an aerodynamic stall, where the lift is suddenly and drastically impaired. This phenomenon is behind many aircraft accidents, since loss of lift can lead to loss of control of an aircraft.

On some aircraft, there are small vanes fitted either to the wings or at the back of the fuselage, to produce a turbulent flow that impedes separation. These vanes are known as vortex generators.

Boundary layer effects can seriously disrupt the operation of a jet engine, owing to turbulence in the engine air intake flow, and to efficiency reductions arising from the slower air speed in the boundary layer. The problem does not arise when the air intake is at the front (in the aircraft nose) or when the jet engine is fitted in a nacelle under the wings, which is the case in the great majority of civil aircraft.

When the air inlet is located along the fuselage (as in military aircraft), it will often be separated from the fuselage to ensure it is outside the boundary layer. A metal plate may be fitted just in front of the air inlet to keep the boundary layer against the fuselage. This is known as a boundary layer plate.

Bypass ratio

In turbofan engines, the bypass ratio is the ratio between the mass flow rate of the bypass stream to the mass flow rate entering the core. For example, in a turbofan engine, the mass flow entering the core is the flow that contains the gas resulting from combustion of the air/fuel mix, which takes place in what is known as the engine "core". The mass flow of the bypass stream is non-combusted flow that does not go through the engine core.

Ceramic matrix materials

Ceramic matrix materials are robust and lightweight, made of ceramic fibers embedded in a ceramic matrix. Matrix and fibers can be in any ceramic material, including carbon.

Cobotics (collaborative robotics)

Cobotics is the term given to work performed jointly by humans and robots, i.e., a direct or remotely controlled interaction between humans and robots in pursuit of a common goal.

Cobotics is at the interface between human cognition (behavior, decisions, robustness and error management), biomechanics (modeling of the behavior and dynamics of movement) and robotics (use of instruments to produce reliable and/or repetitive mechanical behavior for industrial, military, agricultural, healthcare, collaborative purposes, etc.).

Cockpit

A cockpit or flight desk is the area of the aircraft reserved for the pilot, co-pilot and sometimes an onboard mechanic. It contains the controls and instruments that enable the pilot to fly the aircraft. It is usually situated at the front of an aircraft, affording the pilot a clear view ahead of the aircraft, but also below during landing and taxiing. On most airliners, the cockpit is separated from the cabin by a sealed partition and door.

Composite fan blade

Most turbofan engines have a fan located in front of the low-pressure compressor. This has large blades with varying angles of incidence from the root to the tip. The composite fan blade is a particularly sophisticated component, featuring a titanium leading edge bonded onto the 3D woven composite body. A crucial design point here concerns accurate prediction, by calculation, of the mechanical behavior of the fan blades.

Divert and attitude control systems (DACS)

Flight and attitude control system (see attitude control).

Electric taxiing

Electric taxiing enables aircraft to taxi at airports without having to use their main engines or call upon airport towing services. It primarily addresses economic and environmental challenges, such as reduction in kerosene consumption, CO₂ emissions and noise, and enables more fluid aircraft ground maneuvers.

Three companies including Safran are currently working on electric taxiing systems.

Fan casing

A casing is an enclosure that protects a mechanical system. It is usually sealed, containing the lubricant needed for the system to operate, or simply affording protection against the outside environment. It may be fitted with a filling and drainage aperture for cooling fins, an external lubricating system and a venting system.

FELIN integrated equipment suite

This combat system offers expanded capabilities in five areas: communication, observation, accuracy, protection, and soldier mobility and support. It also ensures enhanced compatibility with weapon systems, equipment, vehicles and aircraft.

Fire control

A fire control system is a network of components (usually comprising a gun data computer, a director and a radar) designed to help a weapon system hit its target. Fire control systems can be carried on fighter planes or tanks, or used as artillery support.

Flight control actuators

In aviation, flight controls constitute the interface between the pilot and the aerodynamic surfaces that determine the aircraft's trajectory. Flight controls comprise the piloting instruments (such as the control yoke), the actuators (hydraulic or electric cylinders) that operate the aerodynamic surfaces, and the transmission systems (of any degree of sophistication) that link the piloting instruments to the actuators.

Full Authority Digital Engine Control (FADEC)

FADEC is a cockpit interface for operating a turbojet, turboprop or turbo engine. It may also be found on certain piston-engine light aircraft, often with compression ignition.

