


**41 YEARS OF RELIABLE TECHNOLOGY**

**aselsan**

**2016**

**ANNUAL REPORT**

 ASELSAN is a company of Turkish Armed Forces Foundation.



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## Field of Activities

Communications and Information Technologies Business Sector  
Defense System Technologies Business Sector  
Microelectronics, Guidance and Electro-Optics Business Sector  
Radar and Electronic Warfare Systems Business Sector  
Transportation, Security, Energy and Automation Systems Business Sector

## Financial Information

Consolidated Statement of Financial Position  
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## Abbreviations

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[www.aselsan.com.tr](http://www.aselsan.com.tr)



## OUR VISION

Being a national technology company that maintains its sustainable growth by creating value in the global market; preferred due to its competitiveness, trusted as a strategic partner, and caring for the environment and people.

## OUR MISSION

By focusing primarily on the needs of the Turkish Armed Forces; to provide high-value-added, innovative and reliable products and solutions to both local and foreign customers in the fields of electronic technologies and system integration; continuing activities in line with global targets as well as increasing brand awareness and contributing to the technological independence of Turkey.

## OUR VALUES

National consciousness  
Honesty and trustworthiness  
Customer oriented  
Respect to people and nature  
Innovation and creativeness  
Modesty

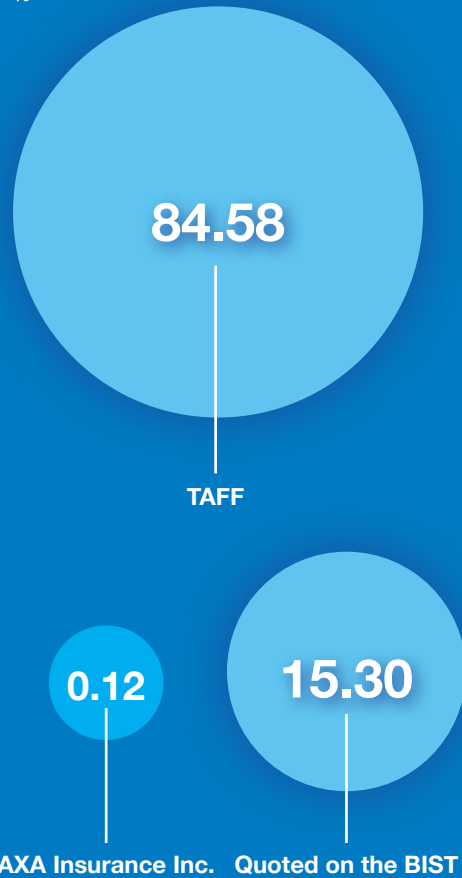
Corporate loyalty  
Research and entrepreneurial spirit  
Objective driven  
Team spirit and solidarity  
Work discipline  
Cost consciousness



# SHAREHOLDING STRUCTURE

## Our Shareholders

%



Our Shareholders	Share Amount (TL)	Share (%)
TAFF	845,825,624.46	84.58
Quoted on the BIST	153,018,684.64	15.30
AXA Insurance Inc.	1,155,690.90	0.12
Total	1,000,000,000.00	100

ASELSAN is a joint stock company and one of the subsidiaries of the Turkish Armed Forces Foundation (TAFF). As the main shareholder, TAFF owns 84.58% of the shares and 15.30% of the shares are listed on Borsa İstanbul (BIST).



# SUMMARY

## FINANCIALS

### Sales

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%



\*As a percentage of total sales

ASELSAN realized 52% of its TL 3,768 million in total sales to the TAF with private companies and other corporate customers accounting for 35% of sales. Exports accounted for 13% of sales.

ASELSAN signed contracts/orders amounting to TL 9,499 million in 2016 and our backlog reached to USD 6.2 billion at the end of the year.

ASELSAN's share price varied from a minimum of TL 8.38 and a maximum of TL 12.71, posting a gain more than 50% and ASELSAN's market capitalization ended the year 2016 at USD 3.6 billion.

# LOCAL AFFILIATES



Represents ASELSAN facilities or affiliates.

## ASELSANNET Electronic and Communication Systems Industry, Trade, Construction and Contracting Ltd. Co.

ASELSANNET was established in 2006 to meet the needs of civilian companies and institutions for electronic and communication devices. Its operations have also included communication system infrastructure turn-key deliveries and installation work since 2009. ASELSAN is the 100% shareholder in this company.

## Mikroelektronik R&D Design and Trading Ltd. Co.

Mikroelektronik was established in İstanbul to design and develop integrated circuit and electronic systems. The partnership with this Company was established through the purchase of 85% of the shares in 2010.

## ROKETSAN Rocket Industry and Trade Inc.

ROKETSAN was established in Ankara in 1988 to manufacture all types of missiles, rockets, rocket launchers and rocket fuel and their engines, warheads and other components, while also undertaking the manufacture, marketing and sales of all types of military and civilian products that require high level and sensitive technology. ASELSAN holds a 14.897% share in the Company.

## ASELSAN Precision Optics Industry and Trade Inc.

ASELSAN PRECISION OPTICS was established in Sivas in 2014 to conduct research and development studies for optics, optical sets and optical devices in relation to ultraviolet, visible and near infrared bandwidths and to manufacture and sell these optical devices. ASELSAN holds 50% of the shares in this company.

## ASELSAN Bilkent Micro Nano Technologies Industry and Trade Inc.

ASELSAN BİLKENT MICRO NANO TECHNOLOGIES was established in Ankara, Bilkent in 2014 to conduct research and development studies related to all types of semi-conductors and similar applications for technological materials and to manufacture and sell micro- and nano- scaled devices which include these materials. ASELSAN holds 50% of the shares of the company.

## Local Subsidiaries, Affiliates and Marketable Securities

Subsidiaries, Affiliates and Marketable Securities	Share Amount		Share (%)
ASELSANNET Elektronik ve Haberleşme Sistemleri Sanayi Tic. İnşaat ve Taahhüt Ltd. Şti.	3,300,000.00	TL	100.00
Mikroelektronik Ar-Ge Tasarım ve Tic. Ltd. Şti.	55,250.00	TL	85.00
ASELSAN Hassas Optik San. ve Tic. A.Ş.	6,500,000.00	TL	50.00
ASELSAN BİLKENT Mikro Nano Tek. San. ve Tic. A.Ş.	9,000,000.00	TL	50.00
ROKETSAN Roket San. ve Tic. A.Ş.	21,906,222.86	TL	14.897
ASPIİSAN Askeri Pil San. Tic. A.Ş.	56,000.00	TL	1,00

# GLOBAL AFFILIATES

 Represents ASELSAN facilities or affiliates.

## **ASELSAN Baku Company (Baku - Azerbaijan)**

The Company, 100% owned by ASELSAN, was established in 1998 to carry out the publicity/marketing and sales activities of military and civilian communication devices.

## **Kazakhstan ASELSAN Engineering LLP. (Astana - Kazakhstan)**

The Company was established in Kazakhstan in 2011 to carry out the manufacturing, development and maintenance-repair of electronic devices and systems to meet military and civilian needs in a partnership between ASELSAN 49%, the Undersecretariat for Defense Industries (UDI) 1% and Kazakhstan Engineering 50%.

## **ASELSAN Middle East Psc. Ltd. (Amman - Jordan)**

The Company was established as a joint venture company to meet the night vision needs of the Jordanian Military Force with the KADDB Investment Group (KIG) holding a 51% share in the Company and ASELSAN holding 49% of the shares.

## **IGG ASELSAN Integrated Systems LLC. (Abu Dhabi - UAE)**

IGG ASELSAN Integrated Systems was established with the aim of manufacturing, testing, and integrating ASELSAN's products in the UAE and selling and providing after-sales support in Gulf countries, and the UAE in particular, in 2011 in a partnership between ASELSAN 49% and IGG 51%.

## **ASELSAN South Africa / ASA (Pretoria - Republic of South Africa)**

This Company is the branch we established to operate in the fields of design of optical systems and introduction and marketing of ASELSAN's products in South Africa and nearby countries in 2011.

## **SADEC LLC. - Saudi Defense Electronics Company (Riyadh - Saudi Arabia)**

SADEC LLC was established on 2016 in a partnership between ASELSAN and TAQNIA DST., both holding 50% stake, to carry out manufacturing, development, and maintenance-repair work of electronic devices and systems, in order to meet radar, electronic warfare and electro-optic systems needs of Saudi Arabia.

## Global Subsidiaries, Affiliates and Marketable Securities

Subsidiaries, Affiliates and Marketable Securities	Share Amount		Share (%)
ASELSAN Bakü Şirketi	1,735,212.00	US Dollar	100.00
SADEC LLC. (Saudi Defense Electronics Company)	11,250.000	Saudi Arabian Riyal	50.00
ASELSAN Middle East PSC. Ltd.	1,225,000.00	Jordanian Dinar	49.00
IGG ASELSAN Integrated Systems LLC	98,000.00	UAE Dirham	49.00
Kazakhstan ASELSAN Engineering LLP	3,464,300,000.00	Kazakhstan Tenge	49.00



# FACILITIES IN TURKEY

## Macunköy Facility

The Macunköy Facility was established over a total area of 186,000 m<sup>2</sup>, of which 110,000 m<sup>2</sup> is closed. ASELSAN Macunköy Facility is home to the CEO, Communications and Information Technologies Business Sector and Defense System Technologies Business Sector and Transportation, Security Energy and Automation Business Sector.



## Akyurt Facility

The Akyurt Facility was established on a total area of 231,000 m<sup>2</sup> of which 54,000 m<sup>2</sup> is closed. The Microelectronics Guidance and Electro-Optic Business Sector is located in the ASELSAN Akyurt Facility.

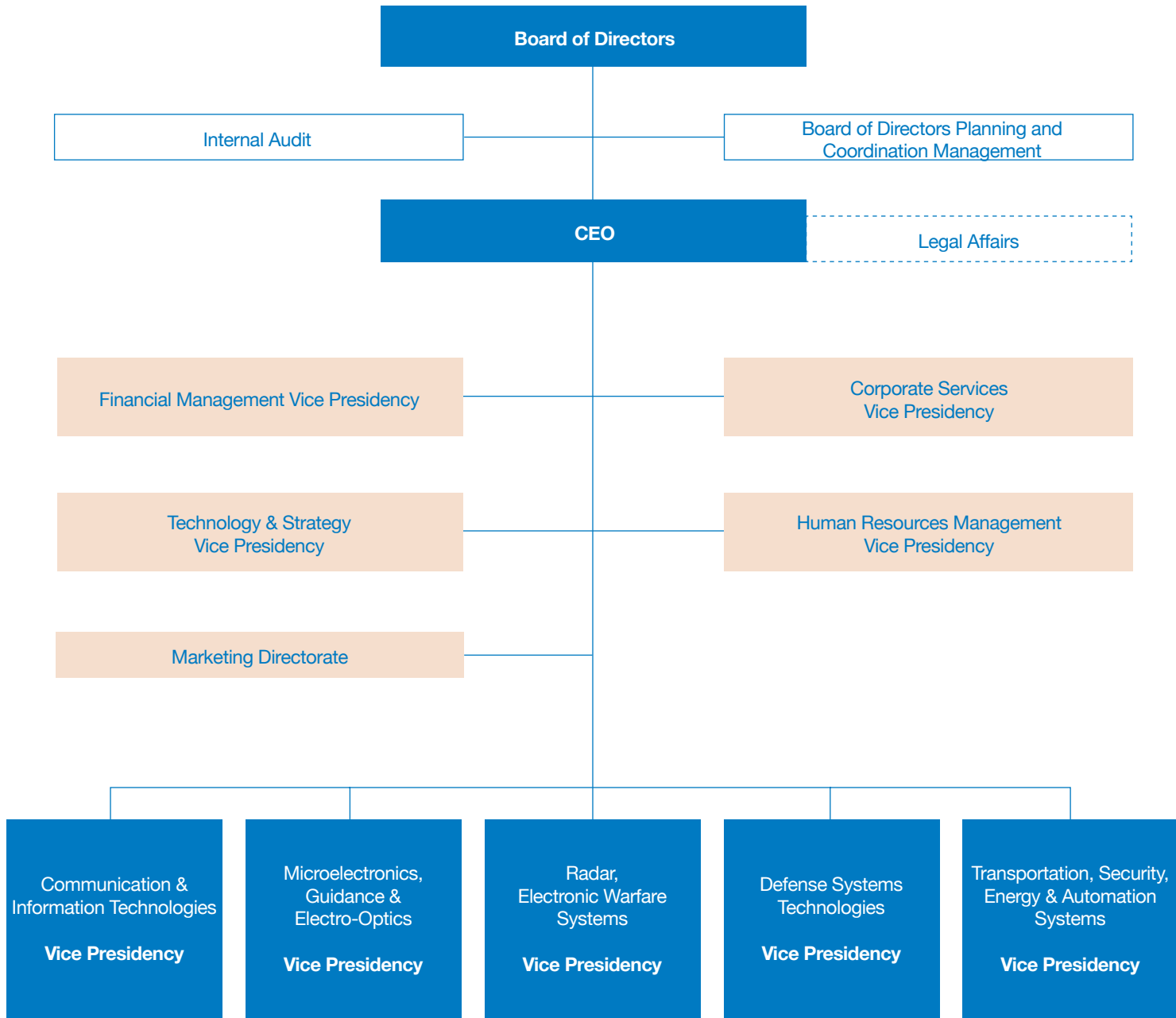


## Gölbaşı Facility

The Facility was established in the Gölbaşı district of Ankara, and houses production plants for radar and electronic warfare systems for land, air, sea, space and unmanned platforms. This Facility was established on a total area of 350,000 m<sup>2</sup>, of which 75,000 m<sup>2</sup> is closed. The Facility of which construction began in 2013, was inaugurated in 2015.



# ORGANIZATION

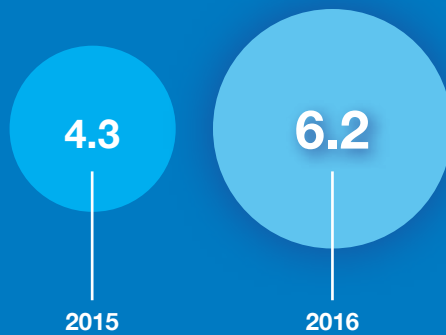


# MAIN FINANCIAL INDICATORS

## FINANCIAL HIGHLIGHTS

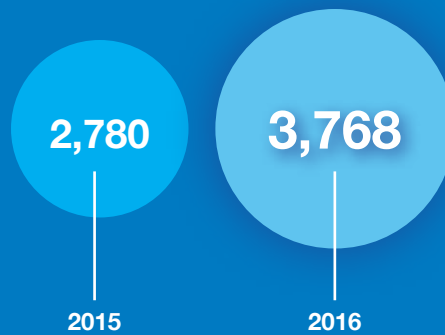
### Backlog

USD billion



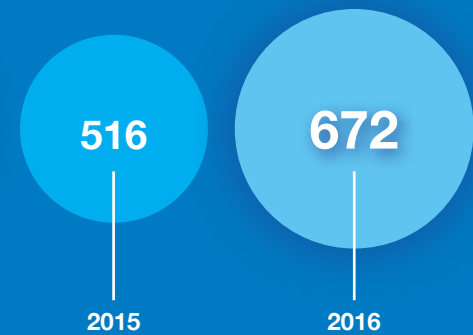
### Sales Revenue

TL million



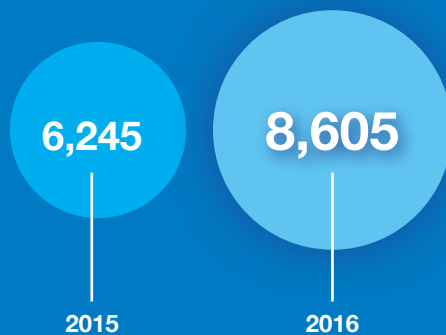
### Sales per Employee

TL thousand



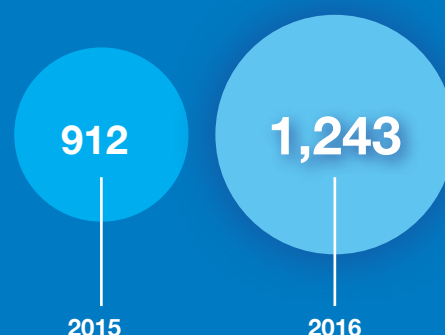
### Total Assets

TL million



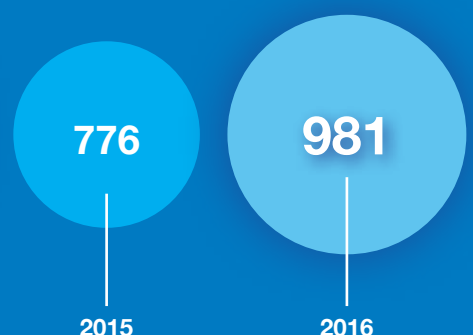
### R&D Expenses

TL million



### Net Cash Provided by Operations

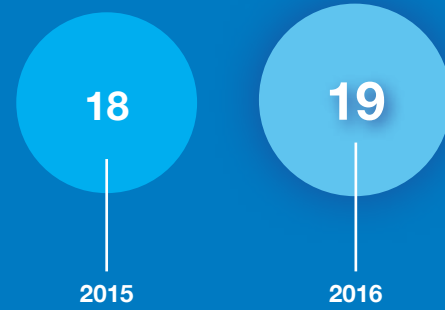
TL million





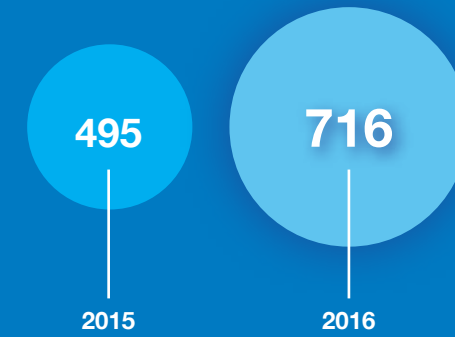
## EBITDA Margin

%



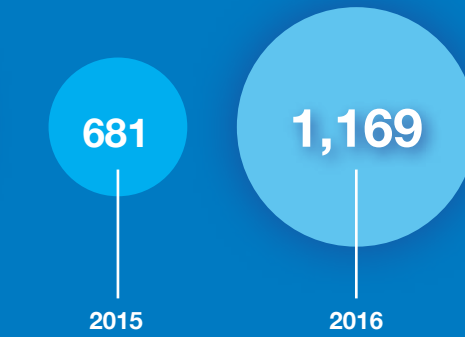
## EBITDA\*

TL million



## Cash and Cash Equivalents

TL million



\* Includes one-off adjustments made according to TAS 21 (The Effects of Foreign Exchange Rates) and excludes provisions.

Summary Balance Sheet (TL million)	2016	2015
Total Assets	8,605	6,245
Tangible Asset	968	925
Intangible Assets	697	538
Total Equity	3,691	2,841

Summary Income Statement (TL million)	2016	2015
Sales Revenue	3,768	2,780
EBITDA	716	495
Net Profit for the Year	795	213

Main Indicators	2016	2015
R&D Expenses (TL million)	1,243	912
Sales per Employee (TL thousand)	672	516
EBITDA Margin (%)	19	18
Net Cash Provided by Operations (TL million)	981	776
Cash and Cash Equivalents (TL million)	1.169	681

# HUMAN RESOURCES

## Number of Personnel

5,168

In order to reach its rising targets with every passing year, ASELSAN recruits highly qualified employees, constantly monitors employee satisfaction to ensure sustainable success, and continues its activities being aware of the fact that value creation is only possible with talented human resources.

## EDUCATIONAL BACKGROUND

**4%** POST DOC. AND  
PH.D

**35%** POSTGRADUATE

**34%** BACHELOR'S  
DEGREE

**27%** OTHER

# R&D ACTIVITIES

## Total R&D Expenditure

TL million

1,243

ASELSAN never compromised from its target of gaining national technology, which is its main strategy since its establishment on 1975. The Company constantly upgraded its R&D capabilities and developed unique products under the consciousness of difficulties that depending abroad will bring during periods when national interests are at the forefront. Besides the defence technologies, its main field of activity, ASELSAN continued to grow its R&D activities in the framework of national goals, in other areas such as energy, transportation, medical systems, and next generation cellular communication.

## COLLABORATION WITH UNIVERSITIES

---

25

Collaborated with 15  
Turkish universities and 10  
universities from different  
regions of Europe in 2016.

79

Number of projects  
conducted with universities

5

USD million

Value of projects assigned to  
the universities

## COLLABORATION WITH SUPPLIERS

---

900

Payment of TL 900 million  
to sub-contractors for tasks  
carried out in 2016.

707

The number of domestic  
sub-contractors, 598 of which  
are SMEs.

3,3

TL billion

SMEs and domestic  
sub-contractors total backlog



# MESSAGE FROM CHAIRMAN

## **ASELSAN's esteemed stakeholders,**

I am honored to serve you as the Chairman of a company that has been the pride of Turkey in technology for decades and that has reached its highest level of maturity. The change that ASELSAN has gone through since its inception in 1975 is an inspiration for our industry. Today, ASELSAN is a global brand with over 5,000 employees, production facilities in 3 continents and products sold and utilized in over 60 countries.

## **The Distinction of ASELSAN at Borsa Istanbul**

As in previous years, ASELSAN stock managed to positively dissociate from the rest of the stocks traded at Borsa Istanbul in 2016. ASELSAN shares provided a return of almost 51% for its investors throughout the year while the return on the main index of Borsa Istanbul (BIST-100) generated merely 9%.

In 2016, we maintained our continuous sales growth, which has been a source of pride for us for the last few years. Our turnover increased by 36% in comparison with the previous year, generating a gross profit of TL 923 million which translated into a net profit of TL 795 million. Meanwhile, our backlog reached a record high of USD 6.2 billion, an unprecedented figure in our company's history.

## **Climbing Up in World Ranking**

ASELSAN has become a more recognized brand among its peers in the global defense industry's top companies thanks to its in-depth technological know-how, strong R&D arm and its competency in design-production facilities. In 2016, we continued climbing up on the Defense News' Top 100 Global Defense Companies List. In fact, ASELSAN climbed from the rank of 62<sup>nd</sup> in 2015 to 58<sup>th</sup> in 2016.

## **The High Technology Center of Turkey**

ASELSAN is a technology center providing electronic systems not only for our military but also for Turkey in general. More and more public or private institutions and companies in Turkey depend on ASELSAN for their high-tech system requirements. Military technologies are translated into novel products in a wide array of areas such as public safety, energy and automation systems, civil communication products and high-end agricultural technologies.

THE CHANGE THAT ASELSAN HAS GONE THROUGH SINCE ITS INCEPTION IN 1975 IS AN INSPIRATION FOR OUR INDUSTRY.



ASELSAN is aiming to utilize its accumulated know-how and experience in defense electronics in the much needed security, transportation, energy, automation and health technologies in Turkey and thus, initiated new projects to this end.

ASELSAN collaborated with GSM operators in Turkey in 2016 to develop indigenous base stations and 5G technologies. The operators have already started the live testings of 4.5G base station (ULAK) indigenously developed by ASELSAN.

Spatial Address Recording System Data Production and Extension Project (MAKS) has been signed between ASELSAN and Ministry of Interior, the General Directorate of Civil Registration and Nationality. The data collected with the MAKS project will form the database of numerous other applications developed for Ministry of Interior.

Transportation is one of the specialization areas of ASELSAN. In this regard, the first 100% indigenous electronic bus developed by ASELSAN in cooperation with bus manufacturer TEMSA has entered into service. Traction control systems, train control and management system and signalization systems are developed in this business sector. In addition, vehicle and energy management systems are manufactured within the scope of electrical and hybrid vehicle systems. ASELSAN works with well-known and experienced vehicle manufacturers in the production of both rail and electric vehicle systems.

ASELSAN continues to work on health technologies as well. Ongoing R&D studies have led to projects on development of medical imaging devices, mobile digital X-ray and magnetic resonance imaging (MRI), in accordance with the needs of Turkey. ASELSAN is also conducting studies to determine the appropriate models for the domestic production of health technologies.

## Cooperation with Universities

ASELSAN continued working closely with various universities in Turkey and abroad. In 2016, joint studies were carried out with 15 universities in Turkey and 10 universities from various countries in Europe in 79 different projects with an investment of USD 5 million. These studies include Visual Analysis with ODTÜ-OGAM, Clinical Application of Compressed Sensing Techniques with Bilkent University-UMRAM, Resource Device Recognition on Digital Image Files with Uludağ University, Development of Protein Diagnosis Kit Technique with Boston University and Real-Time Imaging of Magnetic Particles with Lübeck University.

## ASELSAN RESEARCH CENTER HAS BEEN CERTIFIED AS AN R&D CENTER BY THE MINISTRY OF SCIENCE, INDUSTRY AND TECHNOLOGY ON 26 OCTOBER 2016.

### Growing with our R&D

ASELSAN Research Center has been certified as an R&D Center by the Ministry of Science, Industry and Technology on 26 October 2016; thus, establishing the 6<sup>th</sup> R&D Center in addition to the already existing 5 R&D Centers within the Business Sectors. With this new R&D Center, ASELSAN has certified its leadership in R&D once again.

The new R&D Center has contributed further to our R&D personnel recruitment. Indeed, in the 5<sup>th</sup> Private Sector R&D Centers Summit that was organized by Science and Technology General Directorate on 27-28 September 2016, ASELSAN has been awarded the first prize in Defense Sector and R&D employment.

### 41 Times Mashallah

ASELSAN recently celebrated its 41<sup>st</sup> anniversary of its establishment. I would like to recite a beautiful saying in Turkish culture that is meant to keep the evil eye away: 41 times mashallah...

These wishes at the beginning of our annual report will hopefully keep the evil eye away. I would like to thank our esteemed stakeholders for their unrelenting support, our directors and our employees. I would like to take this opportunity to extend our regards on behalf of myself and the Board of Directors.



**Mustafa Murat ŞEKER**  
Chairman of the Board of Directors

# MEMBERS OF THE BOARD OF DIRECTORS



**Mustafa Murat ŞEKER**  
Chairman of the  
Board of Directors and  
Executive Member

Mustafa Murat ŞEKER began working at the Undersecretariat for Defense Industries in 1992. He has been working as a Deputy Undersecretary since June 2015. Mustafa Murat ŞEKER, who was elected as a Member of Board of Directors with the resolution of Board of Directors in May 2013, has been serving as the Chairman of Board of Directors since 1 March 2015.



**Dr. Murat ÜÇÜNCÜ**  
Vice Chairman of the  
Board of Directors and  
Executive Member

Murat ÜÇÜNCÜ earned his BSc degree from Boğazici University Electrical and Electronics Engineering Department in 1983, his masters degree in 1985 and was awarded his PhD in 1989. He was appointed as a Board Member of ASELSAN in 2013 after his retirement as a brigadier general from the Turkish Armed Forces in 2012. He was appointed as the Vice Chairman of the Board on 31 March 2014.



**Ziya AKBAŞ**  
Board Member  
(Independent)

Ziya AKBAŞ became a Certified Public Accountant in 1997. He has worked in different institutions and companies as an Independent Auditor, Member of the Auditing Committee and as an Ombudsman since 1997. He was appointed as an Independent Board Member of ASELSAN on 31 March 2014.



**Nazım ALTINTAŞ**  
Board Member  
(Independent)

Nazım ALTINTAŞ retired as a lieutenant general from the Turkish Armed Forces in 2013. Nazım ALTINTAŞ has knowledge and experience about project management, supply and modernization of warfare weapon platforms and fighting against terrorism, along with his expertise on military training and education. He has written a book named "Rethinking Fight Against Terrorism" published by War Colleges and has various articles published in military magazines. Nazım ALTINTAŞ was elected as an Independent Member of Board of Directors of ASELSAN A.Ş. in the General Assembly Meeting held on 31 March 2015.



**Prof. Dr. Ercüment ARVAS**  
Board Member  
(Independent)

Ercüment ARVAS earned his BSc and masters degrees at Middle East Technical University and his Ph.D at Syracuse University, New York USA. He has been pursuing his academic career at Syracuse University from 1988 onwards and served as a professor at the same university from 1994 to 2014. Currently employed at the Electrical Engineering Department of İstanbul Medipol University, Prof. Ercüment ARVAS was elected as an independent board member of ASELSAN in the General Assembly Meeting held on 31 March 2016.





**Prof. Dr. Turan EROL**  
**Board Member**  
Prof Dr. Turan Erol was awarded his Ph.D in economics from the Tinbergen Institute/ Erasmus in the Netherlands and served as associate professor at Başkent University from 1997 to 2003. Having also served as the Head of Capital Markets Board, Prof. Turan Erol is currently teaching at the Istanbul Zaim University and is the chief advisor to the prime minister. He was elected as a board member in the General Assembly Meeting held on 31 March 2016.



**İsmail GÜMÜŞTEKİN**  
**Board Member**  
İsmail GÜMÜŞTEKİN retired as brigadier general from the Turkish Armed Forces in 2014. He has been serving as a Member of Board of Directors since the General Assembly Meeting held on 31 March 2015.



**Mehmet Celalettin LEKESİZ**  
**Yönetim Kurulu Üyesi**  
Mehmet Celalettin LEKESİZ has served as district governor, Head of Department, Head inspector at Department of Civil Inspection Board and Head of Personnel Department at Ministry of Interior. He has also served as Governor of Amasya, Hatay and General Directorate Police and he is currently a governor of central. Mehmet Celalettin Lekesiz has been appointed as a board member at the General Assembly Meeting held on 31 March 2016.



**Assoc. Prof. Dr. Sedat NAZLIBİLEK**  
**Board Member**  
Sedat NAZLIBİLEK was awarded his PhD in 1993. He retired with colonel rank from the Turkish Armed Forces in 2010. Between 2012-2016, he served as full time associate professor Doctor in ATILIM University. He earned the title of Associate Professor in 2013 and also acted as the manager of UTAM-Atılım University Space Technology Application and Research Center. He is a full time associate professor at the Electrical and Electronics Engineering Department of Başkent University since June 2016. He was appointed as a Member of Board of ASELSAN in 2014.

# CORPORATE GOVERNANCE



Please scan the QR code to access Investor Relations at [www.aselsan.com.tr](http://www.aselsan.com.tr)

ASELSAN unwaveringly improves its corporate governance applications in the knowledge that it can reach the target of being a global brand in the defense industry if it meets expectations in a balanced manner in its relations with all its stakeholders.

The Company management adheres to conducting all of its corporate governance activities under the basic principles of fairness, transparency, accountability and responsibility; and regards these principles as the main contributor to sustaining its profitable growth.

ASELSAN, which has adopted the concept of corporate governance as a core principle, has been publishing a Compliance Report on the Principles of Corporate Governance every year since 2004. The report discusses the rights of shareholders, annual general meetings, dividend distribution policy, disclosure policy, human resources and ethical principles, relations with stakeholders, the structure, formation, activity essentials and committees of the board of directors, risk management and internal audit including minority rights under the four main headings of: shareholders, public disclosure and transparency, stakeholders and finally board of directors within the scope of the Corporate Governance Principles as regulated by Capital Markets Board. The Corporate Governance Principles Compliance Reports are published on the Company's website ([www.aselsan.com.tr](http://www.aselsan.com.tr)) and in the annual reports.

IN 2016, ASELSAN MAINTAINED GROWTH BY BRINGING VALUE TO ITS STAKEHOLDERS AND BY ENHANCING ITS DEVOTION TO CORPORATE GOVERNANCE.

## ASELSAN's Corporate Governance Rating Rose to 9.15.

ASELSAN was awarded a score of 8.77 out of 10 on 13 December 2012 by the SAHA Corporate Governance and Credit Grading (SAHA) in 2012. This mark is the second best preliminary mark among the corporate governance grading marks given in Turkey. Since then, our Company's level of compliance of corporate governance principles is evaluated and updated annually by an independent rating institution.

ASELSAN's Corporate Governance rating was revised to 9.15 out of 10 according to the report published by SAHA on 12 December 2016 reflecting the result of the activities conducted to improve the Corporate Governance rating during 2016. ASELSAN's rating was updated to this level from the previous rating of 9.13 out of 10 in 2015. Corporate governance ratings in 2015 and 2016 and their sub topics are presented below.

2015 Rating Distribution	2016 Rating Distribution
Shareholders: 84,09 / 100	Shareholders: 83,62 / 100
Public Disclosure and Transparency: 98,46 / 100	Public Disclosure and Transparency: 98,46 / 100
Stakeholders: 94,48 / 100	Stakeholders: 95,87 / 100
Board of Directors: 90,07 / 100	Board of Directors: 90,32 / 100
<b>Average: 9,13</b>	<b>Average: 9,15</b>

ASELSAN's Corporate Governance Rating Reports published by SAHA are available on [www.aselsan.com.tr](http://www.aselsan.com.tr). ASELSAN has been included in Borsa İstanbul Corporate Governance Index since the Company obtained its first corporate governance rating.

## ASELSAN's Management Structure

### ASELSAN Board of Directors

ASELSAN's management structure consists of only one layer, which is the Board of Directors elected by the General Assembly. There are no executive members of the board. In other words, the Chairman and CEO roles are separate at ASELSAN.

Three members of the Board, which consist of 9 members in total, are independent. All members of the Board are responsible for the economic performance of the Company. The CEO has an execution responsibility in the fields of social responsibility and the environment.

### Committees at ASELSAN

Three committees have been formed in accordance with the Principles of Corporate Governance set out by the Capital Markets Board. They operate to assist the Board to fully execute its duties and responsibilities.

#### Audit Committee

The committee consists of three independent board members. The main responsibilities of the committee are financial disclosure and monitoring of ASELSAN's accountancy systems, i.e. independent internal and external auditing and internal control systems' effectiveness and efficiency. The Internal Auditing Office Head reports directly to the Audit Committee and Members of the Board. The Audit

Committee convenes a minimum of four times a year.

### Corporate Governance Committee

The committee consists of four members. The head of the committee is an independent member of the board. The investor relations manager also is a member of the committee in accordance with the regulations of the Capital Markets Board. The committee advises the board of directors for enhancement of ASELSAN's compliance with corporate governance principles and the realization of improvement measures taken. It also oversees the activities conducted by the Investor Relations Department. The committee convenes a minimum of four times a year.

### Early Detection and Management of Risk Committee

This Committee was established to identify operational, strategic, financial and other risks and to manage them in accordance with the Company's corporate risk profile. Three Members of the Board serve on the committee, which is headed by an independent e board member. The Committee convenes a minimum of six times a year.

The principles regarding the formation of committees and the manner in which they work, meet and report are determined by the Board of Directors Detailed information regarding the corporate management structure of ASELSAN, Members of the Board and the committees may be obtained from the [www.aseksan.com.tr](http://www.aseksan.com.tr) website.

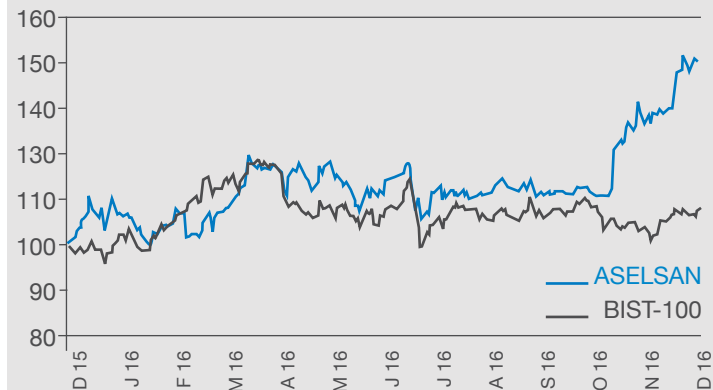
Audit Committee	Corporate Governance Committee*	Early Detection and Management of Risk Committee
Ziya AKBAŞ (Committee Chairman)	Ercüment ARVAS (Committee Chairman)	Ziya AKBAŞ (Committee Chairman)
Ercüment ARVAS (Committee Member)	Murat ÜÇÜNCÜ (Committee Member)	Sedat NAZLIBİLEK (Committee Member)
Nazım ALTINTAŞ (Committee Member)	Turan EROL (Committee Member)	İsmail GÜMÜŞTEKİN (Committee Member)
	Pınar ÇELEBİ (Committee Member)	

\*The Nomination Committee and Remuneration Committee were not formed due to the structure of the Board of Directors. The duties and responsibilities of these committees are undertaken by the Corporate Governance Committee.

### ASELSAN provided more than 50% return to its investors in 2016.

ASELSAN was one of the best performing stocks on the Borsa İstanbul, providing a return of more than 50% in 2016 versus the 9% average performance of the indices.

Comparison Of BIST-100 and ASELSAN Share Performance



# MESSAGE FROM CEO

**Dear fellow investors, stakeholders, business partners and employees,**

ASELSAN continues to create value for all its stakeholders. Our greatest reliance in this effort are our valued employees and your support. We made many dreams come true in these past years. In 2016, we realized new partnerships and projects, strengthening our leadership in the sector.

## Strong Financial Results

We delivered our commitments on time and our sales reached to TL 3.8 billion, 36% up and EBITDA reached to TL 716 million, 45% up compared to prior year. Additional new contracts of total value USD 3.2 billion have made our backlog to reach to all-time high USD 6.2 billion. We also generated a strong free cash flow of TL 622 million.

Our outstanding financial performance contributed to ASELSAN's stock price reaching all-time highs in 2016 by generating more than 50% return, which is significantly outpacing the BIST-100 index.

## A New Subsidiary Abroad

ASELSAN continued to be the primary national resource for the procurement of electronic systems and equipment for Turkish armed and security forces. We are very pleased that ASELSAN brand has become a symbol of quality all around the world. In the last week of 2016 we established a new joint venture company in Saudi Arabia, thus increasing the number of our overseas subsidiaries to six.

Saudi Defence Electronics Company (SADEC LLC) has been established jointly with Saudi Arabia's public company TAQNIA Defense and Security Technologies (DST) with 50%-50% partnership. The company will be responsible for the production, development and maintenance of radar, electronic warfare and electro-optic systems to meet the needs of Saudi Arabia.



## Investment in R&D

Currently, over three thousand employees work in the six R&D centers within ASELSAN. Our employees work hard to indigenously develop systems and equipments for armed forces and public institutions. ASELSAN has invested TL 280 million of its own equity and TL 963 million of external funds into R&D to achieve these goals in 2016.

We also continued investing in innovation and our employees, pursuing both domestic and international markets as we remain an essential partner to the Turkish Armed Forces, developing new capabilities, ensuring flawless execution and managing our financial resources prudently.

## Cooperation with Small and Medium Enterprises (SME)

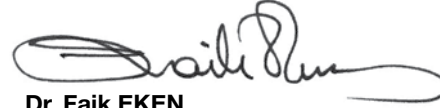
Our relationship with our subcontractors, who are our solution partners, have prospered in 2016. In this respect, we have been working with 707 domestic subcontractors, out of which 598 are SME's. The total amount of products and services acquired from these companies, which are strategically important for our projects, was TL 900 million in 2016 while the total amount of orders added up to TL 3.3 billion.

2016 WAS NOT ONLY A YEAR THAT WE MET OUR COMMITMENTS BUT ALSO A YEAR THAT WE RECEIVED A RECORD AMOUNT OF ORDERS IN ASELSAN'S HISTORY.

## A Global Brand

ASELSAN, a technology company and a global brand, kept growing in 2016. This growth will continue in the coming years through development of electronic systems to meet the needs of our customers. I would like to take this opportunity to thank all our stakeholders for their strong support, our customers in Turkey and abroad for the trust they have in ASELSAN products and my colleagues for their dedication and hard work.

Yours sincerely,



**Dr. Faik EKEN**  
CEO



# MEMBERS OF THE EXECUTIVE COMMITTEE



**Dr. Faik EKEN**  
CEO, Head of the  
Executive Board

He graduated with a BSc. in Electrical/ Electronics Engineering from the Michigan Technical University in the USA and was awarded a PhD from Tulane University in 1985. He started working as an electronic engineer in the Digital Systems Department in 1986. He was appointed as the President of the Communications and Information Technologies Group and as Vice President in 2006. He was appointed as the CEO of ASELSAN in 2014.



**Yavuz Suat BENGÜR**  
Vice President,  
Transportation, Security,  
Energy and Automation  
Systems Business Sector  
CEO

He graduated with a BSc. in Electrical/ Electronics Engineering from the Middle East Technical University and a MSc. in Electrical/Electronics Engineering from the same university. He started working as an R&D engineer at ASELSAN in 1981. He was appointed as Naval Systems Program Director in 2008 and as Sector CEO and Vice President in 2014.



**Yavuz BAYIZ**  
Vice President,  
Communications and  
Information Technologies  
Business Sector CEO

He graduated with a BSc. in Electrical/ Electronics Engineering from the Middle East Technical University, and a masters' degree from the same university in 1988. He started working as a hardware designer in the R&D group in 1984 before being appointed as a Professional Systems Programs Director in 2006 and Sector CEO and Vice President in 2014.



**Mustafa KAVAL**  
Vice President, Defense  
System Technologies  
Business Sector CEO

He earned his BSc. in Mechanical Engineering from Middle East Technical University, and MSc. in Mechanical Engineering from the same university in 1989. He started working as an engineer in 1986 and was appointed as a Director in 2012. He was then appointed as Sector CEO and Vice President in 2014.



**Oğuz ŞENER**  
Vice President, Radar  
and Electronic Warfare  
Systems Business Sector  
CEO

He graduated with a BSc. in Electrical/ Electronics Engineering from the Middle East Technical University, and an MSc. in Electronic Engineering from the same university in 1990. He started working as a co-op engineer in 1986. He worked as an Electronic Hardware Manager in Microwave System Technologies Group and as the Radar Electronic Warfare Systems Design Technologies Director in between the years 2008-2014. He was then appointed as Sector CEO and Vice President in 2014.



**Baki ŞENSOY**  
Vice President,  
Microelectronics, Guidance  
and Electro-Optic Business  
Sector CEO

He graduated with a BSc. in Electrical/Electronics Engineering from the Middle East Technical University, and a Masters degree in management from the same university. He started working as design engineer in the MGEO Group Division in 1994. He was appointed as the Strategy Management Director in 2008 and Sector CEO and Vice President in 2014.



**İsmet ATALAR**  
Vice President, R&D and  
Technology Management

He graduated with a BSc. and an MSc. in Electrical/Electronics Engineering from the Middle East Technical University. He started his career in ASELSAN as an engineer in the R&D Department in 1980. He worked as a Director of Defense Systems Technologies Engineering between 2005 and 2014. Additionally, he also worked as supreme board director of ASELSAN Technology Supreme Board between 2004 and 2011. He was appointed as the R&D and Technology Management Vice President in 2014.



**Dr. Hüseyin YAVUZ**  
Vice President, Human  
Resources Management

He graduated with a BSc. in Electrical/Electronics Engineering from the Middle East Technical University in 1985, and an MSc. in Electrical/Electronics from the same university in 1987 and a PhD, also in Electrical Engineering, from the same university in 1993. He started working as a co-op engineer in 1984. He was appointed as the Weapon and Missile Systems Engineering Manager in the Defense Systems Technologies Group in 2005 and Human Resources Vice President in 2014.



**Hezarfen ORUÇ**  
Vice President, Shared  
Services

He graduated with a BSc. in Electrical/Electronics Engineering from the İstanbul Technical University in 1985. He started working as an electronic engineer in the Defense Systems Department in 1988. He was appointed as a Business Development Manager in 1996, an International Marketing Manager in 2011 and a Shared Services Vice President in 2014.



**Okan TURAN**  
CFO and Vice President,  
Financial Management

He received his undergraduate degree (BSc) from İstanbul Technical University, Aeronautical and Astronautical Engineering Faculty in 1989 and Master's degree (MSc) İstanbul Technical University, Faculty of Management, Management Engineering in 1992. He began his professional career in 1992 and he has vast experience and expertise in the areas such as Financial Analyst, Vice President for Finance - Chief Financial Officer and Corporate Control Director. He has been working as a Vice President in the Financial Management department at ASELSAN since 4 January 2016.







### Improvement Activities

Improvement projects are formed through the gap analysis which include comparison of the actual performance with the targets, and analysis of the factors causing the gap, ways to eliminate or reduce these factors and possible target adaptations required. The schedule of the improvement projects, performance indicators and mid-term targets are determined, monitored and reported.

### Technology Management and Innovation Activities

Technology management activities in ASELSAN; preparation, revision and following up the technology road maps and localization plans, coordinating the relations between R&D Centers of ASELSAN and determining the technologies that should be gained or quitted.

Long term and efficient collaborations have been established with national/ international research centers, institutions, industrial companies and universities to create an open innovation environment and ensure its sustainability.

In addition to the idea management system carried out to keep the intra-company innovation culture and atmosphere alive and active, ASELSAN organizes intra-company themed idea contests as well.

### Researcher Training Program for Defense Industry (SAYP)

Within the scope of SAYP program started by the MoD Undersecretariat for Defense Industries, protocols were signed with 13 universities all over Turkey with the aim of acquiring new researchers for defense industry.

### R&D Support Incentives Activities

ASELSAN carries out activities to utilize national (TÜBİTAK TEYDEB-ARDEB, Ministries Funds, etc.) and international (Horizon 2020 R&D Program, EUREKA Technology Networks, Bilateral and Multilateral International Cooperation Programs etc.) R&D support programs at the highest level in R&D projects.

### R&D Collaboration Activities

In order to facilitate ASELSAN's collaborations with universities, research institutes, technology transfer offices and small and medium enterprises on advanced technology and cutting edge research, these entities are constantly monitored and supported by R&D Collaboration Management Office. ASELSAN's technological needs are carefully evaluated, relevant work groups are identified and R&D efforts are directed accordingly, hence starting joint R&D projects.

# TECHNOLOGY AND STRATEGY

## MANAGEMENT

Some R&D projects initiated this year are;

- ‘Development of Boron Compounds that contain nano-composite polymers’ project supported by Turkish Research Counsel, Marmara Research Center Chemistry Institute.
- Solar Cell Development Project with Middle East Technical University.
- ‘Development of 28GHz phased array antenna unit for 5G communications networks’ Project with Viper RF, a British SME.

In addition, NATO work groups are supported through NATO Industry Advisory Group and Science & Technology Organization, through workshops, meetings and trainings.

Internal and external workshops are organized among design teams that work on similar topics in ASELSAN to enhance information flow

### Technology Transfer Activities

Many projects regarding the commercialization of military technologies into civilian areas within the scope of technology transfer were started this year. Especially ASELSAN’s antenna, RF and microwave capabilities played a key role on these activities such as a “4.5G base station antenna”.

ASELSAN has become an approved subcontractor of CERN and submitted a proposal on “Solid State Power Amplifier”.

Regarding the intellectual property rights, studies on a systematic intellectual property management system have been initiated.

New studies and trends in Industry 4.0 and Internet of Things where production process is embraced with information technology are pursued worldwide and ASELSAN’s vision and aims on these subjects are established.

### 5G Technology Activities

ASELSAN has participated in 5GTR Forum activities, which is founded by BTK, aiming to provide a collaborative ecosystem and follow the latest studies on new generation communication systems in Turkey. In addition, TSKGV has founded “5G Technologies Consortium” with ASELSAN (as coordinator), HAVELSAN and NETAŞ.

Besides the domestic projects in 5G area, ASELSAN has made joint H2020 project applications along with companies, universities and research institutes from different countries such as Germany, France and Taiwan. ASELSAN and KEYSIGHT Technologies have established a 5G testbed which is expected to have a leading role on new generation wireless mm-wave communication Technologies.

ASELSAN, as an ETSI, Networkd-2020 and 3GPP member, has observed the international standardization activities closely and steered the research activities in ASELSAN in that direction.



Microwave Module Production





**ASELSAN PRODUCES CRITICAL TECHNOLOGY PRODUCTS IN THE FIELDS ESTABLISHED PARTICULARLY FOR THIS PURPOSE.**

# MARKETING

## ACTIVITIES

ASELSAN has become a global company through its direct marketing activities and investments in Kazakhstan, Azerbaijan, Jordan, UAE, South Africa and Saudi Arabia. These investments include R&D and production infrastructures alongside its existing factories and investments in Turkey.

ASELSAN is conducting intense export activities meeting the requirements of the armed forces of ally countries. New countries are added each year to ASELSAN's export portfolio, thanks to its wide array of competent products. As of today, in 5 continents, ASELSAN is exporting to over 60 countries of which Saudi Arabia, Pakistan, Azerbaijan and Turkmenistan occupy the top of the list. Global marketing activities aimed increasing the brand recognition of ASELSAN and effective communication with the procurement authorities. These activities are conducted by the Marketing Directorate which acts as the coordinator of the export network of ASELSAN. To this end, the directorate attends conferences, forums and similar events along with exhibitions which provide the perfect opportunity for new business contacts. In 2016, ASELSAN's technological excellence and capabilities were demonstrated in 13 major exhibitions worldwide. ASELSAN has also been represented in defense, technology and innovation themed international exhibitions in Turkey. Over 100 foreign official delegates and companies were hosted at ASELSAN facilities. The Marketing Directorate dedicates its efforts for developing strategies with respect to target regions, countries and products. The Marketing Directorate also supports the operations of ASELSAN's overseas subsidiaries to promote their business and market development activities.







# RESEARCH CENTER

## Applied Research Activities for Future

Since 2014, ASELSAN Research Center has been conducting applied research studies on technology areas that are anticipated to be in demand in the medium or long run, not only to maintain the technological dominance of ASELSAN in its fields of activity but also to improve the existing innovation culture in ASELSAN. Claiming patents and publishing academic papers, ASELSAN Research Center contributes to the technological capabilities of ASELSAN. Innovative technologies developed by research are transferred to the engineering units of ASELSAN to be transformed into products and be commercialized. In 2016, in addition to the ongoing research projects, “Real Time Magnetic Particle Imaging Project” in the field of Compressed Sensing, “Deep Learning Based Vehicle Brand/ Model Recognition Project” in the field of Deep Learning and “Development of Diagnostic Kit Technology Making Multiple Protein Analysis Project” in the field of Biotechnology were initiated.

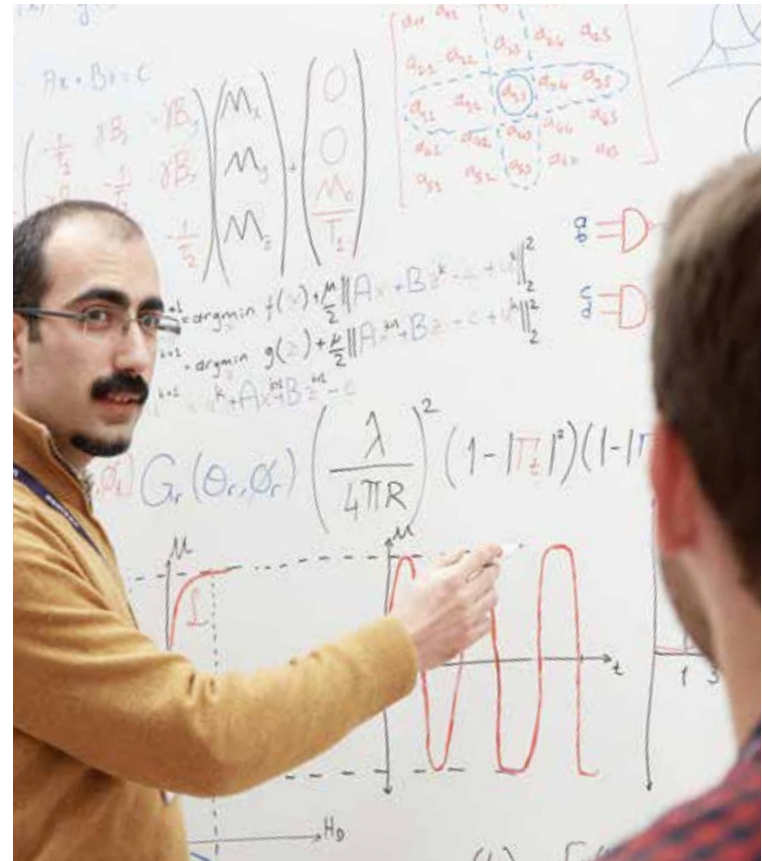
## Joint Research Projects with Universities

By establishing joint research programs and developing dynamic collaborations with universities and research institutes, ASELSAN Research Center contributes to strengthening the link between basic research activities in universities and product development activities in ASELSAN’s engineering units. For this purpose, ASELSAN Research Center is carrying out joint studies such as Visual Analysis with ODTÜ-OGAM, Clinical Application of Compressed Sensing Techniques with Bilkent University-UMRAM, Resource Device Recognition on Digital Image Files with Uludağ University, Development of Protein Diagnosis Kit Technique with Boston University and Real-Time Imaging of Magnetic Particles with Lübeck University.

## Events Organized

ASELSAN Research Center aims to be a desirable science & technology center for researchers and enhance ASELSAN’s integration with global R&D networks as well as developing effective collaborations with leading universities around the world. For this purpose, in 2016, “Boston Career Day” event was organized in Boston - USA and Turkish scientists who continue their research studies in Boston, MIT, Harvard and Northeastern Universities participated in this event.

ASELSAN RESEARCH CENTER IS CONDUCTING APPLIED RESEARCH ACTIVITIES ON KEY TECHNOLOGIES OF THE FUTURE INCLUDING DATA ANALYTICS, COMPRESSED SENSING, DEEP LEARNING, SIGNAL AND IMAGE PROCESSING, MEDICAL IMAGING AND BIOTECHNOLOGY, ACCORDING TO THE NEEDS OF ASELSAN DIVISIONS.





APPLICATIONS UTILIZING DEEP LEARNING TECHNOLOGY DEVELOPED WITHIN ASELSAN RESEARCH CENTER GENERATED GREAT INTEREST AND STARTED TO APPEAR IN ASELSAN PRODUCTS.

### Deep learning in ASELSAN Products

In ASELSAN Research Center, studies on deep learning, which have been successful in image processing and computer vision problems in recent years, have begun to yield results.

Deep learning-based algorithms developed through the work initiated two years ago in ASELSAN Research Center are now used in the Urban Security Management System and License Plate Recognition System (KGYS-PTS) project of UGES Business Sector. Deep learning based technology has provided these capabilities to ASELSAN systems by providing solutions for vehicle model and type recognition problems. This technological achievement is an example of creating added value through joint work between ASELSAN Research Center and a Business Sector.



Vessel Classification Based on Deep Learning-Algorithms



### Classification of Marine Vessels with Deep Learning - ARMACI

The identification and classification of properties of marine vessels is a critical capability for coastal and harbor surveillance systems.

As another application of Deep Learning Technology, ASELSAN Research Center studied the visual classification of marine vessels. Marine vessel identification, classification, retrieval and verification applications have been developed and prototyped. In addition, a large number of marine vessel images have been compiled from online sources to create an important data set. The developed prototype and the dataset were introduced at the Asian Computing Conference (ACCV) and generated great interest.

This deep learning-based capability, considered as a technology to strengthen ASELSAN's coastal surveillance systems, is now ready to be developed into a product within the UGES Business Sector under the name ARMACI. An international patent application has also been filed.



# RESEARCH CENTER

## Multimedia Forensic Research

Identification of the information source is an important capability for both forensic and authenticity purposes in our era in which production and spread of information increases rapidly. Due to the production processes of the digital imaging sensors, there exists a unique and inevitable noise pattern on each digital media (image or video) related to the recording sensor. The same noise pattern takes place on each visual content taken by the same recording device, just like the same ballistic evidence appears on each bullet shot from the same gun. A joint project about multimedia forensic research is initiated by ASELSAN Research Center and Uludağ University. This joint project is also accepted for the Researcher Training Programme for the Defense Industry by Undersecretariat for Defense Industries. The aim of this project is to achieve progress on the identification of recording devices and authenticity analysis for digital media. This progress can be utilized in security projects that are currently in ASELSAN's field of activities to initialize a new technological branch for ASELSAN.

## Magnetic Resonance Imaging

Novel techniques that make it possible to simultaneously reconstruct multi-contrast MRI images are developed in collaboration with UMRAM (The National Magnetic Resonance Research Center at Bilkent University). Based on these techniques, innovative algorithms are developed that reconstruct images from three-contrast (PD, T1, T2) data acquired in 4 minutes with quality comparable to images reconstructed from data acquired in 15 minutes. We aim to make our algorithms available on existing MR scanners and prepare a strong foundation for future studies in the field of MRI by the UGES Business Sector of ASELSAN.

This step towards the local production of one of the biggest import items of our country is expected to be the first step in becoming an exporter of medical devices as well.

WE AIM TO IMPROVE STATE-OF-THE-ART MEDICAL IMAGING TECHNOLOGY BEYOND THE LIMITATIONS OF THE CONVENTIONAL METHODS. ENABLING SAFE CONTRAST AGENTS FOR PATIENTS WITH RENAL FAILURE AND INFANTS, MAGNETIC PARTICLE IMAGING METHOD WILL BE DEVELOPED.



## Magnetic Particle Imaging

Angiography using Magnetic Particle Imaging is an important development in the area of medical imaging. Currently, there are few companies working on this technique to develop devices that will be put into clinical use in the years ahead, as a complement to Magnetic Resonance Imaging and Computerized Tomography. By improving the current methods that only allow small animal imaging, clinical imaging will be possible with the studies conducted in ASELSAN Research Center in collaboration with our international partners (UMRAM - Bilkent University, University of Luebeck, and Nano4Imaging firm), supported by TÜBİTAK and German Ministry of Education (BMBF). In this three-year project, which was qualified for funding, the goal of ASELSAN Research Center is to develop real time imaging methods for diagnosing diseases caused by vascular obstruction, stem cell tracking, cancer detection, and surgical procedures. Furthermore, an open-bore Magnetic Particle Imaging scanner hardware, capable of human imaging is currently under design at ASELSAN Research Center, for which the application for international patents has also been initiated.

## High Resolution Infrared Imaging

Advanced imaging techniques are currently under study for infrared cameras of ASELSAN's MGEO Sector, where new techniques are developed based on advanced optimization methods, compressive and computational imaging and enable higher contrast and resolution. The latest studies at ASELSAN Research Center have shown promise for improving resolution and performance against thermal noise over the limitations caused by each pixel obtained from an infrared sensor array. ASELSAN Research Center also takes part in a NATO workgroup with other pioneering institutions to drive the state-of-the-art in the field further ahead. A recent study has been launched regarding the real-time implementation of the developed computational techniques. The techniques enabling higher resolution and contrast will thus be potentially available for implementation on fielded camera systems with real-time imaging capabilities.

## Developing Medical Diagnostic Kit Technology

Biotechnology Department of ASELSAN Research Center is conducting applied research studies in order to support the activities of UGES Business Sector in the health sector. In order to develop innovative mobile biosensors which tests and detects new, emerging and rare diseases (infections, cancer, plant and animal diseases, etc.), harmful microorganisms (viruses, bacteria, etc.) and particles (chemical, biological, etc.), ASELSAN Research Center is working on combining techniques in areas of nano-biotechnology, molecular biology, optics and optoelectronics.

In this context, we are carrying out a research project with Boston University named as "Development of diagnostic kit technology for multiple protein analysis in blood with single molecule sensitivity".



Initially, developing hepatitis panel from blood screening tests, which has a wide usage area for medical diagnostic kit technology, is aimed. In addition to our applied research studies, the infrastructure installation and machinery/equipment procurement processes for establishing ASELSAN's first biotechnology laboratory have reached its final stage in 2016' marking a significant progress in developing ASELSAN's biotechnology research infrastructure.

In biotechnology area, R&D collaborations with leading institutions of Turkey including Gazi University Faculty of Medicine Immunology department, ASELSAN-Bilkent Micro Nano Technologies, METU Micro-Electro-Mechanical Systems Research and Application Center (MEMS) and Bilkent University Mechanical Engineering Department have been established.

Conducting research in the area of biosensors will enable ASELSAN Research Center accumulate technological know-how in areas such as diagnosis of viral infections and allergy. This may facilitate specialization in the field of CBRN (Chemical Biological Radioactive and Nuclear) and invention of unique products in the fields of chemical and biological early warning and diagnosis systems.

# HUMAN RESOURCES

## MANAGEMENT

As the technology base of Turkey with 5 Business Sectors and 6 R&D Centers differentiated according to the projects demanding different investment and production infrastructures, ASELSAN's greatest capital is the intellectual knowledge and experience it has accumulated over the years. ASELSAN believes that the critical technologies that our country needs are accessible with sustainable human resources policies. Based on this belief, 2016 was a year of change in which ASELSAN's long-term human resources management strategy has been put into practice.

In addition to the new projects actualized, activities towards ASELSAN's employer branding were continued. Our talent acquisition projects were carried out with the aim of finding and acquiring talents who would share our vision – being one of the world's biggest defense industry companies- and comply with ASELSAN values.

### Creating Value through Human Resources Systems

The foundation of our Human Resources Management philosophy is to develop systems which enhance the value added created by our high-grade work force. All of our HR processes based on this philosophy are handled with systems management approach. Feedback obtained via our Employee Satisfaction Surveys composes the most important input for our process improvement studies.

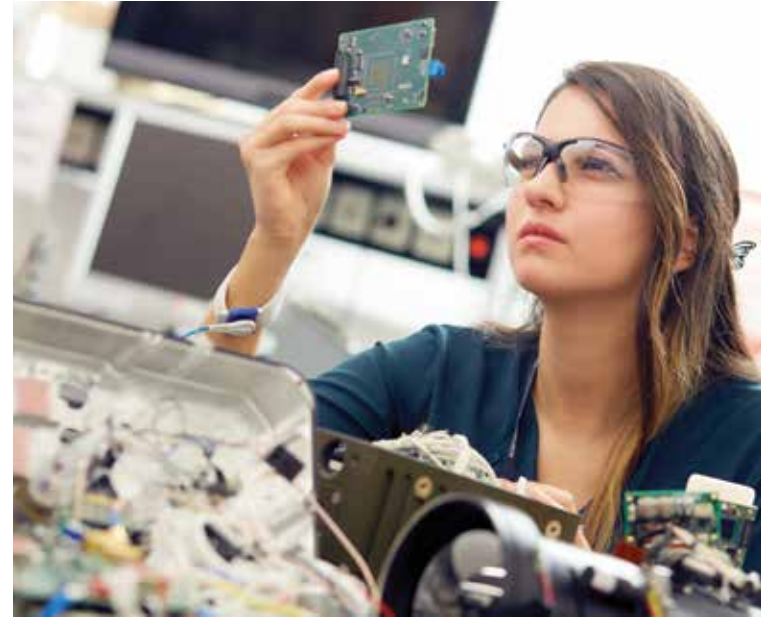
### HR Processes Enhanced by Data Analytics

Thanks to the competencies possessed by our HR Team, we are able to perform multivariate statistical modelling, forecasting and optimization studies including longitudinal simulations and structural equation modeling studies. Thus, our current operations are continuously maintained and improved while new processes are developed with a long term perspective.

In 2016, after the completion of design process, new “Career and Performance Management Systems” were put into practice. While designing the system, various different aspects such as operational, behavioral and financial, were taken into consideration. Also, this system has been tested with longitudinal simulations to ensure provisioning of appropriate solutions in line with the long-term objectives of ASELSAN. In this way, a new career and performance management model was developed meeting the expectations of our employees

by combining data analytics capability of ASELSAN and predictive insight of HR team.

Owing to these principles, not only HR related data, but also strategical and financial data are included in our analysis so that effects of HR processes on ASELSAN's key performance indicators can be foreseen.





## Performance-based Career Development

Through Performance Management System, our aim is to ensure that high performance culture is adopted by all members of ASELSAN. For this purpose, performance evaluations provide basis for career management, compensation and rewarding systems. Based on their performance level, our employees are able to foresee their own long-term career plans. Those employees who pursue academic studies that are crucial for the development of critical technologies, receive a recompense for the investments they make for self-development by rapidly moving forward on their career paths.

ASELSAN's ever increasing overseas operations and partnerships in international projects provide international career opportunities to high performing employees. In 2016, our employees continued to be employed in offices in five different countries, international R&D projects in North America and Europe and engage in doctoral programs in Europe.

## Priority for Young Talents

Traditionally, one of the most important recruitment goals of ASELSAN has been bringing in young talents to ASELSAN. 2016 was no exception as we found the opportunity to reach students and the new graduates via career days at universities, and panels / presentations at which ASELSAN Human Resources Team and the Business Sectors were represented. As a result of these efforts, significant increase was observed in the number of young talents brought into ASELSAN. This year, 124 successful university students were hired within the scope of Candidate Engineering Program, which aims to provide part-time ASELSAN experience to successful engineering students. Following their graduation, 85% of the students enrolled in this program were permanently employed at design departments throughout ASELSAN.



T-129 ATAK Helicopter Avionics Laboratory

# ASELSAN

## ACADEMY

ASELSAN Academy enables individuals and teams to grow together in an organizational and integrated way. Facilitating learning and development at individual and corporate level, increasing employees' and ASELSAN's organizational competency level, enabling knowledge sharing to develop a corporate memory are among the most prominent activities of ASELSAN Academy. Through these activities, ASELSAN Academy supports ASELSAN's corporate goals and strategies, and aims to ensure the competency of ASELSAN employees at all times. Within this scope, ASELSAN Academy conducts measurement and assessment of learning and development activities and their alignment with ASELSAN strategies and business plans systemically.

### ASELSAN Competency Model

Competency is the combination of the knowledge that an employee can obtain during their education or life-long training process; the skills that can be obtained or enhanced with experience during his/her work life and the capability of applying this knowledge and skills within his/her career path and processes followed. Developing employees' competencies by taking their career path into account, increases their process capabilities and thus, the company's performance. In order to define competency-based learning and development activities aligned with ASELSAN's strategies and business plans, ASELSAN Academy is developing ASELSAN Competency Model for the assessment of employee competency. ASELSAN Competency Model incorporates required competencies to perform the job descriptions, competency definitions, competency levels and metrics for competency measurement.

Following the development of ASELSAN Competency Model Framework in 2016, ASELSAN Academy and five ASELSAN Divisions started writing technical competencies. At the end of this process, competencies in the ASELSAN Competency Model will be mapped to ASELSAN job descriptions and, as a result, personal competency (talent) inventories will be extracted. These will be the most important input for developing ASELSAN's learning and development programs inventory that is aligned with the strategic goals and business plans of ASELSAN.

### Learning and Development Activities

The success of design and development activities in ASELSAN depends heavily on qualified and sustainable intellectual capital. The investment undertaken for the education and development





of our employees towards the proliferation of the intellectual capital serves to increase efficiency, innovation, and employee satisfaction. This will create an employee profile which is loyal to ASELSAN, adopts the ASELSAN culture and is highly motivated. In this perspective, in 2016, ASELSAN Academy internal trainers provided 12.045 man hours of in-house training. In addition to that, ASELSAN Academy coordinated 31.578 man hours of training in 42 different titles and provided 39.978 man hours of mandatory occupational health and safety training for ASELSAN employees by outsourcing. ASELSAN Academy provides trainings to subcontractors in addition to in-house trainings and supports training activities within the context of ASELSAN's exports.

In order to develop learning and development programs that address ASELSAN's needs, ASELSAN specific training development activities are conducted by ASELSAN employees or academicians/consultants competent on the content. Learning and development methods including e-learning, active learning and coaching are initiated in addition to in-class training. Along with the general purpose personal development and management skill courses offered in 2016, "Goal Setting and Performance Measurement Training" for managers was specially designed for ASELSAN and 357 managers from different managerial levels participated in this training.

ASELSAN Academy is working on developing an applied "Goal Setting and Performance Measurement" training. Within this context, ASELSAN Academy provides an efficient and centralised cultural change management.

### Workshop for Knowledge Sharing

ASELSAN organized four workshops and one info day in 2016 with participation of universities, research and government organizations for the purpose of building and protecting corporate memory, disseminating and recording the knowledge acquired as well as the lessons learned. "TUBITAK Research Support Programmes

## ASELSAN ACADEMY SUPPORTS THE CORPORATE GOALS AND STRATEGIES OF ASELSAN AND AIMS TO ENSURE THE COMPETENCY OF ASELSAN EMPLOYEES AT ALL TIMES.

Info Day" was organized about the ongoing R&D activities and R&D supports for ASELSAN researchers and project coordinators. Two workshops were organized and 344 people attended from 47 universities and 5 government organizations along with ASELSAN employees to these workshops. In these workshops, 82 presentations were featured. A workshop on "Heat Design" was organized with the participation of all ASELSAN Divisions and a workshop report was published. ASELSAN Academy worked for organizing "Heat Pipe and High Heat Flow Technology- Applications Symposium" together with METU, Bilkent University and TAI. In addition to these activities, ASELSAN Academy coordinated related units in ASELSAN Divisions to come together for sharing their opinions and knowledge to assess training needs.

### Long Term Human Resources Development Program

Scholarship and internship programs are carried out by ASELSAN Academy to contribute to the strength of ASELSAN's human resources. Within this scope, 862 university students were given internship opportunities. 294 high school and vocational school of higher school students were also given the chance to receive vocational training in ASELSAN. In 2016, 17 individuals including 4 ASELSAN were awarded scholarships for PhD and post-PhD research employees in Turkey and abroad.



# INTEGRATED LOGISTIC SUPPORT (ILS)

Achieving customer satisfaction by providing full support to delivered products throughout their life cycle is a priority for ASELSAN. In this respect, Integrated Logistic Support services are organised in ASELSAN within each business sector in the form of Integrated Logistic Support Directorates which are composed of specialised engineers and technical personnel. The total number of personnel serving in this organisational units was 214 as of 2016 year end. Additionally, ASELSAN conducts maintenance and repair services with its certified subcontractors.

For the cost effective repair/maintenance throughout the lifecycle of systems and equipment which are produced or procured by ASELSAN; ILS personnel takes part in the project groups from the very start, i.e. design phase onwards. This enables the projection of the logistic requirements and the know how acquired through logistics in the design process and thus, development of highly supportable products.

ASELSAN's management by procedures principle requires the execution of the ILS procedures in alignment with other procedures such as project management, business and system development procedures. In this respect, ILS departments take part in the following activities:

- Formation of the Logistic Support Plans, performance of the Logistic Support Analysis and the relevant Logistic Support Reportings,
- Repair/Maintenance planning and repair/maintenance procurement support (spare parts, support equipment)
- Preparation of manuals and repair/maintenance documents,
- Customer orientation/training programs,
- Performance of Reliability, Sustainability and Availability analysis,
- Identification of Support and test Equipment
- Product safety and Human Factor studies,
- Identification of Packaging, Handling, Storing and Transportation Requirements,
- Performance of Logistic Support Analysis using the feedback from the field, sharing of the results with relevant departments and taking corrective measures,
- Identification of facility requirements.

INTEGRATED LOGISTIC SUPPORT FOR ASELSAN EQUIPMENT AND SYSTEMS THAT ARE USED ON VARIOUS PLATFORMS THROUGHOUT TURKEY ARE CARRIED OUT EFFECTIVELY BY OUR EXPERIENCED PERSONNEL.



## Repair/Maintenance Activities and Contracts

ASELSAN has provided logistic services for the systems sold domestically or abroad in 2016 and various repair/maintenance contracts were signed with Turkish Armed Forces. The share of Long Term Performance Based Logistics (PDL) contracts are increasing in repair/maintenance contracts. The higher availability rates due to quick response to defects/faults with prepared teams and systemic spare management is an important factor in the customers' inclination towards PDL contracts.

## Training and Technical Publishings

ASELSAN equipment and systems are heavily used in almost every region on various platforms throughout Turkey, creating an equally heavy training requirements that emit both from our contractual obligations as well as customer requirements. We have been working hard to fulfill these requirements in the most effective way with our experienced personnel. Participants received User/Pilot trainings and Repair/Maintenance trainings and were supplied with relevant training documentation. ASELSAN is working on developing Interactive Electronic Technical Manual (IETM) which is getting more and more popular worldwide for its technical publishings.

## Customer Relations Management

ASELSAN customers have been notified about a newly established call center which they can call 24/7 and forward their requests/complaints and receive technical support.

## Garrison Visits

Garrison visits have been performed for the logistic support of ASELSAN systems and equipment throughout their life cycle, in order to assure full customer satisfaction.

## Strategic Targets

Work towards creating a centralised call center and database to respond, monitor and update the repair/maintenance requests are underway. Call center facility is targeted to be operative for all business sectors in 2017.

As regards for improvement of repair/maintenance capabilities in the field and utilisation of subcontractors, work on spare equipment storage facilities for equipment logistics in critical regions is continuing. Additionally, enforcement of technological capabilities of the field personnel with mobile equipment is another line of work for the enhancement of the repair/maintenance capabilities in the field.

ASELSAN participated in the efforts lead by Defense Industry Undersecretariat towards the organisation of a Life Cycle Management Conference in 2017 in order to develop the concept of product life cycle and recreate its vision. The other participants of this organisation were Ministry of National Defence, Turkish Armed Forces, Ministry of Interior affiliated forces and defence industry companies.





# HIGHLIGHTS IN 2016

**KORAL Electronic Warfare System was delivered to Turkish Air Forces**



**First firing from Launch Platform has been performed and the 360 degrees protection has been successfully tested.**



**Our Minister of National Defence was at ASELSAN**

**A Powerful National Collaboration**



**Opening of ASELSAN High Precision Optics Facility**



**ASELSAN Research Center is now ASELSAN's 6<sup>th</sup> R&D Center**



**Radio Technology Transfer to Kazakhstan**



**Joint Venture deal between ASELSAN and TAQNIA DST signed.**



**ASELSAN ranks 58<sup>th</sup> in the Defense News Top 100.**



## KORAL Electronic Warfare System was delivered to Turkish Air Forces

The ceremony took place at the Gölbaşı Facilities of ASELSAN with the participation of Commander of Turkish Air Forces Abidin Ünal, Undersecretary of Defence Industry Prof. Dr. İsmail Demir along with many distinguished guests.

KORAL Mobile Electronic Warfare System is designed to paralise the enemy air defense systems. It is composed of an Electronic Support System (KORAL ED) and an Electronic Attack System (KORAL ET) that are integrated to tactical military vehicles and operate through a wide array of frequency.

While KORAL ED System performs the detection, identification and navigation functions for radar signals, KORAL ET jams and deceives the targeted radars, making them dysfunctional. These qualities make KORAL a serious threat for the targeted air defense systems.



KORAL Delivery ceremony (22 February 2016)



# HIGHLIGHTS IN 2016

First firing from Launch Platform has been performed and the 360 degrees protection has been successfully tested.

Within the scope of the HiSAR Project that is undertaken by the Undersecretariat of Defense Industry to meet the requirements of Land Forces, successful firing tests have been performed through 22 November 2016 - 8 December 2016.

In the HISAR Short and Medium Range Air Defence Missile Systems Project, ASELSAN acts as the main contractor responsible for the system solutions. In this respect, the identification of system and sub system requirements, communication, radar, electro-optical, fire control, command control, data link for missile midcourse guidance, seeker solutions for terminal guidance are under the responsibility of ASELSAN.



**MINISTER OF NATIONAL DEFENCE FİKRİ İŞİK TOGETHER WITH  
THE PROJECT TEAM MEMBERS...**



## Minister of National Defence Işık: “ASELSAN is the star of the Turkish Defence Industry”

Minister of National Defence Fikri Işık, opened the Dynamic RF and Antenna Test Laboratory situated at the Gölbaşı Radar and Electronic Warfare Technology Center.

While answering the questions of the press, Minister Işık noted that ASELSAN, which was established following the unfortunate events that took place during the Cyprus Peace Operation “is the most important defence industry company, i.e. the star of Turkish Defence Industry”.

Mr. Işık thanked everyone that contributed to the success story of ASELSAN and added that further steps to be taken to strengthen the position of ASELSAN is their main focus.



### Dynamic RF and Antenna Test Laboratory

ASELSAN will execute the test and measurement of various types of antennas that are developed to be deployed in radar, electronic warfare and communication systems which will be expected to perform under compelling circumstances and on all sorts of platforms such as aircrafts, satellites, missiles and submarines.

Following the opening ceremony at Gölbaşı, Minister of National Defence Işık proceeded to the Microelectronic, Guidance and Electro-Optical Business Sector premises and was informed about its activities.

Minister Fikri Işık, had a conversation with the young engineers working at the Fighter Jet Avionic Control Computer development laboratory.



# HIGHLIGHTS IN 2016

## A Powerful National Collaboration

The first 100% domestically produced electrical bus Avenue EV, co-production of ASELSAN and TEMSA, is on the road.

Two companies joined forces to manufacture the first 100% domestically produced electrical bus Avenue EV.

Avenue EV which stands out for its innovative and environmentally conscious qualities, was promoted with the participation of Science, Industry and Technology Minister Dr. Faruk Özlü, Sabancı Holding CEO Zafer Kurtul, Turkish Armed Forces Foundation General Manager Orhan Akbaş, ASELSAN Deputy Chairman of Board of Directors Dr. Murat Üçüncü, Sabancı Holding Industry Group Head Mehmet Hacıkamilioğlu, TEMSA General Manager Dinçer Çelik, ASELSAN CEO Dr. Faik Eken and ASELSAN Vice President Y. Suat Bengür.



## Fully charged in 8 minutes

Avenue EV which has been designed with an environmental perspective and global necessities, is powered by a sustainable source- electricity, rather than fossil fuels. It can be fully charged in 8 minutes, thus, it provides uninterrupted service with short charging periods at stops. This environment friendly bus has zero carbon emission due to its electrical traction system and at the same time is a very quiet, comfortable, high performing and fully equipped bus. The air conditioning system enables a comfortable trip in the passenger cabin both in hot as well as cold days and wi-fi and data connection is available. Thanks to its lightweight, high performance electrical traction system, that is 100% domestically developed by ASELSAN, Avenue EV can operate for a long period of time without any maintenance requirement. Once fully charged, the vehicle can travel 50-70 kms.

## Opening of ASELSAN High Precision Optics Facility

ASELSAN High Precision Optics Facility opening ceremony took place on 28 May 2016.

ASELSAN High Precision Optics will undertake the design and mass production of the optics that our defense industry needs as well as the production of unique and indigenous day sights using those optics. The facility, which is located in Sivas Organised Industrial Zone with 5000 square meters indoor area capacity. ASELSAN High Precision Optics will be producing lenses with high technology in this facility. Besides production and electro-optic installation, ASELSAN High Precision Optics has also initiated R&D work in its 5,000 square meter premises at Cumhuriyet University Teknokent campus.

ASELSAN Vice President and ASELSAN High Precision Optics Chairman of The Board of Directors Baki Şensoy and ASELSAN High Precision Optics Deputy Chairman of the Board of Directors Osman Yıldırım presented the first binoculars manufactured at sight to Minister of National Education İsmet Yılmaz.



Minister Yılmaz and participants visited the sight and observed the production.



# HIGHLIGHTS IN 2016

## ASELSAN Research Center is now ASELSAN's 6<sup>th</sup> R&D Center

ASELSAN Research Center has been certified as an R&D center by the Ministry of Science, Industry and Technology on 26 October 2016 thus, establishing the 6<sup>th</sup> R&D center in addition to the already existing 5 R&D centers within the ASELSAN Business Sectors.

Since 2014, ASELSAN Research Center has been conducting applied research studies on technology areas that are anticipated to be in demand in the medium or long run, not only to maintain the technological dominance of ASELSAN in its fields of activity but also to improve the existing innovation culture in ASELSAN. Innovative technologies developed by research are transferred to the engineering units of ASELSAN to be transformed into products and be commercialized. Currently research projects identified as key technologies of future are carried on the fields of Data Analysis, Compressed Sensing, Deep Learning, Signal and Visual Imaging, Medical Imaging and Biotechnology.



## Radio Technology Transfer to Kazakhstan

Transfer of technology agreement was signed between ASELSAN and Kazakhstan ASELSAN Engineering (KAE) Company, to develop strategic business cooperation in Kazakhstan, enabling the production of ASELSAN 4700 Radio devices in addition to the electro-optic devices in KAE.

ASELSAN Vice President Yavuz Bayız and KAE General Manager Tarık Ziya Kaboğlu signed the agreement in Astana to commence the production of the radios. With this agreement, KAE will produce the electronic circuit boards and install the components of the 4700 Radios and present it to the Kazakhstan market for the efficient and secure communication of public safety users.



## Joint Venture deal between ASELSAN and TAQNIA DST signed.

An agreement for the establishment of a joint venture has been signed between ASELSAN and Saudi Arabia's public company TAQNIA Defense and Security Technologies (DST). The company will be established in Saudi Arabia as a 50%-50% limited partnership and will be responsible for the development, manufacturing and after sales support of radar, electronic warfare and electro-optic systems to meet the needs of the Kingdom of Saudi Arabia and the region.

The agreement has been signed by DST and ASELSAN at the opening of Saudi Arabia Armed Forces Fair in Riyadh where TAQNIA Holding was the main sponsor. DST General Manager Dr. Hamad Alyousefi and ASELSAN Chairman of The Board of Directors Mustafa Murat Şeker signed the agreement while King Abdülaziz Science and Technology Center (KACST) Director and TAQNIA Chairman of the Board of Directors Prince Dr. Turki Saud Bin Mohammed Bin Al-Saud and Undersecretary of Defense Industry Prof. Dr. İsmail Demir signed as witnesses.



## ASELSAN ranks 58<sup>th</sup> in the Defense News Top 100.

ASELSAN climbed up 4 places and ranked 58<sup>th</sup> in the top defence industry companies of the world list. ASELSAN, is moving higher up every year in the list published by Defense News- the US based military publishing company. ASELSAN was included in the top 100 defence industry companies list (Defence News Top 100) for the first time in 2006 in 93<sup>th</sup> place. With every successful projects undertaken, ASELSAN's ranking in the list moved up to 62<sup>nd</sup> place last year. This year, a turnover of over USD 1 billion moved us 4 steps up to the 58<sup>th</sup> place.

# DefenseNews

# AWARDS IN 2016



## Two awards to ASELSAN from UDI

Undersecretariat of Defense Industry (UDI) handed awards to successful companies during the 27<sup>th</sup> General Assembly of Defense Industry Manufacturers' Association.

ASELSAN received two awards. ASELSAN Chairman of the Board of Directors Mustafa Murat Şeker was presented the



Defense Industry Export Excellence Special Award and ASELSAN CEO Dr. Faik Eken received the special award on Technology Development.

During the course of the General Assembly, election of the Board of Directors, Audit and Disciplinary committees took place. Dr. Faik Eken was elected as a board member of SASAD and ASELSAN Vice President Hezarfen Oruç was elected as a substitute member of the Disciplinary Committee.



## The R&D Center of Defense

5<sup>th</sup> Private Sector R&D Centers Summit was organised by Ministry of Science, Industry and Technology, Science and Technology General Directorate on 27-28 September 2016. ASELSAN has been awarded the first prize in Defence Sector and R&D personnel employment. Minister of Science, Industry and Technology Dr. Faruk Özlü and Minister of Economy Nihat Zeybekçi handed the award to Deputy Chairman of the Board of Directors Dr. Murat Üçüncü.

## Big Star ASELSAN

Deloitte Turkey, which offers services in Audit, Management Consultancy, Corporate Finance and Corporate Risk, announced the results of the Fast 50- the fastest growing technology companies of Turkey. During the ceremony, in addition to the fast 50, awards were handed in Big Stars and Technology special categories. Deputy Chairman of the Board of Directors Dr. Murat Üçüncü received the Big Star and Fast 50 awards handed by Deloitte Turkey, on behalf of ASELSAN.



## Leader in Design Development

ASELSAN has been handed Leadership in Design Development Award during the Innovation Week- an organisation of Turkish Exporters Assembly (TIM)- on 3-5 December 2015. The award was handed by Ministry of Economy Mustafa Elitaş and TIM Chairman Mehmet Büyükekşi to ASELSAN Board Member Prof. Dr. Oğuz Borat.

President Recep Tayyip Erdoğan attended the ceremony as well. The president visited the stands in the exhibition hall and was particularly interested in the demo of the multi channelled, software based radio developed for the Magnetic Resonance (MR) Imaging device.

## İstanbul International Invention Fair

İstanbul International Invention Fair ISIF'16 has been organised by the Turkish Trademark and Patent Office as an event where patents, inventions, new products and technological ideas are displayed and commercialised. As Turkey's sole international organisation on invention and innovation, İstanbul International Invention Fair hosted 324 inventions from 23 countries.



ASELSAN applications were presented under Ankara Chamber of Industry and were awarded 2 gold, 1 silver and 1 bronze medals.

ASELSAN received a gold medal for its STC-8250 digital tachograph, a silver medal for 4900 ATLAS Vehicle Radio, and a bronze medal for MRI Multi channelled transmitter system. The awards were handed to ASELSAN by the Minister of Science, Industry and Technology Fikri Işık.



# AWARDS IN 2016

## Electronic Design Award for ASELSAN

ASELSAN received an award for its “Avionic Processor Board” in the most prestigious design competition worldwide.

In the Printed Circuit Board (PCB) Technology Leadership Awards (TLA)-2015 organised by Mentor Graphics, ASELSAN entered the competition with its VPX based “AVPX-C4C Avionic Processor Board” and came second in the most challenging category of “defense, aviation and space”.



## Export Champion of Engineering Services

33 export champions in 11 service export categories were identified and rewarded within the scope of Turkey's Top 500 Service Exporters research conducted by Turkish Exporters Assembly (TIM). The award ceremony was attended by Prime Minister Binali Yıldırım along with three deputy prime ministers and 7 ministers and ASELSAN was among the top three companies in the “Engineering Services Export” category. ASELSAN Board Member Prof. Dr. Ercüment Arvas received the award from Deputy Prime Minister Nurettin Canikli and Minister of Economy Nihat Zeybekçi.



## Science Competency Award to ASELSAN

Chief Information Officer-CIO 2015 awards, organised by the CIO magazine, were presented. The information technology projects of companies which are good at managing information as the most valuable asset, forming digital strategies and turning them into innovative business models and effective business results, were rewarded. ASELSAN Information Management Director Fatih Bilgi was among the information and communication technologies managers who received an award. General editor of the newspaper “Dünya” Hakan Güldağ delivered the opening speech of the ceremony and stated that they were happy to award the successful CIO's of the companies and shared their belief in the ever increasing importance of CIO's for the companies in the years to come.





## Award for ASELSAN at the Branding Festival

ASELSAN took place among the brands that “add value to Ankara” in the second Ankara Branding Festival that is organised to create branding consciousness and increase the brand value of the city.

Almost 15 thousand people attended the Ankara Branding Festival that was organised by Ankara Chamber of Commerce to create branding consciousness and increase the brand value of Ankara. During the gala dinner that followed the festival, Ankara’s brands and brands that add value to Ankara were awarded.

ASELSAN, İhsan Doğramacı Foundation, MAN, ODTÜ Teknokent, Sevda Cenap And Foundation, Bilkent Cyberpark, Museum of Anatolian Civilisations, Ankara Radio, Turkish Education Association, TAI, Mehmet Haberal, Koç Group, Ankaragücü, LÖSEV, and Mechanical and Chemical Industry Company were the receivers of the “those who add value to Ankara” award. Corporate Communication Manager Bedri Tekin Tuğaç received the award on behalf of ASELSAN.



## Contribution to the Development of National Technology

ASELSAN has been awarded the “Contribution to the Development of National Technologies Award” for its pioneer role in acquiring the competency to indigenously develop state of the art defense technologies. ASELSAN Technology and Strategy Management Vice President İsmet Atalar accepted the award for ASELSAN.



## Number One in Technology

ASELSAN won the best prize in the large scale companies category with its Laser Damage Resistent Optical Systems (HEYO) Project in the XII. Technology Awards organised jointly by TÜBİTAK (the Scientific and Technological Research Council of Turkey), TITGV (Technology Development Foundation of Turkey) and TÜSİAD (Turkish Industry and Business Association)

HEYO Project consists of optical cover technology that is highly resistant to laser and environmental conditions and can be used in both visible/short infrared wave band (400-1600µm) and medium-long infrared wave band (3-5µm). This nontransferable technology will enable ASELSAN to domestically produce and export laser damage resistant optics that are currently imported.



# AWARDS IN 2016



## The Innovative Product of the Year From ASELSAN

ASELSAN was handed the “Innovative Product of The Year” award in the 14<sup>th</sup> Innovation and Creativity Awards Ceremony, big companies category, organised by the Turkish Industrialists Association (TESİD). Innovative Product is the most prestigious award of this competition and ASELSAN won it with its ASELSAN HIZIR® Torpedo Countermeasure Systems for Surface Ships product.

In the ceremony at the İstanbul Maslak Campus of Işık University, ASELSAN Vice President and Defence Systems Technologies Business Sector CEO Mustafa Kaval accepted the award on behalf of ASELSAN. HIZIR® system is the first indigenous torpedo countermeasure system for surface ships in Turkey that is fully equipped with state of the art technology and performs better than comparable systems around the world.

## People Said ASELSAN

Interactive Marketing Summit is considered to be the biggest marketing activity and has been organised for the tenth time this year on 28 September 2016 at Ankara HiltonSA.

Research company AKADEMETRE conducted a public opinion poll called “Pioneer Sectors Pioneer Brands”, seeking the answer to the question “Which brand comes to mind in Ankara”. 300 people were surveyed and “ASELSAN” came up in the defense industry category. Corporate Communications Manager Bedri Tekin Tuğaç was handed the award for ASELSAN by Ostim President Orhan Aydın.





### TTGV's First Prize is ASELSAN's

The First Prize of “Dr. Akın Çakmakçı Academic Dissertations Applied in Industry” award has been handed to Bülent Alıcıoğlu from ASELSAN Radar and Electronic Warfare Systems Business Sector Microwave Products Group for his dissertation entitled “A New Method for 2-18 GHz Switchable Multiplier Design”.

In order to enhance the cooperation between the universities and the industry and to promote the commercialisation of R&D in universities, TTGV selects the thesis that have been applied in industry and rewards the authors, advisors and the companies that apply the idea.

Bülent Alıcıoğlu as the author, Prof. Dr. Nevzat Yıldırım as the advisor and ASELSAN as the industrial company that applied the thesis were handed the first prize in the fifth year of this organization by Technology Development Foundation of Turkey (TTGV).



### RECONSURVE Project won the Award of Excellence

RECONSURVE (Sensor Management System Supported by Semantic Situational Awareness) Project won the Award of Excellence: User Focus handed by European Union EUREKA/ITEA2 Cluster. Project Manager Burcu Yilmaz accepted the award in the ceremony that took place in Stockholm, Sweden.



Universities, research institutes and 9 companies specialised in various fields from 3 countries (Turkey, France and South Korea) have been engaged in the RECONSURVE project and ASELSAN acted as the coordinator. The project aims to present a sea surveillance system in order to prevent crimes committed through seaways such as illegal migration and smuggling. The surveillance system will be covering a wide range and will aid the operator in the timing and accuracy of its decisions.

### 4 Awards from Ankara Chamber of Industry

Ankara Chamber of Industry awarded ASELSAN in 4 categories: export, san-tez, patent and value added, in its 53<sup>th</sup> anniversary in 2016. Ankara Chamber of Industry Chairman Nurettin Özdebir and Ministry of Economy Nihat Zeybekçi handed the awards to ASELSAN Vice President İsmet Atalar.



# COMMUNICATIONS AND INFORMATION TECHNOLOGIES BUSINESS SECTOR

## COMMUNICATION SYSTEMS

- MILITARY COMMUNICATION SYSTEM
- MILITARY RADIO SYSTEMS
- PUBLIC SAFETY COMMUNICATION SYSTEMS
- MOBILE COMMUNICATION SYSTEMS
- INFORMATION TECHNOLOGIES

## SPACE TECHNOLOGIES

- SATELLITE GROUND SYSTEMS
- SATELLITE PAYLOAD

## CYBER SECURITY

ASELSAN not only achieved its mission of eliminating the foreign dependency of the Turkish Armed Forces in its procurement of electronic communication systems and equipments but also secured a competitive positioning in the international defence industry.







**ASELSAN PRODUCES COMMUNICATION  
SYSTEMS FOR AIRCRAFTS AND  
HELICOPTERS IN THE INVENTORY OF TAF.**



# COMMUNICATIONS AND INFORMATION TECHNOLOGIES BUSINESS SECTOR

**TACTICAL AREA COMBAT SYSTEM IS A MULTI CHANNEL COMMUNICATION SYSTEM BASED ON WIDE AREA AND NETWORK CENTRIC COMBAT CONCEPT THAT MEETS ALL THE REQUIREMENTS OF THE TACTICAL AREA FOR ARMIES OF THE 21<sup>ST</sup> CENTURY.**





## COMMUNICATION SYSTEMS

### Military Communication System

#### Tactical Area Communication System

TASMUS is an integrated solution that meets the requirements of the tactical area with its network-centric combat concept, strong IP infrastructure, and compatibility with other communication systems, increased bandwidth and open architecture. Its strong IP based infrastructure and architectural openness to developments will serve as an integrated solution able to meet all of the communication requirements in tactical area.

A contract, which includes the modernization of all previous TASMUS systems as TASMUS G+ and the development of a new prototype system that will define the next generation TASMUS system, was signed with the Turkish Armed Forces. The delivery of the modernized systems under this contract started in 2016 and the first two deliveries were completed within the year.

#### Airborne Communication Systems

ASELSAN has completed the qualification of Software Defined V/UHF Airborne Radios which were indigenously developed for airborne platforms. Deliveries of these radios have been started for ATAK Helicopter and a foreign customer.

In scope of Multi-band Digital Combined Radio (ÇBSMT) Project, a contract has been signed for modernization of helicopters and Air Traffic Control towers owned by the Turkish Land Forces.

Several demonstration activities have been successfully conducted for foreign customers, after which a contract regarding modernization of helicopter and tower platforms using software defined land and airborne radios was signed.

Deliveries for ANKA-S Program have started.

A new contract including airborne radios in scope of HÜRKUŞ-B Program has been signed where TUSAŞ is the main contractor. The Airworthiness certification activities have already been completed.

#### Naval Communication Systems

The Company continued design, materials procurement, production and testing activities for the Underwater Rescue Mother Ship (MOSHIP), Rescue and Towing Ship (RATSHIP), Landing Ship Tank (LST), MİLGEM 3-4, Landing Helicopter Dock (LHD), Logistic Support Vessel (LSV), Pakistan Navy Fleet Tanker Project (PNFT) and New Type Submarine Integrated Communication Systems.

The Company completed acceptance tests for Integrated Communication Systems of the MOSHIP/RATSHIP, PNFT, LST and LSV.



Please scan the QR code to read the solutions offered by Aselsan in Military Communication Systems.

THE COMMUNICATION SYSTEMS OF THE MİLGEM CORVETTES HAS BEEN INDIGENOUSLY DEVELOPED BY ASELSAN FOR TURKISH NAVAL FORCES COMMAND.



# COMMUNICATIONS AND INFORMATION TECHNOLOGIES BUSINESS SECTOR

## MILITARY RADIO SYSTEMS

### Software Defined VHF/UHF Radio Family

With the ongoing mass production, delivery and installation processes of Land Platform V/UHF manpack/vehicular/base station radio configurations have continued. Within the same contract of the V/UHF Radios, design activities of Intercommunication System, which will be used on Land Forces Command tactical vehicles, has been initiated. Furthermore, a contract has been signed with the Ministry of National Defence, as part of extending the aforementioned radios in Naval Forces Command.

Design activities of Handheld Radio for Turkish Armed Forces (TAF) with electronic warfare protection capabilities have continued.

Design process initiated for the Naval and Fixed Station V/UHF radios for TAF continued within the scope of the previously signed contract.

Preliminary productions, realized in local production infrastructure by means of license transfer for Kingdom Of Saudi Arabia have been successfully completed and mass production is in progress.

Locally sourced production of Software Defined V/UHF Radio Contract in Pakistan continued.

### Software Defined HF Radio Family

With the ongoing mass production, delivery and installation processes for the widespread use of Land Platform HF radio configurations in Turkish Armed Forces have continued. In addition, a contract has been signed with Ministry of National Defence to expand the usage of the radios in Naval Forces Command.

For the utilization of Naval Forces Command, a contract for 5kW and 10kW HF Transmitter System is signed and design and integration processes have started.

Installation and Integration activities of naval platform HF radios with various output power levels (150W, 400W, and 1000W) have been carried on, for Naval Forces and Coast Guard Commands' platforms. Exportation of Software Defined HF radios to Pakistan is in progress.



An agreement has been signed with Kingdom of Saudi Arabia for the procurement of the mentioned radios in May 2016 and the deliveries are in progress.

A contract has been signed for the procurement of Software Defined HF Radios for a foreign country and the delivery has started.

### Identification Systems

Battlefield Target Identification Device (BTID) with embedded crypto which is working with both NATO and National algorithms is successfully verified and validated according to STANAG 4579 requirements. BTID has been integrated to ALTAY tank and all the system tests have been completed successfully.

For Mode 5/S capable IFF (Identification of Friend or Foe) systems which is designed according to STANAG 4193 requirements, contract is signed for delivery and integration to Turkish Land Forces platforms. Design and Development activities are continuing for Long Range Interrogators, Combined Interrogator and Transponders, ManPad Interrogators and Reverse IFF Systems.



## Data Link Systems

Within Long/Mid Range Antitank Missiles (UMTAS/OMTAS) RF Data Link Development Projects, all product verification, documentation and qualification of production line were finalized.

All deliveries under the contract of UMTAS Serial Production Launcher RF Data Link Procurement Project were completed.

Within the scope of Low/Mid Altitude Air Defense Missile System (HİSAR-A/O) RF Data Link Development Projects, first flight-worthy prototype acceptance tests were finished. During firing tests in December 2016, communication with missile was established for the first time via data link system.

## PUBLIC SAFETY COMMUNICATION SYSTEMS

### Gendarmerie Integrated Communication And Information System (JEMUS)

JEMUS is a nationwide Public Safety Communication System administered by Turkish National Gendarmerie Command consisting of wireless infrastructure integrated with wired communication network. The system is capable of making criminal, lost item, driver's license, license plate and firearm license queries from central databases.

Provincial Command Centers hosting software applications such as 156 Gendarmerie Hotline, Messaging, Patrol Location, Geographical Information System, Radio Call and Monitor helps security forces serve citizens in a fast, accurate and secure fashion.

By the end of 2015, 50 cities were effectively being served by the system. In the project plan, cities in Erzurum, Giresun and Tokat regions are in line to be installed. In 2016, 5 cities were installed and being used by Turkish National Gendarmerie Command.

### EGM (Turkish Police) Nationally Encrypted DMR Digital Radio System

Within the framework of DMR Digital Radio System project, 7 new provinces located in the east and southeast region of Turkey have been identified to enlarge the system. In three provinces, system establishment has started with substructure work. ASELSAN's new 3700 series radio family will be delivered to the user as covered radio in this project. Design work of 3700 covered radio is almost finished. Additionally, ASELSAN 4700 KALE series handheld radios were manufactured and delivered to Turkish Police.

DMR system provides encrypted wide area communication in city centers for Turkish Police. In DMR system the capacity of licensed channels (25kHz) is increased 4 times. Short message service,



Please scan the QR code to read the solutions offered by Aselsan in Public Safety Communication Systems.

ASELSAN IS CONSTRUCTING A NATIONWIDE PUBLIC SAFETY COMMUNICATION SYSTEM (JEMUS) ADMINISTERED BY TURKISH NATIONAL GENDARMERIE COMMAND.



criminal query service are some of the applications used in DMR system. Beyond these applications; central soft switch, auto vehicle tracking system and digital voice recording are important advantages of DMR system developed by ASELSAN.

### Delivery of TAF (Turkish Armed Forces) Digital Encrypted (SK2) Radio

ASELSAN conducted the delivery of Digital Encrypted (SK2) radios to TAF Land, Air, Special Forces and Gendarmerie General Command in 2016.

# COMMUNICATIONS AND INFORMATION TECHNOLOGIES BUSINESS SECTOR



## Expansion of Izmir Metropolitan Municipality Digital Communication System

Established system has been expanded with the installation of new sites in 2016. Throughout the province, Metropolitan Municipality together with all Town Municipalities (including rail transportation) can make use of the Digital Communication System. In addition, radio communication is provided for exhibition hall and other indoor areas of Fuar Izmir –the biggest exhibition of Izmir.

## APCO and Digital Encrypted Radio Export

In what has been an ongoing activity since the end of 2006, ASELSAN continued to export APCO Digital Radios to the United States of America in 2016. Encrypted APCO Radios are delivered to Pakistan.

Within the scope of the technology transfer agreement signed with the Pakistan National Radio Telecommunications Company (NRTC), deliveries continued in 2016. Business development activities to expand ASELSAN's communication solutions in Saudi Arabia has continued and ASELSAN exported APCO radio solutions in 2016.

In Turkish Republic of Northern Cyprus, Wimax Communication System which was established to fulfill communication needs of Police General Directorate was expanded.

THE DIGITAL RADIO SYSTEMS DESIGNED AND MANUFACTURED BY ASELSAN PROVIDES FLEXIBLE AND RELIABLE INFRASTRUCTURE, VISUAL AND FUNCTIONAL APPLICATIONS AS WELL AS SYSTEM SOLUTIONS FOR THE END USERS.

Transfer of technology agreement was signed between ASELSAN and Kazakhstan ASELSAN Engineering (KAE) Company, to develop strategic business cooperation in Kazakhstan, enabling the production of APCO radio device in KAE.

## Tetra Base Stations

ULAK project was signed with the Undersecretariat of the Defense Industry for developing solutions that will answer the needs of Public Safety Communications. Within the scope of this project, work towards development of a national TETRA base station was carried out in 2016.

Hardware and software design for TETRA Base Station Transceiver Unit has almost reached completion.

Pilot Production and manufacturing of the devices to be delivered are finalized. In order to verify software and operability with protocol layers, "Interoperability Tests" were performed with other radio producers.

## MOBILE COMMUNICATION SYSTEMS

### Fourth Generation (4.5G / LTE-A) Communication System Development (ULAK) Project

As a part of the ULAK Project, ASELSAN completed Critical Design activities for Commercial and Public Safety LTE-Advanced Macro-Cell Base Stations, LTE-Advanced Mobile Terminal Security Software and the LTE-Advanced Based Military Communication System. In order to satisfy the usage ratio of domestic goods stated by Information and Communication Technologies Authority within the scope of IMT Service and Infrastructure Licensing Tender, Certificate of Domestic Goods was received from Ankara Chamber of Industry and laboratory tests have been conducted with mobile operators in Turkey. Preparations for pilot production and mass production have been completed.

### 5G and Beyond Technologies

ASELSAN is aiming to develop 5G and beyond technologies using the infrastructure and design capabilities which were originated from the ULAK Project. These studies will support our country's target of becoming one of the first countries to use 5G technologies with locally developed products.

5G Technologies Consortium were founded by ASELSAN, HAVELSAN and NETAŞ. ASELSAN is the coordinator of the Consortium, and the Company has supported actively the initiative's establishment process.



ULAK Base Station

### Digital Tachograph Device Development Project

Digital Tachograph is a secure recording device which records the driving times, work periods, availability periods and rest periods of the driver and co-driver. Additionally, the device automatically records the speed, distance covered by the vehicle, security breaches, attempts to manipulations and store these records at least one year period. The securely recorded vehicle and driver related data by the digital tachograph serve as proof for the controlling bodies (e.g. police). The digital tachograph complies with the technical specifications as per European Union regulations.

ASELSAN's Digital Tachograph, passed through all required functional and security (EAL4+) tests successfully and has qualified for the Interoperability tests which is done under JRC (Joint Research Centre - Italy). By completing these tests successfully, the device has also gained the IOT certificate from JRC. The required Type Approval Certificate for the manufacturing, sales & marketing of the device is issued by the T.C. Ministry of Science, Industry and Technology.

The type approved digital tachograph complies with the technical specifications (Annex-1B) as specified in the Regulations on Recording Equipment in International Road Transport which is published at official newspaper of 27587 (dated on 21.05.2010) in parallel with European Agreement concerning the Work Crews of Vehicles Engaged in International Road Transport (AETR).



Digital Tachograph Device







# COMMUNICATIONS AND INFORMATION TECHNOLOGIES BUSINESS SECTOR



## INFORMATION TECHNOLOGIES

### Spatial Address Recording System Data Production and Extension Project

The deliveries of IT equipment, GIS licenses and the workshop have been completed within the scope of the contract signed with the Ministry of Interior, the General Directorate of Civil Registration and Nationality. In order to carry out data production and field activities, a dissemination system was introduced. This central dissemination system is integrated with the provincial dissemination systems which are located in the provinces where data production and field activities were held in 2016. In order to produce accurate data from the field, the integration studies have been completed with the systems such as Identity Sharing System and National Address Database within the General Directorate of Civil Registration and Nationality.

### KÖYDES Investment Management System Project

It has been completed on 26 April 2016. It integrates Geographical Information System of provinces to a newly designed & installed main network where centralized control of GIS is established.

### New Mobile System (TAYAS)

TAYAS (abbreviation for tactical local area network system in Turkish) is developed as a solution to local area network communication needs of Turkish Land Forces in tactical area. The system consists of software and hardware installed in

WITHIN THE SCOPE OF THE MAKS PROJECT, NATIONAL ADDRESS DATABASE WILL BE COLLECTED ALONG WITH THE GIS DATA, WILL BE COMBINED AND REPORTED AND SHARED BY THE GENERAL DIRECTORATE OF CIVIL REGISTRATION AND NATIONALITY AS OFFICIAL INFORMATION WITH STATE AGENCIES, AS NEEDED.



Please scan the QR code to read the solutions offered by Aselsan in Information Technology Systems.







local area, operates in cabled and wireless mode and provides a connection for tactical command control and information systems to strategic communication systems such as TAFICS (Turkish Armed Forces Integrated Communication System), tactical communication systems such as TASMUS (tactical area communication system of the Turkish Land Forces) and satellite systems such as TURKSAT. An encrypted wireless network access device, an encrypted terminal wireless access device and a dedicated wireless network management software are designed and developed by ASELSAN, using in house and indigenous resources.

### Installation of 112 Emergency Public Safety Computerized Routing and Management System

Acceptance of Emergency call systems in 13 different cities is still in progression with the Turkish Ministry of Interior. Installation and acceptance tests are completed in cities of Manisa, Yozgat and Balıkesir. "Next Generation 112 Emergency Call Center Project" contract has been signed on 24 May 2016 with the Turkish Ministry of Interior. The project consists of having a data center in Ankara and call centers in 8 other cities. Infrastructure and integration work for the 8 cities is still in progress.

### Turkish Republic Ministry of Interior Data-Voice-Video Communication System

Contract signed on 24 October 2016 with Turkish Republic Ministry of Interior, allowed for live video conference capability among the Presidency office, the Prime Ministry office, the Ministry of Interior office and 81 city Governorship offices. Project, including its installation has been completed within year 2016.

## SPACE TECHNOLOGIES SATELLITE GROUND SYSTEMS

### X-Band Satellite Communication System Project Ground Segment

X-Band Satellite Communication System Project includes software, design, production, infrastructure, installation and integration, verification, test and acceptance activities of Satellite Communication Network Control Stations and User Terminals which will work with X-Band Satellite Communication Payload. Critical Design Review Phase has been completed in the Project.

### Ku-Band Satellite Communication System Project

The project was initiated for providing voice, fax, data and image services to the Turkish Armed Forces. Flyaway Terminals, Shipborne Terminals and Main Network Control Center were delivered in 2016. User trainings for Flyaway Terminals and Main Network Control Center were provided to the Turkish Armed Forces.

### Kılıç Type Fast Patrol Boats Military Satellite Communication System (KASUMSIS) Project

The Project involves integration of Satellite Communication Terminals on Kılıç Type Fast Patrol Boats and integration of related equipment to the Satellite Communication Network Control Stations. System Requirements Phase has been completed and Preliminary Design Phase activities are underway.



# COMMUNICATIONS AND INFORMATION TECHNOLOGIES BUSINESS SECTOR

X-BAND SATELLITE COMMUNICATION SYSTEM IS AN INDIGENOUSLY DEVELOPED SATELLITE COMMUNICATION SYSTEM THAT AIMS TO PROVIDE FAST AND SECURE COMMUNICATION FOR THE TURKISH ARMED FORCES.

## Satellite Communication System Research and Development Projects

The projects listed below are internally financed by ASELSAN.

### 1.5/1.8 meter X-Band Naval Satellite Communication Pedestal and Antenna System Research and Development Project:

Besides the 1 meter antenna system which is being developed in KASUMSIS Project, X-Band Naval Satellite Communication Pedestal and Antenna System which is stabilized in 3 axis with 1.5 meter/1.8 meter reflector is being designed to meet the satellite communication requirements for various types of Turkish Navy's ship platforms.

### Airborne Ku-Band Satellite Communication Terminal Research and Development Project:

In this Project, Airborne Ku-Band Satellite which is stabilized in 2 motion axis and in 1 polarization axis with 53 cm reflector (Airborne Satellite Communication Modem is included) is being developed in order to meet the satellite communication requirements of Manned and Unmanned Airborne Platforms. By this way, the problems related with End User Certificate, ITAR regulations etc. will not be encountered.

## GÖKTÜRK-1 Surveillance and Reconnaissance Satellite Project

In the scope of the Project, ASELSAN is responsible for providing S/X Band Antenna Systems, Image Processing, Image Exploitation and User Subsystem software. Qualification activities of configuration items and subsystems were conducted. Also, site acceptance test activities of the ground station antenna system were completed. Qualification and acceptance activities of the configuration items of the mobile



ground station were completed. Cabling and equipment integration activities of both operator shelter and equipment shelter were completed. Set up and site acceptance test activities of the Mobile Antenna System were also completed.

Göktürk-1 Satellite was injected into its operational orbit after a successful launch on 5 December 2016. Commissioning activities are in progress at ground segment.