It takes the form of a digital control system based on a computer with two symmetrical, full authority, full redundancy channels. Sensors and actuator electric circuits are duplicated (one for each channel). Only the hydraulic subsystems (pumps, servovalves, pressure generators) are not duplicated (non-redundant).

A FADEC system performs the following functions:

- flow regulation (fuel input and acceleration/deceleration control);
- automatic start-up;
- transmission of engine parameters to cockpit instruments;
- thrust control and oversight of operation within set limits;
- reverse thrust control.

Future Combat Air System (FCAS)

The Future Combat Air System refers to a joint European program to develop a new sixth-generation combat air system by 2040 with a wide array of interconnected and interoperable elements such as drones, and based largely on artificial intelligence. The Future Combat Air System combines New Generation Fighter (NGF) aircraft, drones, future cruise missiles and drone swarms. It will connect with aircraft, satellites, NATO systems and land and sea combat systems.

Health monitoring

Health monitoring refers to a program for maintaining an aircraft fleet in proper working order while affording operational savings. It is an essential program for helicopter operators, providing valuable foresight on turbine failure risks, thereby reducing the number of unnecessary inspections, limiting major repairs, and reducing the cost of unplanned servicing. The health monitoring system uses an automated device to perform vibration measurements and Fast Fourier Transform (FFT) calculations. It is integrated in the FADEC suite (see definition) to determine the degree of wear in many different parts and schedule replacement accordingly.

Helicopter frame

A helicopter frame comprises the body and undercarriage unit (landing gear).

IFRS 15

IFRS 15 superseded IAS 11, "Construction Contracts" and IAS 18, "Revenue" when it came into force on January 1, 2018. Its impact on Safran's consolidated financial statements is set out in section 3.1, Notes 1.g and 3.a of this Universal Registration Document.

In-Flight Entertainment (IFE) system

In-flight entertainment refers to the entertainment available to aircraft passengers during a flight.

Infrared thermography

Infrared thermography is the science of detecting infrared energy emitted from an object, converting it to apparent temperature, and displaying the result as an infrared image known as a thermogram.

Launcher

In cosmonautics, a launcher is a rocket used for placing a payload in orbit around the earth or into interplanetary space. The payload might be an artificial satellite placed into low earth orbit or geostationary orbit, or a space probe that leaves the earth's gravitational field to explore the solar system.

Leading edge

The leading edge is the front-most edge of an airfoil section (aircraft wing, propeller, etc.), i.e., which penetrates the air. Along the leading edge, there is what is known as the stagnation point, about which the flow splits into two parts, passing along either side of the airfoil. This location of the stagnation point along the airfoil varies with the angle of incidence.

From a geometrical point of view, the leading edge is the portion of the airfoil profile which has the least radius of curvature. Independently of the flow, it defines the chord and the ensuing geometric properties such as chord length, camber and thickness.

On airfoil profiles intended for subsonic speeds, the leading edge has a wide radius (usually 1.5% of the chord). Supersonic airfoil sections have a much sharper angle of attack (a shorter radius).

Milestone

In project management, a milestone marks completion of a specific phase of work. This usually involves a major event, such as signing of a contract or launch of a product. A milestone is a scheduled and measurable event.

Modular air-to-ground weapon (AASM)

The AASM is a new-generation weapon that comprises a guidance kit and a range-extension kit to transform a bomb body into a precision air-to-ground weapon.

It is currently in service on Rafale fighters belonging to the French armed forces. This all-weather, jam-resistant weapon, features a long-range (60 km at high altitudes) INS/GPS/laser system. It allows simultaneous, high-precision, multi-target mobile or fixed air-to-ground strikes.

Multifunction goggles

Multifunction goggles are portable optronics systems providing armed forces (infantry in particular) with enhanced visible and infrared surveillance, detection, pointing, identification and target designation capabilities. They are modular and interoperable, incorporating advanced technology devices such as sensors and GPS. They are designed for link-up to telecommunications networks and provide easy-to-use human-machine interfaces.

Nacelle

Nacelles are housings that hold the engines on a multi-engine aircraft. On medium- and long-haul aircraft, nacelles usually include the thrust reverser that brakes the aircraft on landing. A nacelle may be fixed either on the wing or on the fuselage, by means of a mast.

Narrow-body aircraft

A narrow-body (or standard-body) aircraft is a passenger aircraft with a cabin width of three to four meters in which seats are arranged from two to six abreast along a single aisle. Narrow-body aircraft cannot fly transatlantic or transcontinental flights, and are often known as short- or medium-haul aircraft.

They differ from wide-body aircraft in that their single aisle runs along the middle of the cabin.