## SATELLITE PAYLOAD

### TÜRKSAT-6A National Communication Satellite

ASELSAN has continued system and equipment level design activities within 2016 in the scope of locally developed indigenous Ku-band Satellite Communications Payload. ASELSAN is designing and developing Ku-band Receiver, Payload Interface Unit, INET, ONET and Turkey coverage Antenna components of the Payload under the Program. The first proto-types of those equipment were manufactured and the functionalities and the compliancy to the requirements were demonstrated in 2016.

The infrastructure for the assembly and integration of the Payload within ASELSAN facilities have been established. Test equipment for Payload level tests has already been supplied and the design of test software has been initiated. The Payload Panel Container for the transportation of the Payload has been designed and the manufacturing activities are continuing.

### TUMSİS X-Band Payload

In the scope of the Project ASELSAN is responsible for;

- design, development, manufacture, integration and testing of X-Band Satellite Communication Payload,
- transportation of this Payload to satellite platform manufacturer's facilities,
- technical support to integration of the Payload to the satellite platform, and
- performance of In-Orbit Tests of the Payload by means of using indigenous test facilities.

ASELSAN is currently conducting design activities of X-Band Frequency Down-Converter (DOCON), Channel Amplifier (CAMP) and Harmonic Filter in this program.

As of year end 2016, System Requirements and Preliminary Design Reviews were successfully completed and Critical Design and equipment design activities were initiated.

This Payload will be hosted by TÜRKSAT 6A, the first National Communication Satellite of Turkey and will be brought into service in 2019.

In addition, ASELSAN also administers follow up activities of X-Band Low Noise Amplifier (LNA) Development Project conducted by METEKSAN A.Ş. under Technology Acquisition Undertaking of the Project.



Please scan the QR code to read the solutions offered by Aselsan in Satellite Communications Systems.

X-BAND AND KU-BAND SATELLITE COMMUNICATION PAYLOAD WILL BE INDIGENOUSLY DESIGNED, DEVELOPED, MANUFACTURED AND TESTED.











# COMMUNICATIONS AND INFORMATION TECHNOLOGIES BUSINESS SECTOR



## GÖKTÜRK-3 SAR Satellite

As the subcontractor of TUSAŞ, ASELSAN conducted the development activities for SAR Payload Subsystem, Communications Subsystem and Fixed/Mobile Ground Stations.

By the end of 2016, the Preliminary Design Review has been completed in accordance with the project plan and the contractual requirements have been fulfilled.

For the second phase of the project, starting from Critical Design and ending up with In-Orbit Acceptance, contractual negotiations both with TUSAŞ and SSM are expected to be started soon.

## EHF On-Board Processing Satellite Payload

Engineering Model of the On-Board Processing Satellite Payload has been developed successfully and work for flight model continues.



Please scan the QR code to read the solutions offered by Aselsan in Cryptography and Information Security Systems.

ASELSAN HAS THE ABILITY TO DESIGN AND MANUFACTURE HIGH SECURITY LEVEL NEW GENERATION ENCRYPTED EQUIPMENT THANKS TO ITS ACCUMULATED KNOW-HOW IN INFORMATION SECURITY.

## ASELSAT CubeSat Development

ASELSAN has initiated ASELSAT 3U CubeSat Development Project on 11 December 2015 to earn flight heritage for ASELSAN's indigenously developed space qualified units and increase the cooperation among the defense industry and universities. Under this Program, subcontractors are Aerospace Engineering Department of Istanbul Technical University and Mechatronics Engineering Department of Atılım University.

## CYBER SECURITY

### IP Encryption Devices

Hardware and mechanical development activities for rack and mobile type IP Encryption Devices have been completed. Necessary software development to improve the throughput performance and to enhance the remote management capabilities has also been completed successfully.

Production of rack type version, 2064 IPKC V2 IP Encryption Devices, and customer acceptance tests have been completed successfully within this year and the devices have been delivered to Turkish Ground Forces to be used in TASMUS G+ project.

The mobile version of New Generation IP Encryption Devices, the Mini IP Encryption Device, to be used in Ku-Band Satellite



Communication System project has been produced and first lot of delivery has been made after successful completion of customer acceptance tests.

In November 2016, a new contract named Data-Voice-Video Communication Security Solution has been signed with Ministry of Interior, Information Technologies Department. Within this contract, the infrastructure for national secure video conference system will be provided with the usage of 2064 Mini IP Encryption Devices.

## Link Encryption Devices

Design activities for both rack type and mobile versions of Link Encryption Devices that will provide high performance point to point secure link communication capabilities have been completed successfully.

The two port rack version, DKC-E Link IP Encryption Device, that will be used within TASMUS G+ project have been produced and delivered to Turkish Ground Forces after successful completion of the customer acceptance tests.

The delivery of the export version of Link Encryption Devices has been done successfully to the contracted customers.

## Virtual Air Gap System (VAG)

The development activities of VAG system to support new protocols and additional capabilities continued in 2016. This enhanced system will be used in Secure Network Gate project (Ağ Güvenli Geçit Projesi) and be placed within TAF TAFICS infrastructure in order to provide secure data and voice communication capabilities between networks that have different levels of security.

The VAG system that has been developed to provide real time data transfer capabilities between networks with different security levels, has joined the NATO - CWIX Practice for the second time in 2016.

VAG has been tested by the tests of "Cyber Focus Area" work group within CWIX 2016 Practice, and passed all tests successfully.

## Secure Satellite Phone

Development activities in order to provide a national solution for secure satellite communication requirements of Turkish General Staff have been continued within this year and first prototype approval activities have been completed.



## TEMPEST Products

The delivery of TEMPEST NATO SDIP/27 Level A certified laptops and printers has been completed within 2016 in accordance with the previously signed contracts. The TEMPEST Desktop Computer which is developed for Ministry of Exterior has been tested by TÜBİTAK and received NATO SPID/27 Level A compliance certificate.

## Secure USB Memory Device

Development activities for Secure USB Memory Device that has storage capacity up to 128 GB, supports USB 3.0 and has high speed read/write capability have been continued within this year.

## EKADAS-II Integration Project

A new contract has been signed in October 2016 between ASELSAN and TÜBİTAK to enable the distribution of encryption keys of ASELSAN crypto products over EKADAS-II, which is being developed by TÜBİTAK BİLGEM as a SAVTAG Project. The integration work has already started to achieve this goal.

## GÜVEN Project

A contract has been signed with TÜBİTAK in April 2016 which includes system engineering and test engineering support from ASELSAN for GÜVEN National Encryption Processor Development project. The first stage of the activities has been completed successfully and delivered to TÜBİTAK within this year.

# DEFENSE SYSTEM TECHNOLOGIES BUSINESS SECTOR

The equipments and systems developed by the Defence Systems Technologies Business Sector are submitted and successfully put into use in Turkey -primarily by the Turkish Armed Forces and Turkish National Police - as well as by our customers abroad.





NAVAL SYSTEMS

AIR AND MISSILE DEFENCE SYSTEMS

LAND SYSTEMS

COMMAND CONTROL, COMMUNICATION  
AND COMPUTER SYSTEMS

WEAPON AND WEAPON FIRE CONTROL  
SYSTEMS

KORKUT Self Propelled Air Defence Gun System



# DEFENSE SYSTEM TECHNOLOGIES

## BUSINESS SECTOR

**INTEGRATED COMBAT AND MISSION  
SYSTEMS FOR SURFACE AND UNDERWATER  
PLATFORMS ARE ESTABLISHED BY  
UTILIZING TECHNOLOGIES, KNOW-HOW,  
EQUIPMENT AND SYSTEMS DEVELOPED BY  
ASELSAN.**



## NAVAL SYSTEMS

Naval systems activities comprise to establish improved combat and mission systems including navigation and platform management systems in an integrated structure, for surface and underwater platforms required primarily by Turkish Navy, Coast Guard Command and other government agencies all the while utilizing technologies, know-how, equipment and systems developed by ASELSAN.

### Surface Ship's System

ASELSAN performs combat or mission systems development, system design and system integration activities for surface naval and non-military platforms.

In cooperation with domestic and international shipyards, turnkey technical and administrative solutions for various class of ships such as research ships, towing ships, diver training boats, coast guard boats, patrol boats, fast patrol boats, corvettes, frigates etc. has been prepared and submitted to relevant authorities for Turkish Armed Forces and international customers.

### Combatants

In the context of MILGEM Combat Systems project; integrated communication system, satellite communications system, navigation systems, electro-optics, laser warning system, electronic warfare system, radars, sonar, guided missile systems, gun fire control systems, remotely controlled weapons, torpedo countermeasure system and echo sounder systems of naval combat system to provide air defense warfare, surface warfare and anti submarine warfare for the ships has been developed, integrated onboard the platforms and delivered to Turkish Naval Forces Command. Within the scope of contract amendment signed with SSM to provide combat systems for MILGEM 3<sup>rd</sup> & 4<sup>th</sup> ships, system development, design, provision and testing activities are carried on.



Please scan the QR code to read the solutions offered by ASELSAN in Naval Systems.

IN COOPERATION WITH SHIPYARDS, A SIGNIFICANT EXPORT CAPACITY HAS BEEN GAINED IN NAVAL SYSTEMS BY PROVIDING IMPROVED COMBAT SYSTEMS FOR SURFACE AND UNDERWATER PLATFORMS THAT ARE MANUFACTURED ABROAD.

In the scope of MILGEM contract's statement of work, ASELSAN has participated to "I" Class frigate combat system design and ship layout studies. Also, alternative configurations are studied concerning potential systems under the combat system design activities.

### Amphibious Vessels

Production, procurement, integration and testing activities are performed for the combat systems to be composed of radars, electro-optics, communication systems, navigation, electronic warfare and stabilized weapon systems and integration of these systems for two Amphibious Ships (LST).

Harbour Acceptance Tests of first ship has been completed, and integration stage has been reached by accomplishing Factory Acceptance Tests for second ship.



# DEFENSE SYSTEM TECHNOLOGIES

## BUSINESS SECTOR

In the context of Multi Purpose Amphibious Assault Ship Project design activities for supplying and integration of combat system, comprising communication system, satellite communication systems, IFF system, stabilized weapon systems, underwater acoustics and sonar systems, radar systems, electronics warfare systems, infra-red search and tracking system, laser warning system, electro-optical director and navigation systems continued.

### Coast Guard and Patrol Boats

Activities for supplying and integration of electronics and combat systems for 16 TUZLA class patrol boats has been completed and final deliveries to Naval Forces Command are made.

Activities for supplying and integration of weapons and electronics systems for four DOST class search and rescue ships has been completed for Coast Guard Command.

VATOZ® system developed for the export project of 10 SERHET Ship Class boats and integration of VATOZ® system for various guided missiles are completed. Deliveries of 5 out of 6 fast patrol boats are completed, and sea trials with live firing tests of sixth boats are successfully conducted.

### Auxiliary Ships

Procurements and integration activities for underwater acoustics systems, communications system and navigation systems for Submarine Rescue Mother Ship (MOSHIP) and Rescue & Towing Ships Project has been performed. Production of ASELSAN navigation systems (INS), communication systems and electro-optics (IR/LLTV) are completed. MOSHIP and Towing & Rescue Ship #1 Sea Acceptance Tests are completed.

Procurement and production of scientific research equipment and production of ASELSAN navigation system (INS) are completed for Seismic Research Ship being constructed for General Directorate of Mineral Research and Exploration. Harbour Acceptance Tests are accomplished and Sea Acceptance Tests are initialised.

Communications, navigation and weapon systems for Logistics Support Ship project of Turkish Naval Forces Command are provided by ASELSAN. Production and procurement of relevant systems including Factory Acceptance Tests are performed.

ASELSAN PROVIDES ENHANCED ELECTRONIC SYSTEMS FOR SHIPS OF TURKISH NAVY AND OTHER GOVERNMENT AGENCIES.



30mm Stabilized Naval Gun System (MUHAFIZ)



ASELSAN is providing weapon (STOP) and communication switching system for Replenishment at Sea Tanker project for Pakistan Naval Forces. Integrated design activities have been conducted, system's production and Factory Acceptance Tests are accomplished.

In the context of export sales, one hydrographic&oceanographic research ship and one towing ship's systems production and test/ acceptance activities are performed.

### Naval Systems Weapon & Sensor Management

Weapon&Sensor Management System development and platform integration work is conducted by ASELSAN. In this regard, VATOZ® system integrated on domestic and international programs is being used on more than 30 platforms.

New weapon and sensor integration activities are performed on VATOZ® systems, guided missile integrations are validated by live firings.

### Navigation & Platform Management Systems

Various sub system development activities, that was initiated in 2015 and 2016, are continued to provide modern navigation and platform management systems for naval platforms. Electronic Chart Display and Information System (WECDIS), Digital Plotting Table, Indigenous EM speed-log system (MILPARS) and Dynamic Positioning System (DİKONS) development activities with ASELSAN's own resources are on planned progress.

KULAÇ ECHO SOUNDER SYSTEM DEVELOPED BY ASELSAN WAS EXPORTED TO INDONESIA AND INTEGRATED INTO INDONESIAN SUBMARINE KRI NANGGALA 402.

### Torpedo and Under Water Systems

ASELSAN directed its technological capabilities, know-how and infrastructural capabilities to underwater acoustic systems activity area, primarily to torpedo countermeasure systems technologies. Development of underwater acoustic systems that was not well developed in Turkish defense industry, has become a priority.

### Submarine and Sonar Systems

Within the scope of the Turkish Naval Forces' New-Type Air Independent Submarine Project, ASELSAN continued to work on development of Integrated Communication System and X-Band Satellite Communication System as well as Electronic Support Measure Systems, including alarm announce system development, production and test activities.



Indonesian Submarine KRI Nanggala 402.

# DEFENSE SYSTEM TECHNOLOGIES

## BUSINESS SECTOR

Within the scope of active and passive sonar systems, KULAÇ echo sounder system developed by ASELSAN was exported to Indonesia and integrated into Indonesian submarine. ASELSAN won the Intercept Sonar of AY Class Submarine's procurement bidding of MoD in competition with a foreign company. Passive sonobuoy system development activities are performed during this period. Cooperation is initiated with Turkish Navy to integrate Mine Detections Sonar System (MATESS) developed by ASELSAN onto Engin Class Mine Hunting Ship's.

### Torpedo and Torpedo Countermeasure Systems

ASELSAN started sea trials of the development of outboard Launching System that will provide fast launching of acoustic decoys in addition to inboard signal ejector's in PREVEZE and GÜR class submarines. Thanks to Launcher System that will work in an integrated manner with Decision Support System that was developed within the scope of DAKA project, integration of torpedo countermeasure in submarines will be ensured. ASELSAN has also maintained its efforts for the sale of the export versions of ZARGANA system and ZOKA decoy family. ASELSAN continued sea performance tests of the HIZIR Torpedo Countermeasure System that was developed by own resources to defend surface ships against torpedoes. Production activities of the HIZIR system were initiated for the MİLGEM 3<sup>rd</sup> and 4<sup>th</sup> ships and Multi-Purpose Amphibious Assault Ship (LHD). The Company maintained its efforts for the export of the HIZIR system.

ASELSAN continued development activities of the Counter Defense Torpedo against Torpedoes (TORK) with financial support of TÜBİTAK, that will support the platforms' self-defense operations against torpedo attacks. Various sea trials are conducted with test prototype. Moreover, ASELSAN continued sea trials to establish ad-hoc acoustic communication network for underwater vehicles with own resources and financial support from TÜBİTAK. This project is expected to bring about a technological infrastructure that will serve all underwater systems in the future.



Modernized Towed Air Defence Gun



Please scan the QR code to read the solutions offered by Aselsan in Air and Missile Defence Systems.

### AIR AND MISSILE DEFENCE SYSTEMS

ASELSAN, being the first air defense system producer in Turkey and having more than 30 years experience in air defense field, is facilitating its knowledge for development of indigenous air and missile defense systems. Main advantage of ASELSAN in the air defense field is development and production of all critical elements such as sensors, command & control units, fire control units, communication units in house. With its experience and maturity in system engineering, system analysis & modelling and systems development, ASELSAN is more than ready to take part in ballistic missile defense systems. ASELSAN will be the major defense company in ballistic missile defense solution of Turkey.

### Air Defence Fire Control System, Modernized Towed Air Defence Guns and Airburst Ammunition

Air Defence Fire Control System (FCS) executes the fire and command control functions including detection, tracking and identification of the target; threat evaluation and weapon assignment (TEWA) for the 35 mm Towed Air Defence Guns modernized by ASELSAN and HİSAR-A Low Altitude Air Defence Missile Launching System.

Modernized Air Defence Guns can effectively use 35 mm Airburst Ammunition developed by ASELSAN. Together with Airburst Ammunition and FCS, Modernized Towed Guns are effective against modern air threats like cruise missiles, air-to-ground missiles, UAVs in addition to fighter aircraft and helicopters.

## KORKUT Self Propelled Air Defence Gun System

KORKUT Air Defense Gun System is developed for the effective air defense of mechanized troops and mobile units. KORKUT Platoon is composed of 1 Command Post and 3 Gun Systems. Each KORKUT Platoon can execute target detection, identification, assignment to gun systems, tracking and firing functions either autonomously or under coordination of Air Defence Early Warning, Command and Control System (HERIKKS). KORKUT Gun System can effectively use 35 mm Airburst Ammunition and the system provides an effective mobile low altitude air defence solution against modern air threats including cruise missiles, air-to-ground missiles, UAVs in addition to fighter aircraft and helicopters.

### System Deliveries

2 KORKUT Gun Systems, 1 KORKUT Command Post, 1 FCS, 4 Modernized Towed Guns and 2850 Airburst Ammunition produced under the development contracts signed between Turkish Undersecretariat for Defence Industries (SSM) and ASELSAN have been delivered to Turkish Army after successful completion of the acceptance tests.

### KORKUT Mass Production Contract

Contract for mass production of 40 KORKUT Gun Systems and 13 Command Posts for the requirements of Turkish Army has been signed in May 2016.

## Electromagnetic Launch System

ASELSAN has been working on development of electromagnetic launch (EML) technologies which provides an alternative to common propulsion systems like rockets and gun powder. EML sub-systems developed and produced by ASELSAN are currently being tested in the laboratory.

## Short and Medium Range Air Defence Missile Systems (HİSAR-A and HİSAR-O)

Short and medium range air defence missile systems provide air defense for both moving troops and stationary critical assets. Two types of ground systems: self-propelled armored and wheeled vehicle mounted air defense missile systems, and the missile are developed in the HİSAR-A project. Product and production line qualification test will also be administered.

HİSAR-O is an air defence missile system in a network centric architecture composed of a battalion and its batteries. The project includes the development and product/production line qualifications of Battalion Fire Control Center, Battery Fire Control Center, Medium Range Air Defence Radar, Early Warning Center Link-16 Interface, Electro-Optical System, Missile Launch System, Missile

ASELSAN IS THE MAIN CONTRACTOR IN THE NATIONAL PROJECTS SUCH AS THE SHORT AND MEDIUM RANGE AIR DEFENCE MISSILE SYSTEMS (HİSAR-A AND HİSAR-O), 35 MM SELF PROPELLED AIR DEFENCE GUN SYSTEM (KORKUT) AND 35MM AIRBURST AMMUNITION.

Transportation and Loading System, and Medium Range Missile. Missile Transportation Loading System and Education Center are developed as supporting equipment in the HİSAR projects.

In HİSAR Projects, system requirement identification (Phase 1) and system design (Phase 2) phases have been successfully completed and subsystem development and testing (Phase 3) is currently in progress.

System Integration and Test activities of land systems are accomplished in August 2016. During the firing test campaign in November-December 2016, HİSAR-A control and guidance missiles and HİSAR-O control missile are launched successfully. Additionally; vertical launching, mid course guidance and firing from the missile launch system are performed for the first time.







KORKUT Self Propelled Air Defence Gun System





# DEFENSE SYSTEM TECHNOLOGIES

## BUSINESS SECTOR

### Long Range Air and Missile Defense Systems

ASELSAN initiated an R&D project to conduct studies on concepts and key technologies for a Long Range Air and Missile Defense System. This study defines requirements, design and test infrastructure specifications. System effectiveness and performance analysis studies according to modeling and simulation bases.

### Ballistic Missile Defense System Engineering and Integration Project (BMD SE & I)

ASELSAN will be part of the team, led by Leidos (USA), who was awarded a contract by the NATO Communications and Information (NCI) Agency to provide systems engineering and integration support for the Ballistic Missile Defense (BMD) Program.

ASELSAN will be working together with ten other teammates from Canada, France, Germany, Italy, the Netherlands, Turkey the United Kingdom and the United States. Under the contract, Team Leidos will deliver NATO BMD capability, including BMD enhancements to the NATO C3 systems, refinement and maintenance of the NATO BMD architecture.

The Project, by its nature, will be executed at NCIA premises in the Hague/the Netherlands and is the first of its kind to use ASELSAN's experience in NATO BMD activities.



İHTAR Anti-Drone System



HİSAR-O Medium Altitude Air Defence Missile Launching System

### İHTAR Anti-Drone System

For neutralizing mini and micro UAV threats in urban and rural environments ASELSAN developed an anti-drone system which is called İHTAR. The system solution consists of radar, electro-optic subsystem, Jammer subsystem and command and control system. Installation of the developed İHTAR system to critical facilities are in progress.

### LAND SYSTEMS

ASELSAN continued development, modernization, production and after sale support activities of Land Systems for Land, Air and Naval Systems; Main Battle Tanks; Command Control Communication and Computer Systems. With its wide, indigenous and proven product range and 30 years of experience on Land Systems, ASELSAN offers faster solutions meeting needs of Turkish Armed Forces, Gendarmerie General Command, Turkish National Police and other foreign countries' armies. ASELSAN updates its system solutions by R&D activities based on high and new technologies. ASELSAN upgrades and develops its products using emerging technologies.



## COMMAND CONTROL, COMMUNICATION AND COMPUTER SYSTEMS

With its wide product range, ASELSAN offers its users Fire Support, Reconnaissance, Surveillance and Intelligence, Integrated Battlefield Management, Electronic Warfare, Strategic Operational and Tactical Level Command Control Information Systems and Tactical Communication Systems.

### Fire Support Command and Control Systems

Fire Support Automation System enables automated command, control and communication functions of fire support elements within the battlefield to work in complete harmony with other elements in the battlefield. Deployment of related elements within Turkish Land Forces with Fire Support Automation Systems (ADOP-2000); named after the abbreviation of “Fire Support Automation Project” (Turkish: “Ateş Destek Otomasyon Projesi”) and the year 2000 (project initiation year), is in a continuous progress.

### Tank Command Control Communication Information System

Within the scope of the National Tank Project (ALTAY Project), Tank Command Control Communication and Information System qualification tests and the system’s testing on the tanks have been completed.



Please scan the QR code to read the solutions offered by Aselsan in Command Control, Communication and Computer Systems.

## ADOP 2000 SYSTEM ENABLES TO FIRE TARGETS AT THE RIGHT TIME, WITH THE RIGHT WEAPONS AND THE RIGHT AMMUNITION.

In order to ensure the integration of ALTAY Tank with all the units that will work under a common command control information system architecture, development activities has been conducted regarding the use of BATUR Battle Management System in all combat and support vehicles that are in or will be in the inventory of Turkish Land Forces. Within this common command control information system architecture, ASELSAN will be providing the Command Control and Communication Systems for the newly developed antitank weapon carrier vehicles.

ALTAY Tank



# DEFENSE SYSTEM TECHNOLOGIES

## BUSINESS SECTOR

### Soldier Command and Control System

Soldier Command and Control System is an integrated command control and information system aimed at increasing the team's effectiveness, operational capability, situational awareness and integrated warfare ability. Every personnel using the system is capable of sharing their location and situation, emergency reports, digital images and military messages within the team.

### Military Mission Computer Systems

ASELSAN develops and manufactures military mission computers, military handheld computers, monitors and keyboards and respective cards (including processors, interface, power management, video target detection and tracking cards), which can be used as an integrated part of land, air, naval and submarine system solutions and which are suitable for the challenging environmental conditions of the battlefield.

ASELSAN manufactured a range of products such as the EuroCard-3U (conduction/air cooled), EuroCard- 6U (conduction/air cooled), Hybrid (both EuroCard-3U and EuroCard-6U) (conduction/cooled) and HT-7245 and HT-7250 Military Handheld Computers.

These family of mission computers and handheld computers have already been deployed in various system solutions, such as fire control, fire direction, command control, weapon control and data communication systems.

The studies for 12" and 19" Military Panel Computers, High Power Computing Systems, L3 Ethernet Switch and Multi-Purpose Size/Weight/Power Optimized Mission Computers are continued.

Additionally, the design activities for the custom vehicle computer "Force Tracking System Terminal" which aims to track the positions of the wheeled and tracked vehicles in the inventory of Turkish Land Forces, are completed. The mass production of these terminals is initiated.

MILITARY MISSION COMPUTER SYSTEMS ARE THE BRAINS OF VARIOUS FIRE CONTROL AND WEAPON CONTROL SYSTEMS.



MANUFACTURING AND DELIVERY IS UNDERWAY FOR A LARGE NUMBER OF REMOTE CONTROL WEAPON SYSTEMS THAT HAVE BEEN SOLD TO CUSTOMERS BOTH IN TURKEY AND ABROAD.

### Network Enabled Battlefield Command and Control Systems

Activities continued regarding the integration of the following systems and components under a common command control architecture; systems that are in the Land Forces' Command Inventory and that were developed by ASELSAN; maneuver, intelligence, electronic warfare, fire support and air defense functional area command control information systems, tactical communication systems, command location components and mobile components assigned in the tactical area, the development of which continues.

### Artillery, Howitzers, Mortars and Rocket Launcher Fire Direction Systems

Design, production and delivery activities were conducted for the Artillery, Howitzer, Mortar and Rocket Launcher Fire Direction Systems that automate the technical fire direction processes and enable Fire Direction Centers and weapons to perform rapid and accurate fire missions.

### Air and Missile Defense Command and Control Systems

A contract was signed between ASELSAN and Ministry of National Defence in 2016 to extend the use of HERIKKS in all Air Defence Units in the Turkish Land Forces with the new capabilities. In addition to the existing Tactical Data Links (TDL), with new Link-16 and JREAP TDL capabilities, the interoperability between Turkish Air Forces and HERIKKS will be moved to higher levels. HERIKKS will be designed to perform command control of the next generation air defense systems such as KORKUT, AİC, HİSAR-A and HİSAR-O which will be in the Turkish Military inventory in near future.

### Combat Support Systems

With regard to modern military platforms that are shaped in line with today's changing needs and increased asymmetric threats, ASELSAN carried out activities in situational awareness, augmented reality and vehicle tracking. ASELSAN presented its activities regarding the establishment of system architecture for ground platforms in technology panels and the working report was presented to the Ministry of National Defence.

## WEAPON AND WEAPON FIRE CONTROL SYSTEMS

ASELSAN develops and manufactures weapon and weapon fire control systems in various types and calibers for land, air and naval battlefield. These weapon systems are also in service of international clients.

### Remote Controlled Weapon Systems

ASELSAN Remote Controlled Weapon Systems (RCWS) are in service in 12 (twelve) countries including Turkey.

The production and deliveries of STAMP (Stabilized Machine Gun Platform), STOP (25mm Stabilized Naval Gun System) and MUHAFAZ (30mm Stabilized Naval Gun System) which are developed for marine platforms continued with orders received from Turkey and abroad. In addition to these, we continued the production and deliveries of the 12.7mm SARP Remote Controlled Weapon System, developed to be used as a defense weapon against land and air threats on land vehicles or fixed facilities, in order to meet the demand of the Land Forces Command, Turkish National Police and General Command of the Gendarmerie.

Exports of the SARP-NSV system, a version of the SARP system that can be fitted with Russian origin weapons, have been carried out.

SARP Remote Controlled Weapon System





# DEFENSE SYSTEM TECHNOLOGIES

## BUSINESS SECTOR

The development activities of the SARP DUAL System, which allows the user to integrate two different weapons at the same time and to enable the user to select weapons from the control unit under operational requirements, were completed. Furthermore, the development activities of the SARP-L System, a 7.62mm machine gun integrated RCWS, were also completed.

Small, lightweight and technologically more capable new generation 12.7mm STAMP (STAMP-2) development is underway. Regarding STAMP-2 System, the ability to support NATO and Russian origin weapons, high stabilization accuracy, automatic target tracking and improved hit performance in terms of technological competitiveness were targeted.

Development works for Remote Controlled Weapon Systems suitable for use of 25/30mm caliber weapons for land vehicles as well as domestic and foreign business development activities have been carried out.

### 155 mm Firtina Self-Propelled Howitzer Fire Control System

FIRTINA Howitzer Fire Control System developed by ASELSAN enables T-155 K/M FIRTINA Howitzer to conduct deployment, mission preparation, fire control and management functions via computerized processes and allows digital integration with other fire support elements. The production and delivery of final batch of these systems have been realized. ASELSAN carried out activities regarding the use of the Howitzer Fire Control System, with addition of new features and capabilities, in both domestic and international modernization and development projects for other howitzers.

### Light Towed Air Transportable Howitzer Fire Control System

Light Towed Air Transportable Howitzer Fire Control System has been developed by ASELSAN, within the scope of the BORAN Light Towed Air Transportable Howitzer Development Project, which has been conducted to answer the demand for a modern, light and air transportable artillery weapon with high accuracy and tactical flexibility as required by present fluctuating and harsh combat conditions. System design and prototype production phases have been completed and qualification tests are impending.



### Modernization of 155mm Towed Howitzer

Modernization activities have been carried out to improve and add new features to the 155mm Towed Howitzer in order to increase its capabilities and effectiveness in use.

Moreover, ASELSAN conducted activities regarding the use of 155mm howitzers on tactical wheeled vehicles and prototype production phase has been initiated.

### Multiple Launcher Rocket Weapon Management Systems

Multiple Launcher Rocket Weapon Management System governs the movement, deployment, mission preparation and fire control processes of the Multiple Launcher Rocket Systems (MLRS). ASELSAN continued design, production and delivery activities within the scope of contracts signed for export sales of Multiple Launcher Rocket Weapon Management Systems.

ASELSAN IS RESPONSIBLE FOR ALL THE ELECTRONIC SYSTEMS INCLUDING THE FIRE CONTROL SYSTEM WITHIN THE SCOPE OF THE NATIONAL MAIN COMBAT TANK PROJECT (ALTAY).

### Mortar Fire Control Systems

With respect to various caliber mortar weapons; ASELSAN conducted development activities for systems that provide functions such as determination of location and bearing of the weapon, performing ballistic calculations and digital communications, laying of barrel in line with the calculated fire principles and automatic ammunition loading.

### Altay MBT Fire Control and Electronic Systems

Within the scope of the ALTAY Project, which ASELSAN is involved in as the main supplier of Electronics, Electro-Mechanical and Electro-Optical systems, the Company delivered Tank Fire Control System, Electrical Gun and Turret Drive System, Remote Weapon Station, Tank Command Control Communication and Information System, Tank Laser Warning Receiver System, Tank Driver's Sight System and Battlefield Target Identification System. These systems were delivered and their integration onto the tanks were completed. Verifications regarding qualification and acceptance tests have been performed.

Together with ASELSAN's MBT Electronics Suite, which provides MBTs ability to see, observe, communicate, protect itself and fire, ALTAY MBT is equipped with superior combat capabilities.

While performing firing trials, preparations of infrastructure related to mass production have been initiated as well.

### Modernisation of Main Battle Tanks

With the enhanced know-how and experience acquired through the projects conducted so far in the areas of MBTs and weapon systems, "ASELSAN's MBT Electronics Suite" has been diversified and expanded to comply both Turkish Army's and other armies' requirements and needs. During 2016, ASELSAN also conducted the business development, promotion and presentation activities regarding tank modernization within the scope of electronic and electro-mechanic solutions that the Company generated regarding the T-72 Tank, the prototype modernization of which was developed with KAE which is ASELSAN's subsidiary in Kazakhstan, along with the M60, Leopard-1 and Leopard-2 tanks within the framework of international cooperations.

In order to upgrade and enhance the survival skills of the main battle tanks in Turkish Army inventory, one M60T MBT was integrated with the "ASELSAN's MBT Electronics Suit" and the tests of this prototype system has been conducted successfully.

### Tower/Turret Propulsion Systems

Design and development activities of direction systems required for Weapon Systems (such as tank, howitzer, artillery, mortar, multi barrel rocket, rocket and missile launcher and machine gun), Reconnaissance Surveillance Systems, Unmanned Systems, Sensitive and Fast Direction and Launch Systems, Electro-optical Radar and Antenna Direction Systems, Ammunition Feeding and Storage Systems and in other similar areas were carried out. In addition to these activities, ASELSAN also conducted design, manufacturing and test activities of motor drivers, move control algorithms, actuators, motors, slip ring and various sensors in accordance with the requirements of these systems.



# DEFENSE SYSTEM TECHNOLOGIES

## BUSINESS SECTOR

### High Accuracy Stabilized Gimbal

The design, development, production and testing activities of High Accuracy Stabilized Gimbal have been carried out for Surveillance Systems, Target Detection and Tracking Systems, Highly Sensitive Stabilized Guidance Systems which are used in land and sea platforms. The deliveries of High Accuracy Stabilized Gimbal developed for various platforms are being carried out within the scope of domestic and international contracts.

### LMM (Lightweight Multirole Missile) Launcher System

Within the scope of LMM Launcher System qualifications, firing tests have been realized in United Kingdom. LMM with warhead has been fired successfully from MILAS launcher.

### Integration of National IFF Interrogators to PMADS Project

In accordance with the National IFF MOD-5/S Procurement contract signed between Ministry of National Defence and ASELSAN, National IFF Interrogators will be integrated by ASELSAN to 70 ATILGAN PMADS and 35 ZIPKIN PMADS of Turkish Land Forces. Furthermore, 5 Maintenance Support Vehicles and 8 PMADS Training Simulators will be upgraded to work smoothly with the new interrogators.





ALL THE ELECTRONIC AND MECHANICAL SYSTEMS OF THE POYRAZ AMMUNITION RESUPPLY VEHICLE WHICH TRANSFERS THE AMMUNITION TO FIRTINA HOWITZERS ARE PROVIDED BY ASELSAN.

### Ammunition Transfer Systems

ASELSAN continued manufacturing and delivery activities of Ammunition Transfer Systems that are used in the POYRAZ Ammunition Resupply Vehicle. The main mission of the Ammunition Transfer System, which was integrated into the POYRAZ Ammunition Resupply Vehicle, is to load ammunition from the ammunition supply point to the POYRAZ Ammunition Resupply Vehicle quickly and easily, and then to transfer the ammunition automatically to the FIRTINA Howitzers which are located in the combat zone. The POYRAZ Ammunition Vehicle may operate in accordance with voice or digital orders received from the upper command post. With the aid of the vehicle's Global Positioning System (GPS), it may change its position and move quickly and information concerning the Ammunition Transfer System's locations, friend and foe troops, known points and command locations may be displayed on the digital map.



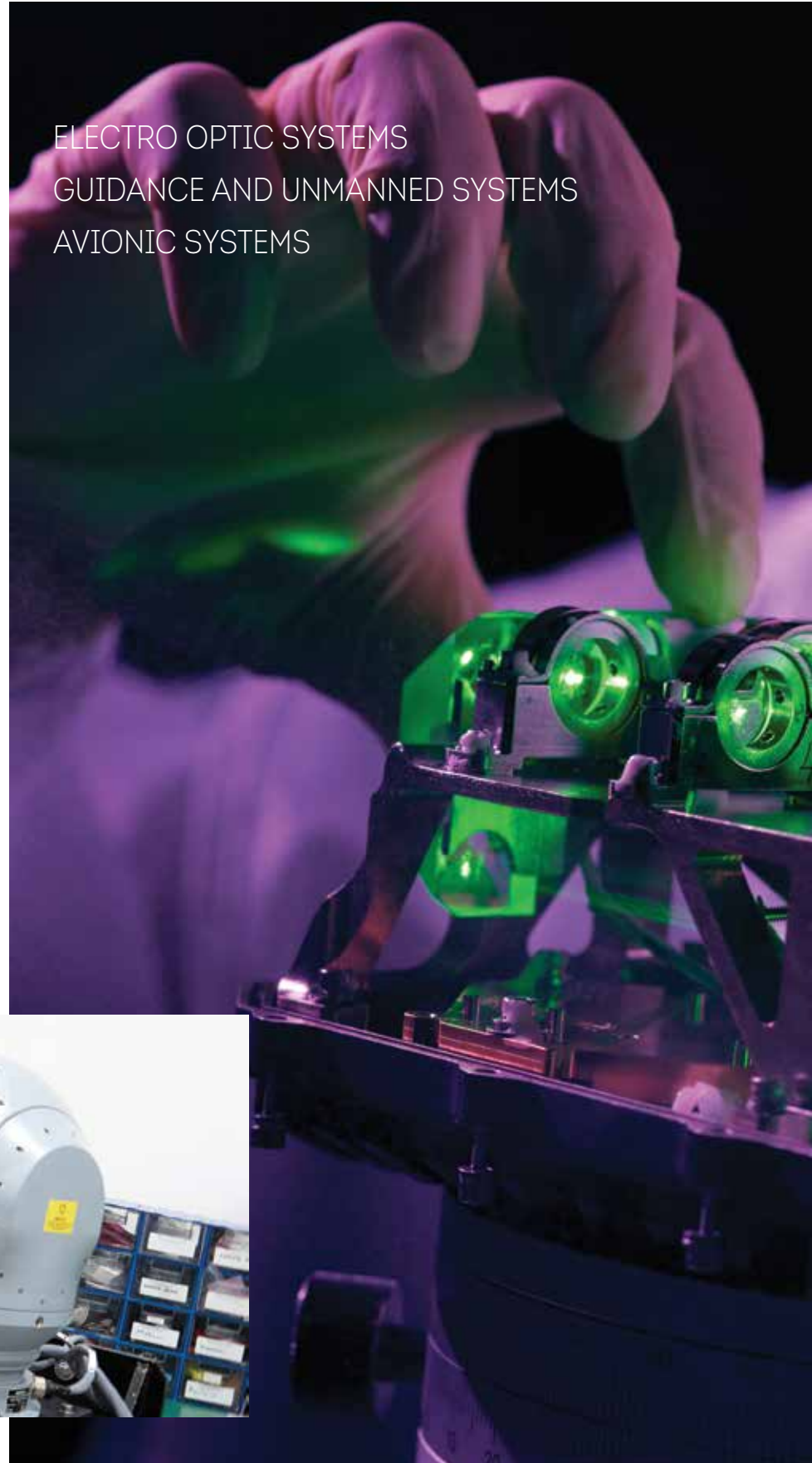
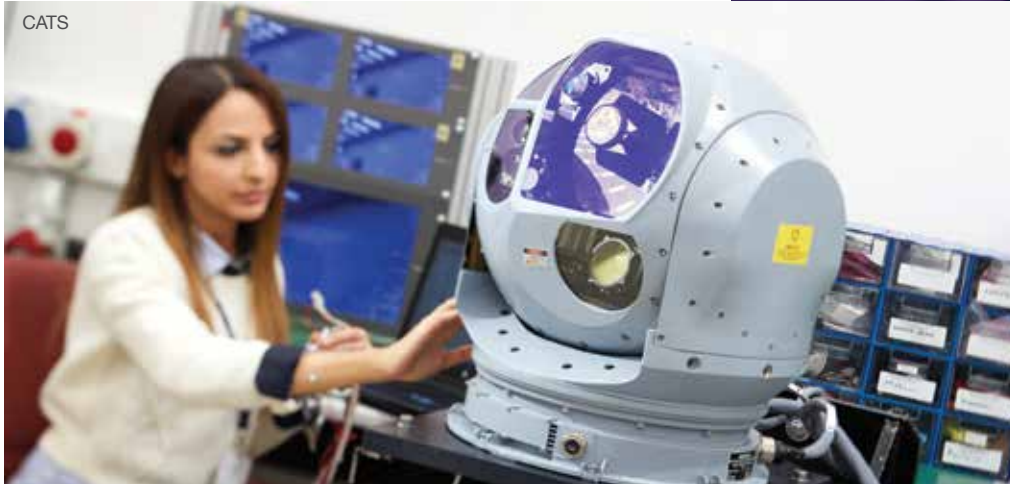
POYRAZ Ammunition Supply Vehicle

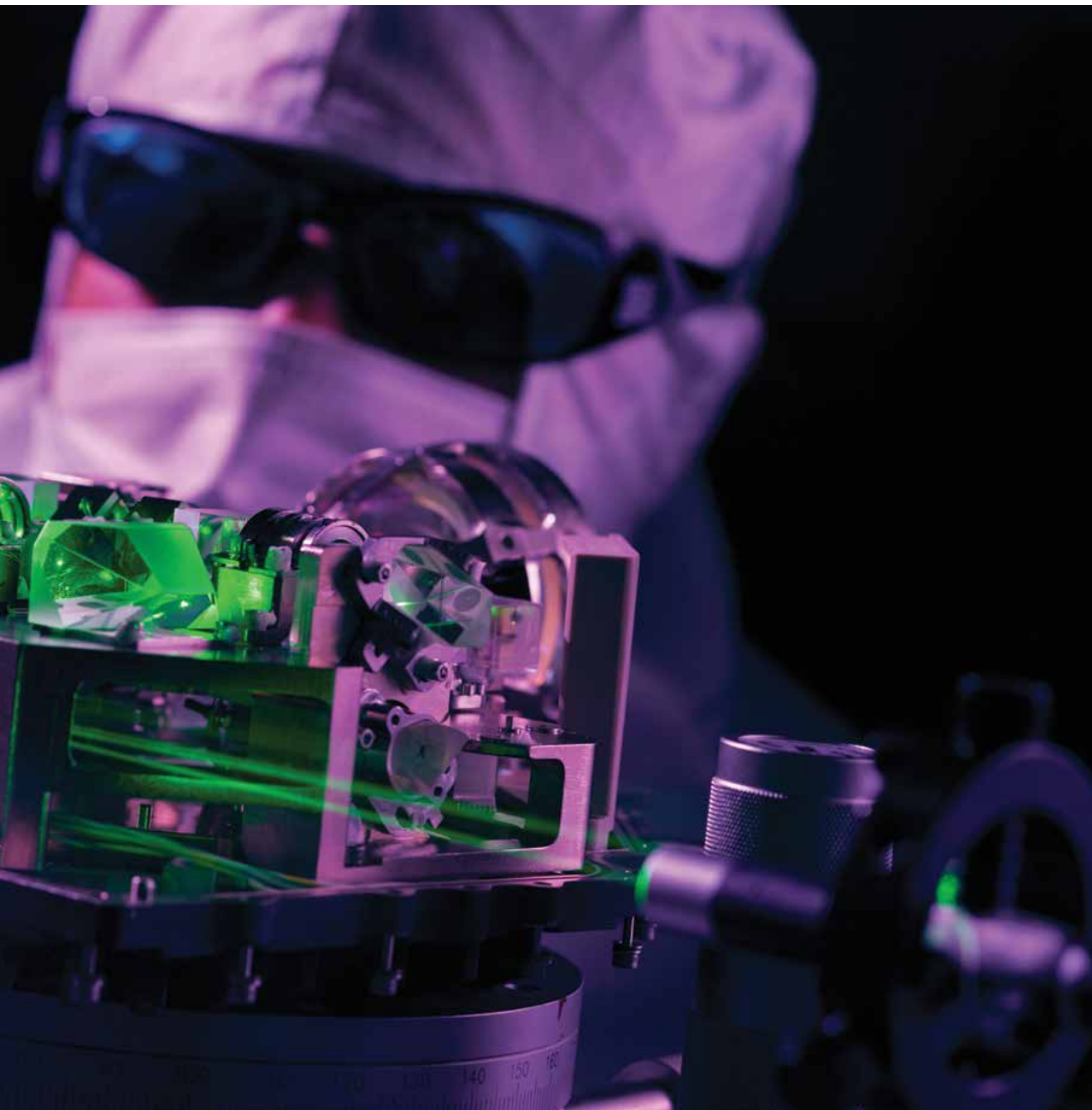
# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR

ELECTRO OPTIC SYSTEMS  
GUIDANCE AND UNMANNED SYSTEMS  
AVIONIC SYSTEMS

ASELSAN is the technology hub of Turkey in Thermal, Laser and Night Vision Systems, Guidance and Navigation Systems, Unmanned Systems and Avionic Systems.

CATS







# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR

## ELECTRO OPTIC SYSTEMS

Electro-Optic Systems Division, which is located under ASELSAN Microelectronics, Guidance and Electro-Optics (MGEO) Business Sector, works on; airborne, land, naval and space applications of thermal imaging systems, day imaging systems, image intensifier night vision systems, laser systems, electro-optical countermeasure systems, multi-sensor electro-optic systems and the main technologies used in these systems.

### Targeting Systems

Functional / performance flight tests of the ASELPD Electro-Optical Reconnaissance, Surveillance and Targeting System, developed for fighter aircrafts were successfully completed. In 2016, two ASELPD deliveries were accomplished. ASELPD mass production deliveries will take place in 2017 and 2018 within the scope of domestic and foreign contracts signed during the year.

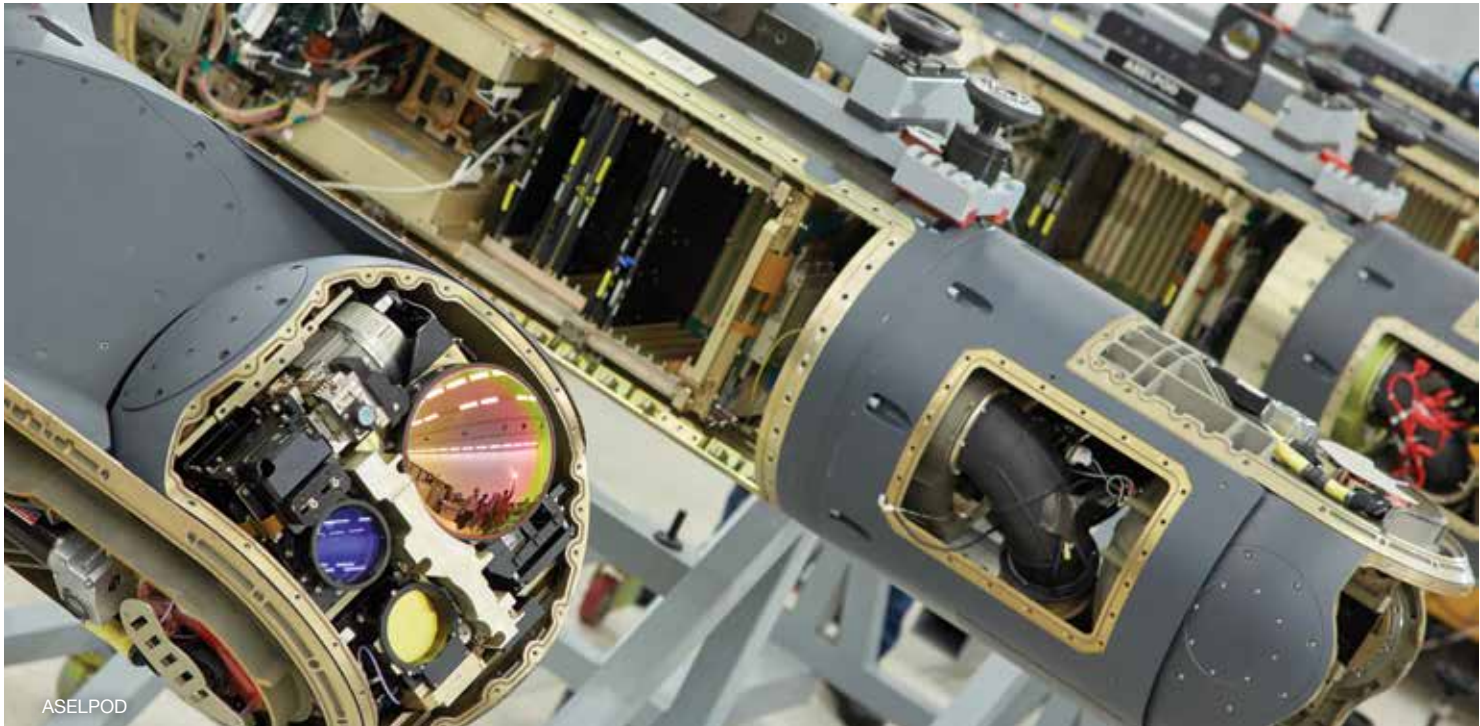


Please scan the QR code to read the solutions offered by Aselsan in Electro Optic Systems.

Deliveries of the Laser Warning Receiver System (LIAS) which is a member of electro-optic countermeasure systems family were completed. Sensors of the Missile Warning System, another electro-optic countermeasure system, have been produced for a foreign customer.

Within the scope of ATAŞ Project, deliveries of the ASEFLIR-300T Electro-Optical Reconnaissance, Surveillance and Targeting System were performed. The ASEFLIR-300T System for Cobra Helicopter Modernization Program was delivered under an international contract.

Under the ANKA-S Project, CATS Electro-Optical Reconnaissance, Surveillance and Targeting Systems were delivered to TUSAŞ with its support equipments. Safety of Flight Tests (SoF) were conducted. Mass production deliveries of CATS will continue in 2017.



ASELPD

## ASELSAN HAS A LONG-TERM EXPERIENCE IN TERMS OF ELECTRO-OPTIC SYSTEMS USED ON NAVAL PLATFORMS.

### Naval Systems

Within the scope of the Barbaros Class Frigate Seaguard Modernization Project, Thermal Camera and Laser Range Finder Systems which are located on the Fire Control Radars were renewed. Acceptance tests of all systems were completed in 2016 and the systems were presented successfully to the Naval Forces Command's use.

In the MOSHIP/KURYED Project, harbor and sea acceptance tests of the gyros and electro-optic systems were completed successfully.

As part of the LST Project, a total of 4 ASEFLIR-300D and 2 sets of Laser Warning Systems (LWS) were delivered to two ships. The factory and harbor acceptance tests of the systems have been completed and sea acceptance tests of the systems are continuing in accordance with the project schedule.

Within the scope of the Submarine Periscope Thermal Camera Project, deliveries have continued to Airbus DS Company in accordance with the project plan.

For the Coast Guard Command, a total of 18 SeaEye-Cupra Electro Optical Sensor System integration activities were completed on Kaan-19, SAR and 80-class boats. Acceptance tests of all systems on boats are expected to be completed in the year 2017.

Seaeye-CAMGOZ Electro-Optic Systems were integrated on the boats of TRNC (Turkish Republic of Northern Cyprus) Security Forces Command in 2016 and their deliveries and acceptance tests were completed.

The prototypes produced in the scope of the PIRI Infrared Search and Tracking System (PIRI IRST) project were demonstrated to the Naval Forces Command. Development activities on the System are still continuing in order to make the first delivery of the System to LHD (Multipurpose Amphibious Assault Ship) Project.

Productions of prototype systems of Seaeye-Ahtapot and SeaEye-KIRLANGIC Systems which were initiated in year 2015 were completed. Software development and testing activities on both systems are ongoing.

Seaeye-Marti Electro-Optic System development activities were initiated in order to meet the need of Coast Guard Command.

Within the scope of the Coast Guard Radar System (SGRS) Project, electro-optic sub-systems have been produced and system qualifications have been completed. Deliveries are planned to be completed in year 2017.



ASEFLIR-300D



PIRI-KATS



# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR

## Reconnaissance Systems

According to the requirements of the Turkish National Police, a new Electro-optical system named ATS-70 has been developed and qualified to be used with SARP stabilized remote weapon system. The system includes thermal imager, day TV and laser range finder. The system became the eye of SARP system and gained customer satisfaction in the field with the properties of continuous zoom, high performance laser range finding ability, and improved image processing algorithm, high shock and vibration stability. As a result of the high demands on the system, a large number of systems have been produced and delivered in 2016. The mass production will continue in line with the local and international demand for this high technology system.

In accordance with the amendment to the contract previously signed between ASELSAN and STM in 2014, additional thermal cameras have been delivered to Turkish Air Forces in 2016.

A new laser designator systems contract has been awarded to ASELSAN by Turkish Ministry of National Defence on which ASELSAN has to perform system deliveries over a two year period. Within the scope of this contract VIPER Laser Designators and accessories have been delivered to Turkish Land Forces in 2016. A new contract has been signed with Turkish Gendarmerie for the procurement of laser designator systems and deliveries have been completed.

Eye Seespot Thermal Cameras have been delivered to Turkish Armed Forces during 2016.

As a part of City Security Management System and License Plate Recognition System Project (KGYS-PTS), the deliveries of Automated Multi Sensor Systems – ZEBRA (HMSS-Z), GOZ-SH2J Thermal Camera System and DAS Cameras have been completed to meet the needs of Turkish National Police.

In addition to these units, more than 40.000 electro-optic camera modules for Fixed and Automated Daylight Cameras and License Plate Recognition Cameras have been delivered within the scope of the KGYS-PTS Project. The remaining electro-optic camera/module deliveries will be completed within 2017.

Falconeye-MW Electro-Optic System has been successfully integrated to KIRPI mine-resistant ambush protected

ASELSAN ELECTRO-OPTIC SYSTEMS ARE EXPORTED TO MANY COUNTRIES.

vehicle, which is exported to Tunisia via BMC Inc. through Vehicle Reconnaissance and Surveillance System Project.

Additionally, delivery of Falconeye-MW Electro-Optic Sensor Systems has been successfully accomplished to meet the requirements of another export project.

SAGER-STA Electro-Optical Sensor Systems subcontractor agreement between ASELSAN and FNSS was signed to meet the needs of Turkish Land Forces. As part of this contract, SAGER-STA Electro-Optical Sensor Systems required for tracked antitank vehicles with KORNET-E weapon system will be delivered.

During 2016, 2 contracts have been signed with a foreign customer for the delivery of 11 units of PERI EYE series thermal cameras. The deliveries of these cameras are expected to be completed in 2017. Also in 2016 the deliveries of 26 thermal cameras were completed.



VIPER and EYE-SEESpot



The deliveries of ATS-60 Electro-Optical systems used with the SARP systems to Kazakhstan have been completed in 2016. Also, a new contract for additional ATS-60 systems was signed in 2016 deliveries are expected to be completed in 2017.

In the scope of ALTAY Turkish Main Battle Tank Electronics, Electro-Optics Systems Subcontract Contract Phase I Project; Prototype Tank System and Subassemblies Qualification Tests were successfully completed. Phase II mass production preparation is in progress.

Electro-Optical System Configuration Falconeye-MW Electro-Optical System, DAS Camera System and ATS-40 Gun mounted targeting System are delivered in the scope of Modular Temporary Base (MGUB) Project.

MGUB Phase 4 Electro-Optical System installations are completed successfully and Phase 5 Electro-Optical System installations are in progress. The Phase 6 MGUB contract is signed and the deliveries are scheduled in 2017.

Within the scope of contract signed with Turkish Gendarmerie, delivery of the ASIR Thermal Camera has been successfully accomplished.

Design activities have been completed for Dragoneye Electro-Optical System. After qualification tests, the system will be ready for mass production phase.