Non-destructive testing (NDT)

Non-destructive testing refers to a range of methods for examining the soundness of a material, component or system without causing damage, during production, use or maintenance.

Nozzle

A nozzle ("propelling nozzle" in cosmonautics) is a pipe of varying cross-section placed at the rear of an engine producing hot combustion gases. It converts the heat energy of these gases into kinetic energy.

Optronics (and optronic sights)

As the name suggests, optronics (or optoelectronics) stands at the intersection of electronics and optics. Optronics systems usually comprise an optical sensor, an image processing system and a display or storage system.

Organic matrix composites

A composite material (or composite) is a combination of constituent materials of different properties, usually in the form of a framework held in a matrix. The framework, or reinforcement (usually in the form of fibers), provides mechanical stability, and is surrounded and supported by a binding agent known as a matrix.

Good mechanical stability and low density make composites a highly useful material in air transport (civil and military) and aerospace applications.

Plasma thruster

Plasma thrust is a form of electric propulsion. It involves high-speed ejection of xenon ions to generate thrust through a vacuum. Plasma thrusters can be used for placing and keeping satellites in orbit, or for sending exploratory probes into space.

Power electronics

Power electronics refers to a branch of electrical engineering concerned with converting electrical energy from one form to another, by means of converters.

This includes the design, production and maintenance of:

- high-power electrical components;
- structures, control systems and applications of power converters.

Power transmission systems

A power transmission system refers to a mechanical device that harnesses a portion of the engine's energy in order to power essential systems on the aircraft, such as hydraulics and electrics, and on the engine itself (oil, fuel and electricity).

Predictive maintenance

Predictive maintenance involves the scheduling of maintenance interventions before failures occur, by examining the condition of a system with respect to predefined threshold values.

According to French standard NF EN 13306 X 60-319, predictive maintenance is a condition-based maintenance performed on the basis of extrapolations from the analysis of significant deterioration parameters.

The principle is to determine any manifest visible or non-visible signs of deterioration. The challenge is knowing how to recognize these signs. To detect deterioration (physical, chemical, behavioral, electrical, etc.), special equipment is used to measure signs such as untoward changes in temperature, vibration, pressure, dimension, position, noise, etc.

Primary and secondary electric distribution systems

The primary distribution system concentrates the energy produced by all of the aircraft's available sources of power and makes it available for all electrical loads, using network reconfiguration intelligence.

The secondary distribution system provides power to equipment such as interior/exterior lighting and cabin ventilation, which the airframer wishes to be switchable at different flight stages.

Primary mirror

In astronomy, the primary mirror is the main light-gathering surface (the objective) of a reflecting telescope. Light gathered by the primary mirror is directed towards a focal point typically past the location of the secondary mirror. The diameter of a telescope is measured as the diameter of the primary mirror.

Propfan

A propfan, also known as an open rotor engine, is a type of aircraft engine in which the fan is mounted directly on the power turbine outside the nacelle. This has the advantage of increasing the bypass ratio and thereby reducing fuel consumption.

Quick-Response Quality Control (QRQC)

QRQC is a fast problem-solving management method that emphasizes constant vigilance and immediate response.

Research and development (R&D)

Research and development, or R&D, refers to a systematic corporate quest for knowledge (in human behavior, culture and society as well as in technologies as such) with a view to developing applications for this knowledge. It also encompasses fields such as statistics, economics, accounting and organization relating to these activities.

Research and technology (R&T)

Technological research follows on from scientific research groundwork. It involves developing industrial applications for scientific breakthroughs, which are not usually applicable to industrial processes directly. Adaptation to industrial conditions requires upstream work that usually involves experimentation. This work will cover:

- technical feasibility and technical processes;
- macroeconomic implications and long-term profitability;

ecological and social impacts. It is conducted by engineers assisted by teams of technicians in each of the fields concerned.

Retrofit

Retrofit operations involve replacing old or obsolete components by more recent components, without modifying the function thereof. At Safran, the term is used for Aircraft Interiors. Retrofit includes replacing cabin parts, such as seats or galleys, whose life cycle has come to an end or which are worn out and need to be replaced.

Reverse thrust

In aeronautics, reverse thrust refers to the temporary diversion of some or all of a propeller or jet engine's thrust so that it is directed forward rather than backward, thus decelerating the aircraft to shorten the landing distance.