Design activities have been completed for Close Range Surveillance System (YAMGOZ) which was initiated as per the request of SSM in order to equip the main battle tanks with additional abilities for effective protection. The system is ready for mass production phase.



ATS-40

## Portable Tactical Systems

In 2016, contracts have been signed for Hand Held Thermal Cameras and Thermal Weapon Sights for the needs of Turkish Naval Forces. Regarding those contracts, Sharpeye Hand Held Electro-Optic Sensor Systems were delivered in 2016. Remaining Guard, Sharpeye Hand Held Systems and Mini Thermal Weapon Sights deliveries will be completed in 2017.

Contracts for Sharpeye and Eye-Mobile Hand Held Systems, A100 Night Vision Monocular and Mini Thermal Weapon Sights have been signed with Turkish Gendarmerie General Command and delivered in 2016.

Within Van Kedisi Fusion Project; night vision and thermal technology have been combined in various product designs for hand held, helmet mounted, weapon sight and clip-on applications. Qualification and deliveries will start in 2017.



Falconeye-MW

# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR



THE FAMILY OF THERMAL WEAPON SIGHTS HAVE STAND ALONE AND CLIP-ON VERSIONS WHICH ARE AVAILABLE IN DIFFERENT CONFIGURATIONS REGARDING VARIOUS WEAPONS AND USER NEEDS.

Various revisions have been made in the contracts signed with Kazakhstan ASELSAN Engineering for the production of Mini Thermal Weapon Sight, Thermal Hand Binoculars, monocular and binocular night vision binoculars, optical weapon sight, electro-optical sensor systems-to be used for stabilized weapon systems to market those products in Kazakhstan and other countries in the region. Besides, a framework contract has been signed with Kazakhstan ASELSAN Engineering for logistic support and spare parts supply.

In addition to these systems, ASELSAN Electro-Optic Division focused on developing day sights family in 2016. The design and manufacturing of 4x, 6x, 1x-4x, 1,5x-6x Day Sights and 3-12x, 5-25x Sniper Rifle Scopes were completed within this context. Presentation and demonstration of these systems have been made to Turkish Armed Forces.

To fulfill the export goals in 2016, Sharpeye Electro-Optic Sensor System, Guard Thermal Camera, BOA Thermal Weapon Sight, A100 Monocular Night Vision, A300 Night Vision Weapon Sight, A600 Clip-on, Mini Thermal Weapon Sight Clip-on and Sniper Rifle Scopes contracts were signed and put into effect with several different countries' armed forces.

All deliveries within the scope of the Night Vision Supply Contract signed for meeting the Jordan Armed Forces Night Vision Systems requirements for 2016 and 2017 have been completed. The devices were produced at ASELSAN Middle East (AME) factory.

Night vision systems and additional infrastructure equipment delivery, including technology transfer, have been completed within the scope of the contracts signed with Kazakhstan ASELSAN Engineering.



## MICROELECTRONICS

ASELSAN continued product based activities in the area of microelectronics in order to have a sustainable and competitive technological infrastructure in the Company's equipments and systems.

### Microelectronics Fields of Activity

ASELSAN continued design and manufacturing activities for Cooled and Uncooled Infrared Photon Detectors, Uncooled Infrared Thermal Detectors (Microbolometers), Inertial Navigation Sensors, Near Infrared (NIR) and Ultraviolet Image Enhancer Tubes.

### Cooled Infrared Photon Detectors

ASELSAN continued to be actively involved in the mass production of Quantum Well Infrared Photodetectors (QWIP) which has a 640 x 512 format and 20  $\mu\text{m}$  pitch. The process of integrating and deploying QWIPs in EYE-Q Thermal Imaging Cameras, designed, optimized and manufactured entirely by ASELSAN for border security purposes, has come to its final stages.

ASELSAN has conducted research activities in developing infrared detectors with Mercury Cadmium Telluride (MCT) epilayers. Company's main focus in this area is integrating these 640 x 512 format 15  $\mu\text{m}$  pitch MCT detectors in ASELSAN made thermal imaging systems for reconnaissance and surveillance such as Eye, Sharpeye, Falconeye and targeting systems such as ASELPOD and CATS.

Mercury Cadmium Telluride layers are deposited on Cadmium Zinc Telluride (CZT) wafers. CZT is a militarily critical technology subjected to export controls. ASELSAN engineers acquired the manufacturing know-how of this critical material through their research efforts conducted under a project contract (EYMIR) funded by the Undersecretariat for Defence Industries.



### Uncooled Infrared Thermal Detectors (Microbolometer)

Success gained through product focused activities on Microbolometer Type Uncooled Infrared Detectors has in 2016 led to the decision to invest in a mass production line within ASELSAN's facilities. Following the preparation of a multi-phase investment plan, hardware procurement has started.

The facility is planned to be operational in 2018. Manufactured detectors will primarily be used in ASELSAN's product lines of Thermal Weapon Binoculars, Armored Vehicle Thermal Sight Systems and Missile Seeker Systems.

### Image Intensifier Tubes

UV solar blind image intensifier tubes are a key component of helicopter missile warning systems. Qualification of a the production line has been completed in 2016 and mass production started successfully. To extend product application to further platforms, engineering activities for the development of new generation high photocathode sensitive tubes are in progress.

### Inertial Measurement Units

As the fiber Optic based Tactical Grade (TG) and Navigation Grade (NG) Inertial Measurement Units (IMU) have been developed successfully, work on qualification of mass production line for TG IMU has been initiated. Upon qualification of the mass production line, production is planned to commence for TG IMU in the beginning of 2017. Work for the utilisation of TG and NG IMUs in different platforms have been continuing.





# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR

## GUIDANCE AND UNMANNED SYSTEMS

### Missile Seeker Projects

ASELSAN has been working on the development of Infrared Seekers for Medium and Long Range Antitank Missiles. Firing tests for Mid-Range Antitank Missile (OMTAS) has been successfully qualified. Qualification firing tests of Long-Range Antitank Missile (UMTAS) from ATAK helicopter is ongoing. The project is in pilot production stage and the production of seekers are ongoing.

The acceptance tests of HISAR A/O Low and Medium Altitude Air Defense Missile Infrared Seeker, which satisfies all functional and performance requirements, have been successfully completed. In both projects (HISAR A/O), the activities continue under the Design Verification Phase.

IN RESPONSE TO TURKISH AIR FORCE COMMAND'S REQUIREMENT FOR A NATIONAL GUIDED AMMUNITION SYSTEM, ASELSAN, WITH ITS IN HOUSE CAPABILITIES, MANAGED TO DEVELOP A LOW COST LASER GUIDED KIT IN A SHORT PERIOD OF TIME.

KARAOK Short-Range Antitank Missile Infrared Seeker design and development contract was signed on 4 August 2016 with ROKETSAN. The project activities continue under the Planning and Requirement Identification Phase.





## Guidance Kits Projects

As a part of guidance kits development and production studies; Air to Ground Laser Guided Kits (LGK) used with general purpose bombs MK-82 (500 lb) and MK-84 (2000 lb) was certified to the platforms F-16 and F-4.

After completing the certification ground tests, stationary and moving targets were hit successfully during performance tests. LGK mass production line was established and production started.

Precision Guided Kits (HGK) used with MK-84, were produced and delivered to Turkish Air Forces. Certification of HGK-2 to F-4 and F-16 platforms was completed and desired targets were hit with high precision during performance tests. HGK-2 mass production activities are in progress.



# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR

## Unmanned Maritime Vehicle Projects

USV's with target towing capabilities that can be integrated to the naval platforms were demonstrated to the Turkish Navy. A new high speed Unmanned Asymmetric Surface Target prototype was introduced for the first time.

Design development work for ASELSAN's High Speed Unmanned Asymmetric Surface Target Prototype New Type Autonomous Mesaha Boat continued.

## Unmanned Ground Vehicle Projects

Light Armored Vehicles to be used by the EOD teams were delivered to the Turkish Police. The new EOD robot developed for the Turkish Police, ERTUĞRUL, passed prototype development and started qualification tests.



Please scan the QR code to read the solutions offered by Aselsan in Unmanned Systems.

ASELSAN DEVELOPS UNMANED SYSTEMS FOR LAND, AIR AND NAVAL USE.



Unmaned Asimetric High Speed Naval Target

Ertugrul OED Robot





ASELSAN provides indigenous unmanned system solutions for the ground, maritime and air domains.

Various demonstration activities were carried out with KAPLAN IED Detection Robot consisting of GPR (Ground Penetrating Radar) and electromagnetic induction detection (EMI) sensor. ASELSAN participated in the Nato activities to standardise the co-working of unmanned vehicles.

Automatic Steering and Control System was developed and integrated to two tractors with the support of General Directorate of Agricultural Research and Policies (TAGEM).

Drive-by-Wire / Applique Kit for EJDİR YALÇIN vehicle of NUROL A.Ş. was installed successfully, enabling the remote control of the vehicle.

KAPLAN OED Robot



## Unmanned Aerial Systems

### Mini UAS

Development and field testing of the fixed wing Mini UAS Systems continued with KADDB and ASELSAN Middle East.

ASELSAN started Sensitive Agriculture Applications Based on Image Processing with Unmanned Aerial Vehicle project with the Ministry of Food, Agriculture and Livestock General Directorate of Agricultural Research and Policies. Within this context, periodic images for specified agricultural products were recorded via integration of a multispectral camera to an unmanned aerial vehicle.



### SERÇE-1 Multi Rotor UAS

The development of the new multi purpose multi rotor UAS (SERÇE) was finalised and 150 of them were delivered to the Turkish military. The indigenous system provides high payload capacity and wind resistance with full autonomous operation capability.

# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR

## AVIONIC SYSTEMS

ASELSAN continued manufacturing and delivery activities regarding the Gendarmerie Helicopter Modernization, ATAK, ANKA, EO/ IR and SAR GMTI Reconnaissance Systems, ATAKSIM, ARI and Sea Hawk-II programs as main avionic integrator. Avionic system development and integration activities has been continued for Turkish General Purpose Helicopter, Turkish Light Utility Helicopter and HÜRKUŞ-B New Generation Basic Trainer Aircraft Programs.



Please scan the QR code to read the solutions offered by Aselsan in Avionic Systems.

UNDER ATAK PROJECT, ALL INTEGRATED AVIONIC SYSTEMS, INCLUDING THE MISSION COMPUTER, ARE DEVELOPED BY ASELSAN.



## Helicopter Programs

ASELSAN is conducting the development of hardware and software of Avionic Central Control Computer (ACCC), the integration of all other avionic and weapon systems managed by ACCC for T-129 ATAK Helicopter Program. Besides, mass production, delivery of avionic systems and logistics support activities for the said program has been performed.

Within the scope of T-129 ATAK Helicopter Program, deliveries of indigenously developed and manufactured avionics systems, primarily Avionic Central Control Computer, cockpit display and control systems, E/O detection and targeting sight, navigation,



communication, electronic warfare and self-protection, mission and weapon management systems for nine (9) EDH Helicopters and twenty-nine (29) ATAK Phase-1 Helicopters were completed.

Nine (9) EDH and first ATAK Phase-1 Helicopters has been registered to the inventory of Turkish Land Forces. The acceptance test and qualification activities are still going on for nineteen (19) ATAK Phase-1 Helicopters. Within this context, ASELSAN provides Technical and Integrated Logistic Support services to TUSAS. The deliveries of mass production kits for ATAK Phase-2 Helicopters have started.

The design and integration of Helmet Queuing and Sight System (AVCI), which was specifically developed for T-129 ATAK Helicopter is completed. AVCI is the world's first hybrid (optic-inertial) head tracker capability helmet system, first time integrated on a specific helicopter platform. With high performance tracking capability, AVCI automatically aligns EO targeting and weapon systems to the pilot's line of sight. The mass production and kit deliveries of AVCI has been continued.

Deliveries of Smart Pod Electronic Kits for T-129 ATAK Helicopter are underway.

Within the scope of the contract signed with Sikorsky for Turkish Utility Helicopter Program (TUHP), ASELSAN will execute the development, production and integration of critical avionic systems including mission, navigation, communication and electronic warfare systems. Upon integration of ASELSAN indigenous IMAS (Integrated Modular Avionics System) System, the helicopter S-70i will be renamed as T-70. The contract has been signed on 21 February 2014 and put into effect on 15 June 2016 when Sikorsky obtained the government approval. Within the context of the Program, product development activities are still running.

Within the scope of the Avionic Modernization of Gendarmerie Helicopter Program, ASELSAN is responsible for the avionic modernization of Sikorsky S-70, AB-205 and Mi-17 Helicopters currently existing in inventory of Turkish Gendarmerie. Prototype and integration phases for Mi-17 and AB-205 helicopters have been completed and integration activities for S-70 helicopters are still running.

ASELSAN has signed an export contract with TUSAS for the modernization of fourteen (14) AH-1E Cobra Helicopters. This contract has been a leading milestone in achieving progress in development and integration capabilities for ASELSAN export potential. Within the scope of the contract, existing electronics systems of the helicopter including mission computer, cockpit display systems, thermal sight system, weapon systems and navigation systems will be retrofitted by ASELSAN advanced avionics systems. Spare parts and ground support equipment will also be supplied. Conceptual design and critical design phases have been completed in accordance with the project schedule. Delivery of the mass production kit for the first helicopter started in November 2016.

## UNDER TURKISH UTILITY HELICOPTER PROGRAM, MISSION COMPUTER, NAVIGATION, COMMUNICATION AND ELECTRONIC WARFARE SYSTEMS ARE DEVELOPED BY ASELSAN.

As part of the Light Utility Helicopter Program, executed by SSM, ASELSAN will develop civil certified basic cockpit avionics, automatic flight control computer, health and usage monitoring computer, mission and flight management software. Besides development activities of the Program, currently existing ASELSAN avionic systems will be integrated to the helicopter as well. The project is in the detailed design phase and the critical review meeting has taken place.

Within the scope of the Sea Hawk- II Program, ASELSAN provides avionic systems for S-70B helicopters for Turkish Naval Forces. Inertial navigation and target detection systems has been delivered.











# MICROELECTRONICS, GUIDANCE AND ELECTRO-OPTICS BUSINESS SECTOR



## Aircraft Programs

Within the context of Turkish Airborne Reconnaissance Program (TARP), site acceptance of four (4) EO/IR Reconnaissance Pods and two (2) Ground Image Exploitation Systems with Ground Data Link Terminals were successfully completed. Site acceptance of the last Transportable Ground Image Exploitation System has been completed in 2016. Thus, all the deliveries are completed and as the systems entered the inventory of Turkish Air Forces, the logistic support of the guarantee phase has started. In addition, operations and maintenance equipment continue to be delivered to Turkish Air Forces.

As part of the ANKA Program, Flight Control Computer, Mission Computer and Electro-Optical Reconnaissance, Surveillance and Targeting System (CATS), Inertial Navigation System are indigenously developed and integrated by ASELSAN. The deliveries of systems are completed in compliance with the delivery schedules.

Under the scope of the New Generation Basic Trainer Aircraft (HÜRKUŞ-B), avionics equipments used on platform will be integrated to the mission computer and basic cockpit equipment by ASELSAN. Mission/Flight Management Software and Digital

ASELSAN IS UTILISING ITS COMPETENCE IN AVIONIC SYSTEMS ON EVERY PLATFORM.

Map Software are developed by ASELSAN. Product development and integration activities are still ongoing.

As a part of the T-38 Trainer Aircraft Avionic Modernization (ARI) Program, deliveries of Avionics Central Control Computer are finalised. Regarding C-130 Modernization and MELTEM-III Programs, deliveries of inertial navigation systems and multi-functional displays are completed.

As part of the JSF Program, ASELSAN continued its activities with prime contractor companies Lockheed Martin (of aircraft F-35), regarding the manufacturing of optics of EO targeting system and Northrop Grumman on manufacturing of sub-assemblies of integrated communication systems.

Within the scope of the ELMAS project, work towards the development of an infrastructure to enhance the sturdiness of the export licensed LCD monitors used in the military cockpit displays as well as monitor modules have been completed and the prototype manufacturing is underway.



## Navigation Systems

The Navigation requirements of Turkish Armed Forces has been supplied by development and integration of ANS-510 and ANS-310 indigenous ASELSAN navigation systems to various land, naval and airborne vehicles through different programs since 2010. Under formerly awarded Co-Production License Agreements with Northrop Grumman (NG), shipments of LN Series (LN-100, LN-260 and LN-270) navigation systems has been continuing.

LN-260 units for C-130 Modernization (ERCİYES) Program have been delivered. Within the scope of Chile ROTOR Project, delivery of ADG-210 Navigation Systems have been made.

The deliveries of ANS-510K for Forward Observer Vehicle (ADESTİM), Survey Post (YİTP) and Mobile Counter Mortar Radar (CMR) Programs are accomplished. Shipments of LN-270 Inertial Navigation System for KASIRGA Program and ANS-510D for Inertial Navigation System for Logistic Support Ship Program are completed.

ASELSAN Inertial Navigation systems provide precise position and alignment data for land, airborne and naval platforms.





# RADAR AND ELECTRONIC WARFARE SYSTEMS BUSINESS SECTOR

ELECTRONIC WARFARE SYSTEMS  
RADAR SYSTEMS  
MICROWAVE PRODUCTS

ASELSAN is the technology center of Turkey in radar, electronic warfare and microwave products.



Dynamic RF Test Laboratory (DRTL)









# RADAR AND ELECTRONIC WARFARE SYSTEMS

BUSINESS SECTOR

**NUMEROUS ELECTRONIC WARFARE  
SYSTEMS WERE DELIVERED TO TURKISH  
ARMED FORCES IN 2016.**



## ELECTRONIC WARFARE SYSTEMS

ASELSAN conducts activities to equip the Turkish Armed Forces, Turkish National Police and civilian platforms with national and indigenous Land/Naval/Airborne Electronic Warfare systems that have state-of-the-art technology in order to extend their duty and provide a maximum level of situational awareness.

In addition to our domestic operations, we also undertook efforts to boost exports of these systems to meet the electronic warfare needs of our customers abroad.

For the contracts that were signed with the Undersecretariat for Defence Industries (SSM) and, the Industrial Participation/Offset (O/IP) contract were also signed with Industrialization Department of SSM. Within the scope of our SK/O commitments, all kinds of goods and services are procured from domestic resources if their production is available in Turkey, by working with SMEs and subcontractor companies in line with our strategic plans. Power generators, air conditioners, power supplies, power amplifiers, antenna adjustment units, easy-to-setup antenna mechanisms, masts were able to be produced within Turkish subcontractor companies.

Within the scope of Land-based Electronic Warfare Projects, new contracts were signed with the Turkish Prime Ministry, the Undersecretaries of the Defense Industry, STM (Defense Technologies Engineering and Trade Inc), ÖSYM (Student Measuring, Selection and Placement Center) and various foreign customers:

- Fixed V/UHF Monitoring, Direction Finding System, Phase – 2 Contract
- Signal Jamming, Neutralizing, Detecting System Contract
- Jamming System for Ballistic Protected Transportation Vehicle Contract, systems that have been produced and delivered to Turkish Armed Forces made ASELSAN proud:



Please scan the QR code to read the solutions offered by Aselsan in Electronic Warfare Systems.

PUHU Manpack Direction Finding (DF) System



- Manpack V/UHF Monitoring and Direction Finding Systems
- Integrated MILKAR-5A5 systems within the Active/Passive Convoy Protection Systems (RCIED Jammers) Project
- Mobile HF Monitoring and Direction Finding Systems
- Portable Type GSM / WiFi Signal Jammer Systems within the scope of Signal Jammer, Detector and SAR Measurement Equipment Project
- KANGAL Portable Jammer Systems within the scope of Portable Jammer System Procurement Project,
- Anti-Drone Jammer (Counter-UAS) Systems within the scope of Modular Temporary Station Area Project and Frequency Jammer (GERGEDAN) Contract.





# RADAR AND ELECTRONIC WARFARE SYSTEMS

## BUSINESS SECTOR

Improvised Explosives (IEDs) System has been developed and a prototype is produced thanks to the funding provided by the TÜBİTAK R&D Projects Support Program.

Within the scope of the contracts signed with SSM, the following Technology Acquisition Requirement projects are initiated:

- “Explosive Analysis System with LIBS and RAMAN Spectroscopy Techniques”
- “Metallizing Fabric Materials to Make Them Frequency Selective (TEKMET)”
- “Metallizing Composite Waveguide Surfaces (COMET)”
- “Development of Smart HF Antenna Contact”
- “Development of Microorganism Based Explosive Material Detection and Identification (BIRMO)”

ASELSAN participated in the EFES - 2016 Combined Joint Physical Ballistic Operation that was held that was held by the Turkish Armed Forces internationally for the first time. ASELSAN's capabilities in Radar&Electronic Warfare areas were demonstrated to senior commanders from Armed Forces of USA, Poland, England, Azerbaijan, Japan, South Korea, Qatar, Pakistan and Saudi Arabia.

MOBILE HF MONITORING AND DIRECTION FINDING SYSTEMS ARE VERY WELL RECEIVED BY THE USERS.

In the organisation of “Committee of Improvised Explosive Devices (IED), Science and Technology Supervision”, ASELSAN's system solutions and R&D activities about counter IED, detection & defeat technologies have been presented and demonstrated.

Within the Communication and Radar Electronic Warfare Systems Project, feasibility research has been made about the following tasks:

- Communication Hardware In The Loop Laboratory (HITL) Infrastructure
- Radar EW Hardware In The Loop Laboratory (HITL) Infrastructure
- Electronic Warfare Training Support Equipment
- Navigation Electronic Attack/Deception System Project
- Electronic Warfare System Against Satellite Communication
- Electronic Warfare System Against Multichannel Wireless Systems



MILKAR-5A5 Active/Reactive Convoy Protection System



Within the scope of Airborne Electronic Warfare Systems; Activities in accordance with the ongoing projects regarding the solutions of Electronic Warfare Self Protection Systems (EWSP), Communication Electronic Support Measures and Radar Electronic Support Measures have been carried out in accordance with the contractual obligations. System solutions in accordance with the requirements of many domestic and international users have been proposed. Additionally, R&D activities to improve the performance and decrease the size and weight of components of EW Systems have been carried out carried out by using ASELSAN's own resources.

Mass production and system deliveries have been continued within the scope of Helicopter EW Suite (HEWS) RWR/RFJ/LWR/SCPU Supply and Integration Project. Platform integration and test activities for Turkish Armed Forces helicopters and construction of the Electronic Warfare Support Center Service Facility have been completed within year 2016.

CMDS Support Center activities have been continued together with ROKETSAN within the scope of HEWS-CMDS/CFD Project and a new version of the PCSIM Software has been released in 2016. In coordination with the construction of the Electronic Warfare Support Center Service Facility, preparations of HITL Simulator setup, that will be installed within the facility, has been carried out. Dual Chaff ammunition production and qualification activities were performed together with MKE. Contract of the MWS-TU Project that has been completed in 2015, has been amended for the delivery and integration of additional Missile Warning Sensors on the platforms to meet the new needs of the user.

Deliveries for the critical LRUs of the Self Protection EW System-II (SPEWS-II) for F-16 Fighters have been almost completed, the test infrastructure at ASELSAN has been established and the preparations for the system qualification and performance tests have been continued within the scope of the program. Platform integration activities for all F-16 aircrafts have been completed and successful flight trials have been performed.

The 18 sets of Phase-2 systems, consisting of Radar Warning Receiver, RF Jammer and Laser Warning Receiver have been delivered within the scope of ATAK Helicopter EW Self Protection Project. Commercial proposal has been provided to TUSAŞ for the technical support required for the integration of Phase-2 Systems on the helicopters.

Mass production deliveries of the Processor Unit and Power Supply of Missile Warning System within the scope of A400M Project continued in year 2016.

Post Warranty period maintenance activities have been carried out within the scope of Turkish Maritime Patrol Aircraft EW Self Protection System (ASES-235M) Project. Technical support has been provided to THALES and SSM for the issues that came up during the certification activities.



Spews EW Self Protection Suite

# RADAR AND ELECTRONIC WARFARE SYSTEMS

## BUSINESS SECTOR

In the scope of ESM Contract of Turkish Air Force (TURAF) Peace Eagle Program, the following activities have been carried out in 2006:

- Delivery of Rack Mounted ESM System (RES)
- Acceptance of Electronic Warfare Support Center
- Acceptance and Delivery of Spares (both LRU and SRU)
- Delivery of Automatic Test Equipment (ATE) and its spares.

The contract schedule has been put into effect for the General Utility Helicopter Project. Delivery of documents and system production activities has been carried out and the System Requirements Review have been conducted with SSM and TUSAŞ, within the scope of the Project in year 2016.

In the scope of a Contract signed on March 2016 between Undersecretariat of Defense Industries (SSM) and ASELSAN, Bombardier Challenger 605 type aircraft has been purchased by ASELSAN and aircraft modification design activities have been conducted as per the sub-Contract between ASELSAN and a foreign company. In the scope of the main Contract, ASELSAN has been in collaboration with several domestic companies for equipment design/development, production and sub-system purchasing.

ELECTRONIC WARFARE EQUIPMENTS ARE DEVELOPED FOR NUMEROUS AIRBORNE PLATFORMS IN TURKEY AND ABROAD.

The delivery of the KORAL System, which has been developed within the scope of the Land Based Long Range ESM/EA Project (KARA SOJ) for the requirements of the Turkish Air Force, has been completed in February 2016. Trials have been carried out with KORAL, which is designed to detect, identify, jam and deceive the modern air defense systems.

Contract for integration of COMINT/DF system on Unmanned Aerial Vehicle was signed in March 2016. System design and production studies were carried out and System Requirement Review (SRR) and System Design Review (SDR) meetings were realised. Acceptance test of the System Integration Laboratory (SIL) equipments were performed and the equipments were delivered. System's Qualification tests continued.

Passive RF Seeker Development activities have been carried on.

**ASELSAN ELECTRONIC WARFARE SYSTEMS ARE TESTED AT THE HIGHEST LEVEL USING AUTOMATED TEST INFRASTRUCTURE.**





Delivery of one set of Helicopter EW Self Protection System (HEWS) has been completed and the platform integration and test activities have been carried out within the scope of the contract signed with the customer in Latin America.

Within the scope of Turkish Indigenous Fighter (TF-X) Program, ASELSAN proposals have been submitted to the Turkish Aerospace Industries (TAI) for the:

- Integrated RF System (IRFS) Technology Development Project which includes the radar and electronic warfare capabilities
- Radar Absorbing Composite Structure Technology Development Project.

Within the scope of the Naval Electronic Warfare Projects, Landing Ship Tank (LST) Contract was signed between ASELSAN and ADİK Shipyard with the objective of satisfying the needs of Turkish Naval Force. As a part of the LST Contract, two ARES-2N Electronic Support Measure (ESM) Systems have been produced and factory acceptance test of the first ESM system, which has been produced for the TCG SANCAKTAR ship, was successfully completed. Besides, integration and harbor acceptance test of the ESM System for the TCG BAYRAKTAR ship was conducted with successful results.

Within the context of the contract regarding the integration of ARES-2N Electronic Support Measure (ESM) Systems, which are being used at TCG BÜYÜKADA and TCG HEYBELİADA MİLGEM Platforms, onto the third and fourth MİLGEM platforms, improvement and production activities have continued.

Within the New Type Submarine Project (NTSP) Contract signed between ASELSAN and German ThyssenKrupp Marine Systems (TKMS) Shipyard, Internal Acceptance Test (IAT) for the first ESM System, which will be delivered for the Type-214 AIP Submarine platform, was successfully carried out between 28 November and 1 December 2016 at ASELSAN Gölbaşı Facility with the participation of TKMS personnel and the system was accepted on 1 December 2016.

For the purpose of modernizing 3 (three) Type 209 Class Submarines of a foreign customer, AIRBUS DS OPTRONICS GmbH, which is a supplier company for submarine periscope, gave a Purchase Order for Submarine DGPS Antenna and Signal Distribution Unit at 25 July 2016. Within this purchase Order, Factory Acceptance Tests of Submarine DGPS Antenna and Signal Distribution Units, which are designed and produced by ASELSAN in order to integrate to submarine periscopes, were successfully completed. The units were shipped to AIRBUS DS OPTRONICS GmbH. 3 (three) sets of DGPS Antenna and Signal Distribution Units will be integrated to periscopes which will be produced by AIRBUS DS OPTRONICS GmbH and then these periscopes will be integrated into the relevant platform. Within the scope of YAVUZ Class Frigate National Electronic Warfare Suite Project, Factory Acceptance Test of the Serial Production System Number 3 was successfully completed on 11 February 2016.













# RADAR AND ELECTRONIC WARFARE SYSTEMS

## BUSINESS SECTOR



KALKAN Air Defense Early Warning Radar

### RADAR SYSTEMS

In 2016, ASELSAN continued business development, concept definition, design, development, production, test and after sales support activities for various radar programs at Gölbaşı Radar and Electronic Warfare Center in collaboration with the universities and domestic business partners. Along with the main purpose of fulfilling the requirements of the Turkish Armed Forces with indigenous high tech radar technologies, these activities are also aimed at creating export capabilities for our radar systems as well as generating a market for nonmilitary applications.

ASELSAN received the following outstanding new contracts in 2016 for the development and production of the new radar systems:

- To meet the Turkish Air Force's Early Warning Radar Systems requirements, ASELSAN is awarded the "Early Warning Radar Systems-Phase 1 Project" contract to develop and manufacture AESA (Active Electronic Scanning Array) antenna



Please scan the QR code to read the solutions offered by Aselsan in Radar Systems.

ASELSAN SIGNED CONTRACTS IN 2016 FOR ADVANCED NEW GENERATION RADARS.



based Transportable Early Warning Radar Systems, which is capable of detecting, tracking, classification and identification of both air breathing targets -such as fighters, helicopters-and ballistic missiles.

- A new Weapon Locating Radar System, which is capable of detecting/tracking and calculating the launch and impact points of rockets, artilleries and mortars from very long distances, will be designed, developed and manufactured by ASELSAN to meet the requirements of Turkish Army. Some of the critical building blocks of the Weapon Locating Radar and Early Warning Radar will be common.
- ASELSAN is awarded a new contract to supply new version of KALKAN Air Defense Early Warning Radar. New radar will be in a scalable and adaptable configuration to meet the requirements of Turkish Army for different air defense applications and some of the critical parts that are procured from abroad will be replaced with parts that will be indigenously produced.
- "Air Traffic Control Radar System Project" contract, covering PSR (Primary Surveillance Radar) and SSR (Secondary Surveillance Radar) development, production and site installation has been signed. The end product is targeted to meet the air traffic control requirements of both military and civilian airports.
- Mass production for both Mobile Search Radar and Fire Control Radar has been initiated in scope of the contract signed in 2016 for mass production of KORKUT Air Defense System.

Air Defense System Mobile Search Radar and Fire Control Radar, which were developed and validated for KORKUT and AİC Systems, are successfully adapted for naval applications and validated through

## MULTI FUNCTIONED MULTI FACED ÇAFRAD RADAR IS AT ITS FINAL STAGE OF DEVELOPMENT.

various performance tests. System integration and test activities of 3D AESA Mobile Search Radar within HİSAR-A Low Altitude Air Defense Missile System Project; and system integration and test activities of KALKAN Air Defense Radar within HİSAR-O Medium Altitude Air Defense Missile System Project, are continued.

In 2016, the qualification tests for the configuration units developed and manufactured for the concept demonstration prototype of the Multifunction Active Phased Array Radar System-ÇAFRAD, which is an integrated radar suit that performs radar functions essential for effective air and surface warfare capability, have been performed. This Multi Face, Multi-Function and Active Phased Array Radar System, which has been scaled for the technology demonstration prototype, is comprised of Multi-Function Radar, Guided Missile Illuminator Radar, Long Range Radar and long range IFF system with electronically scanned antenna structure and 250 NM scanning range.

Production and delivery of SERHAT Mortar Detection Radars are continued in 2016 with field support for the effective utilisation of the radars by the Turkish Armed Forces. SERHAT Radars, being



ÇAFRAD Multifunction Active Phased Array Radar System



SERHAT Counter Mortar Radar

# RADAR AND ELECTRONIC WARFARE SYSTEMS

## BUSINESS SECTOR

a very critical asset for protecting the areas under mortar threat, are deployed in various critical locations around the borders, and operating successfully.

ASELSAN continued to seek opportunities to use ACAR Surveillance Radar in various applications in both domestic and international settings. Within this context, special algorithms were developed and integrated to ACAR radar for detecting naval targets in various maritime situations and also detecting and tracking of mini and micro Unmanned Aerial Vehicles (UAVs) which has become a growing threat nowadays.

ASELSAN has been awarded a contract from OTOKAR Company regarding the production and delivery of ACAR Surveillance Radars to be integrated into reconnaissance and surveillance vehicles for homeland security. The production and delivery of the radars are in progress.

Within the scope of the Coastal Surveillance Radar System Project, SERDAR-7M configuration was developed to meet the requirements of IALA V128 Advanced Standards. Radars are manufactured and delivered after completion of their Factory Acceptance Tests. Within YUNUS Project, port and maritime acceptance tests of SERDAR-4M Radars at Naval Bases were successfully completed.

Within the scope of the modernization of GABYA and BARBAROS class frigates of Turkish Navy; 3D search radars are produced and integrated to the platforms and acceptance activities of the all vessels are completed.

Within the scope of Landing Ship Tank (LST) Project production and factory acceptance of radar systems are completed in 2016. Radar manufacturing activities were initiated for the 3<sup>rd</sup> and 4<sup>th</sup> vessels of the Turkish Naval Forces' MİLGEM class corvette series. Within the scope of Multi-Function Amphibious Assault Ship (Landing Helicopter Dock - LHD) Project; ASELSAN continues the production, and integration of radar systems and combat management system of the vessel to the platform. Air Defense System Mobile Search Radar and Fire Control Radar, which were developed and validated for land and air systems, are successfully adapted for naval applications and validated through various performance tests.

ASELSAN continued the conceptual design studies for the Multi-Function Nose AESA Radar which will be part of the Integrated RF System of the TF-X National Fighter Aircraft Development Project.

The first phase of the GÖKTÜRK-3 SAR Satellite Project has been successfully accomplished by the approval of Synthetic Aperture Radar Payload Preliminary Design Documents.

Final acceptance tests of SARPER Synthetic Aperture Radar, the first national imaging and ground moving target indicating radar system developed for airborne platforms, have been completed successfully at the end of a flight test campaign conducted on TAI ANKA UAV. The mass production of radars to be delivered to TUSAŞ to be mounted on ANKA platforms continued.

Radar Seekers are one of the most critical assets of guided missiles. In 2016, design, prototype production and validation activities including hardware in the loop tests for various radar seeker units, have been carried out. In addition to the ongoing projects, work has been carried out for the development of radar seekers adaptable to alternative uses.



Mobile Search and Fire Control Radar Systems



In AKKOR Active Protection System Development Project, the development activities of the AESA Short-Range Radar System is continued. The Radar is designed to detect and track RPG and Antitank guided missiles with high accuracy which are fired from close distances.

To detect and identify underground metal/plastic mines and handmade Improvised Explosives Devices (IEDs) within the scope of counter terrorism activities, development activities of a new generation Imaging Radar with Ground Penetration capability (YENER) were conducted. YENER has specially developed imaging algorithms and can be used on both manned and unmanned vehicles. 3-D imaging radar development that has been undertaken with the support of TEYDEB has continued. In addition, the development of the 3-D imaging radar, which will be able to detect concealed weapons/explosives on humans, has continued with the support of TÜBİTAK TEYDEB.

With the experience and know-how gained through military radar system projects, ASELSAN continued to develop radar systems for nonmilitary applications. In 2016 development of X-Band Weather Radar is continued and the first product is due out in early 2017.

Development and field tests of Traffic Radar are successfully completed. Multi purposed miniature radar development for zone security solutions is continuing.

ASELSAN continued to work with IBM Company to develop phased array, scalable, Silisium- Germanium (SiGe) based integrated circuits to be used in T/R modules of millimeter wave radars. The integrated circuits developed in this project will operate at millimeter wavelengths and they are planned to be used in nonmilitary radar applications, such as border protection, airport foreign object debris detection, short range naval target detection, meteorology and autonomous landing systems.

In 2016, ASELSAN participated in NATO work groups in efforts to define the radar requirements and technologies of the future.

ASELSAN also keeps working towards facilitating the exports of its radar systems and sub units abroad.



ACAR Surveillance Radar



# RADAR AND ELECTRONIC WARFARE SYSTEMS

## BUSINESS SECTOR

### MICROWAVE PRODUCTS

#### Microwave Modules

ASELSAN designs and manufactures technologically critical microwave modules and components in dedicated special areas. The design and production activities consists of high performance transmitter and transmitter/receiver modules, front-end modules, frequency converters, power amplifier modules, digital frequency discriminators (DFD), logarithmic video amplifiers (DLVA), filters, monolithic microwave integrated circuits (MMIC), thin-film- based components for the mission critical radar, electronic warfare (EW), and satellite systems. Activities for the development and production of critical materials used in new generation Radar, EW and Satellite systems are in progress.

Throughout the year, efforts for the export of the microwave equipments that were developed within ASELSAN were carried on.

#### Battlefield Target Identification System (BTIS) Project

Interrogator and Transponder RF Units and Antennas are designed and produced by REWS Business Sector in the Battlefield Target Identification System project. Qualification, Factory Acceptance Tests and Platform Verification Tests on ALTAY Tank were successfully performed. Delivery of Customer Prototypes and Technical Data Package was completed. Mass production proposal was submitted and production activities are planned primarily for ALTAY Tank and other platforms.

#### Gallium Nitride (GaN) Technologies

GaN-on-SiC based RF/microwave transistors and microwave monolithic integrated circuits (MMIC) provide system level advantages such as size, weight, power, and reliability due to their high power per area, easier matching, high breakdown voltage and, radiation hardness for space applications. With the recent progress through last decade in GaN technology, more optimized solutions were achieved regarding the substrate size and cost, process and production methods. Costs were

THE DESIGN AND PRODUCTION OF MICROWAVE MODULES AND COMPONENTS TAKES PLACE IN CLEAN ROOMS WHICH OCCUPY AN AREA OVER 2000 SQ METERS AND IS ONE OF THE BEST OF ITS KIND WORLDWIDE.



reduced to the levels that can be handled enabling GaN technology with an effective market penetration. In addition to that, GaN-on-Si based devices introduced a new branch in electronic devices industry with the high voltage resistance and downsizing capability in power electronics. It is considered that GaN devices will have massive share and deployment in the market and will become one of the driving forces in economic aspect.

Regarding the future of GaN technology, ASELSAN has performed various research and development activities with Bilkent University through the last decade. Silicon Carbide (SiC) Based GaN Switch Integrated Circuits and Radio Frequency (RF) Power Transistor Development Projects, which were signed with The Undersecretariat for Defence Industries (SSM), have been conducted with the collaboration of Bilkent University.

For GaN Switch Project, prototypes were designed in compliance with the technical specifications. Acceptance tests were successfully completed and Technical Data Package was delivered.

For GaN Radio Frequency (RF) Power Transistor Project; prototype development activities are still in progress.

### Silicon Germanium (SiGe) Technologies

SiGe BiCMOS technology provides high performance RF and control circuits that work simultaneously by integrating SiGe based Bipolar Transistors (HBTs) to Silicon based CMOS processes. HBTs have advantages of lower noise and higher gain in microwave and millimeter frequencies compared with the Silicon based RF devices, owing to the transistor design architecture and material properties.

Within the scope of Generation of the Standard Cell Library for the SiGeC BiCMOS Technology Project, which was signed with The Undersecretariat for Defence Industries (SSM), ASELSAN is in collaboration with TÜBİTAK-BİLGEM and Mikroelektronik Araştırma Geliştirme still in progress.

### X-Band Satellite Communication System Project

X-Band Satellite Communication System Project has been signed between The Undersecretariat for Defence Industries (SSM) and ASELSAN for the design and production of the microwave parts of manpack and platform type satellite ground stations. The design activities are currently in progress.



Please scan the QR code to read the solutions offered by Aselsan in Microwave Products.

THE INVESTMENT IN GAN TECHNOLOGY  
WILL HAVE A MULTIPLIER EFFECT ON OUR  
MICROWAVE PRODUCTS.

# RADAR AND ELECTRONIC WARFARE SYSTEMS

## BUSINESS SECTOR

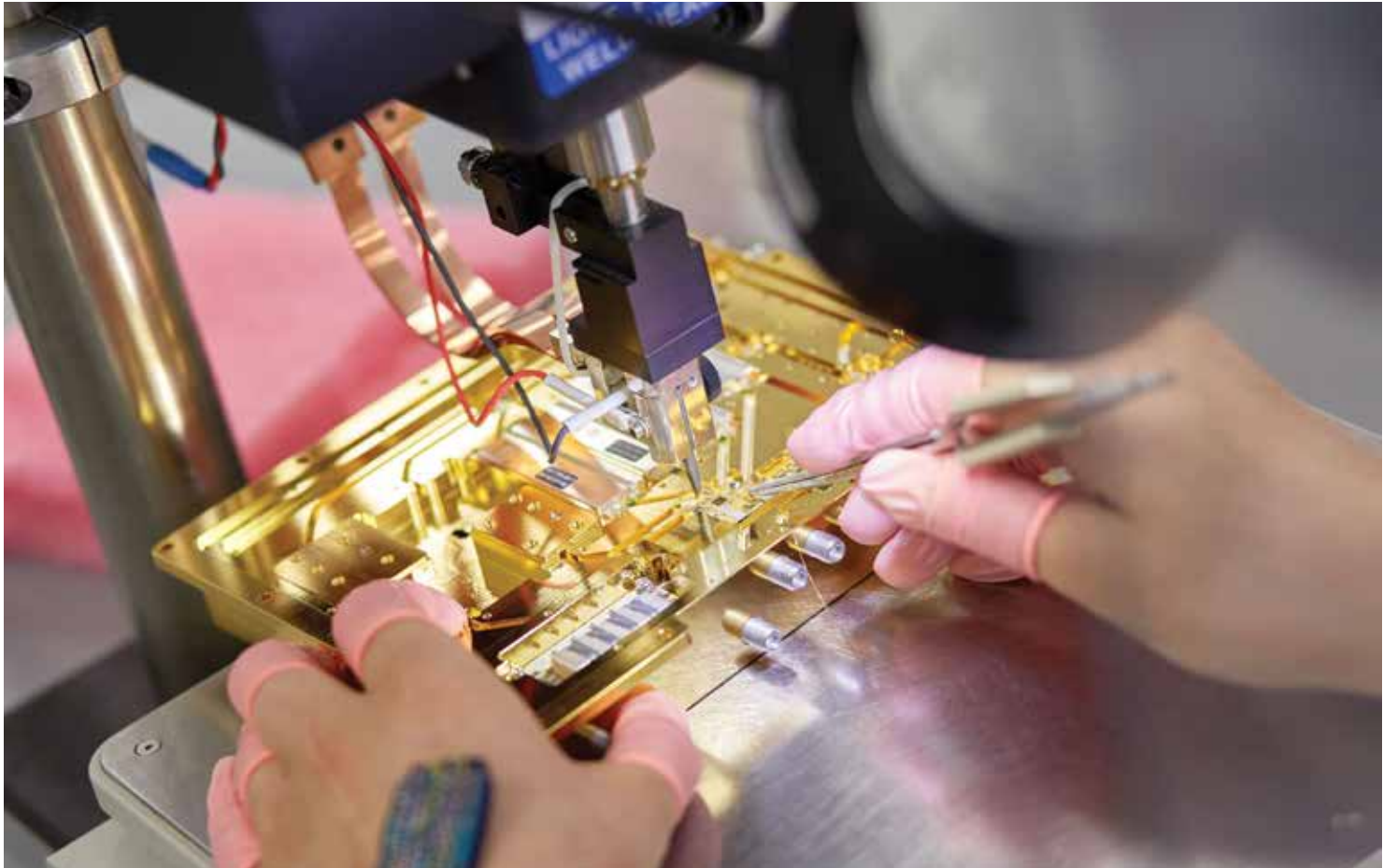
### 4-channel Phased Array Unit for 5G Applications Project

Microwave Products Business Line application for “4-channel phased array unit for 5G Applications” project within the scope of international collaboration program of EUREKA was approved and the project started in October 2016. This three year project is being executed with the partnership of VIPER-RF Company and the sponsorships of INNOVATE UK in England, TÜBİTAK in Turkey. 28GHz 4-channel multi-functional Power Amplifier MMIC, Phase Shifter MMIC and antenna involved low cost multi-layer package prototype will be developed and verified.

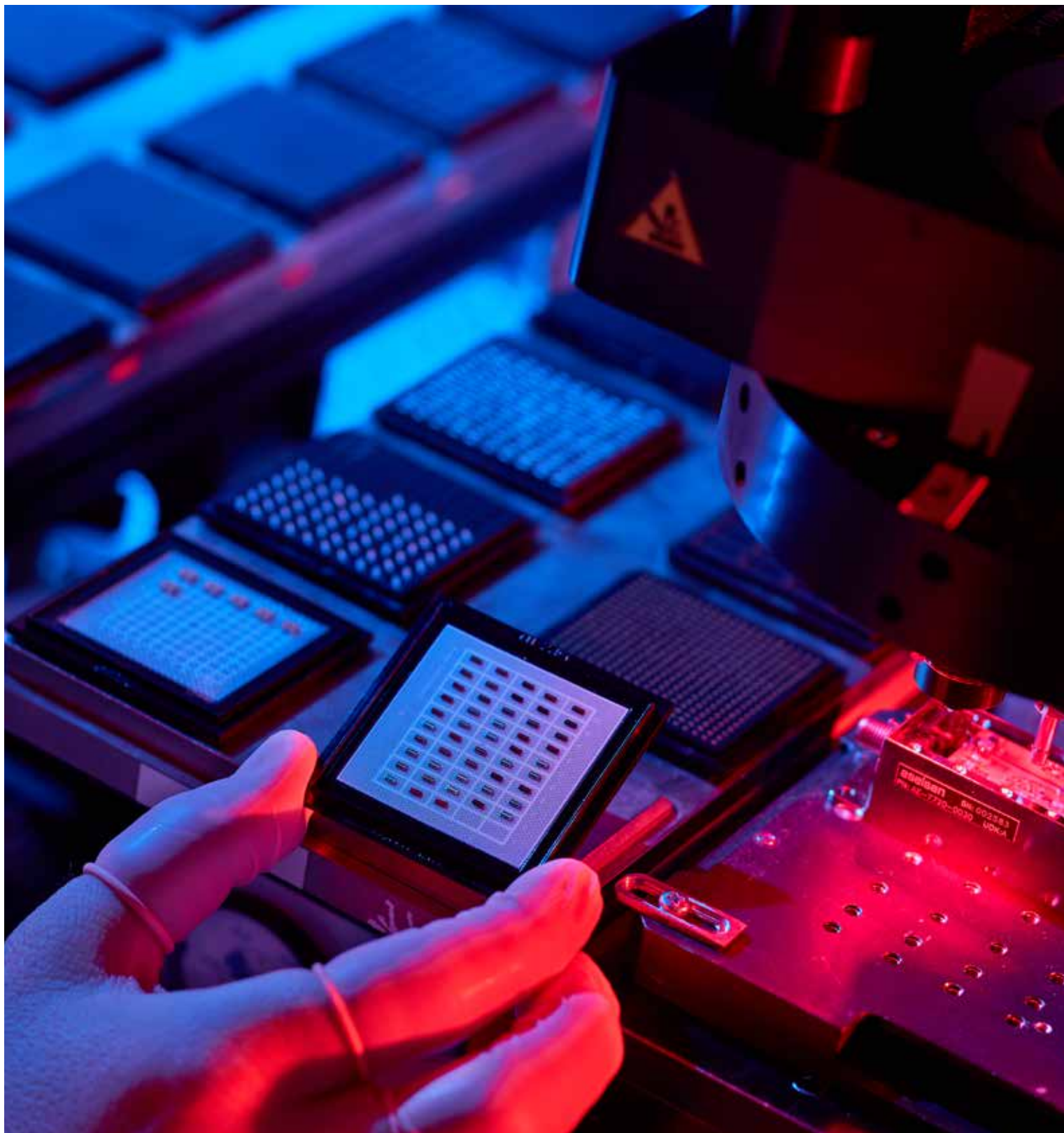
### Export Activities

ASELSAN Microwave Products Business Line was one of the exhibitors in IMS 2016, which is also known as the most prestigious exhibition show in Microwave Business Sector. Microwave Products Business Line had the opportunity to make negotiations regarding the Digital Frequency Discriminator module with one of the U.S. Defence Contractor. Purchase order was received and production started for delivery of the modules.

Microwave Products Business Line had also completed the delivery of switch assembly and combiner assembly modules which will be used in Precision Approach Radar by another U.S. Defence Contractor.







# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS (UGES) BUSINESS SECTOR

TRANSPORTATION SYSTEMS  
SECURITY SYSTEMS  
ENERGY SYSTEMS  
MEDICAL TECHNOLOGIES SYSTEMS  
AUTOMATION AND TRAFFIC MANAGEMENT  
SYSTEMS

ASELSAN is converting its experience in defence industry into much needed technologies in security, transportation, energy, automation and health industries in Turkey.









# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS BUSINESS SECTOR



**ASELSAN IS CONDUCTING R&D  
IN THE CRITICAL SUBSYSTEMS OF  
TRANSPORTATION SOLUTION SYSTEMS.**



Transportation, Security, Energy and Automation Systems Business Sector (UGES) works on Rail Vehicle Systems, Electric and Hybrid Vehicle Systems, Rail Vehicle Signaling and Control Systems, Internal Security Systems, Urban Security Systems, Toll Collection Systems, Traffic Management and Automation Systems, Medical Technologies Systems, Power Control and Renewable Energy Systems. In 2016, UGES continued its technology, hardware, software and system development, production, domestic and international sales as well as aftersales support activities in these areas.

## TRANSPORTATION SYSTEMS

Activities in Transportation Systems area are being conducted in Rail Vehicles, Signaling Systems and Electric Vehicle Systems fields.

### Rail Vehicle and Signalization Systems

#### Traction Control Systems

Regarded as the core of rail vehicles, the traction systems, which have been traditionally procured from overseas, has been designed and developed locally with indigenous hardware, software and algorithms.

Involving a new generation Insulated Gate Bipolar Transistor (IGBT) technology and Digital Signal Processing (DSP) based control electronics, a modularly structured traction control system has been developed in compliance with the rail vehicle standards such as EN50155, EN50125, EN50163, EN50121, EN61287 and EN61377.

These systems have been integrated to Ankara metro vehicles and to a locally produced rail vehicle named "Silkworm". As the modular systems, they can easily be adapted into other rail vehicles such as high speed trains, local trains and locomotives.



Please scan the QR code to read the solutions offered by Aselsan in Transportation Systems.



# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS BUSINESS SECTOR

## Train Control and Management System

Considered as the brain of rail vehicles, a Train Control and Management System has been developed by ASELSAN with a high level of safety and reliability while offering innovative architecture, algorithm, hardware and software for high speed trains, local trains and metro trains.

Within the scope of Train Control and Management System, extremely safe and reliable computer hardware, software and control algorithms have been developed which are considered to be the most important components of rail transportation vehicles. Train Control and Management System (TCMS) is designed in a modular architecture, and it has high safety (SIL-4 level) and reliability levels as required by the recognized standards (IEC61508, EN50155) for rail transportation vehicles. The system is being developed indigenously along with its architecture, control, security and reliability algorithms, hardware and embedded software.

The modular computer system developed under this project can possibly be configured to be used as the Central Control Unit (CCU), Automatic Train Operation System (ATO), Automatic Train Protection System (ATP), Human Machine Interface (HMI), or Signaling Control Unit, and similar critical computer systems in trains. Furthermore, the developed modular computer system may be used in all vital computer systems required in all types of rail vehicles, such as high speed trains, local trains, metro rail vehicles and tram vehicles.

## Energy Management Systems

Thanks to the newly developed energy management system where super capacitors and new generation batteries are used together, the regenerative energy that rail vehicles spend during braking can be efficiently stored and utilized whenever required.

The modular structure of the Energy Management System (EMS) enables it to be used both in-vehicle and in fixed stations, which in turn provides catenary free operation of trams allowing up to 30% energy savings on urban rail transportation systems.

ASELSAN has initiated Energy Management System development activities aiming to increase energy efficiency while reducing the costs for the rail transportation vehicles. This system will make it possible to render catenary free operation of rail transportation vehicles while electricity consumption.

ASELSAN IS DEVELOPING TRACTION CONTROL SYSTEMS, TRAIN CONTROL AND MANAGEMENT SYSTEMS AND RAILWAY SIGNALIZATION SYSTEMS.





### Railway Signalization and Control Systems

Technologies such as information systems, communications solutions, smart rail vehicle management applications, traffic management systems meeting the international standards and railway control hardware and software are being developed for safe, secure, energy efficient and autonomous rail transportation systems of the future.

Developed on the Communications Based Train Control Technic, Urban Rail Transportation Signalization Systems provide cost effectiveness, safety, security, punctuality and high payload for today's modern and dense urban rail transportation systems.

ASELSAN offers safe, efficient and cost effective solutions by means of on-vehicle ERTMS level 1 and 2 systems introduced for main line rail vehicles.

ASELSAN COLLABORATES WITH RENOWNED AND EXPERIENCED MANUFACTURERS FOR BOTH RAIL VEHICLE AND ELECTRIC VEHICLE SYSTEMS.



ASELSAN's rail systems operation in Ankara subway facilities.











# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS BUSINESS SECTOR

## Electric Vehicle Systems

For land, sea and air electric vehicles, ASELSAN has initiated development, production and test activities for Battery Management System, Traction System (Motor Driver Unit and Electric Motor), Vehicle Control and Management System, Advanced Sensor (Night Day vision camera, LIDAR, RADAR etc.) Units and vehicle safety software and hardware (Autonomous vehicle control, automatic braking etc.) to provide the vehicle manufacturers (Factory, Shipyard etc.) with indigenous and cost effective solutions for such critical components.

First prototypes of electric traction system suitable for heavy vehicles such as buses and trucks have been manufactured and integration process and testing is underway on prototype vehicles. In this respect, ASELSAN has also provided a traction system for an electric bus named Avenue EV. The bus is developed in cooperation with bus manufacturer TEMSA. The electric bus was presented to press on 7 December 2016.

A SIGNIFICANT NUMBER OF MEDIA REPRESENTATIVES ATTENDED THE LAUNCH OF AVENUE EV, A CO-PRODUCTION OF ASELSAN AND TEMSA.

In order to extend the electric vehicle family, development activities for a range extending internal combustion engine are performed with expert domestic companies and universities. Such an engine would not only increase the range of the electric vehicle but also provide hybrid solutions for military vehicles.

Project development and feasibility study activities for electrical public transportation vehicles are jointly performed with local public institutions who require them. Promotional activities for electric buses have been continuing in municipalities where such vehicles are needed most.



## ASELSAN IS CONDUCTING A VAST NUMBER OF PROJECTS IN SECURITY SYSTEMS

For sea vessels where electrical traction is becoming more and more important, ASELSAN is conducting feasibility and pre-design studies to develop indigenous high technology products in Turkey.

Especially by investing on battery technologies with company ASPILSAN, it is planned to improve range and charging time shortcomings which are considered as the main obstacles preventing the wide spread utilization of electric vehicles.

### SECURITY SYSTEMS

Activities in Security Systems field have been conducted in Internal Security Systems, Coast Guard Systems and Urban Safety and Security Technologies programs.

#### Internal and Border Security Systems

Within the scope of Internal Security activity field, work has continued on

- Land Border Security Systems,
- Police Station and Base Security Systems,
- Critical Facility Security Systems and
- Counter Systems for Mines and Improvised Explosive Devices (IED)

Business development activities have been continued in local and international markets for Land Border Security Systems. Efforts have been conducted in cooperation with the related domestic institutions to further develop and extend the utilization of the sample model border security station installed in Şehit Çoban.

In Police Station and Base Security Systems field, work on Modular Temporary Base Area (MTBA) Project has been carried out. Within this scope, electronic system installation and infrastructure works have been completed and site acceptances have been successfully performed in the military base areas designated by the Turkish Land Forces Command. Installations of new MTBA systems in additional military base areas in line with the new requirements stated by the Turkish Land Forces Command are ongoing. System maintenance activities for the existing MTBA systems are in progress.

Work on DORUK Security System and infrastructure work on installation of the system continued to ensure area security of 4 Observation Points of the Turkish National Police (TNP).

Provisional Acceptance of “Improvement of WS3 Security System of İncirlik Nato Air Base” project signed with Ministry of National Defence in December 2013 has been completed successfully. Warranty period logistics support and maintenance are provided within the scope of the project.



Please scan the QR code to read the solutions offered by Aselsan in Security Systems.



# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS BUSINESS SECTOR

ASELSAN continues to work on the development of Counter IED Research System Prototype for the purpose of detection, analysis and intervention of improvised explosives existing on roads and residential areas. This counter systems for IED project is internally financed. Nurol's Ejder Yalçın vehicle has been integrated with a Robotic Arm, Gergedan RF Interference Device, Şahingözü OD Thermal Camera, Acoustic Firing Detection System, Secans Security Management Software and wireless remote vehicle control kit. The integrated system attracted great attention in its exhibition in EFES 2016 military exercises.

For the upcoming period, it is planned to continue working on the activities for Internal Security Systems in line with TAF's needs in Turkey and for business development in other markets including South America, Turkmenistan, Azerbaijan and Saudi Arabia in addition to the maintenance and expansion of existing projects.

Work has continued in the field of Petroleum and Natural Gas Pipeline Security. ASELSAN-HAVELSAN Joint Venture has been assigned to ensure security of Petroleum and Natural Gas Pipelines controlled by BOTAŞ all around Turkey.

ASELSAN-HAVELSAN JOINT VENTURE HAS BEEN ASSIGNED TO ENSURE SECURITY OF PETROLEUM AND NATURAL GAS PIPELINES CONTROLLED BY BOTAŞ ALL AROUND TURKEY.

With this project, for the first time in Turkey an integrated Security system shall be designed and produced for Petroleum and Natural Gas Pipeline Security. The project shall be completed in 3 phases and studies for phase 1 have been initiated. The designed system includes system solutions for the security of pipelines, various manned and unmanned stations on the pipelines and coastal terminals. This modular system solution is fit to be used in all pipelines where required and it can be integrated with electro-optical solutions, land and sea observation radars, unmanned vehicles and communications systems developed by ASELSAN.

Prepared by ASELSAN -HAVELSAN Joint Venture, the solution has been approved by SSM and BOTAŞ authorities and contract was signed in December 2016. Installation processes of the project, which will start in early 2018 is scheduled for completion in 2021.





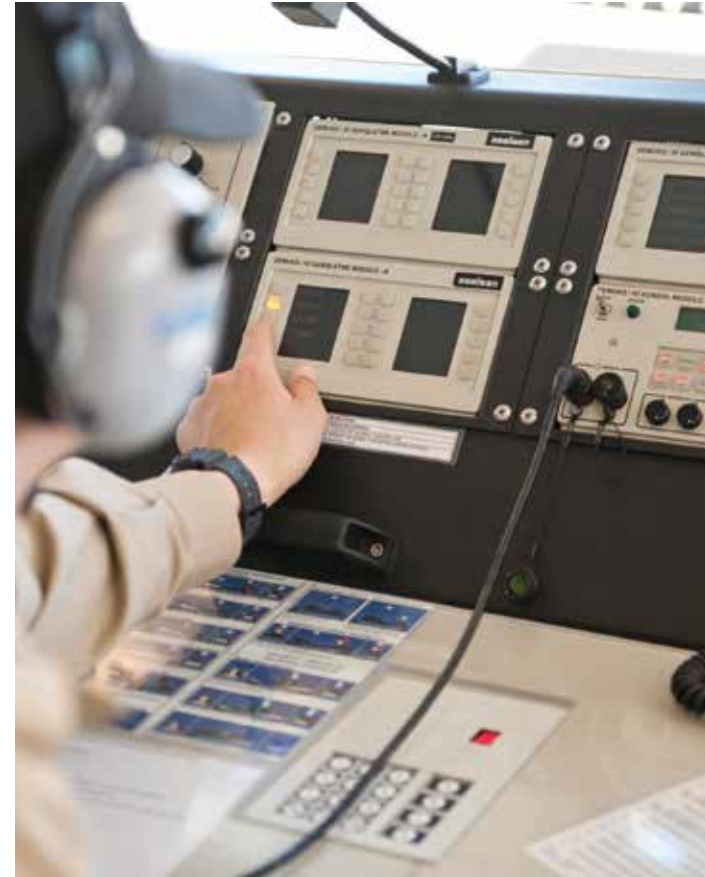


## Coastal Security Systems

Coastal Security Systems continued to work on

- Aksaz and Foça Naval Bases Abovewater/Underwater Surveillance and Detection System (YUNUS) Project,
- Development of Prototype Mobile Radar (MORAD) Vehicle Project,
- Mobile Coastal Security Systems,
- Coastlines and Coastal Facilities Security Systems,
- Vessel Traffic Management Systems

Provisional Acceptance of Aksaz and Foça Naval Bases Abovewater/Underwater Surveillance and Detection System (YUNUS) Project was performed in June 2016 and warranty period has started. With Abovewater/Underwater Surveillance and Detection System, Aksaz and Foça Naval Bases, their ports and coastlines have been secured on 24/7 basis even under adverse weather conditions. By means of Abovewater/Underwater Surveillance and Detection System, threats such as submarines, above water vehicles, swimmer delivery vehicles, open and close circuit divers and low altitude air vehicles, which tries to intrude into a defined area in Aksaz and Foça Naval Bases, can be detected and tracked.



# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS BUSINESS SECTOR

Another ongoing project of ASELSAN is the “Development of Prototype Mobile Radar (MORAD) Vehicle Project”, which is conducted in line with the protocol signed with Turkish Coast Guard (TCG) Command. In this project, the aim is to equip a Mercedes Sprinter Van with a radar system, an electro-optics system, a communication system and other related electronic units in order to create a mobile security system. All platform related design and production phases have been completed and project continues with security software development and system integration works.

Within the scope of Mobile Coastal Security Systems, conceptual designs are produced to create a mobile system solution for “Aksaz and Foça Naval Bases Above-water/ Underwater Surveillance and Detection System (YUNUS)” as per the needs of Turkish Naval Forces Command (TNFC).

A system solution including electro-optics, radar, communication and mobile security systems with satisfying detection, recognition and coverage in compliance with the customer needs, has been generated to provide security for coastlines of Uruguay.

Within the scope of Vessel Traffic Management Systems, business development activities have been undertaken for “Upgrading and Extending of Turkish Bosphorus Vessel Traffic Management Systems (TBGTH) Project”. In line with the provisions of the draft specifications announced by General Directorate of Coastal Safety, work has been conducted on possible hardware and software solutions for İstanbul and Çanakkale Vessel Traffic Management Centers.

## Urban Safety and Security Technologies

Urban Safety and Security Management Systems works on

- Urban Safety and Security Management System (KGYS) and Automatic License Plate Recognition System (PTS) Project,
- Urban Safety Solutions,
- Petroleum and Natural Gas Pipeline Security

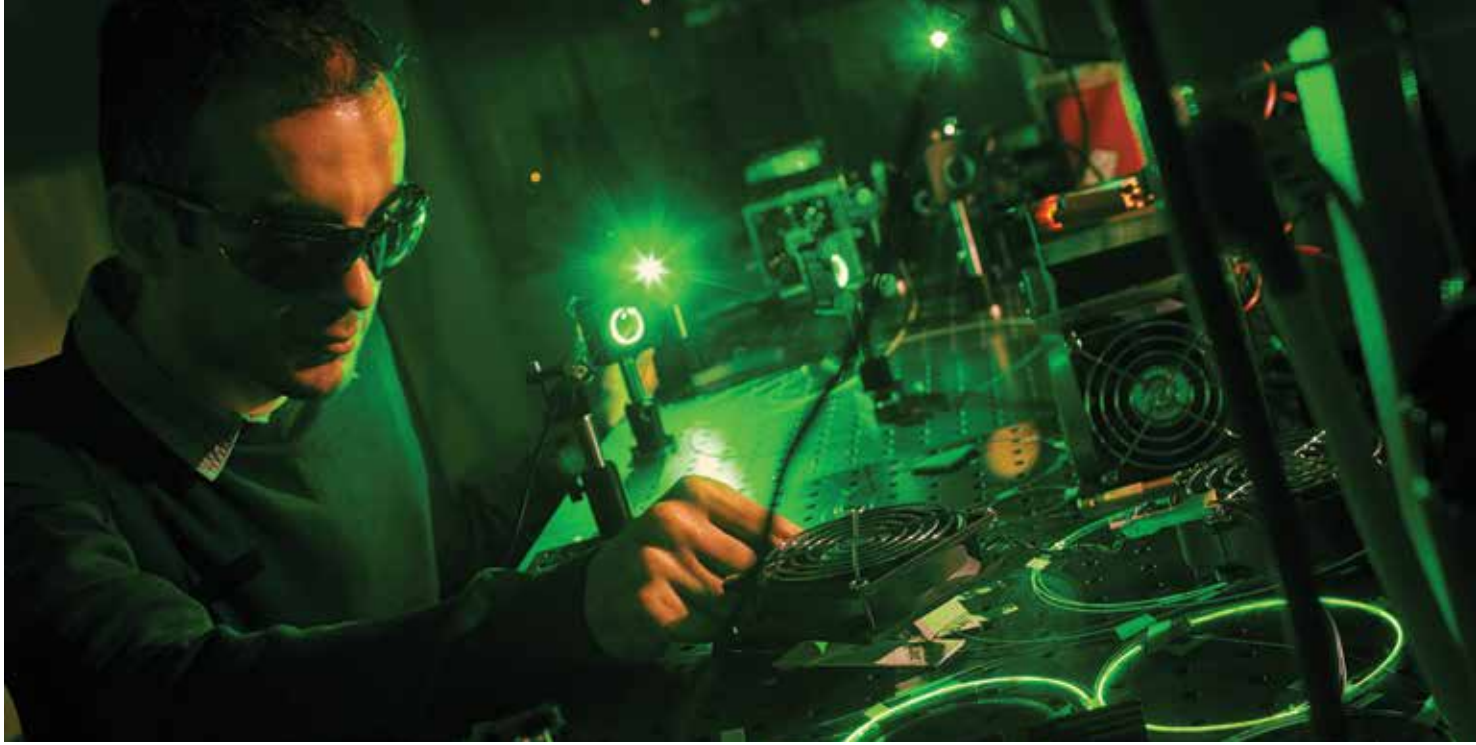
The Turkish Undersecretariat for Defence Industries and ASELSAN signed a contract on Urban Safety and Security Management System (KGYS) and Automatic License Plate Recognition System (PTS) Project to meet the nationwide needs of Turkish National Police in camera surveillance, license plate recognition, and thermal and motion sensitive security systems.

URBAN SAFETY AND SECURITY MANAGEMENT SYSTEMS PROJECT IS BEING MANUFACTURED AND INSTALLED AS PER THE REQUIREMENTS OF THE TURKISH NATIONAL POLICE.



Accordingly, a Camera Recording Management and Surveillance System receiving images from fixed and movable cameras and a Plate Recognition System collecting data shall be installed. The systems to be installed shall be integrated with the existing systems in the inventory of Turkish National Police and thus shall provide an integrated and centrally managed KGYS and PTS system all around the country.





KGYS Video Analytics Project is conducted with the support of TÜBİTAK and in line with the needs of Turkish National Police. The Video Analytics Product Family being developed under this project shall operate as high level video analysis algorithms over the videos received from nationwide camera surveillance system.

In order to design a high capacity computing platform for the requirements of systems such as KGYS Smart Support Software, ASELSAN has taken part in ALMARVI (Algorithms and Design Methods and Many core Execution Platforms for low Power Massive Data Rate Video and Image Processing Project).

This ARTEMIS project is co-supported by TÜBİTAK and European Commission and it is conducted by 16 partners from Turkey, Netherlands, Finland and Czech Republic. In this project ASELSAN is responsible for designing system infrastructure for high calculation needs and developing parallel image processing algorithms. Preparations of the project have been underway and it is estimated to be finished in April 2017.

ASELSAN has also taken part in SECTOR (Secure European Common Information Space for Interoperability of First Responders and Police Authorities) Project aiming to establish an infrastructure to ensure cooperation of various institutions in case of emergencies.

This is the 7<sup>th</sup> Framework Project supported by the European Commission and it is being conducted by the participation of 16 different partners from 10 different countries. ASELSAN, in this project, is responsible for “information space” and “interoperability infrastructure” system architecture design. The design phase has been completed in 2016 under the leadership of ASELSAN and projection of project outputs is planned to be conducted in April 2017 through the crisis management systems.

Works on development of have been conducted to be used in Security Applications of ASELSAN. Unlike the systems in the market, the system has been designed to render a service with high performance in urban security applications in Turkey. To this end, “Distributed Architecture System Structure” in which feature extractions are conducted in end hardware units has been implemented.

In order to ensure security of petroleum and natural gas pipe lines, MİDAS - Fiber Optic Sensor Breach Detection System has been developed by the participation of universities and local industry.

MİDAS system is planned to be used not only in petroleum and natural gas pipeline but also in borderlines for border security. Utilization of MİDAS in securing critical facilities comes into prominence with respect to its ease of use and low cost in comparison with other systems.



# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS BUSINESS SECTOR

## ASELSAN PRODUCES INVENTIVE AND INDIGENOUS ENERGY SYSTEM SOLUTIONS

Developed by using acoustic sensing technology in order to identify the locations of Snipers, YANKI - Acoustic Identification of Shooting Location System has proven itself by its high performance in shooting tests.

Developed in 3 different product types, which are: Fixed, On-Vehicle and Individual Wearable, YANKI has been planned primarily to be used in internal security applications and in base areas. Efforts on adding extra capabilities to fulfill the requirements of local and foreign security units have been continuing intensely.

## ENERGY SYSTEMS

ASELSAN's Energy Systems Program activities are being pursued with the goal of becoming a leading technology supplier of energy system solutions by exploiting the Company's rooted and innovative engineering traditions.

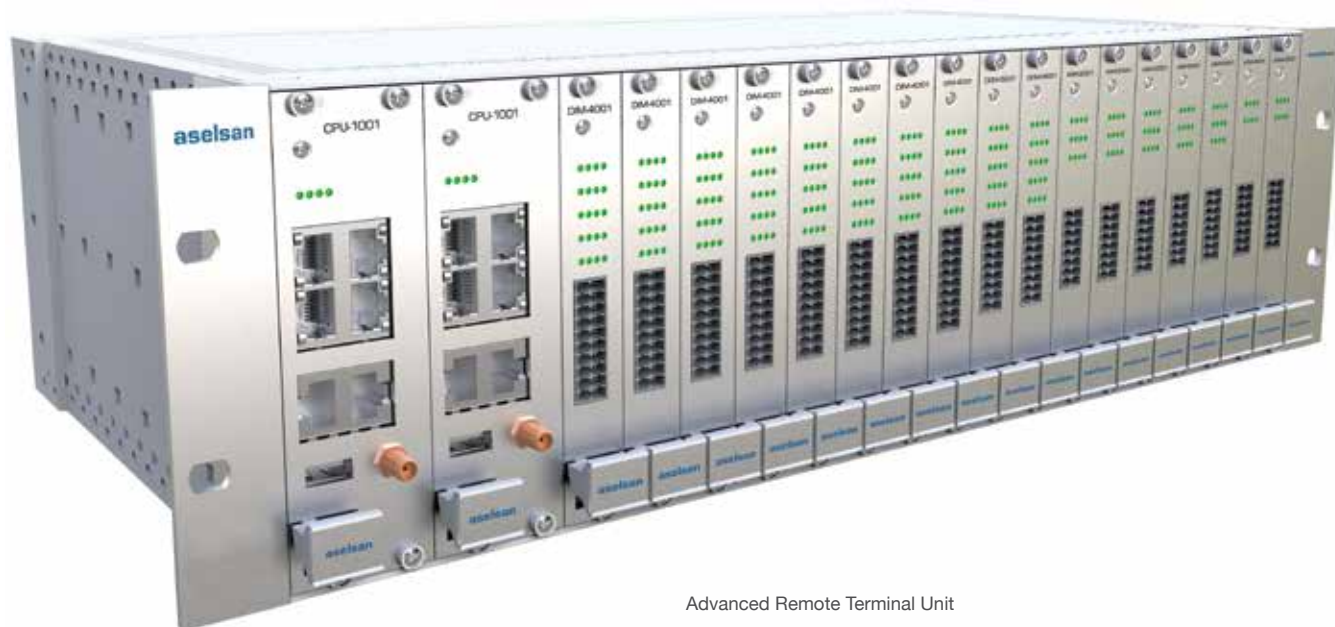
In order to meet the needs of all stakeholders in the global energy systems market with efficient, reliable, economic, high quality state-of-the-art products and services in the areas of electricity generation, transmission, distribution, consumption and management, ASELSAN has established programs for the R&D, design, production, integration and after sales support in the following areas:

- Energy Management and Smart Grid Systems and
- Renewable Energy Systems.

## Energy Management and Smart Grid Systems

Development of system, software and hardware components for national and international markets have been targeted in the field of smart grids, in order to provide solutions for the monitoring, optimization and management of generation, transmission, distribution and consumption of energy.

Within the scope of Energy Management and Smart Grid Systems, work has been carried out for development of system, software and hardware components for SCADA / Energy Management System / Distribution Management System, Micro Grid Systems. In this scope, monitoring, control and management systems, remote terminal units, and power quality measurement systems have been indigenously developed for transmission and distribution networks.



Advanced Remote Terminal Unit

ASELSAN IS CONDUCTING STUDIES ON RENEWABLE ENERGY SYSTEMS.

### Renewable Energy Systems

Innovative design and development work is being pursued for systems in the renewable energy area that will supply efficient and uninterrupted electric energy while maximizing benefit from Turkey's rich solar and wind energy resources.

In the area of solar energy, a project has been initiated for the development of very high efficiency c-Si photovoltaic cells and modules. Furthermore, design and development of hybrid energy systems that aim to minimize the use of diesel generators in off-grid applications has been completed. Taking into consideration the needs of the Turkish wind industry, full power wind energy converters have been developed and are being manufactured to be delivered to local turbine manufacturers in 2017. Lastly, R&D work has been started for the development of inverters for use in solar and wind power plants.





# TRANSPORTATION, SECURITY, ENERGY AND AUTOMATION SYSTEMS BUSINESS SECTOR

## TRAFFIC, AUTOMATION AND MEDICAL TECHNOLOGIES SYSTEMS

Activities in the field of traffic, automation and medical technologies systems have been carried out in business programs for Toll Collection Systems, Traffic Management and Automation Systems and Medical Technologies.

### Toll Collection Systems

Toll Collection Systems field has been one of the most intensely active fields in 2016. The “Free Flow Toll Collection Systems”, which were previously installed in Fatih Sultan Mehmet Bridge and İzmir-Çeşme Highway Seferihisar Junction under a contract with the General Directorate of Highways, were extended to new installations in Muallimköy Junction and 9 different locations on Northern Marmara Highway. Free Flow Toll Collection Systems enable toll collection from vehicles while they are freely moving in traffic and such systems represent the cutting-edge technology in the field around the world. ASELSAN Free Flow Toll Collection System also meets an important need for Turkey by integrating OGS (microwave based ETC) and HGS (passive RFID based ETC) toll collection functions.

A new ASELSAN product, combining OGS/HGS/Credit Card and Cash based toll collection, was put into service in 9 toll stations of Northern Marmara Highway and 6 stations in Gebze-Orhangazi-İzmir Highway including the Osmangazi Bridge. The new system guarantees toll revenues for private toll operators by performing online balance inquiries.

Another toll system put into operation on 20 December 2016 for the Eurasia Tunnel combines both OGS (microwave based ETC) and HGS (passive RFID based ETC) for an all automated electronic toll collection operation.

Further, a new system referred to as ZABIT was developed in order to detect average speeds between the 94 toll stations over 2200 km's of highways operated by the General Directorate of Highways. By enforcing over speeding on highways, the system aims at decreasing the number of traffic accidents causing death toll of more than 200 people in a year.



Please scan the QR code to read the solutions offered by Aselsan in Traffic and Automation Systems.

## ASELSAN FREE FLOW TOLL COLLECTION SYSTEM MEETS AN IMPORTANT NEED FOR TURKEY BY INTEGRATING OGS AND HGS TOLL COLLECTION FUNCTIONS.

Significant progress has been achieved in Corridor 10-Highway Tolling System Project in the Republic of Macedonia. The system combines microwave based and smart card based electronic toll collection schemes. It is expected that in 2017, toll collection shall be performed by using ASELSAN electronic toll collection systems in the Republic of Macedonia. Within the scope of the project, 7 full automatic toll collection systems shall be built on the highway from Serbian border to Greek border.



Eurasia Tunnel Toll Collection System





## AUTOMATION AND TRAFFIC MANAGEMENT SYSTEMS

### Vehicle and License Plate Recognition Systems

Within the scope of Gendarmerie Integrated Communications and Information System (JEMUS) project, installation and commissioning of gantry based Vehicle and License Plate Recognition System (A-PTS) have been completed in 47 provinces in order to identify vehicle license plates, brand and color in high accuracy in free traffic flow conditions. Installation, acceptance and inspection procedures are ongoing.

Furthermore, design for a Mobile Vehicle and License Plate Recognition System has been completed for the same project. Installation of gantry based fixed systems will continue and delivery of Mobile Vehicle and License Plate Recognition Systems shall start in 2017.

### Advanced Agriculture and Husbandry Automation Systems

Work has been carried out in order to convert ASELSAN's experience in Unmanned Systems, Automation Systems and Communications Systems into an advantage in agricultural and livestock areas. In this respect, work for precision agriculture has been conducted in order to use agricultural inputs in the most appropriate manner and to perform efficiency measures for agricultural products.

Within the scope of R&D support programs of the Ministry of Food, Agriculture and Livestock, three different research projects have been initiated that will enable automation of agricultural machineries by auto pilot, observation of plant status by unmanned vehicles and integrated management of precision farming works from agricultural machinery to farm level. System integration stage has been completed in these projects and the work is expected to be finalized in 2017.



## Medical Technologies Systems

ASELSAN has been working on projects and solutions to reduce foreign dependency in Medical Technologies and to increase the local design and production capabilities. In this scope, design work for the development of a Mobile Digital X-Ray Device to be used in military hospitals, tent cities, mobile health units, clinics and in other cases where the x-ray device is needed to be brought to the patients, is carried out. A new research project has been started for the development of a Magnetic Resonance Imaging device with innovative subsystems.

In line with the Industry Cooperation Program regulation prepared under the leadership of Ministry of Science, Industry and Technology, work for the local production of medical imaging devices has been undertaken. The program is conducted in cooperation with SMEs and other local sub-contractors. The Public Authority's new purchasing structure stipulates local production, technology transfer into the country and increased investment and exportation activities in the field of medical technologies. Medical imaging devices constitute the highest percentage of imports in the field of health technologies.

Furthermore, research programs are continuing for Bio-diagnosis and CBRN (defense systems against Chemical, Biologic, Radiologic and Nuclear Threats) systems with a view for self-sufficiency in technologies involving the detection, identification, analysis and simulation systems for CBRN.

# FINANCIAL INFORMATION

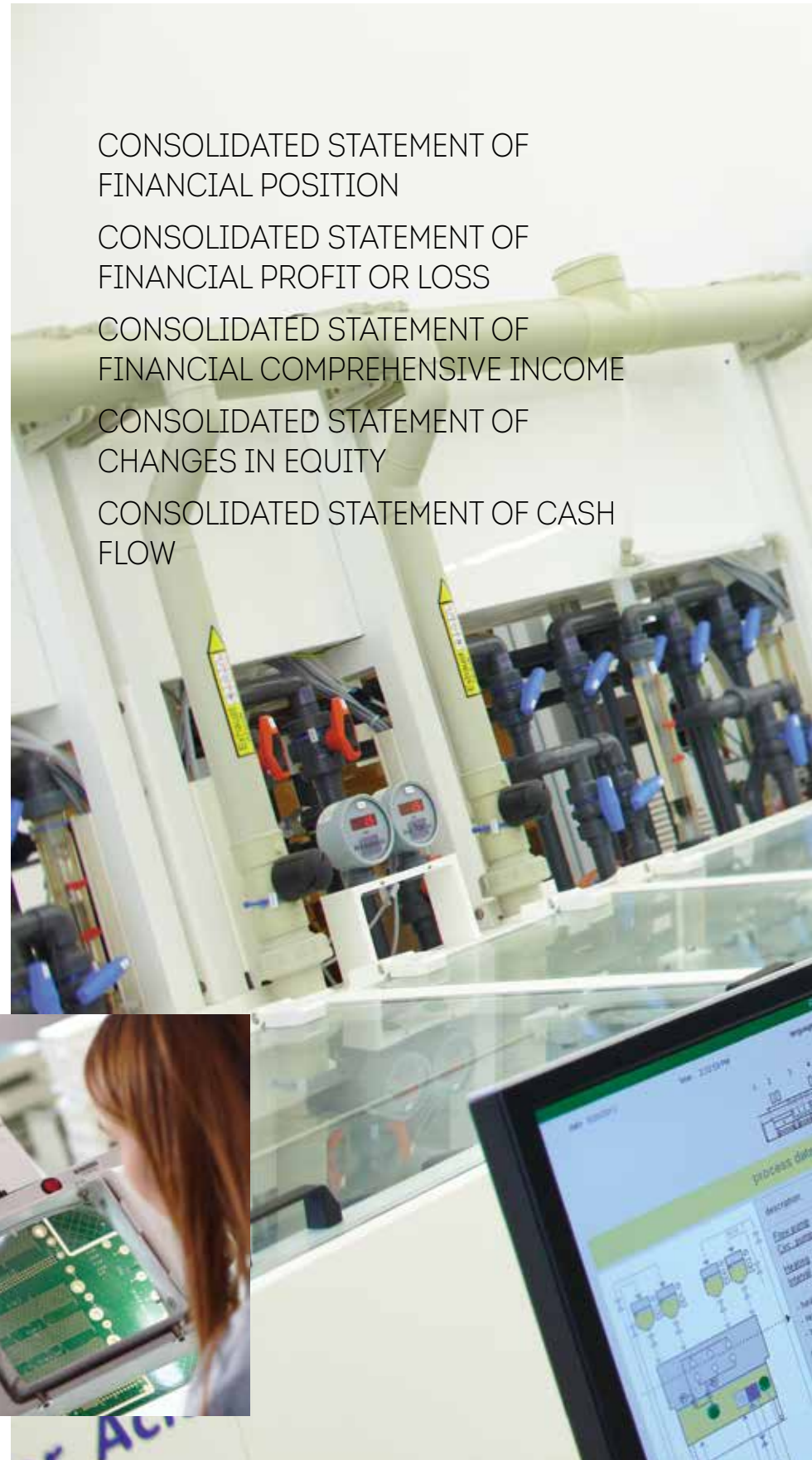
CONSOLIDATED STATEMENT OF  
FINANCIAL POSITION

CONSOLIDATED STATEMENT OF  
FINANCIAL PROFIT OR LOSS

CONSOLIDATED STATEMENT OF  
FINANCIAL COMPREHENSIVE INCOME

CONSOLIDATED STATEMENT OF  
CHANGES IN EQUITY

CONSOLIDATED STATEMENT OF CASH  
FLOW










**41 YEARS OF RELIABLE TECHNOLOGY**

**aselsan**

**2016**

**ANNUAL REPORT**

FINANCIAL INFORMATION

 ASELSAN is a company of Turkish Armed Forces Foundation.



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## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Consolidated Statement of Financial Position as of 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	Note References	Audited	
		31 December 2016	31 December 2015
<b>ASSETS</b>			
<b>Current Assets</b>		<b>5.069.528</b>	<b>3.092.768</b>
Cash and Cash Equivalents	3	1.168.776	680.963
Trade Receivables	6	2.039.695	1.068.283
<i>From Related Parties</i>	5	311.655	165.331
<i>From Third Parties</i>		1.728.040	902.952
Other Receivables	7	84.712	48.242
<i>From Third Parties</i>		84.712	48.242
Inventories	9	1.187.398	886.827
Prepaid Expenses	10	387.240	228.678
<i>From Related Parties</i>	5	59.063	22.527
<i>From Third Parties</i>		328.177	206.151
Other Current Assets	18	201.707	179.775
<b>Non-Current Assets</b>		<b>3.535.423</b>	<b>3.152.334</b>
Financial Investments	30	516.179	433.501
Trade Receivables	6	385.592	375.886
<i>From Related Parties</i>	5	36.187	25.431
<i>From Third Parties</i>		349.405	350.455
Other Receivables	7	295	288
<i>From Third Parties</i>		295	288
Equity Accounted Investments	8	57.387	41.916
Property, Plant and Equipment	11	967.522	924.842
Intangible Assets	12	697.131	537.512
Prepaid Expenses	10	393.699	410.133
<i>From Related Parties</i>	5	199.841	284.921
<i>From Third Parties</i>		193.858	125.212
Deferred Tax Assets	28	384.573	330.533
Other Non-Current Assets	18	133.045	97.723
<b>TOTAL ASSETS</b>		<b>8.604.951</b>	<b>6.245.102</b>

The accompanying notes are an integral part of the consolidated financial statements.



**Consolidated Statement of Financial Position as of 31 December 2016**

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	Note References	Audited	
		31 December 2016	31 December 2015
<b>LIABILITIES</b>			
<b>Current Liabilities</b>		<b>2.242.768</b>	<b>1.568.973</b>
Short-term Financial Liabilities	31	306.243	357.816
Short-term Portion of Long-term Financial Liabilities	31	65.665	89.428
Trade Payables	6	1.052.907	577.203
<i>To Related Parties</i>	5	79.170	37.696
<i>To Third Parties</i>		973.737	539.507
Employee Benefit Obligations	17	36.836	21.588
Other Payables	7	6.248	2.871
<i>To Related Parties</i>	5	69	55
<i>To Third Parties</i>		6.179	2.816
Government Grants and Incentives	13	28.268	22.583
Deferred Income	10	370.581	261.497
<i>To Related Parties</i>	5	17.456	15.194
<i>To Third Parties</i>		353.125	246.303
Corporate Tax Liability	28	427	2.633
Short-term Provisions		353.818	220.041
<i>For Employee Benefits</i>	17	43.362	38.115
<i>Other</i>	15	310.456	181.926
Other Current Liabilities	18	21.775	13.313
<b>Non-Current Liabilities</b>		<b>2.670.716</b>	<b>1.835.393</b>
Long-term Financial Liabilities	31	122.415	156.074
Trade Payables	6	253.144	222.884
<i>To Related Parties</i>	5	21.721	34.279
<i>To Third Parties</i>		231.423	188.605
Other Payables	7	45	38
<i>To Third Parties</i>		45	38
Deferred Income	10	2.091.979	1.269.467
<i>To Related Parties</i>	5	314.324	87.021
<i>To Third Parties</i>		1.777.655	1.182.446
Long-term Provisions		203.133	186.930
<i>Long-term Provisions for Employee Benefits</i>	17	150.997	163.412
<i>Other Non-Current Liabilities</i>	15	52.136	23.518

## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Consolidated Statement of Financial Position as of 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	Note References	Audited	
		31 December 2016	31 December 2015
<b>EQUITY</b>		<b>3.691.467</b>	<b>2.840.736</b>
<b>Equity Attributable to Equity Holders of the Parent</b>		<b>3.691.004</b>	<b>2.840.283</b>
Share Capital	19	1.000.000	500.000
Inflation Adjustments on Share Capital Differences	19	98.621	100.321
Other Comprehensive Income/(Expense) that will not be Reclassified to Profit or Loss		219.355	201.148
<i>Gain on Revaluation of Property</i>	27	216.072	216.072
<i>Gain/Loss on Remeasurement of Defined Benefit Plans</i>	27	3.283	(14.924)
Other Cumulative Comprehensive Income/(Expense) will be Reclassified to Profit/Loss		486.030	406.707
<i>Gain on Revaluation of Available for Sale Financial Assets</i>	27	485.346	406.802
<i>Cumulative Translation Adjustments</i>	27	684	(95)
Restricted Reserves	19	94.159	86.943
Prior Years' Profit		997.648	1.332.234
Net Profit for the Period		795.191	212.930
<b>Non-Controlling Interests</b>		<b>463</b>	<b>453</b>
<b>TOTAL LIABILITIES AND EQUITY</b>		<b>8.604.951</b>	<b>6.245.102</b>

## Consolidated Statement of Profit or Loss and Other Comprehensive Income For the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	Note References	Audited	
		1 January- 31 December 2016	1 January- 31 December 2015
<b>PROFIT OR LOSS</b>			
Revenue	20	3.768.116	2.780.430
Cost of Sales (-)	20	(2.845.098)	(2.154.356)
<b>GROSS PROFIT</b>		<b>923.018</b>	<b>626.074</b>
General Administrative Expenses (-)	22	(150.732)	(138.399)
Marketing Expenses (-)	22	(83.758)	(74.654)
Research and Development Expenses (-)	22	(82.603)	(87.980)
Other Operating Income	23	489.676	173.647
Other Operating Expenses (-)	23	(285.598)	(295.922)
<b>OPERATING PROFIT</b>		<b>810.003</b>	<b>202.766</b>
Income From Investing Activities	24	8.737	2.478
Shares of Profit/(Losses) of Equity Accounted Investees		213	(9.115)
<b>OPERATING PROFIT BEFORE FINANCIAL EXPENSE</b>		<b>818.953</b>	<b>196.129</b>
Financial Income	25	66.361	38.348
Financial Expense (-)	26	(151.291)	(155.267)
<b>PROFIT BEFORE TAX FROM CONTINUING OPERATIONS</b>		<b>734.023</b>	<b>79.210</b>
<b>Tax Income from Continuing Operations</b>		<b>61.178</b>	<b>134.163</b>
- Current Corporate Tax Expense(-)	28	(1.548)	(3.493)
- Deferred Tax Income	28	62.726	137.656
<b>PROFIT FOR THE PERIOD FROM CONTINUING OPERATIONS</b>		<b>795.201</b>	<b>213.373</b>
<b>Profit for the Period Attributable to</b>			
Non-Controlling Interest		10	443
Owners of the Company	29	795.191	212.930
		<b>795.201</b>	<b>213.373</b>
<b>Earnings for per 100 Shares (in full kuruş)</b>	<b>29</b>	<b>99,2</b>	<b>21,3</b>



## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Consolidated Statement of Profit or Loss and Other Comprehensive Income For the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	Note References	Audited	
		1 January- 31 December 2016	1 January- 31 December 2015
<b>PROFIT FOR THE PERIOD</b>		<b>795.201</b>	<b>213.373</b>
<b>OTHER COMPREHENSIVE INCOME</b>			
<b>Items that will not to be Reclassified Subsequently in Profit or Loss</b>		<b>18.207</b>	<b>39.518</b>
Gain on Revaluation of Property	27	--	41.598
Gain on Remeasurement of Defined Benefit Plans	17	22.759	--
Deferred Tax Expense	28	(4.552)	(2.080)
<b>Items that may be Reclassified Subsequently to Profit or Loss</b>		<b>79.323</b>	<b>113.688</b>
Gain on Revaluation of Available for Sale Financial Assets	27	82.678	119.772
Cumulative Translation Adjustments	27	779	(95)
Deferred Tax Expense	27-28	(4.134)	(5.989)
<b>OTHER COMPREHENSIVE INCOME</b>		<b>97.530</b>	<b>153.206</b>
<b>TOTAL COMPREHENSIVE INCOME</b>		<b>892.731</b>	<b>366.579</b>
<b>Total Comprehensive Income Attributable to</b>			
Non-Controlling Interest		10	443
Owners of the Company		892.721	366.136
		<b>892.731</b>	<b>366.579</b>

The accompanying notes are an integral part of the consolidated financial statements.

**Consolidated Statement of Changes in Equity For the Year Ended 31 December 2016**

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

			Other Comprehensive Income/Expense that will not to be Reclassified Subsequently to Profit or Loss		Other Comprehensive Income/Expense that may not to be Reclassified Subsequently to Profit or Loss			Retained Earnings		Equity Attributable to Owners of the Company	Non- Controlling Interests	Total
	Share Capital	Inflation Adjustments on Share Capital	Gain on Revaluation of Property	Loss on Remeasurement of Defined Benefit Plans	Gain on Revaluation of Available for Sale Financial Assets	Cumulative Translation Adjustments	Restricted Reserves	Prior Years ' Profit/ Loss	Net Profit/ Loss for the Period			
<b>Balance as of 1 January 2015 (Opening Balance)</b>	<b>500.000</b>	<b>98.621</b>	<b>176.554</b>	<b>(14.924)</b>	<b>293.019</b>	<b>--</b>	<b>73.708</b>	<b>1.020.117</b>	<b>392.052</b>	<b>2.539.147</b>	<b>--</b>	<b>2.539.147</b>
Transfers	--	--	--	--	--	--	13.230	271.865	(285.095)	--	--	--
Total Comprehensive Income	--	--	39.518	--	113.783	(95)	--	41.957	170.973	<b>366.136</b>	443	<b>366.579</b>
Dividends	--	--	--	--	--	--	--	--	(65.000)	<b>(65.000)</b>	--	<b>(65.000)</b>
Non-Controlling Interests	--	--	--	--	--	--	--	--	--	--	10	<b>10</b>
The Effect of Take over of Subsidiaries <sup>1</sup>	--	1.700	--	--	--	--	5	(1.705)	--	--	--	--
<b>Balance as of 31 December 2015 (Closing Balance)</b>	<b>500.000</b>	<b>100.321</b>	<b>216.072</b>	<b>(14.924)</b>	<b>406.802</b>	<b>(95)</b>	<b>86.943</b>	<b>1.332.234</b>	<b>212.930</b>	<b>2.840.283</b>	<b>453</b>	<b>2.840.736</b>
<b>Balance as of 1 January 2016 (Opening Balance)</b>	<b>500.000</b>	<b>100.321</b>	<b>216.072</b>	<b>(14.924)</b>	<b>406.802</b>	<b>(95)</b>	<b>86.943</b>	<b>1.332.234</b>	<b>212.930</b>	<b>2.840.283</b>	<b>453</b>	<b>2.840.736</b>
Transfers	--	--	--	--	--	--	7.216	163.714	(170.930)	--	--	--
Capital Increase	500.000	(1.700)	--	--	--	--	--	(498.300)	--	--	--	--
Total Comprehensive Income	--	--	--	18.207	78.544	779	--	--	795.191	<b>892.721</b>	10	<b>892.731</b>
Dividends	--	--	--	--	--	--	--	--	(42.000)	<b>(42.000)</b>	--	<b>(42.000)</b>
<b>Balance as of 31 December 2016 (Closing Balance)</b>	<b>1.000.000</b>	<b>98.621</b>	<b>216.072</b>	<b>3.283</b>	<b>485.346</b>	<b>684</b>	<b>94.159</b>	<b>997.648</b>	<b>795.191</b>	<b>3.691.004</b>	<b>463</b>	<b>3.691.467</b>

<sup>1</sup> Represents the effect of merger of MİKES Mikrodalga Elektronik Sistemler Sanayi ve Ticaret Anonim Şirketi with ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi as of 20 January 2015.

## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Consolidated Statement of Cash Flows For the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	Note References	Audited	
		1 January- 31 December 2016	1 January- 31 December 2015
<b>A. Cash Flows from Operating Activities</b>		<b>980.527</b>	<b>775.802</b>
Profit/Loss		795.201	213.373
<b>Adjustments to Reconcile Profit (Loss)</b>		<b>684.680</b>	<b>632.645</b>
- Adjustments for Depreciation and Amortization Expense	11-12	110.160	103.443
- Adjustments for Impairment Loss (Reversal of Impairment Loss)		4.411	1.725
<i>Adjustments for Impairment Loss (Reversal of Impairment Loss) of Receivables</i>	6	62	--
<i>Adjustments for Impairment Loss (Reversal of Impairment Loss) of Inventories</i>	9	4.349	1.725
- Adjustments for Provisions		297.574	208.375
<i>Adjustments for (Reversal of) Provisions Related with Employee Benefits</i>		44.824	53.869
<i>Adjustments for (Reversal of) Lawsuit and/or Penalty Provisions</i>		112.834	46.943
<i>Adjustments for (Reversal of) Warranty Provisions</i>		138.492	107.775
<i>Adjustments for (Reversal of) Other Provisions</i>		1.424	(212)
- Adjustments for Interest (Income) Expenses		(8.474)	12.294
<i>Adjustments for Interest Income</i>		(32.438)	(14.119)
<i>Adjustments for Interest Expense</i>	23-26	23.964	26.413
- Adjustments for Undistributed Profits of Equity Accounted Investments		(213)	9.115
- Adjustments for Tax (Income)/Expenses	28	(61.178)	(134.163)
- Adjustments for Losses/(Gains) on Disposal of Non-Current Assets	12	27.238	23.849
- Adjustments for Stage of Completion of Construction or Service Contracts in Progress		338.914	408.517
Other Adjustments for which Cash Effects are Investing or Financing Cash Flow		65.439	32.482
- Other Adjustments to Reconcile Profit (Loss)		(89.191)	(32.992)
<b>Changes in Working Capital</b>		<b>(370.765)</b>	<b>15.319</b>
- Adjustments for Decrease (Increase) in Trade Receivables		(1.135.344)	(245.578)
- Adjustments for Decrease (Increase) in Other Receivables Related with Operations		(36.477)	(6.315)
- Adjustments for Decrease (Increase) in Inventories		(149.986)	68.082
- Decrease (Increase) in Prepaid Expenses		(283.670)	(207.115)
- Adjustments for Increase (Decrease) in Trade Accounts Payable		324.047	(2.163)
- Increase (Decrease) in Employee Benefit Obligations		15.248	(1.410)
- Adjustments for Increase (Decrease) in Other Operating Payables		3.383	2.095
- Increase (Decrease) in Government Grants and Assistance		5.686	5.305
- Increase (Decrease) in Deferred Income		931.595	462.268
- Other Adjustments for Other Increase (Decrease) in Working Capital		(45.247)	(59.850)
<b>Cash Flows From Operations</b>		<b>1.109.116</b>	<b>861.337</b>
Payments Related with Provisions for Employee Benefits		(29.233)	(13.687)
Payments Related with Other Provisions	15	(95.602)	(70.337)
Income Taxes Refund (Paid)		(3.754)	(1.511)
<b>B. Cash Flows from Investing Activities</b>		<b>(359.443)</b>	<b>(265.333)</b>
Proceeds from Sales of Property, Plant, Equipment and Intangible Assets		786	6.697
Purchase of Property, Plant and Equipment		(123.362)	(95.154)
Purchase of Intangible Assets	12	(229.214)	(165.260)
Dividends Received	24	8.171	--
Other Cash Inflows (Outflows)		(15.824)	(11.616)
<b>C. Cash Flows From Financing Activities</b>		<b>(222.580)</b>	<b>14.904</b>
Proceeds from Borrowings		410.750	487.658
Repayments of Borrowings		(600.364)	(412.363)
Payments of Finance Lease Liabilities		(67)	(127)
Dividends Paid	19	(42.000)	(65.000)
Interest Paid	26	(7.510)	(3.462)
Interest Received		16.611	8.198
<b>NET INCREASE/DECREASE IN CASH AND CASH EQUIVALENTS BEFORE EFFECT OF EXCHANGE RATE CHANGES (A+B+C)</b>		<b>398.504</b>	<b>525.373</b>
<b>D. EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS</b>		<b>89.237</b>	<b>22.839</b>
<b>NET INCREASE/DECREASE IN CASH AND CASH EQUIVALENTS (A+B+C+D)</b>		<b>487.741</b>	<b>548.212</b>
<b>E. CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD</b>		<b>680.153</b>	<b>131.941</b>
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD (A+B+C+D+E)</b>	<b>3</b>	<b>1.167.894</b>	<b>680.153</b>

The accompanying notes are an integral part of the consolidated financial statements.



## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### 1. ORGANIZATION AND OPERATIONS OF THE GROUP

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi ("the Company") was established in order to engage principally in research, development, engineering, production, tests, assembly, integration and sales, after sales support, consultancy and trading activities, to provide and conduct all sorts of activities for project preparation, engineering, consultancy, service providing, training, contracting, construction, publishing, trading, operation and internet services regarding various software, equipment, system, tools, material and platforms in the fields of electrical, electronics, microwave, electro-optics, guidance, computer, data processing, encryption, security, mechanics, chemistry and related areas within the army, navy, air force and aerospace applications to all institutions, organizations, companies and individual consumers.

The Company was established at the end of 1975 as a corporation by Turkish Land Forces Foundation. The Company commenced its production activities in Macunköy Facilities in early 1979.

As of the reporting dates, the Company has been organized under five divisions under the Vice Presidential Sector with regard to investment and production requirements of projects. These divisions comprise The Communication and Information Technologies Vice Presidency "HBT", Radar, Electronic Warfare and Intelligence Systems Vice Presidency "REHİS", Defense Systems Technologies Vice Presidency "SST" and Microelectronics, Guidance & Electro-Optics Division Vice Presidency "MGEO" and Transportation, Security, Energy and Automation Systems Vice Presidency "UGES".

In addition to the Sector Vice Presidencies, the Company organization also includes the Financial Management Vice Presidency, Corporate Services Vice Presidency, Technology and Strategy Management Vice Presidency and Human Resources Management Vice Presidency making a total of nine vice presidencies.

The Company maintains engineering operations in Ankara, METU Teknokent; production and engineering operations in Macunköy, Akyurt and Gölbaşı. General Management is located in Ankara Macunköy. Furthermore SST and REHİS Sector Presidency management offices and Product Support Management of UGES Sector Presidency are located in Istanbul Teknopark.

Turkish Armed Forces Foundation ("TSKGV") is the main shareholder of the Company which holds 84,58 percent of the capital and maintains control of the Company. TSKGV was established on 17 June 1987 with the law number 3388, in order to manufacture or import guns, equipment and appliances needed for Turkish Armed Forces.

The Company is registered to Capital Markets Board of Turkey ("CMB") and its shares have been quoted in Borsa İstanbul Anonim Şirketi ("BİST") since 1990. As of 31 December 2016, 15,30 percent of the Company's shares are publicly traded (31 December 2015: 15,30 percent) (Note 19).

The Company's trade registry address is Mehmet Akif Ersoy Mahallesi 296. Cadde No:16 06370 Yenimahalle/Ankara. The average number of personnel employed by the Group as of 31 December 2016 is 5.608 (31 December 2015: 5.392).

The Company's consolidated subsidiaries are ASELSAN Baku Şirketi ("ASELSAN Baku"), Mikroelektronik Ar-Ge Tasarım ve Ticaret Limited Şirketi ("Mikro AR-GE") and ASELSANNET Elektronik ve Haberleşme Sistemleri Sanayi Ticaret İnşaat ve Taahhüt Limited Şirketi ("ASELSANNET"). They are collectively referred as the "Group" in the accompanying notes.

The main operations of the companies included in the consolidation and the share percentage of the Group for these companies are as follows:

Company Name	Operation	31 December 2016	31 December 2015
		Share (%)	
ASELSANNET	Communication systems	100	100
ASELSAN Baku	Marketing and sales of the group products	100	100
Mikro AR-GE	Microelectronic R&D projects	85	85

The Company has two branch offices; Aselsan Elektronik Sanayi ve Ticaret Anonim Şirketi EP Co. ("ASELSAN South Africa") and ASELSAN Makedonya Corridor-10 Highway Toll Collection System Project ("ASELSAN Macedonia") located in South Africa and Macedonia, respectively. All of the branches are included in the consolidated financial statements.

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### 2 BASIS OF PRESENTATION OF CONSOLIDATED FINANCIAL STATEMENTS

#### 2.1 The Basis of Presentation

##### Statement of Compliance to TAS

The accompanying consolidated financial statements are prepared in accordance with the requirements of CMB Communiqué Serial II, No: 14.1 "Basis of Financial Reporting in Capital Markets" ("Communiqué"), which were published in the Official Gazette No: 28676 on 13 June 2013 and in accordance with the Turkish Accounting Standards and Interpretations ("TAS") that have been put into effect by the Public Oversight Accounting and Auditing Standards Authority ("POA").

In addition, the consolidated financial statements and its notes are presented in accordance with the requirements announced by the CMB's announcement on 7 June 2013.

The consolidated financial statements are prepared according to historical cost accounting except for the revaluation of lands and some financial instruments. In order to determine the historical cost, the fair values paid for assets are considered.

##### Approval of the Consolidated Financial Statements

These consolidated financial statements have been approved for issue by the Board of Directors with the resolution number 922 on 20 February 2017. No authority other than General Assembly and legal entities has the right to amend the consolidated financial statements.

##### Functional Currency

The individual financial statements of each Group entity are presented in the currency of the primary economic environment ("Functional Currency") in which the entity operates. The Company's reporting currency is Turkish Lira ("TL"). For the purpose of the consolidated financial statements, the results and financial position of each entity are expressed in TL, which is the functional, and presentation currency of the Company for the consolidated financial statements.

Amounts are expressed in thousands of TL or Foreign Currency unless otherwise stated.

Kuruş, Turkish Currency subunit and one TL is equal to 100 Kuruş.

##### Preparation of Financial Statements in Hyperinflationary Periods

CMB, with its resolution dated 17 March 2005 numbered 11/367 declared that companies operating in Turkey which prepare their financial statements in accordance with CMB Accounting Standards, effective 1 January 2005, will not be subject to the application of inflationary accounting. Consequently, in the accompanying financial statements ("IAS/TAS 29") "Financial Reporting in Hyperinflationary Economies" has not been applied since 1 January 2005.

##### Basis of Consolidation

##### Subsidiaries:

The details of the subsidiaries of the Group are as follows:

Subsidiaries	Location	Functional Currency	Group's proportion of ownership and voting power held (%)		Principal Activity
			31 December 2016	31 December 2015	
ASELSANNET	Turkey	TL	100	100	Communication systems
ASELSAN Baku <sup>1</sup>	Azerbaijan	AZN	100	100	Marketing and sales of the group products
Mikro AR-GE <sup>1</sup>	Turkey	TL	85	85	Microelectronic R&D projects

<sup>1</sup> The group's subsidiaries have been consolidated with "Full Consolidation Method" since 31 December 2015.

## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns

The Company reassesses whether or not it controls an investee when if facts and circumstances arise there are changes to one or more of the three elements of control listed above.

Even though the Company has voting rights less than a majority, if it has ability to manage the operation of the investee unintentionally, then the Group assess that it has control over that investee. The Company considers all relevant facts and circumstances in assessing whether or not the Company's voting rights in an investee are sufficient to give it power, including:

- comparison of voting rights of the company and the others,
- potential voting rights held by the Company, and others,
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate the Company has, or does have, the current ability to direct the relevant activities at the time that decisions need to be made (including voting patterns at previous shareholders' meeting).

The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases. Income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Company gains control until the date when the Company ceases to control the subsidiary.

Each item of profit or loss and other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to along with the Group accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income and expenses, profits and losses and cash flows relating to transactions between members of the Group are eliminated during consolidation.



ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### Joint Ventures:

The details of the Group's interests in joint ventures as of the dates 31 December 2016 and 31 December 2015 are as follows:

Joint Ventures	Principal Activity	Country of incorporation and operation	Group's proportion of ownership and voting power held (%)	
			31 December 2016	31 December 2015
Hassas Optik Sanayi ve Ticaret Anonim Şirketi ("ASELSAN Optik")	Sensitive optic technologies	Turkey	50	50
Mikro Nano Teknolojileri Sanayi ve Ticaret Anonim Şirketi ("ASELSAN Bilkent")	Production of micro and nano sized devices which contains semi-conductive and similar technological materials	Turkey	50	50
International Golden Group ("IGG") ASELSAN Integrated Systems LLC ("IGG ASELSAN")	Production, integration, sales and technical maintenance service of high technology product	United Arab Emirates	49	49
Kazakhstan ASELSAN Engineering LLP ("ASELSAN Kazakhstan")	Production, sales and technical maintenance service of electronic and electro-optic devices and systems	Kazakhstan	49	49
ASELSAN Middle East PSC ("ASELSAN Jordan")	Production, sales and technical maintenance service of electronic and electro-optic devices and systems	Jordan	49	49
Saudi Arabian Defense Electronics Corporation ("SADEC LLC")	Production and sale of radar, electronics, warfare and electro-optic products	Saudi Arabia	50	--

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

ASELSAN Optik has been established on March 2014 and it is owned by ASELSAN and Sivas Optik Malzemeleri Sanayi ve Ticaret Anonim Şirketi with 50 percent ownership each. The production of precision optical technology for ultraviolet, visible and near infrared bands get designed and produced abroad by ASELSAN fulfilled by the facility established in Sivas. Construction of optics production facility and setup of production machines have been completed in February 2016. Manufacturing plant has started mass production in March 2016.

ASELSAN Bilkent has been established in November 2014 and it is owned by ASELSAN and İhsan Doğramacı Bilkent University with 50 percent ownership each. Construction of the company's facility have been completed in January 2016. It has been established to produce all varieties of semi-conductive and micro and nano sized devices containing similar technological materials. The facility has opened in the fourth quarter of 2016.

SADEC LLC corporation was established to manufacture and sell radar, electronic, warfare and electro-optic products in Saudi Arabia on 27 December 2016; 50 percent of the share belongs to ASELSAN and 50 percent belongs to TAQNIA DST.

The Group's joint ventures; IGG ASELSAN and ASELSAN Kazakhstan which were established in 2011, ASELSAN Jordan which was established in 2012 and ASELSAN Optik and ASELSAN Bilkent which were established in 2014, were included in the consolidated financial statements by using the equity method from the date of 31 December 2015. Since the company has a capital commitment to the SADEC LLC, it has no consolidation effect on the Group's financial statements.

## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### 2.2 Comparative Information and Restatement of Prior Period Term Consolidated Financial Statements

In order to determine the financial position and performance trends, the Group's consolidated financial statements are prepared comparatively to the previous term. For the purpose of having consistency with the current term's presentation of consolidated financial statements, comparative data is reclassified and significant differences are explained if necessary.

### 2.3 Accounting Policies, Changes in Accounting Estimates and Errors

Significant changes in accounting policies and errors are applied retrospectively and prior period financial statements are restated, changes in accounting estimates are reflected to the financial in current period profit/loss.

When change in estimate in accounting policies are related with only one period, changes are applied on the current period but if the estimated changes are for the following periods, changes are applied both on the current and following periods prospectively.

### 2.4 New and Revised Turkish Accounting Standards

#### Standards Issued But Not Yet Effective and Not Early Adopted as of 31 December 2016

##### *Standards issued but not yet effective and not early adopted*

Standards, interpretations and amendments to existing standards that are issued but not yet effective up to the date of issuance of the consolidated financial statements are as follows. The Group will make the necessary changes if not indicated otherwise, which will be affecting the consolidated financial statements and disclosures, after the new standards and interpretations become in effect.

#### **TFRS 9 Financial Instruments - Classification and Measurement**

As amended in December 2012, the new standard is effective for annual periods beginning on or after 1 January 2018. Phase 1 of this new TFRS 9 introduces new requirements for classifying and measuring financial assets and liabilities. The amendments made to TFRS 9 will mainly affect the classification and measurement of Financial Assets and Measurement of Fair Value Option ("FVO") liabilities and requires that the change in fair value of a FVO financial liability attributable to credit risk is presented under other comprehensive income. Early adoption is permitted. The Group is in the process of assessing the impact of the standard on the consolidated financial position or performance of the Group.

#### **TFRS 15 Revenue from Contracts with Customers**

As issued in September 2016, the new standard replaces existing TFRS guidance and introduces a new control-based revenue recognition model for contracts with customers. In the new standard, total consideration measured will be the amount to which the Group expects to be entitled, rather than fair value and new guidance have been introduced on separating goods and services in a contract and recognizing revenue over time. The standard is effective for annual periods beginning on or after 1 January 2018, with early adoption permitted under TFRS. The Group is in the process of assessing the impact of the amendment on financial position or performance of the Group.

#### ***The new standards, amendments and interpretations that are issued by the International Accounting Standards Board (IASB) but not issued by POA***

The following standards, interpretations and amendments to existing International Financial Reporting Standards ("TFRS") standards are issued by the IASB but not yet effective up to the date of issuance of the consolidated financial statements. However, these standards, interpretations and amendments to existing TFRS standards are not yet adapted/issued to TFRS by the POA, thus they do not constitute part of TFRS. Such standards, interpretations and amendments that are issued by the IASB but not yet issued by the POA are referred to as TFRS or TAS. The Group will make the necessary changes to its consolidated financial statements after the new standards and interpretations are issued and become effective under TFRS.

#### **TFRS 9 Financial Instruments - Hedge Accounting and Amendments to TFRS 9, TFRS 7 and TAS 39 - TFRS 9 (2013)**

In November 2013, the IASB issued a new version of TFRS 9, which includes the new hedge accounting requirements and some related amendments to TAS 39 and TFRS 7. Entities may make an accounting policy choice to continue to apply the hedge accounting requirements of TAS 39 for all of their hedging transactions. Further, the new standard removes the 1 January 2015 effective date of TFRS 9. The new version of TFRS 9 issued after TFRS 9 (2013) introduces the mandatory effective date of 1 January 2018 for TFRS 9, with early adoption permitted. The Group is in the process of assessing the impact of the standard on consolidated financial position or performance of the Group.

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#### TFRS 9 Financial Instruments (2014)

TFRS 9, published in July 2014, replaces the existing guidance in TAS 39 Financial Instruments Recognition and Measurement. TFRS 9 includes revised guidance on the classification and measurement of financial instruments including a new expected credit loss model for calculating impairment on financial assets, and the new general hedge accounting requirements. It also carries forward the guidance on recognition and de-recognition of financial instruments from TAS 39. TFRS 9 is effective for annual reporting periods beginning on or after 1 January 2018, with early adoption permitted. The Group is in the process of assessing the impact of the standard on consolidated financial position or performance of the Group.

#### TFRS 16 Leases

On 13 January 2016, IASB published the new leasing standard which will replace TAS 17 Leases, IFRIC 4 Determining Whether an Arrangement Contains a Lease, SIC 15 Operating Leases - Incentives, and SIC 27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease and consequently change TAS 40 Investment Properties. TFRS 16 eliminates the current dual accounting model for lessees, which distinguishes between on-balance sheet finance leases and off-balance sheet operating leases. Instead, there is a single, on-balance sheet accounting model that is similar to current finance lease accounting. Lessor accounting remains similar to current practice. The standard is effective for annual periods beginning on or after 1 January 2019, with early adoption permitted provided that an entity also adopts TFRS 15-Revenue from Contracts with Customers. The Group is in the process of assessing the impact of the amendment on consolidated financial position or performance of the Group.

#### IFRIC 22 - Foreign Currency Transactions and Advance Consideration

The amendments clarifies the accounting for transactions that include the receipt or payment of advance consideration in a foreign currency. The Interpretation covers foreign currency transactions when an entity recognizes a non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration before the entity recognizes the related asset, expense or income. The date of the transaction, for the purpose of determining the exchange rate, is the date of initial recognition of the non-monetary prepayment asset or deferred income liability. If there are multiple payments or receipts in advance, a date of transaction is established for each payment or receipt. The amendment is effective for annual reporting periods beginning on or after 1 January 2018 with earlier application is permitted. The Group is in the process of assessing the impact of the amendment on financial position or performance of the Group.

#### Amendments to TAS 7 Statement of Cash Flows - Disclosure Initiative

TAS 7 Statement of Cash Flows has been amended as part of the IASB's broader disclosure initiative to improve presentation and disclosure in consolidated financial statements. The amendments will require disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes. The amendments are effective for periods beginning on or after 1 January 2017, with earlier application permitted. The Group is in the process of assessing the impact of the amendment on consolidated financial position or performance of the Group.

#### Amendments to TAS 12 Income Taxes- Recognition of Deferred Tax Assets for Unrealised Losses

The amendments clarify that the existence of a deductible temporary difference depends solely on a comparison of the carrying amount of an asset and its tax base at the end of the reporting period, and is not affected by possible future changes in the carrying amount or expected manner of recovery of the asset. The amendments are effective for annual periods beginning on or after 1 January 2017. The Group is in the process of assessing the impact of the amendment on consolidated financial position or performance of the Group.



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### Amendments to TFRS 2 - Classification and Measurement of Share-based Payment Transactions

TFRS 2 Share-Based Payment has been amended by IASBB to improving consistency and resolve some long-standing ambiguities in share-based payment accounting. The amendments cover three accounting areas: i) measurement of cash-settled share-based payments, ii) classification of share-based payments settled net of tax withholdings; and iii) accounting for modification of a share-based payment from cash-settled to equity-settled. Also, same approach has been adopted for the measurement of cash-settled share-based payments as equity-settled share-based payments. If certain conditions are met, share-based payments settled net of tax withholdings are accounted for as equity-settled share-based payments. The amendments are effective for periods beginning on or after 1 January 2018, with earlier application permitted. The Group is in the process of assessing the impact of the amendment on financial position or performance of the Group.

### TAS 40 - Transfers of Investment Property

Amendments to TAS 40 - Transfers of Investment Property issued by IASB have been made to clarify uncertainty about that provide evidence of transfer of/from investment property to other asset groups. A change in management's intentions for the use of property does not provide evidence of a change in intended use. Therefore, when an entity decides to dispose of an investment property without development, it continues to treat the property as an investment property until it is derecognized (eliminated from the statement of financial position) and does not reclassify it as inventory. Similarly, if an entity begins to redevelop an existing investment property for continued future use as investment property, the property remains an investment property and is not reclassified as owner-occupied property during the redevelopment. The amendment is effective for annual reporting periods beginning on or after 1 January 2018 with earlier application is permitted. The Group is in the process of assessing the impact of the amendment on financial position or performance of the Group.

### Improvements to TFRS

The IASB issued Annual Improvements to TFRSs - 2014-2016 Cycle. The amendments are effective as of 1 January 2018. Earlier application is permitted. The Group does not expect that these amendments will have significant impact on the consolidated financial position or performance of the Group.

### Annual Improvements to TFRSs 2014-2016 Cycle

#### *TFRS 1 "First Time Adoption of International Financial Reporting Standards"*

TFRS 1 is amended to clarify that the deletion of short-term exemptions for first-time adopters related to disclosures for financial instruments, employee benefits and consolidated financial statements.

#### *TFRS 12 "Disclosure of Interests in Other Entities"*

The amendments clarify that the entity is not required to disclose summarized financial information for that subsidiary, joint venture or associate under the requirements of TFRS 12, when an entity's interest in a subsidiary, a joint venture or an associate (or a portion of its interest in a joint venture or an associate) is classified (or included in a disposal group that is classified) as held for sale in accordance with TFRS 5.

#### *TAS 28 "Investments in Associates and Joint Ventures"*

The amendment enable when an investment in an associate or a joint venture is held by, or is held indirectly through, an entity that is a venture capital organization, or a mutual fund, unit trust and similar entities including investment-linked insurance funds, the entity may elect to measure that investment at fair value through profit or loss in accordance with TFRS 9.

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#### 2.5 Summary of Significant Accounting Policies

##### Related Parties

A related party is a person or entity that is related to the entity that is preparing its financial statements (referred to as the 'reporting entity').

- (a) A person or a close member of that person's family is related to a reporting entity if that person:
- (i) has control or joint control over the reporting entity;
  - (ii) has significant influence over the reporting entity;
  - (iii) is a member of the key management personnel of the reporting entity or of a parent of the reporting entity.
- (b) An entity is related to a reporting entity if any of the following conditions applies:
- (i) The entity and the reporting entity are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).
  - (ii) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
  - (iii) Both entities are joint ventures of the same third party.
  - (iv) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
  - (v) The entity is a post-employment defined benefit plan for the benefit of employees of either the reporting entity or an entity related to the reporting entity. If the reporting entity is itself such a plan, the sponsoring employers are also related to the reporting entity.
  - (vi) The entity is controlled or jointly controlled by a person identified in (a).
  - (vii) A person identified in (a) (i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).

Transaction with related party is a transfer of resources, services or liabilities between the reporting entity and the related party, disregarding it is with or without a value.

##### Revenue

Revenue is measured at the fair value of the collected or uncollected receivables. Estimated returns, discounts, and allowances are deducted from afore mentioned value.

##### Sale of goods

Revenue from the sales of the Group's purchase orders and contracts is recognized when all the following conditions are satisfied:

- The Group has transferred to the buyer the significant risks and rewards of ownership of the goods;
- The Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- The amount of revenue can be measured reliably;
- It is probable that the economic benefits associated with the transaction will flow to the entity; and
- The costs incurred or to be incurred in respect of the transaction can be measured reliably.

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### Rendering of services

Revenue from a contract to provide services is recognized by reference to the stage of completion of the contract. The stage of completion of the contract is determined as follows:

- Installation fees are recognized by reference to the stage of completion of the installation, determined as the proportion of the total time expected to install that has elapsed at the balance sheet date,
- Servicing fees included in the price of products sold are recognized by reference to the proportion of the total cost of providing the servicing for the product sold, taking into account historical trends in the number of services actually provided on past goods sold and
- Revenue from time and material contracts is recognized at the contractual rates as labor hours are delivered and direct expenses are incurred.

Revenue from construction contracts is recognized in accordance with the accounting policy outlined in the following pages.

### Dividend and interest revenue

Dividend income from investments is recognized when the shareholder's right to receive payment has been established (provided that it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably).

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

### Rental income

Rental income from properties is recognized on a straight-line basis over the term of the relevant lease.

### Inventories

Inventories are stated at the lower of cost and net realizable value. Inventories are valued on the basis of the project according to the weighted average method. Net realizable value represents the estimated selling price less all estimated costs of completion and costs necessary to realize sales. When the net realizable value of inventory is less than cost, the inventory is written down to the net realizable value and the expense is included in statement of profit or loss in the period the write-down or loss occurred. When the circumstances that previously caused inventories to be written down below cost no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances, the amount of the write-down is reversed. The reversal amount is limited to the amount of the original write-down.

### Property, Plant and Equipment

Lands held for use in the production or supply of goods or services, or for administrative purposes, are stated in the consolidated statement of financial position at their revalued amounts, being the fair value at the date of revaluation, less any subsequent accumulated impairment losses. Revaluations are performed with sufficient regularity such that the carrying amounts do not differ materially from those that would be determined using fair values at the end of each reporting period.

Any revaluation increase arising on the revaluation of such lands is recognized in revaluation fund accumulated in equity.

A decrease in the carrying amount arising on the revaluation of such land is recognized in profit or loss to the extent that it exceeds the balance in the accumulated in the equity, if any, held in the properties revaluation reserve relating to a previous revaluation of that asset.

Land is not depreciated. On the subsequent sale or retirement of a revalued property, the attributable revaluation surplus remaining in the properties revaluation reserve is transferred directly to retained earnings. Unless the asset is disposed, no transfer is realized from revaluation reserves to the profit reserves.



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Property, plant and equipment other than lands are carried at cost less accumulated depreciation and any accumulated impairment losses.

Properties in the course of construction for production, rental or administrative purposes, or for purposes not yet determined, are carried at cost, less any recognized impairment loss. Borrowing cost is capitalized when the assets took a substantial period of time to get ready for their intended use or sale.

These assets are classified to fixed assets when the assets are completed and ready for their intended use. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

Depreciation is charged so as to write off the cost or valuation of assets, other than land and properties under construction, over their estimated useful lives, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at each year end, with the effect of any changes in estimate accounted for on a prospective basis.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets. If the ownership of the finance lease is not obvious at the end of the leasing period, it is depreciated over their expected useful lives or, where shorter, the term of the relevant lease.

The gain or loss arising on the disposal or retirement of an item of fixed assets is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in profit or loss.

The maintenance and repair expenses arising from changing any part of the fixed assets can be realized if the economic benefit of the asset is increased. All other expenses are recorded in the expense accounts in the consolidated income statement when they are realized.

The useful lives of fixed assets are as follows:

	<u>Useful life</u>
Buildings	10-30 years
Land improvements	13-15 years
Machinery and equipment	4-20 years
Motor vehicles	4-8 years
Furniture and fixtures	2-15 years
Other tangible assets	5-10 years

#### Intangible Assets

##### Intangible assets acquired

Intangible assets acquired separately are reported at cost less accumulated amortization and accumulated impairment losses. Amortization is charged on a straight-line basis over their estimated useful lives. The estimated useful life and amortization method are reviewed at the end of each annual reporting period, with the effect of any changes in accounting estimates for on a prospective basis.

##### Trademarks and licenses

Acquired trademarks and licenses are shown at historical cost. Trademarks and licenses have a finite useful life and are carried at cost less accumulated amortization. Amortization is calculated using the straight-line method to allocate the cost of trademarks and licenses over their estimated useful lives.

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### Computer software

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortized over their estimated useful lives.

### Internally generated intangible assets - R&D expenditure

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development (or from the development phase of an internal project) is recognized if, and only if, all of the following have been demonstrated:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale,
- The intention to complete the intangible asset and use or sell it,
- The ability to use or sell the intangible asset,
- How the intangible asset will generate probable future economic benefits,
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- The ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognized for internally-generated intangible assets is the sum of expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognized, development expenditure is charged to profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets acquired separately.

The useful lives of the intangible assets are as follows:

	<u>Useful life</u>
Rights	2-6 years
Computer software	2-3 years
Development expenditures	1-5 years

### Impairment of Assets

Assets that have an indefinite useful life, like goodwill, are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Non-financial assets other than goodwill that has impaired are reviewed for possible reversal of the impairment at each reporting date.

### Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

When the Group borrows funds specifically for the purpose of the qualifying assets, the amount of borrowing costs eligible for capitalization is the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings.

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#### Financial Instruments

##### *(i) Non-derivative financial assets*

The Group initially recognizes loans, receivables and deposits on the date that they are originated. All other financial assets including financial assets at fair value through profit or loss are recognized initially on the trade date, which is the date that the Group becomes a party to the contractual provisions of the instrument.

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Group is recognized as a separate asset or liability.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group has a legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

The Group classifies non-derivative financial assets as financial assets at fair value through profit or loss, financial assets to be held until maturity, loans and receivables and available for sale financial assets.

##### Financial assets at FVTPL

If a financial asset is held for trading or is designed while recording at the first time in this way, this financial instrument is classified as the financial assets at fair value through profit or loss. If the Group is managing its investments or it deciding its purchases or sales at the fair value based on its written risk management or investment strategies, then those financial assets are designed as financial assets that reflect profit or loss to its fair value. When transaction costs are formed, it is recognized within profit or loss. Financial assets at fair value through profit or loss are measured at fair value and includingly, dividend income, changes in fair value is recognized in profit or loss.

Financial assets held for trading consist of the Government debt securities which are actively managed by the Group's treasury department and held in order to meet the Group's short-term cash needs.

Otherwise, financial assets at fair value through profit or loss include the securities based on stocks which are classified as available for the sale.

If the Group, who has the intention to held until maturity and the ability, has the debt securities, this financial assets are classified as marketable securities to be held until maturity. Held-to-maturity investments are initially measured at fair value plus any direct attributable transaction costs. Subsequent to initial recognition, they are measured at amortised cost using the effective interest method.

Held-to-maturity-investments consist of debt securities.

##### Loans and receivables

Loans and receivables are financial assets that are not quoted in active market, with fixed or variable payments. These assets are initially measured at fair value plus any direct attributable transaction costs. Subsequent to initial recognition, they are measured at amortised cost using the effective interest method.

Loans and receivables contain cash and cash equivalent, trade and other receivables.

##### Cash and cash equivalents

Cash and cash equivalents comprise of cash balances that are subject to insignificant risk of change and in value and cash deposits with maturities less than three months. And they are used in order to finance short-term liabilities.



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### Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are, defined as available for sale. These assets are initially measured at fair value plus any direct attributable transaction costs.

Subsequent to initial recognition, they are measured at fair value and changes therein, other than impairment losses and foreign currency differences on debt instruments, are recognised in OCI and accumulated in the fair value reserve. When these assets are derecognised, the gain or loss accumulated in equity is reclassified to profit or loss. Available for sale financial assets are comprised of equity securities and debt securities.

### (ii) Non-derivative Financial Liabilities

The Group initially recognises and subordinated debt and debt securities issued on the date when they are originated. All other financial assets and financial liabilities are initially recognised on the trade date when the entity becomes a party to the contractual provisions of the instrument.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire.

The Group classifies non-derivative financial liabilities as other financial liabilities category. Other non-derivative financial liabilities are initially measured at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these liabilities are measured at amortised cost using the effective interest method.

Other financial liabilities consist of debt securities including preferred shares, bank overdrafts and trade and other payables.

Bank overdrafts that are reimbursable on demand and used as in cash management of the Group, are included in statement of cash flow in cash and cash equivalents.

### (iii) Capital

#### Common Stocks

Common stocks are classified as equity. Incremental costs that can be directly attributable to the issue of ordinary shares are recognised as a deduction from equity considering the tax effect.

### (iv) Derivative Financial Instruments (Including Hedge Accounting)

The Group holds derivative financial instruments to hedge its foreign currency and interest rate risk exposures.

- If the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract;
- The host contract is not itself carried at fair value through profit or loss; and
- Embedded derivatives are separated from the host contract and accounted for separately.

The Group designates certain derivatives held for risk management as well as certain non-derivative financial instruments as hedging instruments in qualifying hedging relationships. On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objective and strategy in undertaking the hedge, together with the method that will be used to assess the effectiveness of the hedging relationship. The Group makes an assessment, both at inception of the hedge relationship and on an ongoing basis, of whether the hedging instrument(s) is(are) expected to be highly effective in offsetting the changes in the fair value or cash flows of the respective hedged item(s) during the period for which the hedge is designated, and whether the actual results of each hedge are within a range of 80-125 percent. The Group makes an assessment for a cash flow hedge of a forecast transaction, of whether the forecast transaction is highly probable to occur and presents an exposure to variations in cash flows that could ultimately affect profit or loss.

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Derivatives are initially measured at fair value; any directly attributable transaction costs are recognised in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are generally recognised in profit or loss.

#### Financial Lease Operations

##### Leasing- the group as lessor

Leases in terms of which the Group assumes substantially all the risks and rewards of ownership are classified as finance leases. All other leases are classified as operating leases.

Finance lease receivables are recognised at the amount of the Group's net investment in the leases. Finance lease income is recognised allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

Payments made under operating leases are recognised in profit or loss on a straight-line basis over the term of the lease. Start-up costs for the realisation and optimisation of the operational lease agreement are added to the cost of the leased asset and amortised through the leased time on a straight line basis method.

#### Foreign Currency Transactions

##### Foreign currency transactions and balances

The financial statements of each Group entity are presented in the currency of the primary economic environment in which the entity operates as its functional currency. For the purpose of the consolidated financial statements, the operational results and financial position of each entity are expressed in TL, which is the functional currency of the Company, and the presentation for consolidated financial statements.

In preparing the financial statements of the individual entities, transactions in currencies in foreign currencies (other than TL) are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary items (including advances) denominated in foreign currencies are retranslated at the rates prevailing on the balance sheet date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences are accounted for the period in profit or loss in which they are incurred except for the following cases:

- Exchange differences which relate to assets under construction for future productive use, which are included in the cost of those assets where they are regarded as an adjustment to interest costs on foreign currency borrowings;
- Exchange differences on transactions entered into in order to hedge certain foreign currency risks (see below for hedging accounting policies); and
- Exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur, which form part of the net investment in a foreign operation, and which are recognized in the foreign currency translation reserve and recognized in profit or loss on disposal of the net investment.

#### Earnings per Share

Earnings per share, disclosed in the consolidated statement of profit or loss, are determined by dividing the net income attributable to equity holders of the parent by the weighted average number of shares outstanding during the period concerned.

In Turkey, companies can increase their share capital by distributing "bonus shares" to shareholders from retained earnings. In computing earnings per share, such "bonus share" distributions are assessed as issued shares. Accordingly, the weighted average number of shares is computed by taking into consideration of the retrospective effects of the share distributions.

#### Events After the Reporting Period

Events after the reporting periods include all events that take place between the balance sheet date and the date of authorization for the release of the financial statements, although the events occurred after the announcements related to the net profit/loss or even after the public disclosure of other selective financial information.

In the case that events occur requiring an adjustment, the Group adjusts the amount recognized in its consolidated financial statements to reflect the adjustments after the balance sheet date.

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### Provisions, Contingent Liabilities and Contingent Assets

Provisions are recognized when the Group has a present obligation as a result of a past event, and it is probable that the Group will be required to settle that obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties related with the obligation.

Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

### Operating Segments

Operations of the Company are technical system design, development, production and after-sales services for various products for defense industry. One kind of operating segment has occurred in consequence of similarities between methods that are used for products, quality of services and processes, client's type and class, and distribution or presentation of products. It is not required to disclose segment reporting for the consolidated subsidiaries, since revenue profit/loss and assets are below 10 percent of consolidated amounts.

### Construction Contracts

Cost of contracts is recognized when incurred. These costs include the costs that relate directly to the specific contract and the costs that are attributable to contract activity in general and can be allocated to the contract and the other costs that are specifically chargeable to the customer under the terms of the contract. A major part of the costs include the development expenses of the projects.

Where the outcome of a construction contract cannot be estimated reliably, revenue is recognized to the extent of contract costs incurred that it is probable that it will be recoverable.

Where the outcome of a construction contract can be estimated reliably, revenue is recognized over the terms of the contract term. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

Variations in contract work, claims and incentive payments are included to the extent that the amount can be measured reliably and its receipt is considered probable.

The Group uses the "percentage-of-completion method" to determine the appropriate amount to recognize in a given period. The stage of completion is measured by reference to the contract costs incurred up to the reporting date as a percentage of total estimated costs for each contract. Costs incurred in the year in connection with future activity on a contract are excluded from contract costs in determining the stage of completion. They are presented as inventories, prepayments or other assets, depending on their nature.

Each project contract is evaluated by the technical teams regarding the expected change in the upcoming costs and the profitability of the contracts that is determined as of the balance sheet dates. If purchases and collections made by more than one currency regarding a contract, then the upcoming purchasing and invoicing is forecasted based on the amount stated in the contract and the weighted average currency in the following financial years. Besides the amounts of the contracts subjected to escalation as of the reporting date, are estimated based on the contract details.

Government grants, if any, are also taken into consideration while calculating the profitability of the contract. The grants are recognized by offsetting from the costs in accordance with TAS 20 "Accounting for Government Grants and Disclosure of Government Assistance".

The Group presents the amount as an asset if the gross amount due from customers for customer work for all contracts in progress for which costs incurred plus recognized profits (less recognized losses) exceed progress billings. Progress billings not yet paid by customers and retention are included within "Trade Receivables".

The Group presents the amount as a liability if the gross amount due to customers for contract work for all contracts in progress for which progress billings exceed costs incurred plus recognized profits (less recognized losses).



ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

#### Government Grants and Incentives

Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Group recognizes as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognized as deferred revenue in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in profit or loss in the period in which they become receivable.

#### Taxes Calculated on the Basis of the Company's Earnings

Turkish tax legislation does not permit a parent company and its subsidiary to file a consolidated tax return. Therefore, provisions for taxes, as reflected in the accompanying consolidated financial statements, have been calculated on a separate-entity basis.

Income tax expense represents the sum of the tax currently payable and deferred tax.

#### Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the statement of profit or loss because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the balance sheet date.

#### Deferred tax

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax liabilities are recognized for all taxable temporary differences and deferred tax assets are recognized for deductible temporary differences to the extent that it is probable that future taxable profits will be available against which they can be used. Deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that future taxable profits will be available against which they can be used.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

#### Current and deferred tax for the period

Tax, provided that it is not related with a transaction directly recognized in equity, is classified in the statement of profit or loss. Otherwise, tax is recognized in equity.

## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

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### Employee Benefits

#### Termination and retirement benefits

Under Turkish law and union agreements, lump sum payments are made to employees retiring or involuntarily leaving the Group. Such payments are considered as being part of defined retirement benefit plan as per TAS 19 "Employee Benefits" ("TAS 19").

The retirement benefit obligation recognized in the consolidated financial statements represents the present value of the defined benefit obligation.

The actuarial gains and losses are recognized in other comprehensive income.

#### Dividend and bonus plans

The Group recognizes a liability and an expense for bonuses and dividend, based on a formula that takes into consideration the profit attributable to the Company's shareholders after certain adjustments. The Group recognizes a provision where contractually obliged or where there is a past practice that has created a constructive obligation.

The Group recognizes the cost of providing additional retirement bonuses to employees who have completed 20 years of service and earned the right to retirement benefits. In 26 November 2015, according Board of Directors' resolution numbered 869/6c, the Company has decided to terminate payment of retirement bonus employees worked for 20 years for the Company and is qualified pensioner, beginning from 30 July 2016. These compensations are deducted from the net present values of the unrealized liability amounts and are recognized in the accompanying consolidated financial statements.

### Statement of Cash Flows

Current period statement of cash flows is categorized and reported as operating, investing and financing.

### Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to offset the amounts and intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

### Non-Current Assets Held for Sale

Non-current assets are classified as "assets held for sale" when their carrying amount is to be recovered principally through a sale transaction and a sale is considered highly probable. They are stated at the lower of carrying amount and fair value less costs to sell. The assets can be a part of the Entity, disposal group as a single fixed asset.

## 2.6 Critical Accounting Judgments and Estimates

### Critical judgments in applying the Group's accounting policies

In the process of applying the accounting policies, which are described in note 2.5, management has made the following judgments that have the most significant effect on the amounts recognized in the financial statements:

#### Deferred tax

Deferred tax assets and liabilities are recorded using substantially enacted tax rates for the effect of temporary differences between book and tax bases of assets and liabilities. Currently, there are deferred tax assets resulting from operating loss carry-forwards and deductible temporary differences, all of which could reduce taxable income in the future. Based on available evidence, both positive and negative, it is determined whether it is probable that all or a portion of the deferred tax assets will be realized.

The main factors which are considered include future earnings potential; cumulative losses in recent years; history of loss carry-forwards and other tax assets expiring; the carry-forward period associated with the deferred tax assets; future reversals of existing taxable temporary differences; tax-planning strategies that would, if necessary, be implemented, and the nature of the income that can be used to realize the deferred tax asset. If based on the weight of all available evidence, it is the Group's belief that taxable profit will not be available sufficient to utilize some portion of these deferred tax assets, then provision is set for some portion of or all of the deferred tax assets (Note 28).

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## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### Liabilities with respect to employee benefits

The Group makes various assumptions on discount, inflation rate, wage increase rate, the probability of quitting voluntarily for calculating provisions for employee benefits and retirement pays (Note 17).

### Useful lives of tangible and intangible assets

The Group amortizes the non-current assets based on the useful lives of those assets stated in the accounting policies (Note 11-12).

### Percentage of completion

The Group uses the percentage of completion method in accounting for contracts in accordance with TAS 11 "Construction Contracts". Use of percentage of completion method requires the Group to estimate the services performed to date as a proportion of the total services to be performed. Moreover for projects that are estimated to end up with a loss, provision for loss is calculated (Note 21). The estimation of the total cost of the projects consists of the risks that may cause major changes in the adjustments of the fair values of assets and liabilities for the subsequent periods.

If purchases and collections made by more than one currency regarding the projects TAS 11 "Construction Contracts" the upcoming purchasing and invoicing is forecasted with respect of contract amount and cost are determined considering weighted average currency.

### Escalation

As of the reporting dates, the amounts of the projects subject to escalation are calculated with respect to the provisions of the contracts and estimated in accordance with TAS 11 "Construction Contracts".

### Provision for guarantee expenses

The Group calculates provision, according to the budgeted estimations for specific parts of the sales under the scope of warranty that needs specific guarantee calculations, and according to the realizations in previous years for the remaining part of the sales (Note 15).

### Development Expenses

As of reporting dates, the Management assess the recoverability of the expenses regarding the Group's development activities. These expenses are started to be amortized with respect to their useful lives when their development phases are completed and it becomes probable that there is an associated economic benefit. When the development phase is completed and no economic benefit is foreseen, the related expenses are recognized in consolidated income statement (Note 12).

## 3. CASH AND CASH EQUIVALENTS

	31 December 2016	31 December 2015
Cash	141	120
Bank		
- Time deposit	1.108.300	674.480
- Demand deposit	59.348	5.475
Other	105	78
<b>Cash and cash equivalents on the cash flow statement</b>	<b>1.167.894</b>	<b>680.153</b>
Interest income accruals	882	810
	<b>1.168.776</b>	<b>680.963</b>

As of 31 December 2016, the Group has time deposits denominated in foreign currencies with maturities between January-March 2017 (31 December 2015: January-February 2016), with the interest rates between 0,5 percent and 3,8 percent (31 December 2015: 1,8 percent to 3,2 percent) amounting to TL 656.603 (31 December 2015: TL 427.617).

As of 31 December, 2016, the Group has time deposits denominated in TL terms with maturities between January-March 2017 (31 December 2015: January-February 2016) and TL 451.697 (31 December 2015: TL 246.863) at the interest rate of 10,4 percent and 12,2 percent (31 December 2015: 7,9 and 14 percent).



## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### 4. INTERESTS IN OTHER ENTITIES

#### a) Subsidiaries

Details of the Group's material subsidiaries as of 31 December are as follow:

Name of Subsidiary	Place of incorporation and operation	Currency	Group's proportion of ownership and voting power held (%)		Principal Activity
			2016	2015	
ASELSANNET	Turkey	TL	100	100	Communication systems
ASELSAN Baku	Azerbaijan	AZN	100	100	Marketing and sales of group products
Mikro Ar-Ge	Turkey	TL	85	85	R&D on microelectronic projects

#### Composition of the Group

Explained in Note 1.

#### Change in the Group's ownership interest in a subsidiary:

Change in the Group's subsidiaries ownership is explained in Note 2.1

#### b) Joint Ventures

Where a Group entity undertakes its activities under joint venture arrangements directly, the Group's share of jointly controlled assets and any liabilities incurred jointly with other ventures are recognized in the financial statements of the relevant entity and classified according to their nature. Liabilities and expenses incurred directly in respect of interests in jointly controlled assets are accounted for on an accrual basis. Income from the sale or use of the Group's share of the output of jointly controlled assets, and its share of joint venture expenses, are recognized when it is probable that the economic benefits associated with the transactions will flow to/from the Group and their amount can be measured reliably.

The joint ventures IGG ASELSAN (United Arab Emirates) and ASELSAN Kazakhstan (Kazakhstan) established in 2011 and ASELSAN Jordan established in 2012, and ASELSAN Optik and ASELSAN Bilkent established in 2014 are consolidated by using equity method as of 31 December 2015. Since the company has a capital commitment to the SADEC LLC which was established by the ASELSAN on 27 December 2016, SADEC LLC has no consolidation effect on the Group's financial statements.

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## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

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### 5. RELATED PARTY DISCLOSURES

Transactions between the Company and its subsidiaries which are related parties of the Company have been eliminated on consolidation, therefore have not been disclosed in this note.

The trade receivables from related parties generally arise from sales activities with maturities of 1-3 months.

The trade payables to related parties generally arise from the purchase activities with maturities of 1-3 months.

Total amount of salaries and other short-term benefits paid for key management for the period ended 31 December 2016 is TL 8.658 (31 December 2015: TL 7.420).

The details of transactions between the Group and other related parties are disclosed in the following pages.

	31 December 2016				
	Receivables				
	Short-term		Non-trading	Long-term	
	Trading	Advances given		Trading	Advances given
<b>Balances with related parties</b>					
<b>Main shareholder</b>					
TSKGV	318	--	--	--	--
<b>Other shareholder</b>					
Axa Sigorta Anonim Şirketi ("Axa Sigorta")	--	--	--	--	--
<b>Main shareholder's subsidiaries and associates</b>					
Hava Elektronik Harp Sis. Müh. Tic. Anonim Şirketi ("HAVELSAN EHSİM")	39	745	--	--	--
Hava Elektronik San. ve Tic. Anonim Şirketi ("HAVELSAN")	17.524	20.402	--	3.004	--
HAVELSAN Teknoloji Radar San. ve Tic. Anonim Şirketi ("HTR")	--	1.561	--	--	--
İşbir Elektrik Sanayii Anonim Şirketi ("İŞBİR")	--	9.146	--	--	2.350
NETAŞ Telekomünikasyon Anonim Şirketi ("NETAŞ")	--	12.097	--	--	16.667
Savunma Teknolojileri Mühendislik ve Ticaret Anonim Şirketi ("STM")	25.116	9.028	--	--	--
Türk Havacılık ve Uzay Sanayi ve Ticaret Anonim Şirketi ("TUSAŞ")	49.763	--	--	23.118	--
<b>Marketable securities</b>					
Askeri Pil Sanayi ve Ticaret Anonim Şirketi ("ASPILSAN")	--	762	--	--	--
Roket Sanayi ve Ticaret Anonim Şirketi ("ROKETSAN")	65.647	--	--	10.065	180.824
<b>Joint ventures and its related parties</b>					
İhsan Doğramacı Bilkent University	--	2.056	--	--	--
ASELSAN Optik	1.178	3.266	--	--	--
IGG	28.916	--	--	--	--
IGG ASELSAN	845	--	--	--	--
ASELSAN Kazakhstan	68.575	--	--	--	--
ASELSAN Jordan	53.351	--	--	--	--
ASELSAN Sadec	383	--	--	--	--
	<b>311.655</b>	<b>59.063</b>	<b>--</b>	<b>36.187</b>	<b>199.841</b>

31 December 2016					
Payables					
Short-term			Long-term		
Trading	Advances received	Non-trading	Trading	Advances received	
--	--	--	--	--	
--	--	69	--	--	
--	--	--	--	--	
--	75	--	--	--	
2.027	--	--	--	--	
4.072	--	--	--	--	
26.402	--	--	--	--	
16.651	623	--	--	3.028	
569	14.755	--	21.721	266.200	
5.098	--	--	--	--	
17.275	2.003	--	--	45.096	
3.621	--	--	--	--	
2.419	--	--	--	--	
--	--	--	--	--	
851	--	--	--	--	
185	--	--	--	--	
--	--	--	--	--	
--	--	--	--	--	
<b>79.170</b>	<b>17.456</b>	<b>69</b>	<b>21.721</b>	<b>314.324</b>	



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### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

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	31 December 2015				
	Receivables				
	Short-term			Long-term	
	Trading	Advances given	Non-trading	Trading	Advances given
<b>Balances with related parties</b>					
<b>Main shareholder</b>					
TSKGV	5	--	--	--	--
<b>Other shareholder</b>					
Axa Sigorta	--	--	--	--	--
<b>Main shareholder's subsidiaries and associates</b>					
HAVELSAN EHSİM	--	745	--	--	--
HAVELSAN	10.617	284	--	2.200	--
HTR	--	433	--	--	--
İŞBİR	--	--	--	--	--
NETAŞ	--	9.446	--	--	21.565
STM	977	9.695	--	--	--
TUSAŞ	4.821	75	--	13.490	--
<b>Marketable securities</b>					
ASPILSAN	--	38	--	--	--
ROKETSAN	44.952	--	--	9.741	261.761
<b>Joint ventures and its related parties</b>					
ASELSAN Bilkent	1	--	--	--	--
İhsan Doğramacı Bilkent University	--	125	--	--	1.595
IGG	19.411	--	--	--	--
IGG ASELSAN	1.415	1.686	--	--	--
ASELSAN Kazakhstan	52.204	--	--	--	--
ASELSAN Jordan	30.928	--	--	--	--
	<b>165.331</b>	<b>22.527</b>	<b>--</b>	<b>25.431</b>	<b>284.921</b>

31 December 2015					
Payables					
Short-term			Long-term		
Trading	Advances received	Non-trading	Trading	Advances received	
--	--	--	--	--	
--	--	55	--	--	
--	--	--	--	--	
816	799	--	--	--	
1.391	--	--	--	--	
868	--	--	--	--	
20.102	--	--	--	--	
2.034	4.439	--	--	--	
3.593	3.939	--	33.713	68.000	
352	--	--	--	--	
5.110	6.007	--	566	19.021	
--	--	--	--	--	
1.507	--	--	--	--	
--	10	--	--	--	
--	--	--	--	--	
1.923	--	--	--	--	
--	--	--	--	--	
<b>37.696</b>	<b>15.194</b>	<b>55</b>	<b>34.279</b>	<b>87.021</b>	

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ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	1 January- 31 December 2016	1 January- 31 December 2015
<u>Transactions with related parties</u>	<u>Purchases</u>	<u>Purchases</u>
<u>Main Shareholder</u>		
TSKGV	654	614
<u>Main shareholder's subsidiaries and associates</u>		
NETAŞ	57.910	34.458
STM	22.674	566
İŞBİR	18.326	10.520
HTR - HAVELSAN	7.903	4.298
Mercedes Benz	2.335	--
TUSAŞ	840	1.449
HAVELSAN	541	1.060
HAVELSAN EHSİM	--	278
ESDAŞ	--	98
<u>Marketable securities</u>		
ROKETSAN	96.518	13.061
ASPILSAN	7.790	3.617
<u>Joint ventures and its related parties</u>		
İhsan Doğramacı Bilkent University	10.423	8.847
	<b>225.914</b>	<b>78.866</b>

The transaction with related parties are generally due to the purchase and sale of goods and services for the projects which are within the scope of TAS 11 "Construction Contracts".

	1 January- 31 December 2016	1 January- 31 December 2015
<u>Transactions with related parties</u>	<u>Sales</u>	<u>Sales</u>
<u>Main Shareholder</u>		
TSKGV	604	224
<u>Main shareholder's subsidiaries and associates</u>		
TUSAŞ	197.259	95.197
STM	76.244	20.162
HAVELSAN	9.347	38.400
HAVELSAN EHSİM	46	--
NETAŞ	7	--
<u>Marketable securities</u>		
ROKETSAN	62.542	69.285
<u>Joint ventures and its related parties</u>		
IGG	6.700	5.416
	<b>352.749</b>	<b>228.684</b>



**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

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**6. TRADE RECEIVABLES AND PAYABLES****a) Trade receivables**

Details of the Group's trade receivables are as follows:

	<b>31 December 2016</b>	<b>31 December 2015</b>
<b>Short-term trade receivables</b>		
Trade receivables	1.706.200	786.000
Trade receivables from related parties (Note 5)	311.655	165.331
Unbilled receivables from construction contracts in progress	17.640	112.293
Notes receivable	4.200	4.659
Doubtful trade receivables	921	859
Allowance for doubtful trade receivables (-)	(921)	(859)
	<b>2.039.695</b>	<b>1.068.283</b>
<b>Long-term trade receivables</b>		
Unbilled receivables from construction contracts in progress	233.168	295.695
Trade receivables	115.997	54.693
Unbilled receivables from construction contracts in progress-Related party (Note 5)	35.577	23.183
Trade receivables from related parties (Note 5)	610	2.248
Notes receivables	240	67
	<b>385.592</b>	<b>375.886</b>

The movement for the Group's allowance for doubtful receivables is as follows:

	<b>31 December 2016</b>	<b>31 December 2015</b>
Opening balance	859	859
Provision for the period	62	--
<b>Closing balance</b>	<b>921</b>	<b>859</b>

The sectorial distribution of trade receivables is as follows:

	<b>31 December 2016</b>	<b>31 December 2015</b>
Public sector	1.177.776	798.790
Private sector	644.348	310.845
Receivables from companies operating abroad	603.163	334.534
<b>Total receivables</b>	<b>2.425.287</b>	<b>1.444.169</b>

Receivables from public sector represent the receivables are due from the Ministry of Defense ("MOD") and other public entities. The Group's operations are based on contracts and no other collaterals are obtained from the customers.

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### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

#### b) Trade payables

Details of The Group's trade payables are as follows:

<b>Short-term trade payables</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Trade payables	749.756	485.389
Unearned revenue related to construction contracts in progress	221.962	52.452
Due to related parties (Note 5)	78.843	31.822
Unearned revenue related to construction contracts in progress-Related party (Note 5)	327	5.874
Other trade payables	2.019	1.666
	<b>1.052.907</b>	<b>577.203</b>
<b>Long-term trade payables</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Unearned revenue related to construction contracts in progress	231.328	188.605
Unearned revenue related to construction contracts in progress- Related party (Note 5)	21.721	34.279
Trade payables	95	--
	<b>253.144</b>	<b>222.884</b>

#### 7. OTHER RECEIVABLES AND PAYABLES

##### a) Other receivables

<b>Short-term other receivables</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Receivables from tax office <sup>1</sup>	81.623	45.963
Deposits and guarantees given	1.170	565
Other <sup>2</sup>	1.919	1.714
	<b>84.712</b>	<b>48.242</b>
<b>Long-term other receivables</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Deposits and guarantees given	<b>295</b>	<b>288</b>

##### b) Other payables

<b>Short-term other payables</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Deposits and guarantees received	5.374	17
Short-term other payables	805	2.799
Short-term other payables to related parties (Note 5)	69	55
	<b>6.248</b>	<b>2.871</b>
<b>Long-term other payables</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Deposits and guarantees received	<b>45</b>	<b>38</b>

<sup>1</sup> Mainly comprises Value Added Tax (VAT) returns and are expected to be offsetted in the following periods.

<sup>2</sup> Consists of project delay penalties which will be revoked to companies and blocked receivables due to Eximbank loan.

**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

**8. EQUITY ACCOUNTED INVESTMENTS**

The Group's financial information for its shareholdings consolidated with equity method that are not presented, according to the Group's ownership rates is as below:

<b>31 December 2016</b>	<b>Ownership Rate (%)</b>	<b>Current Assets</b>	<b>Non-current Assets</b>	<b>Total Assets</b>	<b>Short-term Liabilities</b>	<b>Long-term Liabilities</b>	<b>Total Liabilities</b>
ASELSAN Kazakhstan	49	58.752	87.008	145.760	79.578	3.534	83.112
ASELSAN Jordan	49	75.230	15.235	90.465	61.660	--	61.660
ASELSAN Optik	50	12.664	28.854	41.518	9.614	18.786	28.400
IGG ASELSAN	49	12.526	3.878	16.404	1.200	24.886	26.086
ASELSAN Bilkent	50	12.345	58.619	70.964	630	52.788	53.418
		<b>171.517</b>	<b>193.594</b>	<b>365.111</b>	<b>152.682</b>	<b>99.994</b>	<b>252.676</b>

<b>31 December 2016</b>	<b>Ownership Rate (%)</b>	<b>Revenue</b>	<b>Expenses</b>	<b>Net Profit/ (Loss)</b>	<b>Group Share of Net Assets</b>	<b>Group Share of Profit/(Loss)</b>
ASELSAN Kazakhstan	49	66.881	(62.737)	4.144	30.697	2.030
ASELSAN Jordan	49	56.277	(44.377)	11.900	11.357	5.831
ASELSAN Optik	50	8.400	(8.100)	300	6.559	150
IGG ASELSAN	49	6.090	(22.103)	(16.013)	--	(7.846)
ASELSAN Bilkent	50	714	(617)	97	8.774	48
		<b>138.362</b>	<b>(137.934)</b>	<b>428</b>	<b>57.387</b>	<b>213</b>

During 2016, there was a capital increase in ASELSAN Bilkent joint venture and IGG ASELSAN joint venture, in cash. The capital contribution amount of ASELSAN's share for ASELSAN Bilkent is TL 2.250, ASELSAN Kazakhstan TL 5.160 and IGG ASELSAN is TL 7.846.

SADEC LLC was established on 27 December 2016 in Saudi Arabia. Since ASELSAN has a capital commitment to SADEC LLC, there is no consolidation effect on the Group's financial statements.

<b>31 December 2015</b>	<b>Ownership Rate (%)</b>	<b>Current Assets</b>	<b>Non-current Assets</b>	<b>Total Assets</b>	<b>Short-term Liabilities</b>	<b>Long-term Liabilities</b>	<b>Total Liabilities</b>
ASELSAN Kazakhstan	49	42.703	62.257	104.960	55.498	1.491	56.989
ASELSAN Jordan	49	33.122	14.247	47.369	36.091	--	36.091
IGG ASELSAN	49	1.339	4.083	5.422	2.484	12.619	15.103
ASELSAN Optik	50	7.963	23.205	31.168	2.462	15.888	18.350
ASELSAN Bilkent	50	21.242	16.433	37.675	378	24.346	24.724
		<b>106.369</b>	<b>120.225</b>	<b>226.594</b>	<b>96.913</b>	<b>54.344</b>	<b>151.257</b>

<b>31 December 2015</b>	<b>Ownership Rate (%)</b>	<b>Revenue</b>	<b>Expenses</b>	<b>Net Profit/ (Loss)</b>	<b>Group Share of Net Assets</b>	<b>Group Share of Profit/(Loss)</b>
ASELSAN Kazakhstan	49	127.457	(132.455)	(4.998)	23.506	(2.449)
ASELSAN Jordan	49	16.084	(16.011)	73	5.526	36
IGG ASELSAN	49	3.046	(5.029)	(1.983)	--	--
ASELSAN Optik	50	497	(637)	(140)	6.409	(70)
ASELSAN Bilkent	50	260	(758)	(498)	6.475	(249)
		<b>147.344</b>	<b>(154.890)</b>	<b>(7.546)</b>	<b>41.916</b>	<b>(2.732)</b>

In joint ventures' ASELSAN Kazakhstan, ASELSAN Optik and ASELSAN Bilkent capital increase in cash. The capital increase amounts of joint ventures' shares are for ASELSAN Kazakhstan TL 1.872, for ASELSAN Optik TL 6.450 and for ASELSAN Bilkent TL 4.500.



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#### 9. INVENTORIES

	31 December 2016	31 December 2015
Raw materials	587.699	469.668
Work in progress	369.145	274.793
Goods in transit <sup>1</sup>	96.450	58.384
Finished goods	91.098	74.336
Trade goods	36.071	10.531
Other inventories	26.954	14.785
Allowance for impairment on inventories (-)	(20.019)	(15.670)
	<b>1.187.398</b>	<b>886.827</b>

The Group provides an allowance for impairment on inventories when the inventories net realizable values are lower than their costs or when they are determined as slow-moving inventories.

The Group has identified raw material, work-in progress and finished goods inventories below net realizable value within the current year. Therefore, there is a provision for inventories amounting to TL 20.019 in the statement of financial position (31 December 2015: TL 15.670).

Impaired inventory movements for the period ended in 31 December are as follows:

	2016	2015
Opening balance	15.670	13.945
Provision released	(3)	(2)
Provision for the period	4.352	1.727
<b>Closing balance</b>	<b>20.019</b>	<b>15.670</b>

<sup>1</sup> Goods in transit includes the goods for which significant risks and rewards of ownership has transferred to the Group due to their shipping terms.

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**10. PREPAID EXPENSES AND DEFERRED INCOME**

<b>Short-term prepaid expenses</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Order advances given for inventory purchases	294.636	179.365
Short-term order advances given to related parties for inventory purchases (Note 5)	59.063	22.527
Prepaid expenses	33.541	26.786
	<b>387.240</b>	<b>228.678</b>
<b>Long-term prepaid expenses</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Long-term order advances given to related parties for inventory purchases (Note 5)	199.841	284.921
Order advances given for inventory purchases	155.029	88.934
Order advances given for fixed assets purchases	32.686	33.528
Prepaid expenses	6.143	2.750
	<b>393.699</b>	<b>410.133</b>
<b>Short-term deferred income</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Order advances received	310.676	245.173
Deferred income	42.449	1.130
Order advances received from related parties (Note 5)	17.456	15.194
	<b>370.581</b>	<b>261.497</b>
Short-term order advances received comprises advances received from 35 customers (31 December 2015: 34 customers) of which first 10 customers constitutes 95,7 percent of the total (31 December 2015: 95,8 percent).		
<b>Long-term deferred income</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Order advances received	1.777.653	1.182.446
Order advances received from related parties (Note 5)	314.324	87.021
Deferred income	2	--
	<b>2.091.979</b>	<b>1.269.467</b>

Long-term order advances received comprises advances received from 24 customers (31 December 2015: 23 customers) of which the first 10 customers constitutes 99,6 percent of the total (31 December 2015: 99,2 percent).

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#### 11. PROPERTY, PLANT AND EQUIPMENT

	Land	Land improvements	Buildings	Machinery and equipment
<b>Cost and revaluation</b>				
Opening balance as of 1 January 2016	245.174	13.781	173.516	639.741
Additions	1.144	1.478	2.409	71.627
Disposals	--	--	--	(606)
Transfers	--	--	--	--
<b>Closing balance as of 31 December 2016</b>	<b>246.318</b>	<b>15.259</b>	<b>175.925</b>	<b>710.762</b>
<b>Accumulated depreciation</b>				
Opening balance as of 1 January 2016	--	8.503	60.804	385.200
Charge for the period	--	620	6.113	43.448
Disposals	--	--	--	(581)
<b>Closing balance as of 31 December 2016</b>	<b>--</b>	<b>9.123</b>	<b>66.917</b>	<b>428.067</b>
<b>Net book value as of 31 December 2016</b>	<b>246.318</b>	<b>6.136</b>	<b>109.008</b>	<b>282.695</b>
	Land	Land improvements	Buildings	Machinery and equipment
<b>Cost and revaluation</b>				
Opening balance as of 1 January 2015 (Prior reported)	210.734	19.505	314.773	567.070
Restatement effect <sup>2</sup>	(7.165)	(5.748)	(160.235)	--
Opening balance as of 1 January 2015 (Restated)	203.569	13.757	154.538	567.070
Additions	250	--	--	67.816
Revaluation	41.598	--	--	--
Disposals	(243)	--	--	(1.787)
Transfers	--	24	18.978	6.642
<b>Closing balance as of 31 December 2015</b>	<b>245.174</b>	<b>13.781</b>	<b>173.516</b>	<b>639.741</b>
<b>Accumulated depreciation</b>				
Opening balance as of 1 January 2015 (Prior reported)	--	8.186	58.669	348.411
Restatement effect	--	(308)	(445)	--
Opening balance as of 1 January 2015 (Restated)	--	7.878	58.224	348.411
Charge for the period	--	625	2.580	38.559
Disposals	--	--	--	(1.770)
<b>Closing balance as of 31 December 2015</b>	<b>--</b>	<b>8.503</b>	<b>60.804</b>	<b>385.200</b>
<b>Net book value as of 31 December 2015</b>	<b>245.174</b>	<b>5.278</b>	<b>112.712</b>	<b>254.541</b>

<sup>1</sup> Comprises of the mould model devices manufactured by the Group with net book value of TL 37.065 (31 December 2015: TL 36.020).

<sup>2</sup> Buildings, furniture and fixtures located on Oğulbey parcel rented from General Directorate of National Property as part of a servitude agreement for 49 years have been reclassified to leasehold improvements and depreciated in accordance with remaining useful lives. The revaluation of the land amounting to TL 1.208 has been reversed.



	Vehicles	Furniture and fixtures	Other fixed assets <sup>1</sup>	Leasehold improvements	Construction in progress	Total
	3.765	132.896	76.522	197.070	46.669	1.529.134
	783	22.454	9.284	135	14.783	124.097
	(709)	(70)	--	--	(172)	(1.557)
	--	--	3	--	(3)	--
	<b>3.839</b>	<b>155.280</b>	<b>85.809</b>	<b>197.205</b>	<b>61.277</b>	<b>1.651.674</b>
	2.775	95.650	40.502	10.858	--	604.292
	237	15.394	8.242	7.143	--	81.197
	(709)	(47)	--	--	--	(1.337)
	<b>2.303</b>	<b>110.997</b>	<b>48.744</b>	<b>18.001</b>	<b>--</b>	<b>684.152</b>
	<b>1.536</b>	<b>44.283</b>	<b>37.065</b>	<b>179.204</b>	<b>61.277</b>	<b>967.522</b>
	Vehicles	Furniture and fixtures	Other fixed assets	Leasehold improvements	Construction in progress	Total
	3.490	120.338	66.203	4.902	82.939	1.389.954
	--	--	--	171.940	--	(1.208)
	3.490	120.338	66.203	176.842	82.939	1.388.746
	674	10.081	10.319	166	15.905	105.211
	--	--	--	--	--	41.598
	(399)	(158)	--	--	(3.834)	(6.421)
	-	2.635	--	20.062	(48.341)	--
	<b>3.765</b>	<b>132.896</b>	<b>76.522</b>	<b>197.070</b>	<b>46.669</b>	<b>1.529.134</b>
	2.874	81.525	32.863	3.456	--	535.984
	--	--	--	753	--	--
	2.874	81.525	32.863	4.209	--	535.984
	292	14.165	7.639	6.649	--	70.509
	(391)	(40)	--	--	--	(2.201)
	<b>2.775</b>	<b>95.650</b>	<b>40.502</b>	<b>10.858</b>	<b>--</b>	<b>604.292</b>
	<b>990</b>	<b>37.246</b>	<b>36.020</b>	<b>186.212</b>	<b>46.669</b>	<b>924.842</b>

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The details of the depreciation expenses with respect to the plant, property and equipment is as follows:

	31 December 2016	31 December 2015
Cost of sales	55.305	54.492
General administrative expenses	15.480	8.227
Inventories	10.116	7.554
Marketing expenses	296	236
	<b>81.197</b>	<b>70.509</b>

#### Fair value measurement of the Group's land and buildings

In accordance with TFRS 13 "Fair Value Measurement" standard, since measurement techniques do not include observable market inputs, fair values of the lands are considered as level 3 in respect of fair value hierarchy.