Ring laser gyroscope

A ring laser gyroscope is a rotation sensor that uses the Sagnac effect to measure the shifting interference pattern of a beam split into two halves, as the two halves move around the ring in opposite directions. With their three gyroscopes, the inertial navigation systems found on certain ships, aircraft, satellites and submarines can measure the angular velocity of a mobile object in all three dimensions. Because of its greater accuracy, the ring laser gyroscope has replaced the mechanical gyroscopes used previously.

Rotating combustion chamber

A combustion chamber is an enclosure capable of withstanding the sudden and extreme changes in pressure and temperature caused by the deliberate combustion of specific chemicals. It is designed to transform the energy produced by this combustion into work, or force, prior to discharge of the exhaust gases.

Semiconductor industry

The semiconductor industry covers the design, manufacture and sale of semiconductor devices such as the integrated circuits that are used in all computer and other electronic systems. It is therefore vital to the production of goods and services in information and communications technologies. Integrated circuits are the core components of IT servers, data network routers and telephony equipment, for example.

Shaft horsepower (shp)

Shaft horsepower is the power delivered to a propeller or turbine shaft. The term is used to quantify the power of helicopter engines.

Short Take-off and Landing (STOL) aircraft

A short take-off and landing (STOL) aircraft is a fixed-wing aircraft capable of using short runways (usually less than 200 meters) to take off and land.

Stationary plasma thruster

A stationary plasma thruster, or Hall-effect thruster (HET), is a type of plasma thruster (generally ring-shaped) in which the propellant is accelerated by an electric field. It is known as a Hall-effect thruster because it traps electrons in a magnetic field for use in ionizing the propellant. These ions are then accelerated to produce thrust. The thruster falls within the category of electric propulsion for space systems.

Supply chain

Supply chain refers to the management of all resources, means, methods, tools and techniques aimed at managing, in the most efficient way possible, the overall supply and delivery chain of a product or service to the end-customer. At Safran, the supply chain is structured around a unique approach entitled "One Safran", which is aimed at developing Group-wide take-up of a common corporate management system and performance indicators and deploying operational excellence, in order to ensure product quality and reliability. The initiative involves building on best practices and extending them throughout the Group.

Surface treatments

Surface treatments are mechanical, chemical, electrochemical or physical operations that modify the appearance or function of the surface of a material in order to adapt it to specified conditions of use.

Turbine

The turbine, a device that converts fluid flow into rotary motion, is a major aviation component. Turbine engines are used for powering helicopters and providing electrical energy onboard commercial aircraft. The Djinn helicopter made direct use of air compressed by a turbine to power its rotor, instead of using mechanical conversion.

Turbofan

A turbofan is a type of jet engine that reduces fuel consumption and increases thrust performance by taking in more air than is needed by the turbine. The additional air flow bypasses the turbine.

Vertical take-off and landing (VTOL) aircraft

A vertical take-off and landing (VTOL) aircraft is a fixed-wing aircraft that does not need the runway space usually required for take-off and landing. VTOL aircraft are sometimes known as hybrid or convertible aircraft, especially in the case of tiltrotor planes. The VTOL category does not extend to air balloons, airships or helicopters.

WEFA — Wireless Extension for Aircraft Condition Monitoring Systems (ACMS)

Flight data are essential in preparing reports for airworthiness authorities, and provide valuable input for improving aircraft performance and optimizing service life. The Aircraft Condition Monitoring Systems (ACMS) developed by Safran Electronics & Defense have very extensive data collection capabilities, making for highly efficient monitoring and management of flight systems and equipment, and of changes in flight conditions and aircraft operation. They are fully customizable, and can be programmed to anticipate risks of aircraft system failure. With the wireless extension, control units for Airbus and Boeing now have 3G flight data transmission capabilities.

CONTACT

FINANCIAL COMMUNICATIONS DEPARTMENT

Analysts and institutional investors

■ Tel.: +33 (0)1 40 60 80 80

■ Email: investor.relation@safrangroup.com

Individual shareholders

■ Toll-free number (mainland France only): 0 800 17 17 17
Monday to Friday, 9 a.m. to 5 p.m.

■ Email: actionnaire.individuel@safrangroup.com

SAFRAN

2, boulevard du Général-Martial-Valin
75724 Paris Cedex 15 – France

All financial information pertaining to Safran is available on the Group's website at www.safran-group.com, in the Finance section.

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Tel.: +33 (0)1 55 32 29 74

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Safran

2, boulevard du Général-Martial-Valin – 75724 Paris Cedex 15 – France

Tel.: +33 (0)1 40 60 80 80

www.safran-group.com