There are no restrictions on the distribution of revaluation funds. The valuation difference on the lands is TL 227.444 (31 December 2015: TL 227.444).

Details of the Group's lands and information regarding fair value hierarchy as of 31 December 2016 are as follows:

	31 December 2016	Fair value as of reporting date		
		Level 1 TL	Level 2 TL	Level 3 TL
Macunköy	170.421	--	--	170.421
Akyurt	74.513	--	--	74.513
Gölbaşı	1.144	--	--	1.144
Gölbek	220	--	--	220
Denizli	20	--	--	20
	<b>246.318</b>	<b>--</b>	<b>--</b>	<b>246.318</b>

	31 December 2015	Fair value as of reporting date		
		Level 1 TL	Level 2 TL	Level 3 TL
Macunköy	170.421	--	--	170.421
Akyurt	74.513	--	--	74.513
Gölbek	220	--	--	220
Denizli	20	--	--	20
	<b>245.174</b>	<b>--</b>	<b>--</b>	<b>245.174</b>

**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

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**12. INTANGIBLE ASSETS**

	<b>Rights</b>	<b>Development Costs</b>	<b>Other intangible assets <sup>1</sup></b>	<b>Total</b>
<b>Cost</b>				
Opening balance as of 1 January 2016	33.428	644.911	81.668	760.007
Additions	2.757	207.378	19.079	229.214
Disposals	--	(27.238)	(2)	(27.240)
Transfers	6.504	(6.504)	--	--
<b>Closing balance as of 31 December 2016</b>	<b>42.689</b>	<b>818.547</b>	<b>100.745</b>	<b>961.981</b>
<b>Accumulated Amortization</b>				
Opening balance as of 1 January 2016	20.159	134.859	67.477	222.495
Charge for the period	3.132	27.418	11.807	42.357
Disposals	--	--	(2)	(2)
Transfers	--	--	--	--
<b>Closing balance as of 31 December 2016</b>	<b>23.291</b>	<b>162.277</b>	<b>79.282</b>	<b>264.850</b>
<b>Net book value as of 31 December 2016</b>	<b>19.398</b>	<b>656.270</b>	<b>21.463</b>	<b>697.131</b>
	<b>Rights</b>	<b>Development Costs</b>	<b>Other intangible assets <sup>1</sup></b>	<b>Total</b>
<b>Cost</b>				
Opening balance as of 1 January 2015	23.917	525.981	68.704	618.602
Additions	6.622	145.674	12.964	165.260
Disposals	--	(23.855)	--	(23.855)
Transfers	2.889	(2.889)	--	--
<b>Closing balance as of 31 December 2015</b>	<b>33.428</b>	<b>644.911</b>	<b>81.668</b>	<b>760.007</b>
<b>Accumulated Amortization</b>				
Opening balance as of 1 January 2015	18.328	104.475	57.293	180.096
Charge for the period	1.831	30.390	10.184	42.405
Disposals	--	(6)	--	(6)
<b>Closing balance as of 31 December 2015</b>	<b>20.159</b>	<b>134.859</b>	<b>67.477</b>	<b>222.495</b>
<b>Net book value as of 31 December 2015</b>	<b>13.269</b>	<b>510.052</b>	<b>14.191</b>	<b>537.512</b>

<sup>1</sup> Other intangible assets include licences related to computer software.



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The details of amortization expenses regarding intangible assets is as follows:

	31 December 2016	31 December 2015
Research and development expenses	24.929	33.266
Cost of sales	11.159	3.498
Inventories	3.278	1.917
Marketing expenses	1.977	34
General administrative expenses	1.014	3.690
	<b>42.357</b>	<b>42.405</b>

### 13. GOVERNMENT GRANTS AND INCENTIVES

The deferred incentive income shown under short and long-term liabilities in the consolidated statement of financial position is as follows:

	31 December 2016	31 December 2015
<b>Current government grants and incentives</b>	<b>28.268</b>	<b>22.583</b>

As part of the Decision on Government Incentives on Investments, there are 6 investment incentives taken from General Directorate of Turkish Undersecretariat of the Treasury. The incentives allow VAT exemption and customs tax exemption. VAT exemption is applied in both domestic and international purchases while customs tax exemption is applied for international purchases.

In Corporate Tax Calculation, no tax payable is calculated because of R&D deduction and deductions due to investment incentive certificates cannot be applied. For this reason, no deferred tax effect is calculated for the temporary differences arising from investment incentives.

Government grants show the unearned proportion of the grant after the costs related with the completed parts of the projects are deducted from the grants taken by the Group for the ongoing projects that was obtained as of the reporting date.

The incentive obtained consists of the incentives that are accrued in accordance with TÜBİTAK's R&D recognition letter prepared with respect to the Group's ongoing projects.

The Group obtains capital support from "Support and Price Stabilization Fund" of Central Bank of Turkey via Undersecretariat of Foreign Trade's consent. The Scientific and Technological Research Council of Turkey ("TÜBİTAK") and Technology Development Foundation of Turkey ("TTGV") act as intermediary in accordance with Communiqué No:98/10 published by the Money-Loans and Coordination Board.

In accordance with Law on Technology Development Zones numbered 4691, Group utilizes withholding income tax incentive, social security premium incentive and stamp tax exceptions. Such incentives are utilized through not paying withholding income tax incentive, social security premium incentive and stamp tax exceptions calculated based on research and development and software personnel payroll. Income generated in accordance with law on Technology Development Zones numbered 4691 is exempt from corporate income tax until 31 December 2023.

The research and development expenditure deduction rate used as a tax benefit has been increased from 40 percent to 100 percent in accordance with the amended article 10 of the Tax Law numbered 5520, the amended article 89 of Law numbered 193 and 5746 with respect to the Support of Research and Development Activities. The aforementioned law was enacted as of April 2008 after its issue in the Official Gazette dated 12 March 2008, numbered 26814. In accordance to the Law regarding the Incentive of Research and Development Activities numbered 6676 published on Official Gazettes numbered 29636 on 26 February 2016 and The Law Regarding the Amendments on Delegated Legislation, the content of the law and incentives has been broadened and additional exceptions has been given. Research and development expenditure may be used as a tax deduction in the determination of the taxable income. If taxable income levels are not sufficient to absorb all available tax deductions, any unused research and development tax deduction is allowed to be carried forward to the next tax period. The remaining amount from previous year is increased according to revaluation ratio defined at Tax Procedure Law. According to the item No. 8 of the related law, all the costs related with research and development can be subjected to deduction until 31 December 2023.

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**14. BORROWING COSTS**

As of 31 December 2016, there is no borrowing cost regarding the qualifying assets. (31 December 2015: None).

**15. PROVISIONS, CONTINGENT ASSETS AND LIABILITIES****a) Provisions**

<b>Other short-term provisions</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Provision for warranties <sup>1</sup>	183.555	117.809
Provision for onerous contracts	91.555	41.804
Provision for delay penalties <sup>2</sup>	19.705	10.779
Provision for insurance expense	7.089	6.334
Provision for legal cases	5.332	2.649
Provision for cost expenses	2.955	1.994
Other	265	557
	<b>310.456</b>	<b>181.926</b>

The movement of the provision for warranties is as follows:

	<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
Opening balance	117.809	71.402
Provision for the period	145.576	113.789
Realized during the period	(72.746)	(61.368)
Provision reversed during the period	(7.084)	(6.014)
<b>Closing balance</b>	<b>183.555</b>	<b>117.809</b>

The movement of the provision for onerous contracts is as follows:

	<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
Opening balance	41.804	16.457
Reclass from long-term provisions to short-term provisions	16.128	12.956
Provision for the period	34.463	26.629
Realized during the period	(644)	(13.189)
Provision reversed during the period	(196)	(1.049)
<b>Closing balance</b>	<b>91.555</b>	<b>41.804</b>

<sup>1</sup> The Group's provision for warranty is based on sales under warranty are estimated in accordance with historical data.<sup>2</sup> Provision for delay penalties and fines are calculated in accordance with interest for default ratio defined by contract when the contract requirements regarding deliverables are not fulfilled on time.

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The movement of the provision for delay penalties is as follows:

	1 January- 31 December 2016	1 January- 31 December 2015
Opening balance	10.779	7.465
Provision for the period	31.711	14.017
Realized during the period	(22.785)	(8.864)
Provision reversed during the period	--	(1.839)
<b>Closing balance</b>	<b>19.705</b>	<b>10.779</b>

The movement of the provision for legal cases is as follows:

	1 January- 31 December 2016	1 January- 31 December 2015
Opening balance	2.649	937
Provision for the period	2.934	2.189
Realized during the period	(71)	(105)
Provision reversed during the period	(180)	(372)
<b>Closing balance</b>	<b>5.332</b>	<b>2.649</b>

	31 December 2016	31 December 2015
<b>Other long-term provisions</b>		
Provision of onerous contracts	36.022	23.518
Provision for delay penalties	16.114	--
	<b>52.136</b>	<b>23.518</b>

The movement of the provision for onerous contracts is as follows:

	1 January- 31 December 2016	1 January- 31 December 2015
Opening balance	23.518	12.956
Reclass from long-term provisions to short-term provisions	(16.128)	(12.956)
Provision during the period	29.598	23.518
Provision reversed during the period	(996)	--
<b>Closing balance</b>	<b>36.022</b>	<b>23.518</b>

The movement of the provision for delay penalties is as follows:

	1 January- 31 December 2016	1 January- 31 December 2015
Opening balance	--	2.960
Provision during the period	16.114	--
Provision reversed during the period	--	(2.960)
<b>Closing balance</b>	<b>16.114</b>	<b>--</b>



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**b) Legal cases**

As of the dates 31 December, according to the declarations written by the legal counselors, the lawsuits and legal executions in favor of and against the Group are as follows:

Description	2016	2015
a) Ongoing lawsuits filed by the Group	1.395	2.820
b) Execution proceedings carried out by the Group	5.210	5.640
c) Ongoing lawsuits filed against the Group	5.332	2.649
d) Lawsuits finalized against the Group within the period	139	5.482
e) Lawsuits finalized in favor of the Group within the period	4.076	453

**16. COMMITMENTS AND CONTINGENCIES****a) Operating lease**

As of 31 December 2016, the Group has two lands that are rented for 49 years and 46 years. As of 31 December 2016 the Group has paid rent amounting to TL 195 (31 December 2015: TL 52) and TL 350 (31 December 2015: TL 335) for property lands rented for 49 years and 46 years respectively. Rent payments escalated every year based on the "Producer Price Index (PPI)" rate. The rental period will end on 23 January 2061.

As of 31 December 2016, the Group has paid rent amounting to TL 3.355 (31 December 2015: TL 3.564) for vehicles rented during the year. In September 2016, the car rental agreement was renewed for 3 years. Throughout the contract there will be no change due to the annual increase in rent payments.

**b) Guarantees received**

	31 December 2016	31 December 2015
Letters of guarantees received from the suppliers	1.040.467	786.689
Collaterals received from the customers	11.130	9.533
Letters of guarantees received from the customers	2.780	4.955
Collaterals received from the suppliers	2.430	5.105
Mortgages received from the customers	265	265
Guarantees received from the customers	6	6
Guarantees received from the suppliers	--	79
	<b>1.057.078</b>	<b>806.632</b>

## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

#### c) Collaterals/Pledges/Mortgages ("CPM") given

The collaterals/pledges/mortgages ("CPM") given by the Group as of 31 December 2016 and 31 December 2015 is as in the following page:

Within the scope of Patrol and Anti-Submarine Warfare Ship Projects ("MİLGEM") contract cost amounting to USD 267.826, carried out with the partnership of HAVELSAN the Group is responsible for fulfilling the obligations of HAVELSAN if HAVELSAN is unable to fulfill them.

31 December 2016	TL Equivalent	TL	USD
A. Total amount of CPM given on behalf of the legal entity			
- Collateral	11.268.113	1.473.279	1.835.161
- Pledge	--	--	--
- Mortgage	--	--	--
B. Total amount of CPM given on behalf of the subsidiaries included in full consolidation			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
C. Total amount of CPM given to maintain operations and collect payables from third parties			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
D. Total amount of other CPM given			
i. Total Amount of CPM on behalf of the main partner			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
ii. Total amount of CPM given on behalf of other group companies that do not cover B and C <sup>1</sup>			
- Collateral	15.688	907	4.200
- Pledge	--	--	--
- Mortgage	--	--	--
iii. Total amount of CPM on behalf of third parties that do not cover			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
<b>Total</b>	<b>11.283.801</b>	<b>1.474.186</b>	<b>1.839.361</b>

The Group is responsible as joint guarantor for the portion amounting to EURO 2,5 Million of investment credit amounting to EURO 5 Million which will be used by ASELSAN Optik, the Group's joint venture.

<sup>1</sup> The ratio of the other CPM given by the Group to equity as of 31 December 2016 is 0,42 percent. TL 15.688 is the collateral amount pertaining to guarantee letter given on behalf of the entities' affiliate company Mikro AR-GE and joint venture ASELSAN Bilkent.

EURO	UAE Dirham	Indian Rupee	British Pound
890.377	26.760	10.000	1.654
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<b>890.377</b>	<b>26.760</b>	<b>10.000</b>	<b>1.654</b>



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### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

31 December 2015	TL Equivalent	TL	USD
A. Total amount of CPM given on behalf of the legal entity			
- Collateral	7.854.973	1.000.552	1.609.503
- Pledge	--	--	--
- Mortgage	--	--	--
B. Total amount of CPM given on behalf of the subsidiaries included in full consolidation			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
C. Total amount of CPM given to maintain operations and collect payables from third parties			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
D. Total amount of other CPM given			
i. Total Amount of CPM on behalf of the main partner			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
ii. Total amount of CPM given on behalf of other group companies that do not cover B and C <sup>1</sup>			
- Collateral	13.119	907	4.200
- Pledge	--	--	--
- Mortgage	--	--	--
iii. Total amount of CPM on behalf of third parties that do not cover			
- Collateral	--	--	--
- Pledge	--	--	--
- Mortgage	--	--	--
<b>Total</b>	<b>7.868.092</b>	<b>1.001.459</b>	<b>1.613.703</b>

<sup>1</sup> The ratio of the other CPM given by the Group to the equity as of 31 December 2015 is 0,46 percent. TL 13.119 is the collateral amount pertaining to guarantee letter given on behalf of the entities' affiliate company Mikro AR-GE and joint venture ASELSAN Bilkent.

<b>EURO</b>	<b>UAE Dirham</b>	<b>Polish Zloty</b>	<b>Indian Rupee</b>	<b>British Pound</b>
674.740	26.760	2.424	10.000	1.654
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<b>674.740</b>	<b>26.760</b>	<b>2.424</b>	<b>10.000</b>	<b>1.654</b>

## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

#### 17. EMPLOYEE BENEFITS

##### a) Obligations for employee benefits

	31 December 2016	31 December 2015
Social security premiums payable	28.380	11.597
Taxes and funds payable	7.838	8.619
Due to personnel	618	1.372
	<b>36.836</b>	<b>21.588</b>

##### b) Short-term provisions for employee benefits

	31 December 2016	31 December 2015
<b>Provision for vacation pay liability</b>	<b>43.362</b>	<b>38.115</b>

As of 31 December the movement of the provision for vacation pay is as follows:

	2016	2015
Opening balance	38.115	33.925
Provision for the period	21.140	17.646
Provision paid during the period	(10.314)	(7.760)
Provision realized during the period	(5.579)	(5.696)
<b>Closing balance</b>	<b>43.362</b>	<b>38.115</b>

##### c) Long-term provisions for employee benefits

	31 December 2016	31 December 2015
Provision for severance pay	138.248	149.539
Provision for retirement pay	12.749	13.873
	<b>150.997</b>	<b>163.412</b>

As of 31 December the movement of severance and retirement pays are as follows:

	2016	2015
Opening balance	163.412	127.420
Service cost	15.099	39.176
Interest cost	13.666	2.325
Termination cost	498	418
Actuarial gains/(loss)	(22.759)	--
Payments	(18.919)	(5.927)
<b>Closing balance</b>	<b>150.997</b>	<b>163.412</b>



## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### Provision for severance pay:

In accordance with the Labor Law Legislations, the Group is obliged to make legal severance indemnity payments to entitled employees whose employment has been terminated. Furthermore, with regard to Social Security Law numbered 506 dated 6 March 1981, number 2422 dated 24 August 1999 and law numbered 4447, article 60 denotes the legal obligation to make severance payments to all employees who are entitled to indemnity by the date of leave of employment.

Certain provisions regarding services before retirement, has been annulled on 23 May 2002 during the revision of the related law. As of 31 December 2016 severance payments are calculated on the basis of 30 days' pay, limited to a ceiling of TL<sup>1</sup> 4.297,21 (31 December 2015: TL<sup>1</sup> 3.828,37)

As of 1 January 2017, the ceiling for the severance payments is TL 4.426,16<sup>1</sup>

The liability is not funded, as there is no funding requirement. The provision has been calculated by estimating the present value of the future probable obligation of the Group arising from the retirement of employees. TAS 19 ("Employee Benefits") requires actuarial valuation methods to be developed to estimate the entity's obligation under defined benefit plans.

### Provision for retirement grant:

Retirement bonus provision is recognized for the employees with service of more than 20 years within the Group and has earned/will earn their retirement.

Accordingly, the following actuarial assumptions were used in the calculation of the total liability:

	31 December 2016 (%)	31 December 2015 (%)
Interest rate	10,59	9,34
Inflation rate	7	7,20
Discount ratio	3,36	2,00
Estimation of probability of retirement ratio	98	99

<sup>1</sup> Amounts are expressed in Turkish Lira.

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### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

#### 18. OTHER ASSETS AND LIABILITIES

##### a) Other current assets

	31 December 2016	31 December 2015
VAT carried forward <sup>1</sup>	105.202	89.072
Restricted cash <sup>2</sup>	63.062	61.515
Other VAT	4.088	7.734
Job advances	1.039	1.483
Prepaid taxes and funds	--	2.498
Other <sup>3</sup>	28.316	17.473
	<b>201.707</b>	<b>179.775</b>

##### b) Other non-current assets

	31 December 2016	31 December 2015
VAT carried forward <sup>1</sup>	119.687	85.099
Prepaid taxes and funds	8.619	6.022
Other <sup>3</sup>	4.739	6.602
	<b>133.045</b>	<b>97.723</b>

##### c) Other short-term liabilities

	31 December 2016	31 December 2015
Taxes and funds payable	9.874	3.306
Other <sup>3</sup>	11.901	10.007
	<b>21.775</b>	<b>13.313</b>

#### 19. SHARE CAPITAL, RESERVES AND OTHER EQUITY ITEMS

##### Capital

Shareholders	Share (%)	31 December 2016	Share (%)	31 December 2015
TSKGV	84,58	845.826	84,58	422.913
Publicly held	15,30	153.019	15,30	76.509
Axa Sigorta Anonim Şirketi	0,12	1.155	0,12	578
Nominal capital	100	1.000.000	100	500.000
Share capital adjustment		98.621		100.321
<b>Inflation adjusted capital</b>		<b>1.098.621</b>		<b>600.321</b>

The Group's nominal capital is TL 1.000.000 comprising 100.000.000.000 shares each of which is 1 kuruş. A total of 60.545.454.546 of the shares constitutes "Group A" and 39.454.545.454 of the shares constitutes "Group B" shares. All of the shares are nominative. "Group A" shares are privileged nominative shares and 6 members of the Board of Directors members are assigned from the holders of nominative "Group A" type shareholders or from the ones nominated by "Group A" type shareholders. Moreover, when new shares are issued the proportion of nominative "Group A" shares are preserved. In accordance with the CMB's legislation, other Board of Directors members, not including elected Independent Board of Director Members, are assigned from nominative "Group A" shareholders or elected from among candidate nominated by "Group A" shareholders.

<sup>1</sup> Taxpayers (Contractor/the Group) who deliver goods and provides services to the Natural Security Institutions (such as MOD and UDI) are to be approved by purchasers (contacting authority) in terms of content and nature accordingly. Value Added Tax (VAT) is exempted as of 1 March 2009 in accordance with General Declaration on Value Added Tax with the Serial Number 112 in the Official Gazette as of 12 February 2009. These amounts usually are not collected, but they are offsetted with other tax liabilities.

<sup>2</sup> The amount consists of the restricted cash with regard to 1007 and the European Union projects.

<sup>3</sup> Mainly comprises of other assets and liabilities of consolidated subsidiaries.

## Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

### Restricted reserves

In accordance with Capital Markets Board's Communiqué Serial II No:19.1 "Share of Profit", effective as of 1 February 2014, and with regard to the Turkish Commercial Code ("TCC"), legal reserves in publicly held companies will be generated by 5 percent of income until it reaches 20 percent of paid-in share capital. After the 5 percent of the dividend is paid to shareholders, 10 percent of the total distributed to shareholders and employees can be added in the other legal reserve. Under the TCC, the legal reserves can be used only to offset losses for the going concern of the company or to prevent unemployment as long as the amount does not exceed 50 percent of the paid-in capital.

As of 31 December 2016, The Group's restricted reserves set aside from profit comprises legal reserves. The total of the Group's legal reserves are TL 94.159 (31 December 2015: TL 86.943).

### Retained Earnings

Accumulated profits apart from net profit for the year and extraordinary reserves which is accumulated profit by nature are shown under retained earnings. As of 31 December 2016 the extraordinary reserves balance presented in retained earnings is TL 248.547 (31 December 2015: TL 665.461). According to the statutory records, the Company's profit for the period is TL 534.070 (31 December 2015: TL 103.218) and its other funds available for profit distribution is TL 259.858 (31 December 2015: TL 704.649) and the details are as followings.

	31 December 2016	31 December 2015
Capital reserves and extraordinary reserves	259.858	704.649

### Profit distribution

Publicly traded companies perform dividend distribution in accordance with Capital Market Board's Communiqué Serial II No:19.1 "Share of Profit", effective as of 1 February 2014.

Shareholders, distribute dividend with general assembly decision, within the context of profit distribution policies set by general assembly and related regulations. As part of the communiqué, no specific minimum distribution ratio is indicated. Companies pay dividend as defined in their articles of association or dividend distribution policies.

On 31 March 2016, in accordance with the consolidated financial statements, the General Assembly of the Company has decided to allocate legal reserve amounting to TL 6.221 of the TL 212.930 which is based on the profit distribution, and to distribute TL 42.000 in cash to shareholders for dividend payment and the remaining TL 164.709 to be within the Group. Thus, the cash gross dividend amount for TL 1 nominal value per share is Kuruş 4,2 net (31 December 2015: Kuruş 13 net).

Within 2016, dividend amounting to TL 42.000 in gross, 4,2 Kuruş per share of TL 1 (net profit amounting to TL 35.700, 3,57 Kuruş per share of TL 1) will be paid to shareholders. (31 December 2015: TL 65.000 in gross, 13 Kuruş per share of TL 1 (TL 55.250 in net, 11,05 Kuruş per share of TL 1) was paid). Due to the company's capital increased from TL 500.000 to TL 1.000.000, earnings per share is recomputed.

On 29 March 2016, General Assembly of Aselsan has decided to distribute TL 10.000 as dividend payments to shareholders and reserve TL 995 as retained earnings from net profit of the year 2015. Remaining TL 2.300 is decided to be bonus shares and remaining profit TL (70) is allocated as extraordinary reserves (31 December 2015: None).

On 29 March 2016, General Assembly of Mikro AR-GE's has decided to distribute TL 200 as dividend payments to shareholders and reserve TL 20 as retained earnings from net profit of the year 2015. Remaining TL 1.555 will be added to extraordinary reserves (31 December 2015: None).

All of the gross TL 42.000 of dividend to be distributed has been paid to the shareholders as of 31 December 2016.



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#### 20. REVENUE AND COST OF SALES

##### a) Revenue

	1 January- 31 December 2016	1 January- 31 December 2015
Domestic sales	3.294.613	2.242.010
Export sales	485.404	547.895
Other revenues	324	887
Sales returns (-)	(10.480)	(8.602)
Sales discounts (-)	(1.745)	(1.760)
	<b>3.768.116</b>	<b>2.780.430</b>

##### b) Cost of sales(-)

	1 January- 31 December 2016	1 January- 31 December 2015
Cost of raw materials and supplies	969.267	929.103
Personnel expenses	79.994	80.834
Production overheads	275.449	223.535
Depreciation expenses	66.464	57.990
Change in work in progress	(94.352)	(31.805)
Change in finished goods	(16.762)	(14.688)
Development expenses <sup>1</sup>	1.045.267	744.753
Cost of services sold	274.865	82.623
Cost of merchandise goods sold	70.314	22.331
Cost of other sales	174.592	59.680
	<b>2.845.098</b>	<b>2.154.356</b>

#### 21. CONSTRUCTION CONTRACTS

	31 December 2016	31 December 2015
Construction costs incurred plus recognized profits less recognized losses to date	9.862.184	8.131.682
Less: earned allowances	(10.051.137)	(7.981.721)
	<b>(188.953)</b>	<b>149.961</b>
Amounts due from customers under construction contracts (Note 6)	286.385	431.171
Amounts due to customers under construction contracts (Note 6)	(475.338)	(281.210)
	<b>(188.953)</b>	<b>149.961</b>

<sup>1</sup> Development expenses consist of raw material, design and personnel expenses TL 384.658 (31 December 2015: TL 316.371) of development expenses is comprised of labour cost.

**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

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**22. GENERAL ADMINISTRATIVE EXPENSES, MARKETING EXPENSES, RESEARCH AND DEVELOPMENT EXPENSES**

	<b>1 January - 31 December 2016</b>	<b>1 January - 31 December 2015</b>
General administrative expenses (-)	150.732	138.399
Marketing expenses (-)	83.758	74.654
Research and development expenses (-)	82.603	87.980
	<b>317.093</b>	<b>301.033</b>
	<b>1 January - 31 December 2016</b>	<b>1 January - 31 December 2015</b>
<b>a) General administrative expenses (-)</b>		
Personnel expenses	100.498	94.141
Depreciation and amortization expenses	16.494	11.917
Expertise and consultancy expenses	5.788	3.336
Electricity expenses	2.963	3.267
Outsourcing expenses	2.803	2.454
Maintenance and repair expenses	1.999	4.127
Insurance expenses	1.950	2.159
Rent expenses	1.814	2.053
Personnel transportation expenses	1.743	1.674
Travel expenses	1.613	1.861
Personnel meal expenses	1.291	1.137
Property and environmental cleaning tax	1.286	947
Course and seminar expenses	893	779
Telephone expenses	716	268
Other	8.881	8.279
	<b>150.732</b>	<b>138.399</b>

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	1 January- 31 December 2016	1 January- 31 December 2015
<b>b) Marketing expenses (-)</b>		
Commission expenses	28.006	26.158
Personnel expenses	14.338	12.201
Exhibition expenses	11.093	10.974
Stamp duty expenses	7.278	10.310
Travel expenses	4.447	3.559
Shipping and delivery expenses	3.708	2.649
Advertising expenses	2.400	2.179
Depreciation and amortization expenses	2.273	270
Packaging expenses	1.515	899
Representation expenses	1.232	789
Consultancy expenses	1.072	2.338
Samples expenses	840	868
Insurance expenses	789	632
Rent expenses	687	205
Other	4.080	623
	<b>83.758</b>	<b>74.654</b>
<b>c) Research and development expenses (-)</b>		
Personnel expenses	33.930	39.235
Depreciation and amortization expenses	24.929	33.266
Equipment costs	13.226	9.262
Other	10.518	6.217
	<b>82.603</b>	<b>87.980</b>



**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

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**23. OTHER OPERATING INCOME AND EXPENSES****a) Other operating income**

	<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
Foreign currency exchange differences from operations	464.616	150.058
Discount income	12.211	3.569
Free of charge investment income <sup>1</sup>	734	10.057
Other income	12.115	9.963
	<b>489.676</b>	<b>173.647</b>

**b) Other operating expenses (-)**

	<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
Foreign currency exchange differences from operations	267.334	282.181
Discount income	9.378	6.432
Other expense and losses	8.886	7.309
	<b>285.598</b>	<b>295.922</b>

**24. INCOME FROM INVESTING ACTIVITIES**

	<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
Dividend income	8.171	--
Gain on sale of fixed assets	566	2.478
	<b>8.737</b>	<b>2.478</b>

**25. FINANCIAL INCOME**

	<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
Foreign currency exchange gain from bank loans	45.546	25.357
Interest income	20.227	10.550
Option income	--	1.835
Other financial income	588	606
	<b>66.361</b>	<b>38.348</b>

<sup>1</sup> Free of charge investment income comprises of fixed assets donated by public bodies and utilized within the scope of research projects conducted with universities. Subsequent to the completion of these projects, the subject matter fixed assets have been incorporated to the Group without any charge.

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### 26. FINANCIAL EXPENSES

	1 January- 31 December 2016	1 January- 31 December 2015
Foreign currency exchange losses from bank loans (-)	123.039	135.286
Interest cost related with employee benefits (-)	13.666	--
Interest cost of borrowings (-)	7.510	3.462
Discount expenses at bank loans (-)	7.076	16.519
	<b>151.291</b>	<b>155.267</b>

### 27. ANALYSIS OF OTHER COMPREHENSIVE INCOME ITEMS

	31 December 2016	31 December 2015
Gain from revaluation of available for sale financial assets	485.346	406.802
Revaluation of property	216.072	216.072
Loss on remeasurement of defined benefit plans	3.283	(14.924)
Cumulative Translation Adjustments	684	(95)
	<b>705.385</b>	<b>607.855</b>

#### Revaluation reserve available for sale financial assets

Opening balance	406.802	293.019
Gain on revaluation and reclassification of available for sale financial assets	82.678	119.772
Deferred tax liability arising from revaluation	(4.134)	(5.989)

#### Closing balance

	1 January- 31 December 2016	1 January- 31 December 2015
	<b>485.346</b>	<b>406.802</b>

Gain on revaluation or reclassification of available for sale financial assets arises due to revaluation of financial investments. When available for sale financial assets are sold, any related amount included in revaluation reserve is transferred to profit or loss.

#### Revaluation of property

Opening balance (Prior reported)	216.072	177.701
Restatement effect	--	(1.147)
Opening balance (Restated)	216.072	176.554
Increase arising from revaluation of property	--	41.598
Deferred tax on revaluation	--	(2.080)

#### Closing balance

	1 January- 31 December 2016	1 January- 31 December 2015
	<b>216.072</b>	<b>216.072</b>

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(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

Revaluation of property increase arises from revaluation of the lands. On the subsequent sale or retirement of a revalued property, the attributable revaluation surplus remaining in the properties revaluation reserve is transferred directly to retained earnings.

**Foreign currency exchange differences:**

Opening balance  
 Currency differences from net asset currency translation of oversea establishments  
 Deferred tax on revaluation

**Closing balance**

<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
(95)	--
779	(95)
--	--
<b>684</b>	<b>(95)</b>

**Gain/Loss on remeasurement of defined benefit plans**

Opening balance  
 Gain/Loss on remeasurement of defined benefit plans  
 Deferred tax on gain/loss on remeasurement of defined benefit plans

**Closing balance**

<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
(14.924)	(14.924)
22.759	--
(4.552)	--
<b>3.283</b>	<b>(14.924)</b>

**28. INCOME TAXES****Corporate tax liabilities:**

Current corporate tax provision  
 Less: Prepaid taxes and funds

<b>31 December 2016</b>	<b>31 December 2015</b>
1.548	3.493
(1.121)	(860)
<b>427</b>	<b>2.633</b>

**Tax income:**

Current corporate tax expense  
 Deferred tax income

<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
(1.548)	(3.493)
62.726	137.656
<b>61.178</b>	<b>134.163</b>



## Financial Information

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### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

	1 January-31 December 2016		
	Amount before tax	Tax income/ expense	Net of tax amount
Tax effects related to components of other comprehensive income			
Defined benefit plan revaluation gains/losses	22.759	(4.552)	18.207
Cumulative Translation Adjustments	779	--	779
Gain on revaluation of available for sale financial assets	82.678	(4.134)	78.544
Other comprehensive income in the period	106.216	(8.686)	97.530
	1 January-31 December 2015		
	Amount before tax	Tax income/ expense	Net of tax amount
Tax effects related to components of other comprehensive income			
Gains on revaluation of fixed assets	41.598	(2.080)	39.518
Cumulative Translation Adjustments	(95)	--	(95)
Gain on revaluation of available for sale financial assets	119.772	(5.989)	113.783
Other comprehensive income in the period	161.275	(8.069)	153.206
	1 January- 31 December 2016	1 January- 31 December 2015	
Tax recognized directly in equity			
Deferred tax:			
Directly recognized in equity:			
- Revaluation of property	--	(2.080)	
- Gain on revaluation of available for sale financial assets	(4.134)	(5.989)	
- Actuarial gain/expense	(4.552)	--	
Deferred tax recognized directly in equity	(8.686)	(8.069)	

#### Corporate tax

The Group is subject to Turkish corporate taxes. The corporate income tax is declared until the relevant accounting period-end's following fourth month, twenty-fifth day's evening and it is batch paid until the end of the related month. In accordance with the tax legislation, quarterly 20 percent (31 December 2015: 20 percent) on profits of advance tax is being calculated and paid. The amounts paid in this way are deducted by the tax on annual earning.

In accordance with the tax legislation in Turkey, financial losses could be carried forward for a maximum of five years that the year they appeared. Besides, tax returns and the related accounting records may be reviewed within five years by the tax administration.

Provision is made in the accompanying consolidated financial statements for the estimated change based on the Group's results for the year. Turkish tax legislation does not permit a parent company and its subsidiary to file a consolidated tax return. Therefore, provisions for taxes, as reflected in the accompanying consolidated financial statements, have been calculated on a separate entity bases.

Corporate tax rate that will be accrued based on rate able profit of the company is calculated on a basis by including disallowed deductions written off as expense when determining commercial profit with excluding tax-exempt profits and other discounts (also previous year losses and investments allowances used, if preferred)

The tax rate in 2016 is 20 percent (31 December 2015: 20 percent).

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**Deferred Tax**

The Group recognizes deferred tax assets and liabilities based upon temporary differences arising from its financial statements as reported for TFRS purposes and its statutory tax financial statements. These differences usually result in the recognition of revenue and expenses in different reporting periods for TFRS and tax purposes and the differences are given below.

For calculation of deferred tax asset and liabilities, the rate of 20 percent is used (2015: 20 percent).

In Turkey, companies cannot declare a consolidated tax return, therefore subsidiaries that have deferred tax asset position are not netted off against subsidiaries that have deferred tax liabilities position are disclosed separately.

The details of deferred tax assets and liabilities of the Group are as follows:

**Deferred Tax Assets:**

	<b>31 December 2016</b>	<b>31 December 2015</b>
Discount on receivables	1.902	1.195
Adjustment to costs and provision for expected losses of construction contracts	429.590	350.155
Allowance for impairment on inventories	3.971	3.100
Provision for delay penalties	7.164	2.156
Provision for warranties	36.886	23.562
Provision for severance pay	27.650	29.908
Provision for retirement bonus pay	2.550	2.775
Provision for annual leave	8.672	7.623
Provision for legal cases	51	8
Accumulated research and development incentive	513.261	417.265

**Deferred Tax Liabilities:**

	<b>31 December 2016</b>	<b>31 December 2015</b>
Discount on payables	(1.831)	(578)
Adjustment of progress payments for long- term construction projects	(580.319)	(450.158)
Depreciation of fixed assets/amortization of intangible assets	(28.057)	(23.695)
Fixed assets revaluation fund	(11.372)	(11.372)
Gain on revaluation of available for sale financial assets	(25.545)	(21.411)

**Deferred tax assets****1.031.697****837.747****Deferred tax liabilities****(647.124)****(507.214)****Deferred tax assets - net****384.573****330.533****Movement of deferred tax assets/(liabilities):**

	<b>1 January- 31 December 2016</b>	<b>1 January- 31 December 2015</b>
Opening balance as of 1 January	330.533	200.946
Charged to statement of profit or loss	62.726	137.656
Charged to equity	(8.686)	(8.069)
	<b>384.573</b>	<b>330.533</b>

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	Effective Tax Rate (%)	1 January-31 December 2016	Effective Tax Rate (%)	(Restated) 1 January-31 December 2015
<b>Tax reconciliations:</b>				
Profit before tax from continuing operations		734.024		79.210
Income tax rate		20%		20%
Tax at the domestic income tax rate	20	146.805	20	15.842
Tax effects of:				
- revenue that is exempt from taxation	(2)	(12.401)	(6)	(5.423)
- expenses that are not deductible in determining taxable profit	1	7.268	6	4.922
- R&D incentives and other income exempt from taxation	(27)	(203.156)	(191)	(151.304)
- Subsidiaries and associates revenue that is exempt from taxation	--	(187)	1	999
- effect of other adjustments	--	493	1	801
<b>Tax income recognized in profit or loss</b>	<b>(8)</b>	<b>(61.178)</b>	<b>(169)</b>	<b>(134.163)</b>

#### 29. EARNINGS PER SHARE

Earnings per share is calculated by dividing the portion of profit allocated to the Group's weighted average number of shares outstanding over the reporting term. The Group does not have diluted shares.

For the years ended 31 December 2016 and 2015, earnings per share calculations are as follows:

	1 January-31 December 2016	(Restated) 1 January-31 December 2015
Net profit - TL	795.191	212.930
Weighted average number of shares outstanding (in thousands)	80.191.257	100.000.000
<b>Earnings per 100 shares</b>	<b>99,2</b>	<b>21,3</b>

The Company's capital amount has been increased from TL 500.000 to TL 1.000.000 on 25 May 2016, therefore earnings per share has been estimated in accordance weighted average per share.

#### 30. FINANCIAL INVESTMENTS

Financial Investments

##### Non-Current Financial Investments

	31 December 2016	31 December 2015
a) Available for sale financial investments	516.032	433.354
b) Financial investments valued at cost that do not have a quoted market value	147	147
	<b>516.179</b>	<b>433.501</b>

##### a) Available for sale financial investments

	31 December 2016	31 December 2015
Available for sale financial investments that are not traded in an active market	516.179	433.354
	<b>516.179</b>	<b>433.354</b>

ROKETSAN which is Group's marketable security is revalued and stated at fair value. As of 31 December 2016, the revaluation was performed by Oyak Yatırım Menkul Değerler Anonim Şirketi which is an independent valuation company. The fair value was determined according to "Discounted Cash Flow", "Similar Company Comparison" and "Realized Company Mergers and Acquisitions" methodologies. Discount ratio used in "Discounted Cash Flow" method is 15,0 percent (31 December 2015: 14,3 percent).



**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

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<u>Company Name</u>	<u>Ratio (%)</u>	<u>31 December 2016</u>	<u>Ratio (%)</u>	<u>31 December 2015</u>
ROKETSAN	14,897	516.032	14,897	433.354

**b) Financial investments valued at cost that do not have a quoted market value**

The Group's marketable security and participation rate and the amount shown in financial investments are as follows:

<u>Company Name</u>	<u>Ratio (%)</u>	<u>31 December 2016</u>	<u>Ratio (%)</u>	<u>31 December 2015</u>
ASPILSAN	1	147	1	147
		<b>147</b>		<b>147</b>

The above available-for-sale equity investments amounting to TL 147 (31 December 2015: TL 147) do not have a quoted market value and their fair values cannot be reliably measured due to a wide range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed. For this reason they are stated at cost less provision for diminution in value, if any.

**31. FINANCIAL LIABILITIES****Financial Liabilities**

		31 December 2016	31 December 2015
Short-term financial liabilities	Unsecured loan	303.928	355.901
Other short-term financial liabilities	Unsecured loan	2.315	1.915
Current portion of long-term financial liabilities	Secured loan	65.665	89.361
Current portion of long-term financial leasing liabilities	Unsecured loan	--	67
<b>Total short-term financial liabilities</b>		<b>371.908</b>	<b>447.244</b>
Other long-term financial liabilities	Secured loan	120.140	152.314
Other long-term financial liabilities	Unsecured loan	2.275	3.760
<b>Total long-term financial liabilities</b>		<b>122.415</b>	<b>156.074</b>
<b>Total financial liabilities</b>		<b>494.323</b>	<b>603.318</b>

As of 31 December 2016, the borrowings in short-term borrowings consist of Discounted Foreign Currency Credits amounting to TL 303.928 and maturity dates due between January-May 2017, interest rates which range between 1,6-9,4 percent. The short-term portions of long-term financial liabilities consist of principal payments of USD 18.659 with maturities of USD 52.385 and interest rates of 2,1 percent and 3,5 percent, respectively, with the maturity date of March-October 2017 of the Undersecretariat of Defense Industries.

As of 31 December 2016, other financial liabilities amounting to TL 4.590 are comprised of interest-free sources obtained from the Technology Development Foundation of Turkey for project financing purposes. The rest of the short and long term other financial liabilities consist of loans amounting to USD 34.138 in long term with interest rates of 2,1 percent and 3,5 percent from Undersecretariat for Defense Industries. A letter of guarantee amounting to USD 52.385 was given for the loan.

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As of 31 December 2015, short-term financial liabilities amounting to TL 11.618 consist of interest free loans received for Social Security Institution (SGK) payments with a daily maturity. Current financial liabilities amounting to TL 55.293 is for the Company's operational expenses with the maturity of August 2016 and with interest rate of 13,7 percent. The remaining current financial liability amounting TL 288.990 consist of Eximbank Preshipment Export Loan with maturities vary between January-August 2016 and with interest rates vary between 1,2 percent-1,6 percent. Major part of the current portion of the long-term borrowings are composed of principle amounting to USD 29.846 with a maturity of February-October 2016 related to the loan which are obtained from Undersecretariat for Defense Industries with interest rates 2,1 percent-3,5 percent amounting to USD 82.231.

As of 31 December 2015, TL 5.676 of other current and non-current financial liabilities consist of the interest free borrowings obtained from TTGV for project finance. The major part of the remaining current and non-current financial liabilities is composed of the loans obtained from Undersecretariat for Defense Industries amounting to USD 52.385 with an interest rate of 2,1 percent and 3,5 percent.

#### Bank Loans

Currency	31 December 2016		
	Weighted average interest rate (%)	Short-term	Long-term
TL	9,25	58.197	--
USD	1,99	313.711	122.415
		<b>371.908</b>	<b>122.415</b>

Currency	31 December 2015		
	Weighted average interest rate (%)	Short-term	Long-term
EURO	--	33	--
TL	11,32	66.911	--
USD	1,82	380.300	156.074
		<b>447.244</b>	<b>156.074</b>

The breakdown of the loan repayments with respect to their maturities is as follows:

	31 December 2016	31 December 2015
Within 1 year	371.908	447.244
Between 1-2 years	64.375	54.893
Between 2-3 years	44.504	53.228
Between 3-4 years	13.536	36.770
Between 4-5 years	--	11.183
	<b>494.323</b>	<b>603.318</b>

**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

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**32. NATURE AND LEVEL OF RISKS RELATED TO FINANCIAL INSTRUMENTS****a) Capital risk management**

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximizing the return through the optimization of the debt and equity balance.

The capital structure of the Group consists of debt, which includes the borrowings as explained Note 31, cash and cash equivalents and equity attributable to equity holders of the parent, comprising issued capital, reserves and retained earnings.

The Group's board of directors review capital structure regularly in the meetings. The risks that are associated with every equity item together with the Group's cost of capital are evaluated by the board of directors. Based on the recommendations of the board, the Group aims to balance its overall capital structure through the payment of dividends, new share issues and share buy-backs as well as the issue of new debt on the redemption of existing debt.

The Group's general strategy has not changed since 2010. The ratio of liabilities to share capital as of 31 December 2016 and 2015 is as follows:

	<b>31 December 2016</b>	<b>31 December 2015</b>
Total liabilities	494.323	603.318
Less: Cash and cash equivalents	(1.168.776)	(680.963)
Net asset/debt (asset)	(674.453)	(77.645)
Total equity	3.691.467	2.840.736
Total capital	3.017.014	2.763.091
Net debt (asset)/total equity ratio (%)	(22%)	(3%)

**b) Financial Risk Factors:**

The Group has exposure to the credit risk, liquidity risk, market risk and foreign currency risk from its activities. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial performance.

Risk management is carried out by a central finance department under policies approved by the Board of Directors. Group's finance department identifies and evaluates financial risks and use tools to reduce risks by working in cooperation with the group's operating units.

**Credit Risk**

Credit risk refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group is mainly working with public sector and obtaining advance payments where appropriate, both from public sector and private sector entities. Financing needs arising from new contracts are satisfied by advances received when the projects start and milestone payments during the projects. The receivables are generally from public sector and hence considered collectible. The Group management does not foresee significant credit risk. Additionally, receivables are monitored regularly to minimize the collection risk.



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Carrying values of the financial assets reflect the maximum exposure to credit risk. The credit risks as of reporting date is as follows:

#### 31 December 2016

31 December 2016	Receivables				Bank Deposits	Other
	Trade Receivables		Other Receivables			
	Related party	Third party	Related party	Third party		
Maximum net credit risk as of the reporting date (A+B+C+D) <sup>1</sup>	347.842	2.077.445	--	85.007	1.231.593	105
- The part of maximum risk under guarantee with collateral etc. <sup>2</sup>	--	2.780	--	--	--	--
A. Net book value of financial assets that are neither past due nor impaired	347.842	2.066.914	-	85.007	1.231.593	105
B. Net book value of financial assets that are past due but not impaired	--	10.531	--	--	--	--
C. Net book value of impaired assets	--	--	--	--	--	--
- Overdue (gross carrying amount)	--	921	--	--	--	--
- Impairment (-)	--	(921)	--	--	--	--
- The part of net value under guarantee with collateral etc.	--	--	--	--	--	--
- Undue (gross carrying amount)	--	--	--	--	--	--
- Impairment (-)	--	--	--	--	--	--
- The part of net value under guarantee with collateral etc.	--	--	--	--	--	--
D. Factors that include off balance sheet credit risks	--	--	--	--	--	--

<sup>1</sup> While determining the amount, components which provide increase on credit reliability, like guarantees received are not taken into consideration

<sup>2</sup> The guarantees consist of the letters of guarantees, collaterals, checks and mortgages.

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Carrying values of the financial assets reflect the maximum exposure to credit risk. The credit risks as of reporting date is as follows:

**31 December 2015**

31 December 2015	Receivables				Bank Deposits
	Trade Receivables		Other Receivables		
	Related party	Third party	Related party	Third party	
Maximum net credit risk as of the reporting date (A+B+C+D) <sup>1</sup>	190.763	1.253.406	--	48.530	742.280
- The part of maximum risk under guarantee with collateral etc. <sup>2</sup>	--	3.679	--	--	--
A. Net book value of financial assets that are neither past due nor impaired	190.763	1.163.608	--	48.530	742.280
B. Net book value of financial assets that are past due but not impaired	--	89.798	--	--	--
C. Net book value of impaired assets	--	--	--	--	--
- Overdue (gross carrying amount)	--	859	--	--	--
- Impairment (-)	--	(859)	--	--	--
- The part of net value under guarantee with collateral etc.	--	--	--	--	--
- Undue (gross carrying amount)	--	--	--	--	--
- Impairment (-)	--	--	--	--	--
- The part of net value under guarantee with collateral etc.	--	--	--	--	--
D. Factors that include off balance sheet credit risks	--	--	--	--	--

The aging of the overdue receivables is as follows:

	31 December 2016	31 December 2015
Overdue by 1-30 days	7.916	1.847
Overdue by 1-3 months	2.324	469
Overdue by 3-12 months	291	13.806
Overdue by 12 months	--	73.676
<b>Total receivables</b>	<b>10.531</b>	<b>89.798</b>

No collateral has been received for the overdue receivables.

It is envisaged that receivables that is overdue but not provisioned are collected.

<sup>1</sup> While determining the amount, components which provide increase on credit reliability, like guarantees received are not taken into consideration<sup>2</sup> The guarantees consist of the letters of guarantees, collaterals, checks and mortgages.

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#### Liquidity risk

Board of directors has built an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity management requirements. The Group manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities by continuously monitoring forecast and actual cash flows and matching the maturity profiles of financial assets and liabilities.

The following tables detail the Group's remaining contractual maturity for its non-derivative financial liabilities. The tables have been drawn up based on the undiscounted cash flows of non-derivative financial liabilities based on the earliest payment date. The table includes both interest and principal cash flows. When receivables and payables are not constant, amounts are determined in accordance with interest rates generated from return rates as of the reporting date.

The maturities of the financial liabilities determined with respect to the contracts including the expected interest payments as of 31 December 2016 is as follows:

<b>Contractual Maturity Analysis</b>	<b>Carrying value</b>	<b>Total cash outflow according to contract (I+II+III+IV)</b>	<b>Less than 3 Months (I)</b>	<b>3-12 Months (II)</b>	<b>1-5 Years (III)</b>	<b>More than 5 Years (IV)</b>
Non-derivative financial instruments						
Financial liabilities	494.323	503.004	229.501	146.741	126.762	--

<b>Expected Maturity</b>	<b>Carrying value</b>	<b>Total cash outflow according to contract (I+II+III+IV)</b>	<b>Less than 3 Months (I)</b>	<b>3-12 Months (II)</b>	<b>1-5 Years (III)</b>	<b>More than 5 Years (IV)</b>
Non-derivative financial instruments						
Trade payables	1.306.051	1.315.256	765.609	296.481	253.166	--
Other payables	6.293	6.293	6.248	--	45	--

The maturities of the financial liabilities determined with respect to the contracts including the expected interest payments as of 31 December 2015 is as follows:

<b>Contractual Maturity Analysis</b>	<b>Carrying value</b>	<b>Total cash outflow according to contract (I+II+III+IV)</b>	<b>Less than 3 Months (I)</b>	<b>3-12 Months (II)</b>	<b>1-5 Years (III)</b>	<b>More than 5 Years (IV)</b>
Non-derivative financial instruments						
Financial liabilities	603.251	616.532	133.890	319.364	163.278	--
Financial leasing liabilities	67	76	46	30	--	--

<b>Expected Maturity</b>	<b>Carrying value</b>	<b>Total cash outflow according to contract (I+II+III+IV)</b>	<b>Less than 3 Months (I)</b>	<b>3-12 Months (II)</b>	<b>1-5 Years (III)</b>	<b>More than 5 Years (IV)</b>
Non-derivative financial instruments						
Trade payables	800.087	802.894	486.010	94.000	222.884	--
Other payables	2.909	2.909	2.871	--	38	--



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**Market risk management**

The Group's activities, as detailed below, expose primarily to the financial risks from changes in foreign currency exchange rates and interest rates.

Market risk exposures are evaluated by sensitivity analysis, and stress scenario analysis.

There has been no change to the Group's exposure to market risks or the manner in which it manages and measures the risk in the current year compared to prior year.

**Foreign currency risk management**

Foreign currency denominated transactions cause foreign currency risk. The core principle of the foreign currency risk management reduces to minimum foreign exchange position deficit or surplus and minimize the effect of exchange rate fluctuation. Group's net foreign currency position is due to the operational structure of the defense industry.

Methods which are used to manage the exchange rate risk are on-balance sheet (structural) methods. The use of fixed rate of TL denominated credit instead of foreign currency loans in order to keep the foreign exchange position at desired levels and to ensure currency compatibility, determining the contract currency according to the currency which is predominant in the cost of the contracts and such as the signing of the contract in terms of the main contract currency with the subcontractors within the scope of the contracts.

<b>FOREIGN EXCHANGE POSITION</b>						
	<b>TL Equivalent (Functional currency)</b>	<b>USD</b>	<b>TL equivalent by using closing rates</b>	<b>EURO</b>	<b>TL equivalent by using closing rates</b>	<b>Other</b>
<b>31 December 2016</b>						
1. Trade Receivables	1.778.821	327.010	1.150.814	164.265	609.408	18.599
2a. Monetary financial assets (including cash, bank)	715.511	121.399	427.227	77.692	288.231	53
2b. Non- monetary financial assets	133.242	20.978	73.825	17.033	63.190	24.287
3. Other	6.634	128	452	1.102	4.087	2.095
<b>4. Current assets (1+2+3)</b>	<b>2.634.208</b>	<b>469.515</b>	<b>1.652.318</b>	<b>260.092</b>	<b>964.916</b>	<b>45.034</b>
5. Trade receivables	336.000	61.815	217.538	31.931	118.462	--
6a. Monetary trade receivables	--	--	--	--	--	--
6b. Non-monetary trade receivables	241.674	17.483	61.526	76.108	282.354	693
7. Other	1.993	85	298	419	1.555	140
<b>8. Long-term assets (5+6+7)</b>	<b>579.667</b>	<b>79.383</b>	<b>279.362</b>	<b>108.458</b>	<b>402.371</b>	<b>833</b>
<b>9. Total assets (4+8)</b>	<b>3.213.875</b>	<b>548.898</b>	<b>1.931.680</b>	<b>368.550</b>	<b>1.367.287</b>	<b>45.867</b>
10. Trade payables	328.888	43.343	152.532	45.473	168.701	7.655
11. Financial liabilities	313.711	89.143	313.711	--	--	--
12a. Other monetary financial liabilities	99	26	92	--	--	7
12b. Other non-monetary financial liabilities	107.078	60.337	212.337	6.167	22.878	--
<b>13. Current liabilities (10+11+12)</b>	<b>749.776</b>	<b>192.849</b>	<b>678.672</b>	<b>51.640</b>	<b>191.579</b>	<b>7.662</b>
14. Trade payables	--	--	--	--	--	--
15. Financial liabilities	122.415	34.785	122.415	--	--	--
16a. Other monetary financial liabilities	43	9	32	3	11	--
16b. Other non-monetary financial liabilities	1.299.166	381.435	1.342.347	230.229	854.126	--
<b>17. Non-current liabilities (14+15+16)</b>	<b>1.421.624</b>	<b>416.229</b>	<b>1.464.794</b>	<b>230.232</b>	<b>854.137</b>	<b>--</b>

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FOREIGN EXCHANGE POSITION						
31 December 2016	TL Equivalent (Functional currency)	USD	TL equivalent by using closing rates	EURO	TL equivalent by using closing rates	Other
18. Total liabilities (13+17)	2.171.400	609.078	2.143.466	281.872	1.045.716	7.662
19. Net asset/liability position of off-balance sheet derivative financial instruments (19a-19b)	--	--	--	--	--	--
19a. Hedged total financial assets	--	--	--	--	--	--
19b. Hedged total financial liabilities	--	--	--	--	--	--
20. Net foreign currency asset/liability (9-18+19)	1.042.475	(60.180)	(211.786)	86.678	321.571	38.205
21. Net foreign currency asset/liability position of monetary items (1+2a+5+6a-10-11-12a-14-15-16a)	2.065.176	342.918	1.206.797	228.412	847.389	10.990
22. Fair value of derivative financial instruments used in foreign currency hedge	--	--	--	--	--	--
23. Hedged foreign currency assets	--	--	--	--	--	--
24. Hedged foreign currency liabilities	--	--	--	--	--	--
25. Exports	485.404	138.617	487.819	19.667	72.961	--
26. Imports	1.206.547	227.080	799.141	88.573	328.596	78.810

Accompanying foreign exchange position which was prepared in accordance with TAS is different from the foreign exchange position of the financial statement which is prepared according to GCASA. The difference is mainly due to the adjustments and classifications which are related with TAS 11 "Construction Contracts".

"For TL functional currency" calculations regarding "Other non-monetary assets" and "Other non-monetary liabilities" presented under foreign currency position, advances received are considered with regard to historic values therefore "TL equivalent of currency as at balance sheet date" differentiate.

**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

<b>FOREIGN EXCHANGE POSITION</b>						
<b>31 December 2015</b>	<b>TL Equivalent (Functional currency)</b>	<b>USD</b>	<b>TL equivalent by using closing rates</b>	<b>EURO</b>	<b>TL equivalent by using closing rates</b>	<b>Other</b>
1. Trade Receivables	910.897	171.863	499.711	129.400	411.182	4
2a. Monetary financial assets (including cash, bank)	429.992	122.077	354.950	23.608	75.017	25
2b. Non- monetary financial assets	110.385	19.416	56.453	15.334	48.726	20.499
3. Other	3.968	43	124	1.077	3.421	423
<b>4. Current assets (1+2+3)</b>	<b>1.455.242</b>	<b>313.399</b>	<b>911.238</b>	<b>169.419</b>	<b>538.346</b>	<b>20.951</b>
5. Trade receivables	362.211	83.984	244.194	37.141	118.017	--
6a. Monetary trade receivables	--	--	--	--	--	--
6b. Non-monetary trade receivables	240.446	9.647	28.048	85.370	271.271	--
7. Other	2.206	456	1.327	198	631	248
<b>8. Long-term assets (5+6+7)</b>	<b>604.863</b>	<b>94.087</b>	<b>273.569</b>	<b>122.709</b>	<b>389.919</b>	<b>248</b>
<b>9. Total assets (4+8)</b>	<b>2.060.105</b>	<b>407.486</b>	<b>1.184.807</b>	<b>292.128</b>	<b>928.265</b>	<b>21.199</b>
10. Trade payables	260.468	33.631	97.787	48.206	153.179	9.502
11. Financial liabilities	380.333	130.795	380.300	11	33	--
12a. Other monetary financial liabilities	2.191	754	2.191	--	--	--
12b. Other non-monetary financial liabilities	169.800	66.072	192.110	9.912	31.497	--
<b>13. Current liabilities (10+11+12)</b>	<b>812.792</b>	<b>231.252</b>	<b>672.388</b>	<b>58.129</b>	<b>184.709</b>	<b>9.502</b>
14. Trade payables	--	--	--	--	--	--
15. Financial liabilities	156.074	53.678	156.074	--	--	--
16a. Other monetary financial liabilities	36	9	27	2	9	--
16b. Other non-monetary financial liabilities	692.332	268.224	779.888	131.590	418.139	--
<b>17. Non-current liabilities (14+15+16)</b>	<b>848.442</b>	<b>321.911</b>	<b>935.989</b>	<b>131.592</b>	<b>418.148</b>	<b>--</b>



## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

FOREIGN EXCHANGE POSITION						
31 December 2015	TL Equivalent (Functional currency)	USD	TL equivalent by using closing rates	EURO	TL equivalent by using closing rates	Other
18. Total liabilities (13+17)	1.661.234	553.163	1.608.377	189.721	602.857	9.502
19. Net asset/liability position of off-balance sheet derivative financial instruments (19a-19b)	--	--	--	--	--	--
19a. Hedged total financial assets	--	--	--	--	--	--
19b. Hedged total financial liabilities	--	--	--	--	--	--
20. Net foreign currency asset/liability (9-18+19)	398.871	(145.677)	(423.570)	102.407	325.408	11.697
21. Net foreign currency asset/liability position of monetary items (1+2a+5+6a-10-11-12a-14-15-16a)	903.998	159.057	462.476	141.930	450.995	(9.473)
22. Fair value of derivative financial instruments used in foreign currency hedge	--	--	--	--	--	--
23. Hedged foreign currency assets	--	--	--	--	--	--
24. Hedged foreign currency liabilities	--	--	--	--	--	--
25. Exports	547.895	168.248	489.198	29.951	95.173	--
26. Imports	782.380	140.421	408.287	93.091	295.805	78.288

Accompanying foreign exchange position which was prepared in accordance with TAS is different from the foreign exchange position of the financial statement which is prepared according to GCASA. The difference is mainly due to the adjustments and reclassifications which are related with TAS 11 "Construction Contracts".

**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

**Foreign currency sensitivity**

The Group is exposed to foreign currency risk with respect to USD and EURO. As of 31 December 2016, USD 1: TL 3,5192 (31 December 2015: TL 2.9076), EURO 1: TL 3,7099 (31 December 2015: TL 3.1776).

The following table details the Group's sensitivity to a 10 percent increase and decrease in foreign exchange rates. 10 percent is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the possible change in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and present 10 percent change in foreign currency rates. This analysis does not include Group companies' balance sheet items which have functional currency other than TL. The effects of 10 percent changes in foreign currency rate on financial statements is as follows;

<b>Foreign currency sensitivity table</b>				
<b>31 December 2016</b>				
	<b>Profit/Loss</b>		<b>Equity <sup>1</sup></b>	
	<b>Appreciation of foreign currency</b>	<b>Depreciation of foreign currency</b>	<b>Appreciation of foreign currency</b>	<b>Depreciation of foreign currency</b>
<b>Appreciation of USD against TL by 10%:</b>				
1- USD denominated net assets/(liabilities)	120.680	(120.680)	120.680	(120.680)
2- Hedged amount against USD risk (-)	--	--	--	--
<b>3- Net effect of USD (1+2)</b>	<b>120.680</b>	<b>(120.680)</b>	<b>120.680</b>	<b>(120.680)</b>
<b>Appreciation of EURO against TL by 10%:</b>				
4- EURO denominated net assets/(liabilities)	84.739	(84.739)	84.739	(84.739)
5- Hedged amount against EURO risk (-)	--	--	--	--
<b>6- Net effect of EURO (4+5)</b>	<b>84.739</b>	<b>(84.739)</b>	<b>84.739</b>	<b>(84.739)</b>
<b>Appreciation of other currencies against TL by 10%:</b>				
7- Other currencies denominated net assets/(liabilities)	1.099	(1.099)	1.099	(1.099)
8- Hedged amount against other currencies risk (-)	--	--	--	--
<b>9- Net effect of other currencies (7+8)</b>	<b>1.099</b>	<b>(1.099)</b>	<b>1.099</b>	<b>(1.099)</b>

<b>Foreign currency sensitivity table</b>				
<b>31 December 2015</b>				
	<b>Profit/Loss</b>		<b>Equity</b>	
	<b>Appreciation of foreign currency</b>	<b>Depreciation of foreign currency</b>	<b>Appreciation of foreign currency</b>	<b>Depreciation of foreign currency</b>
<b>Appreciation of USD against TL by 10%:</b>				
1- USD denominated net assets/(liabilities)	46.248	(46.248)	46.248	(46.248)
2- Hedged amount against USD risk (-)	--	--	--	--
<b>3- Net effect of USD (1+2)</b>	<b>46.248</b>	<b>(46.248)</b>	<b>46.248</b>	<b>(46.248)</b>
<b>Appreciation of EURO against TL by 10%:</b>				
4- EURO denominated net assets/(liabilities)	45.100	(45.100)	45.100	(45.100)
5- Hedged amount against EURO risk (-)	--	--	--	--
<b>6- Net effect of EURO (4+5)</b>	<b>45.100</b>	<b>(45.100)</b>	<b>45.100</b>	<b>(45.100)</b>
<b>Appreciation of other currencies against TL by 10%:</b>				
7- Other currencies denominated net assets/(liabilities)	(947)	947	(947)	947
8- Hedged amount against other currencies risk (-)	--	--	--	--
<b>9- Net effect of other currencies (7+8)</b>	<b>(947)</b>	<b>947</b>	<b>(947)</b>	<b>947</b>

<sup>1</sup> Comprises of profit/loss effect.

## Financial Information

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

#### Interest rate risk management

As of 31 December 2016 and 31 December 2015, since all of the loans obtained by the Group are fixed-rate loans, the Group is not exposed to significant interest rate risk.

As of 31 December 2016, the Group does not have interest bearing financial assets, therefore there is no exposure to interest risk (31 December 2015: None).

#### Price risk

The Group usually enters into fixed price contracts, therefore, is not exposed to any major price risk.

#### Hierarchy of fair value

As of 31 December 2016 and 31 December 2015, the Group's financial assets at their fair values are as in the following page:

#### 33. FINANCIAL INSTRUMENTS FAIR VALUE DISCLOSURES AND EXPLANATIONS ON HEDGE ACCOUNTING

	Financial assets at fair value	Loans and receivables (including cash and cash equivalents)	Available for sale financial assets	Financial liabilities at amortized cost	Carrying value	Note
<b>31 December 2016</b>						
<b>Financial assets</b>						
Cash and cash equivalents	--	1.168.776	--	--	1.168.776	3
Blocked deposits	--	63.062	--	--	63.062	18
Financial investments	147	--	516.032	--	516.179	30
Equity Accounted Investees	57.387	--	--	--	57.387	8
Trade receivables	--	2.425.287	--	--	2.425.287	6
<b>Financial liabilities</b>						
Borrowings	--	--	--	494.323	494.323	31
Trade payables	--	--	--	1.306.051	1.306.051	6
Other payables	--	--	--	6.293	6.293	7
<b>31 December 2015</b>						
<b>Financial assets</b>						
Cash and cash equivalents	--	680.963	--	--	680.963	3
Blocked deposits	--	61.515	--	--	61.515	18
Financial investments	147	--	433.354	--	433.501	30
Equity Accounted Investees	41.916	--	--	--	41.916	8
Trade receivables	--	1.444.169	--	--	1.444.169	6
<b>Financial liabilities</b>						
Borrowings	--	--	--	603.318	603.318	31
Trade payables	--	--	--	800.087	800.087	6
Other payables	--	--	--	2.909	2.909	7

The Group's management assesses that the carrying value reflects the fair value of financial instruments. Related financial assets are presented at cost after deducting impairment allowance if any.



**Notes to the Consolidated Financial Statements for the Year Ended 31 December 2016**

(Amounts are expressed in thousands of Turkish Lira ("TL") and in thousands of "Foreign Currency" unless otherwise stated.)

The fair values of financial assets and financial liabilities are determined as follows:

- **Level 1:** The fair value of financial assets and financial liabilities with standard terms and conditions and traded on active liquid markets are determined with reference to quoted market prices;
- **Level 2:** The fair value of other financial assets and financial liabilities are determined in accordance with data which can be observed by directly or indirectly and which excludes the registered prices described in Level 1 ; and
- **Level 3:** The fair value of the financial assets and financial liabilities are determined where there is no observable market data.

**Fair value hierarchy of financial assets that are measured at fair value:**

Group's available for sale financial asset, ROKETSAN is measured at fair value as of 31 December 2016. The fair value of ROKETSAN as of 31 December 2016 is TL 520.948 and was determined according to "Discounted Cash Flow", "Similar Company Comparison" and "Realized Company Mergers and Acquisitions" methodologies and its fair value hierarchy is Level 3.

Reconciliation of the Group's assets and liabilities that are measured at Level 3 fair value are presented as follow:

**Available for sale financial assets**

	<b>31 December 2016</b>	<b>31 December 2015</b>
	<b>Marketable Securities</b>	<b>Marketable Securities</b>
Opening balance	433.354	313.582
Total gain/loss		
- transferred to other comprehensive income	82.678	119.772
<b>Closing balance</b>	<b>516.032</b>	<b>433.354</b>

**31 December 2016**

	<b>Fair value level as of reporting date</b>		
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
	<b>TL</b>	<b>TL</b>	<b>TL</b>
ROKETSAN	--	--	516.032
	--	--	<b>516.032</b>

**31 December 2015**

	<b>Fair value level as of reporting date</b>		
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
	<b>TL</b>	<b>TL</b>	<b>TL</b>
ROKETSAN	--	--	433.354
	--	--	<b>433.354</b>

The movement of the fair value level as of 31 December 2016 is as follows:

	<b>Fair value level as of reporting date</b>		
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
	<b>TL</b>	<b>TL</b>	<b>TL</b>
<b>1 January 2016</b>	--	--	<b>433.354</b>
Additions	--	--	82.678
<b>31 December 2016</b>	--	--	<b>516.032</b>

**34. EVENTS AFTER THE REPORTING PERIOD**

Amount of contracts signed by Group after the reporting date is approximately USD 104.920.

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries  
**Independent Auditor's Report**



**Akis Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş.**  
Kavacık Rüzgarlı Bahçe Mah.  
Kavak Sok. No: 3  
Beykoz 34805 İstanbul  
Telephone +90 (216) 681 90 00  
Fax +90 (216) 681 90 90  
Internet www.kpmg.com.tr

To the Board of Directors of ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi,

### Report on the Consolidated Financial Statements

We have audited the consolidated financial statements of Aselsan Elektronik Sanayi ve Ticaret Anonim Şirketi (the “Company”) and its subsidiaries (collectively referred to as the “Group”) which comprise the consolidated statement of financial position as at 31 December 2016, the consolidated statements of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

#### *Management's Responsibility for the Consolidated Financial Statements*

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Turkish Accounting Standards (“IAS”) 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.

#### *Auditor's Responsibility*

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with the standards an auditing issued by Capital Markets Board of Turkey (“CMB”) and Independent Standards on Auditing which is a component of the Turkish Auditing Standards published by the Public Oversight Accounting and Auditing Standards Authority (“POA”). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### *Opinion*

In our opinion, the consolidated financial statements present fairly, in all material respects the consolidated financial position of Aselsan Elektronik Sanayi ve Ticaret Anonim Şirketi and its subsidiaries as of 31 December 2016, and its financial performance and its consolidated cash flows for the year then ended in accordance with Turkish Accounting Standards.

### **Reports on Other Legal and Regulatory Requirements**

Pursuant to the fourth paragraph of Article 398 of Turkish Commercial Code ("TCC") number 6102; Auditors' Report on System and Committee of Early Identification of Risks is presented to the Board of Directors of the Company on 20 February 2017.

Pursuant to the fourth paragraph of Article 402 of the TCC; no significant matter has come to our attention that causes us to believe that for the period 1 January - 31 December 2016, the Company's bookkeeping activities and consolidated financial statements are not in compliance with TCC and provisions of the Company's articles of association in relation to financial reporting.

Pursuant to the fourth paragraph of Article 402 of the TCC; the Board of Directors provided us the necessary explanations and required documents in connection with the audit.

Akis Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik Anonim Şirketi  
A member of KPMG International Cooperative





ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

#### 1. Principles of preparation

The annual period report of the Board of Directors is prepared on the basis of Communiqué Series II. No: 14.1 “Principles of Financial Reporting in Capital Markets” dated 13 June 2013.

Company and ASELSAN Bakü Şirketi (“ASELSAN Bakü”), Mikroelektronik Ar-Ge Tasarım ve Ticaret Limited Şirketi (“Mikro AR-GE”) and ASELSANNET Elektronik ve Haberleşme Sistemleri Sanayi Ticaret İnşaat ve Taahhüt Limited Şirketi (“ASELSANNET”), which is a subsidiary of the Company operating in the same sector and whose financial statements are consolidated will be mentioned in the following notes as “Group” in the report.

ASELSAN Hassas Optik Sanayi ve Ticaret Anonim Şirketi (“ASELSAN Optik”), ASELSAN Bilkent Mikro Nano Teknolojileri Sanayi ve Ticaret Anonim Şirketi (“ASELSAN Bilkent”), IGG ASELSAN Integrated Systems LLC (“IGG ASELSAN”), Kazakhstan ASELSAN Engineering LLP (“ASELSAN Kazakhstan”) and ASELSAN Middle East PSC LTD (“ASELSAN Jordan”) and Saudi Arabian Defense Electronics Corporation LLC (“SADEC LLC”) have been consolidated by equity method.

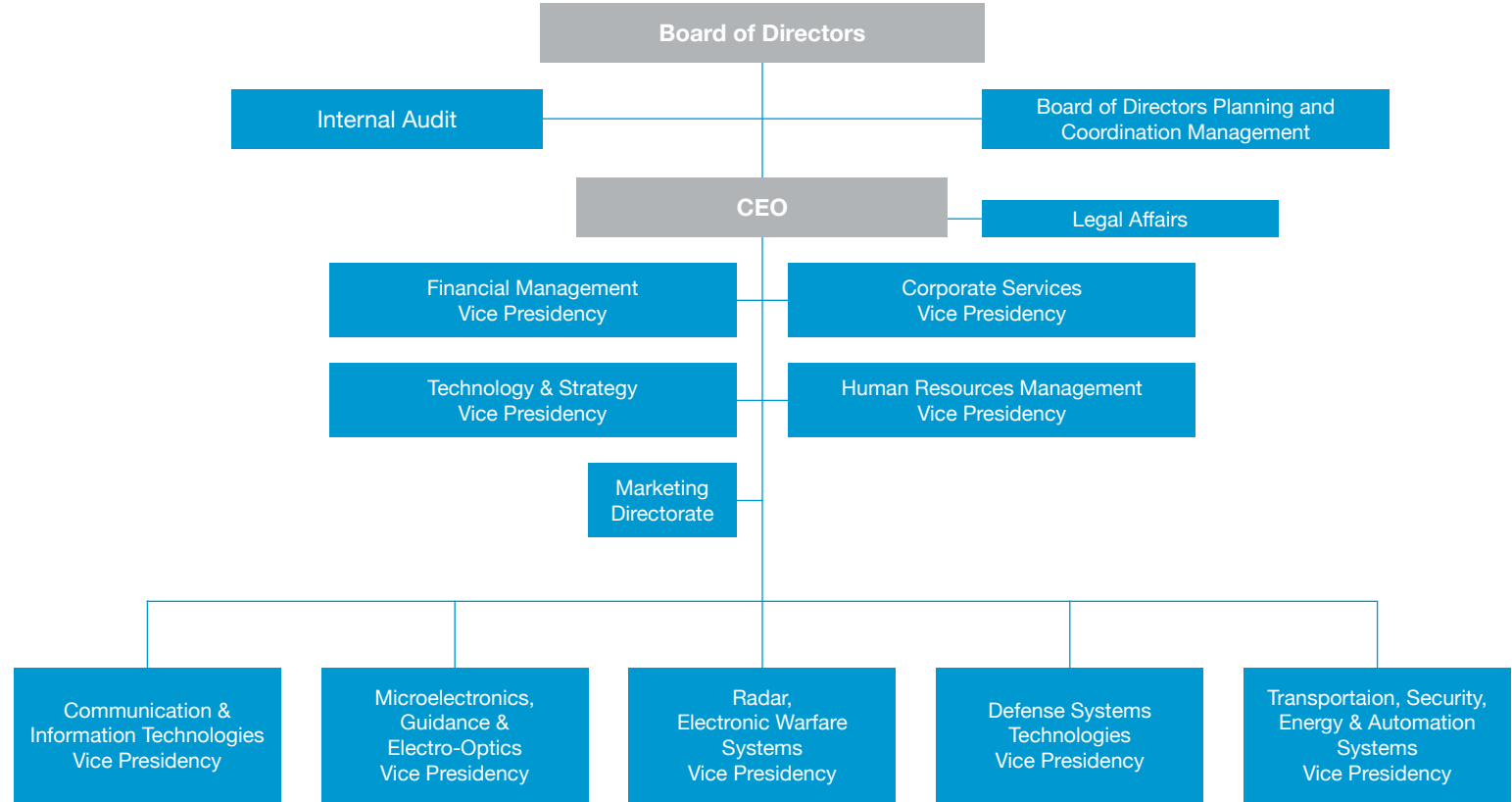
#### 2. Commercial title and trade registration number of the company and contact information pertaining to its headquarters, branches and its website address

Company	Type	Country/City	Address	Telephone/Fax	Web site
ASELSAN Elektronik Sanayi ve Ticaret A.Ş.	Headquarters	Turkey/ Ankara	Mehmet Akif Ersoy Mahallesi 296, Cad. No:16 06370 Yenimahalle/Ankara	Telephone: +90 (312) 592 1000 Fax: +90 (312) 354 1302	www.aselsan.com.tr
ASELSAN South Africa Branch	Branch	Republic of South Africa/ Pretoria	Building 4, Room 005 CSIR Campus, Meiring Naude Drive, Pretoria Gauteng, 0001, South Africa	Telephone:+27 (0) 12 349 2613 Fax: +27 (0) 12 349 2544	--
ASELSAN Macedonia Branch	Branch	Macedonia/Skopje	Ankarska 29A, 1000 Skopje/Macedonia	--	--
BAE Contact Office	Contact Office	BAE/ Abu Dhabi	Industrial City of Abu Dhabi 1, Plot 22J1 PO Box: 133627 Abu Dhabi/UAE	Telephone: +971 2 550 8808 Fax: +971 2 550 8812	--

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### 3. Organizational structure of the company

The Company's organizational structure has been reorganized on 30 May 2016. In accordance with the changes, the Board of Directors Planning and Coordination Management has been established and organized under the Board of Directors. Furthermore the Marketing Directorate has been established and organized under the General Directorate.



Within this scope, the Company has been restructured under five Vice Presidencies that will carry the production and engineering tasks, which are; Communication and Information Technologies (HBT), Microelectronics, Guidance and Electro-Optics (MGEO), Defense Systems Technologies (SST), Radar, Electronic Warfare and Intelligence Systems (REHİS) and Transportation, Security, Energy and Automation Systems (UGES).

In order for General Management to fulfill planning at strategic level, pursuing and assessing functions in a more efficient way, four different Vice Presidencies have been constituted as Financial Management Vice Presidency, Corporate Services Vice Presidency, Technology and Strategy Vice Presidency and Human Resources Management Vice Presidency in addition to Marketing Directorate and Legal Affairs.

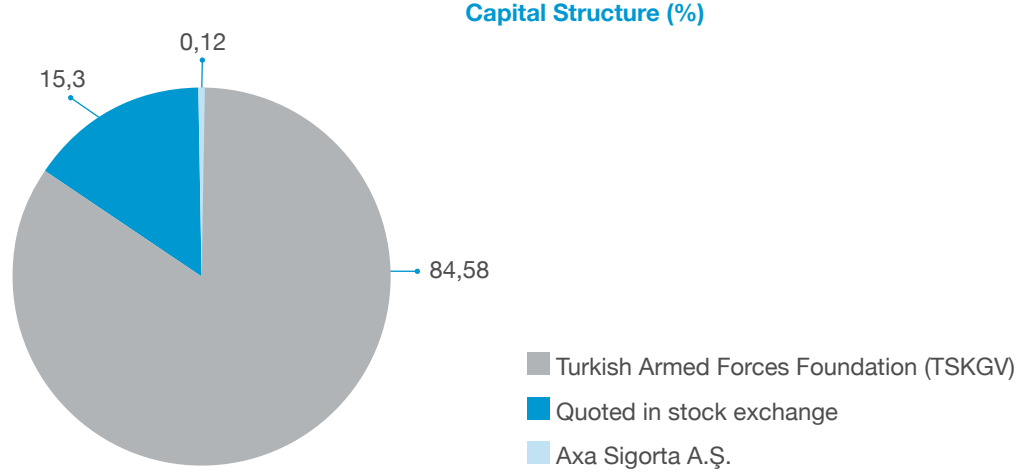
The Internal Audit Department and Board of Directors Planning and Coordination Management have been established under the Board of Directors.

The Company maintains engineering operations in Ankara, METU Teknokent; production and engineering operations in Macunköy, Akyurt and Gölbaşı, General Management is located in Ankara Macunköy. Furthermore, SST and REHİS Sector Presidency management offices and Product Support Management of UGES Sector Presidency are located in Istanbul Teknopark.

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### 4. The Company's capital and partnership structure with the changes during the fiscal period

The capital structure as of 31 December 2016 and 31 December 2015 are as follows:



Partners	Share (%)	31 December 2016 (Thousand TL)	Share (%)	31 December 2015 (Thousand TL)
Turkish Armed Forces Foundation (TAFF)	84,58	845,826	84,58	422,913
Quoted on BIST (Free float)	15,30	153.019	15,30	76.509
Axa Sigorta A.Ş.	0,12	1.155	0,12	578
Paid-in capital	100	1.000.000	100	500.000
Share capital adjustment	-	98.621	-	100.321
Inflation adjusted capital	-	<b>1.098.621</b>	-	<b>600.321</b>

Registered capital ceiling of the Company is TL 1.000.000 Thousand (TL one billion). The nominal capital of the Company is TL 1.000.000 Thousand (TL one billion) and is divided into 100.000.000.000 (one hundred billion) shares, each having a nominal value of 1 kuruş (1% of 1 Turkish Lira). 60.545.454.546 (sixty billion five hundred and forty five million four hundred and fifty four thousand five hundred and forty six) of the shares are Group A shares and 39.454.545.454 (thirty nine billion four hundred and fifty four million five hundred and forty five thousand four hundred and fifty four) of the shares are Group B Shares. All shares are in the name of the holder.

Group A shares are nominative preferred shares and 6 of the Members of the Board of Directors are elected among the Group A preferred shareholders or among the candidates presented by them.

No change has occurred in the shareholders' structure and the Company's capital during the period. In the accounting year the operations regarding that the issued capital amounting to TL 500.000 Thousand has increased to TL 1.000.000 Thousand by bonus issue from domestic funding have been completed and the capital increased through bonus issue amounting to TL 1.000.000 Thousand was published in Official Journal No 9080 of 23 May 2016. The transactions with regard to capital contribution have been completed by performing representative share on 25 May 2016.



## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### 5. Reporting period, title of the partnership, names, surnames and jurisdiction of the chairman, members and the managing members who served in the board of directors during the period, the term of office of the duties (with commence and end dates)

The report comprises the events took place during the period 1 January-31 December 2016. The title of the main shareholder in the report is ASELSAN Elektronik Sanayi ve Ticaret A.Ş.

#### Members of the Board of Directors

Within the frame of the provisions of the Company Articles of Association, the Board of Directors comprise of 6 members to be elected among the Group A preferred shareholders or among the candidates presented by them along with the 3 independent members to be elected in scope of the Capital Markets Board of Turkey (CMB) regulations which make 9 members in total.

Information regarding the Members of the Board of Directors elected during the General Assembly Meeting held on 31 March 2016 are as follows:

#### MEMBERS OF BOARD OF DIRECTORS

Name and Surname	Position	Date of General Assembly for Assignment	End of Term of Office
Mustafa Murat ŞEKER	Chairman/Managing Member	15 May 2013	March 2017
Murat ÜÇÜNCÜ	Vice Chairman/Managing Member	15 May 2013	March 2017
Ziya AKBAŞ	Independent Member	31 March 2014	March 2017
Nazım ALTINTAŞ	Independent Member	31 March 2015	March 2017
Ercümend ARVAS	Independent Member	31 March 2016	March 2017
Turan EROL	Member	31 March 2016	March 2017
İsmail GÜMÜŞTEKİN	Member	31 March 2015	March 2017
Mehmet Celalettin LEKESİZ	Member	31 March 2016	March 2017
Sedat NAZLIBİLEK	Member	25 June 2014	March 2017

The Members of the Board of Directors are entitled with the authorizations stipulated in the Turkish Code of Commerce (TCC) and in article 13 of the Articles of Association of the Company.

Entitled shareholders, members of the board of directors, senior executives and to their spouses as well as relatives up to second degree are not authorized to perform transactions which may cause conflict of interest or competition with the Company and/or subsidiaries.

There is not any ban on trading for board members with the Company, which they performed on their own or on behalf of someone else. There is no operation regarding the non-compete obligation by the members of the board.

#### Changes of Members of the Board of Directors during the Period 1 January - 31 December 2016:

During the Ordinary General Assembly Meeting held on 31 March 2016, Mustafa Murat ŞEKER, Murat ÜÇÜNCÜ, İsmail GÜMÜŞTEKİN, Sedat NAZLIBİLEK, Turan EROL and Mehmet Celalettin LEKESİZ were elected as Member of Board of Directors for 1 year of service and Ziya AKBAŞ, Nazım ALTINTAŞ and Ercümend ARVAS were elected as Independent Member of Board of Directors for 1 year of service.

### 6. Main factors that affect the performance of the company, significant changes occurred in the environment where company is operating, policies implemented by the company with respect to these changes, investment and dividend policy of the company to strengthen its performance

The Company carries on its business interests in defense sector. According to the latest data, the five countries which have the largest defense sector expenditures during 2015 are the USA, China Saudi Arabia, Russia and the United Kingdom. While resources the USA has allocated to defense has decreased within the last five years, resources allocated to defense has increased in China, Russia, Saudi Arabia and as a region Asia-Oceania. As of 2015 Turkey's annual defense expenditure has decreased from USD 17,1 Billion to USD 15,3 Billion due to the effect of foreign exchange rates within the last five years. Despite the decrease in the national defense expenditure, the number of Company's projects have increased by the years.

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### Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

Due to the industry's nature defense projects are spread over years, furthermore a system project lasts approximately 4 to 5 years from its start to its delivery. As of 31 December 2016 long term plans which have been accordingly signed as contracts spread over years amounts to USD 6,2 Billion. The determination of target regions/countries and focusing on these markets for marketing and direct sales as well as engaging in joint productions, transfer of technology to/from international platform producers and strategic initiatives for sales to 3<sup>rd</sup> World Countries are concurrent to our sustainable growth objectives. Our structure coincides with our objective to operate in civilian electronic fields which require high technology.

The Company's revised profit distribution policy submitted to shareholders information during the General Board Meeting dated 31 March 2016, has been posted on [www.aselsan.com.tr](http://www.aselsan.com.tr) website under Investor Relations/Corporate Governance/Policies.

At the Ordinary General Assembly Meeting made in 31 March 2016; from the remaining distributable profit obtained after subtracting taxes statutory obligation from Company's operating profit in 2015.

- In accordance with Article 519/(1) of the Turkish Commercial Code, General Legal Reserves amounting to TL 4.520.958.43 is going to be allocated.
- Net distributable profit to the shareholders for the period, calculated in the framework of the profit distribution regulations and decisions of the Capital Markets Board is proposed as:
- Gross profit, TL 42.000.000 (Kurus 8,4 per share of TL 1 and 8,4 % on the basis of the capital) (net profit TL 35.700.000 - Kurus 7,14 per share of TL 1 and 7,14 % on the basis of the capital) as in the form of cash.
- In accordance with Article 519/(2) of the Turkish Commercial Code, General Legal Reserves amounting to TL 1.700.000 is going to be allocated.
- It has been decided that the remaining profit is going to be allocated as Extraordinary Legal Reserves, and distribution of the dividends to the shareholders are decreed in three equal installments on the dates of 10 June 2016, 26 September 2016 and 1 December 2016.

All of the gross profit share amounting to TL 42.000.000 to be distributed has been paid to the shareholders as of 31 December 2016.

#### 7. Financial resources of the company

The most substantial financial resources of the Company comprise the advance and interim payments taken within the scope of the contracts signed and profits generated by the main activities.

During 1 January-31 December 2016 period, the cash requirements were met with the available cash inflow, cash inflows from other operating and use of Türk Eximbank export discounted foreign currency loan because of low cost. Within the scope of the Eximbank Loan Program, during 1 January-31 December 2016 period. "Discounted Foreign Currency Loan" was used with the following maturities respectively: USD 80 Million with 240 days of maturity and "Discounted TL Loan" was used with the following maturities respectively: TL 60 Million with 240 days of maturity. As of 31 December 2016, the credit balance borrowed from Türk Eximbank has been amounted to USD 87 Million.

Furthermore, DISF Loan obtained from Defense Industry Support Fund (DISF) in accordance with Defense Industry Execution Committee's Decision Risk is USD 52,4 Million as of 31 December 2016.

The loan amounting to TL 54.595 Thousand of business finance loans obtained from commercial banks has been paid and the company has no loan used from commercial banks as of 31 December 2016.

#### 8. Risk management policies of the company

The Company's Board of Directors performs in a transparent, accountable, impartial and responsible manner. The President and Vice President are elected from the Board of Directors members furthermore Board of Directors Committee Presidents and committee members are elected as well.

##### a. Corporate Risk Management

Company's Corporate Risk Management Policy; aims to have the appropriate risk reaction against uncertainties threatening the corporate existence of the Company and protect the Company's corporate identity, its employees, shareholders and parties' interests. Risk management has been an integrated part of corporate management. Information produced within the context of risk management activities is integrated into decision mechanisms.

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

In the Corporate Risk Management studies, “top down” and “bottom up” approaches are applied together and the significant risks which are at a critical level to affect the Company to reach its targets are defined and classified under Strategic, Operational, Managerial, Financial and External Factors and are submitted to the Board of Directors and Independent Audit Company along with the measures to be taken.

In order to identify the potential risks beforehand and to enable the management of these risks in compliance with the Company’s risk-taking approach, an Early Detection and Management of Risk Committee which consists of the members of Board of Directors was established in 2012.

The risks which have been defined and prioritized in accordance with the opinion and suggestion companywide and in the scope of the operations carried out by the committee are explained below.

### Difficulty to Increase The Number and Variety of Customers

The main customers of the Company are State Institutions, especially Turkish Armed Forces. It brings about the steering of the Company’s operations in accordance with the public demands.

Efforts to increase export sales and transferring the existing know-how to the private sector, is aimed to minimize this risk.

### Insufficiency in the Number of Qualified Subcontractors and Suppliers

Providing the sustainability of supply and the quality of material for the company which collaborates a large number of domestic and foreign suppliers and subcontractors has been capital of importance.

Furthermore, the issue of possessing the substructure of powerful subordinate industry has been placed emphasis with the purpose of mitigation of the risk arised from inability to achieve intended technical competence, expertise and performance. Within this framework, the number of subcontractors collaborated has been increased.

### Changes In The Global Economy and Decrease In The Defense Spending

Changes in the global economy have an impact on the economic activities of the countries and cause changes in their defense budgets. This situation may bring along the risks of the demands of domestic or foreign customers lower from the expected level and also may have an impact on operational and functional indicators.

The current and potential economic developments, particularly the economic and politic condition of the countries which have collaborated and exported and the effect of these on the company have been followed and the projection regarding global development have been planned. Strategies and financial precaution to minimize current and possible economic developments negative effects and financial precautions have been evaluated constantly, and implemented.

### b. Financial Risk Management

The financial risk in the financial risk management model of the Company have been identified as foreign exchange risk, interest risk, liquidity risk, credit risk and capital risk.

Within the scope of the financial risk management, exchange risk, interest risk, liquidity risk, credit risk and capital risk which shall affect the assets and liabilities of the Company are defined, measured, managed and reported. Therefore, the adverse effects of the changes in financial markets on the Company’s financial performance are minimized. In order to minimize the risks, the derivative financial tools are also utilized. Furthermore, financial risk management techniques have put to use in order that the return on the project is not affected from the inconsistency of cash inflows and outflows on the basis of currency which was formed within the projects and the deviation of the planned cash flow dates.

Financial risk management is also applied by the Company’s subsidiaries and affiliates pursuant to the policies approved by their own managing bodies.

### i. Foreign Exchange Risk and Management Policy

The main principle in foreign exchange management is to minimize the impact of the foreign exchange fluctuations by preventing foreign exchange short or long positions.

To define foreign exchange risks, taking the periodical foreign exchange position into consideration, loss and profits which would arise from upwards or downwards changes are calculated and the possible impacts of the foreign exchange risk incurred are measured. In this scope, the possible changes in foreign currency sensitive assets and liabilities for prospective interim financial periods are considered and the foreign currency position is estimated.



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### Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

The agreements signed between the company and the clients are heavily outside of the functional currency which is Turkish Lira. In the agreements, in order to do business, it is possible to take out advances during different periods of the agreements and these advances may be currencies outside of the functional currency. Within the framework of TAS 21 "The Effects of Changes in Foreign Exchange Rates Standard", all order advances taken and given outside of the functional currency are not subject to valuation.

Throughout the duration of the agreements, it is unavoidable to have changes in the exchange rates. As a result of these exchange rates, there could be exchange rate difference profits/losses due to delivery on a foreign currency type agreement, advance offsetting or collection.

Methods which are used to manage the exchange rate risk are on-balance sheet (structural) methods. The use of fixed rate of TL denominated credits instead of foreign currency loans in order to keep the foreign exchange position at desired levels and to ensure currency compatibility, determining the contract currency according to the currency, which is predominant in the cost of the contract and such as the signing of the contract in terms of the main contract currency with the subcontractors within the scope of the contracts.

#### ii. Interest Risk and Management Policy

The interest risk is analyzed by calculating the difference between the assets sensitive to interest in a certain term and liabilities sensitive to interest. In the scope of fund management, a sensitivity test is carried out to measure the interest risk of the interest sensitive assets in the portfolio.

As of 31 December 2016, the balance of credit obtained from the Defence Industry Support Fund has been amounted to USD 52,4 Million. It is assessed that the relevant credit have not posed the interest risk due to fixed rate credit.

Company has a USD 87 Million credit balance from Türk Eximbank as of 31 December 2016; which contains USD 70 Million and TL 60 Million. The interest rate of the loans is fixed during the maturity of 240 days. The Company does not have loans with variable interest rates therefore interest risk is considered to be low.

#### iii. Liquidity Risk and Management Policy

Liquidity Risk comprises the risks when the matured liabilities cannot be fulfilled, when the increase in assets cannot be funded and the risks which arise due to the transaction realized in non-liquid markets.

Liquidity risk is managed by considering short term liabilities, assets with high liquidity, anticipated cash flows and balance sheet maturity ladder. In this scope, sufficient level of cash and assets which may be convertible to cash is maintained, attention is paid that the Company finances its activities without using any loans and the resources of funding are varied by keeping the commercial bank credit limits ready for any cash requirement. As of 31 December 2016, 49% of the short-term and long-term liabilities comprise of advance payments received therefore as there is no discrepancy in maturity dates, liquidity risk is considered to be low.

#### iv. Credit Risk and Management Policy

The substantial part of the Company's current credit balance comprises of the performance guarantees and advance payment guarantees (letter of guarantees) granted to the customers in scope of agreements and which are showed off balance sheet. Within this scope to manage the credit limits at the banks, risk balances are monitored periodically and necessary transactions are done for the letter of guarantees related to the agreements of which the liabilities are fulfilled to be deducted from the risk.

#### v. Capital Risk Management

In the capital management of the Company, enabling a debt-equity balance that would minimize the financial risks and costs to the lowest level is taken care of. The objective of the Company is to guarantee a consistent growth by means of the funds gained through its activities while providing its shareholders a regular dividend income.

#### 9. Other issues not included in the financial statements but which would be beneficial to the users

- As of 31 December 2016, the Company has a backlog of USD 6,2 Billion and these orders include the period until 2025.
- No Extraordinary General Assembly was held during the period 1 January and 31 December 2016.

#### 10. Significant events between 1 January - 31 December 2016 fiscal period and the Board of Directors Meeting date when the corresponding financial statements shall be negotiated

- The amount of contracts signed after the balance date by the Group approximately USD 105 Million.

**Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016****11. Expectations for the progress of the company, significant developments with respect to company activities and financial position, to observe whether past period targets were achieved or not, whether the general assembly resolutions were fulfilled, and in the event the targets were not achieved and the resolutions were not fulfilled, information regarding the reasons and explanations**

Expectations of Group under normal circumstances regarding Group's consolidated financial results of 2016 shown below were disclosed to public on 7 March 2016:

<b>Year 2016 Financial Goals</b>	<b>Ratio/Amount</b>	<b>2016 Realization Rate/Amount</b>
Consolidated income growth (TL)	16-20 %	36%
EBITDA Consolidated and adjusted without foreign exchange rate differences	18-20 %	19%
Consolidated investment (property, plant and equipment and intangible assets) expenditure	~ TL 340 Million	TL 352 Million
Ratio of the consolidated R&D expenses financed by Company resources to the consolidated sales	6%	7%

The expectations of Group on consolidated financial results for 2017 under normal circumstances are as follows:

<b>Financial Targets 2017</b>	<b>Ratio/Amount</b>
Consolidated income growth (TL)	≥ 25%
EBITDA (Consolidated and adjusted without foreign exchange rate differences)	18-20 %
Consolidated investment (property, plant and equipment) expenditure	~ 500 Million TL
Ratio of the consolidated R&D expenses financed by Company resources to the consolidated sales	7%

These expectations are based on the yearly average of USD/TL parity to be 3,45 and EURO/TL parity to be 3,79.

The Company, which has been in the most prestigious list since 2006, "Defense News Top 100", published by "Defense News" magazine, aims to increase its ranking in the list in following years.

In order to achieve the sustainable growth:

- The registration of SADEC LLC was completed on 27 December 2016 as part of our efforts to establish a joint venture with TAQNIA DST in Saudi Arabia. The capital of the company is SAR 22.500.000 (approximately TL 21 Million) and the share of ASELSAN in the partnership is 50%. SADEC LLC's main field of activity is going to be the production and sales of radar, electronic warfare and electro-optical systems.
- Gölbaşı Facility investment has been substantially completed. As of the end of 2016, the level of machinery-equipment investment is summarized below:
  - The USD 75,6 Million worth of machinery and equipment have been acquired.
  - Orders worth USD 2,5 Million have been ordered to provide the remaining machinery and equipment.
  - Approximately USD 9,5 Million worth of machinery and equipment will be ordered.
- Optic production plant in Sivas Organized Industrial Site has been completed in the end of the February 2016. Furthermore the construction of the R&D Building located at the Cumhuriyet University Technopark has been completed. The plant has commenced the mass production on 1 March 2016. The official launch of the plant was practiced on 28 May 2016 and the production activities of optical lens and binoculars has been progress with three shifts.
- ASELSAN Bilkent Micro Nanotechnology Industry and Trade Inc. titled company, which belongs 50% to ASELSAN and 50% to İhsan Doğramacı Bilkent University, was established with the purpose of producing every kind of semiconductor and micro and nano dimensional instruments including similar materials. The construction of facility was completed in January 2016. The Company signed its first contract on December 2016 in order to produce GaN transistors/integrated circuit for the usage of ASELSAN.
- The quality and technological perspectives of the cooperation formed with the universities have been increased.
- The efforts to form an eco-system with the sub-industry companies and SME's have continued.
- Company is going to continue its operations in civil electronic areas which demand high technology.
- Inorganic expansion will be also evaluated as well as organic expansion.

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## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### 12. Compliance Report on Corporate Governance Principles

The report is provided with Annex-1.

### 13. Research and Development Activities Performed

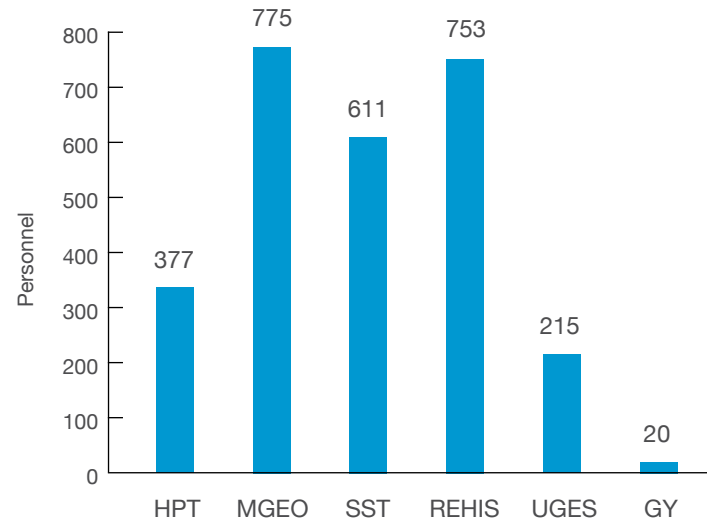
The Group, being a leading defense industry establishment developing advanced technology system solutions on land, air, naval and aerospace platforms, has given importance to Research and Development activities and technological gains and targets since it was founded. Besides, it aims to spend approximately 6% of the annual turnover to its Research and Development activities financed with its own resources.

By following up on all kinds of technological developments pertaining to land, air, naval and aerospace platform product/system technologies, the Company not only applies technology but also designs, develops and produces product/system technologies in order to share or sell with/ to national and international collaborations.

In order to increase the national contribution share in the projects, great effort is being paid for utilizing the existing local technological possibilities. For this purpose, cooperations with universities and some Research and Development institutions and using of local subcontractors and sub-industry have been placed importance.

As for the projects carried out within the Group, the Research and Development discount in compliance with the provisions of the Law on Corporate Tax numbered 5520 and Research and Development central application pursuant to the Law regarding the support of Research and Development activities numbered 5746 are being implemented together. For the Research and Development projects which are not aimed for public, the approval of TEYDEB (Technology and Innovation Support Programs Directorate) is received and they are supported by this institution. Within the Company, there are 6 Research and Development centers namely Defense System Technologies (SST), Radar Electronic Warfare and Intelligence Systems (REHİS), Microelectronics, Guidance and Electro-optics (MGEO), Communication and Information Technologies (HBT), Transportation, Security, Energy & Automation Systems Business Sector (UGES) and ASELSAN Research Center (GY) within the scope of Vice President of Technology and Strategy Management. 2.751 people are employed at the Group Research and Development centers.

#### The Number of Personnel Employed at R&D Centers (2.751 People)

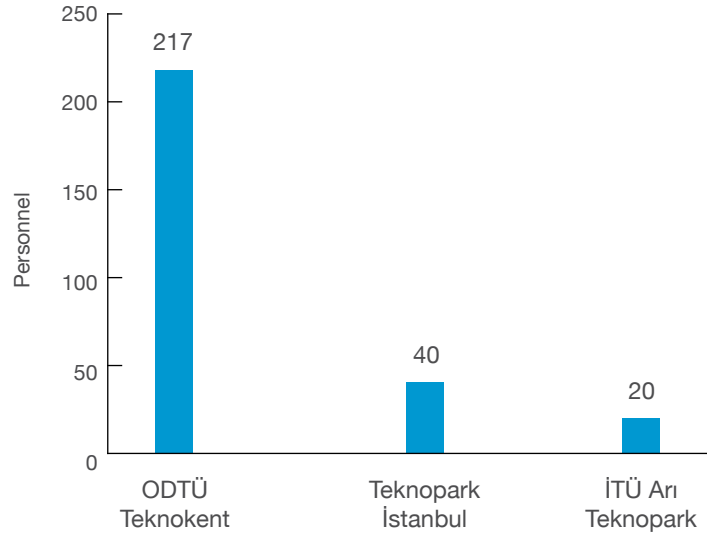


The Group also have activities in Teknokent facility within Middle East Technical University, in İstanbul Technology Development Area Teknopark and in ITU Arı Teknopark in scope of the Law numbered 4691 on Technology Development Regions. 277 people are employed within this region.



## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### The Number of Personnel Employed at Technopark (277 People)



#### 14. Amendments to the Articles of Association during the period along with the reasons

Company's master agreement's article 6 entitled as "company's authorized capital" in the scope of capital increase within fiscal period has been changed and registered at 17 May 2016 and announced in Turkish Trade Registry Gazette no 9080 at 23 May 2016.

#### 15. The kinds of issued capital market instruments and their amounts, if any

Within the fiscal year, with regard to the Company's registered upper limit capital of TL 1.000.000 Thousand, transactions to increase the Company's capital to TL 1.000.000 Thousand through the 100% increase of TL 500.000 Thousand issued capital has been realized via internal resources and accordingly registered on 17 May 2016 and published in the Turkish Trade Registry Gazette No 9080 dated 23 May 2016. The rights entitled to registered shares issued during the above mentioned capital increase transaction have been completed on 25 May 2016 finalizing the capital increase transaction.

#### 16. The sector the Company operates in and its position within the sector

The Company is a leading defense industry institution developing advanced technology system solutions in land, air, naval and aerospace platforms.

The Company being an institution of TSKGV is in a position of a technology center in the fields of design, development, manufacturing, system integration, modernization and after sales services of military and civil communication systems, avionics systems, electronic warfare and intelligence systems, radar systems, command and control systems, naval warfare systems, electro-optic systems and products.

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Ranking of Company international, country-wide, sectorial rating systems is showed at table below:

Corporation	Research/Study	Related Period <sup>1</sup>	Ranking	
			Current	Prior
International Ranking				
Defense News Dergisi	Defense News Top 100	2016	58	62
SIPRI	SIPRI Top 100	2016	69	74
European Commission	World R&D Expense Top 2500 Company	2016	1.228	1.178
Mentor Graphics	PCB Technology Leadership Awards (TLA)-2015 - Printed Wiring Board Technology The category of Defence, Aviation and Space	2016	2	--
League of American Communication Professionals	Annual Report - World Ranking	2015	11	--
	Annual Report- The Category of the World Defence Industry and Aerospace	2015	1	--
National Ranking				
Istanbul Chamber of Industry	İCI 500 Top Industry Companies	2016	23	33
	İCI 500 - Private Companies	2016	21	30
Fortune Magazine	The Top 500 Companies	2016	54	51
Capital Magazine	The Top 500 Private Companies	2016	65	66
BIST (Borsa Istanbul)	Sustainability Index	2016	No ranking	
BIST (Borsa Istanbul)	Corporate Management Index	2016	No ranking	
BIST (Borsa Istanbul)	First Backup In The BIST Top 30 Sequence	2016	1 <sup>st</sup> standby	
TEA (Turkey Exporters' Assembly)	Top 1000 Exporters	2016	101	107
Turkish Time Journey	Study of Research and Development Top 100	2016	1	1
Deloitte	Technology Fast 50/Big Star Category	2016	1	-
Istanbul International Inventions Fair (ISIF-16)	Digital Tacograph	2016	2 Gold	-
	ATLAS Vehicular Radio	2016	Silver	-
	MRG Device Multi Channel Transmitter System	2016	Bronze	-
Brand Finance	Most Valuable Firms (100 Brands)	2016	46	47
Bloomberg Businessweek	Top 50 Firms (Between Universities)	2016	9	8
Universum	Ideal Employers (Engineering and Information Technologies- 100 Companies)	2016	4	1
Ministry of Science, Industry and Technology	Top of the Private Sector R&D Centers/R&D Centers Performance Index/Defence Industry Sector	2016	1	1
TTGV (Technology Development Foundation of Turkey)	Dr. Akın ÇAKMAKCI Academic Thesis Studies Applied in Industry	2016	1	-
CDP (Carbon Disclosure Project)	Firms Which Have Well Management of Climate Changes and Highest Greenhouse Gas Emission Performance (Turkey)	2016	No ranking	
TESİD	Innovativeness and Creativeness Awards, Innovative Product Awards Between Big Firms	2017	No ranking	

<sup>1</sup> "Related period" has been the year which has been explained.

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### 17. Progress in investments and degree of incentive utilization if any

#### Progress in Investments

Directing the Company resources to profitable fields with high added value where advanced technology is used, is anticipated in the first place by considering the global tendencies, technological developments and the actual and prospective requirements of all customers in particular the Turkish Armed Forces. The investments in the Company are realized by considering the technological plans, strategic plans and project requirements.

In current period, the investments, which will meet the need of substructure and equipment in order to be used research and development project have been sustained in compliance with the investment scheme in accordance with the policy of efficient use of resource.

#### Incentives that Company has benefitted

Income tax withholding incentive, insurance premium support, stamp tax exemption and Research and Development discount are utilized within the scope of the Law numbered 5746. In accordance to the Law regarding the Incentive of Research and Development Activities numbered 6676 published on Official Gazettes numbered 29636 on 26 February 2016 and The Law Regarding the Amendments on Delegated Legislation, the content of the law and incentives has been broadened and additional exceptions has been given. Income tax withholding incentive, insurance premium support and stamp tax exemption is utilized by being calculated over the salaries of the Research and Development personnel and not being paid to the relevant institution and the Research and Development discount is utilized by means of applying a discount on the corporate tax return. Aforesaid law is valid until the date of 31 December 2023.

Within the scope of the Teknokent Law numbered 4691, incentive on withholding income tax, insurance premium support and stamp tax exception is applied. These are utilized by making calculations on Research and Development and software personnel wages and not being paid to the related institution. The gain obtained with reference to the execution of Technology Development Zones Law numbered 4691 is exempted from the corporate tax of 31 December 2023.

Between the period 1 January-31 December 2016 because of having Research and Development centers, TL 91.171 Thousand within the scope of income tax withholding incentive, promotion of insurance premium, stamp duty exception; as a result of being active at ODTÜ Teknokent, İstanbul Technology Development Area Technopark and ITU Arı Technopark TL 12.818 Thousand incentives have been used.

Within the scope of the Research and Development Law No 5746 and Teknokent Law No 4691, TL 109.553 Thousand Corporate Tax advantage has been gained as of 1 January-31 December 2016 period.

At periods when Group's Research and Development expenses, which is subject of Research and Development discount, is higher than the principal amount of Research and Development discount which is indicated at corporate tax return, Corporate Tax ratio 20% of distinction amount is evaluated as deferred tax income at financial tables.

The 1501 Industrial Research and Development Projects Support Programme has been established in order to encourage the Research and Development operations of the companies creating added values at company level and to contribute to the enhancement of the Research and Development ability of the Turkish industry by this means. ASELSAN and Mikro AR-GE have benefitted from incentives amounting to TL 9.123 Thousand within the scope of TÜBİTAK TEYDEB projects which are current at 2016.

Projects within the scope of 1511-Prioritized fields' research technologies development and innovation programme came into force as of 2013. ASELSAN and Mikro AR-GE have been benefitted from TL 1.534 Thousand incentive at 2016.

The support process of the projects have been initiated as of July 2010 by 1509 EUREKA-International Industrial Research and Development Projects Support Program where market oriented projects for developing products and processes to be commercialized in short term are supported and ASELSAN and Mikro AR-GE have been benefitted from incentive amount of TL 274 Thousand was used at 2016.

The project of TAGEM in within the framework The Ministry of Food, Agriculture and Livestock Research and Development Incentive Program of have been launched in 2016 and the incentives amounting to TL 357 Thousand has been used in 2016.

Within the scope of SAN-TEZ Research and Development support programme aimed at supporting the postgraduate and/or doctorate thesis works which shall contribute to increasing the competitiveness in international markets by means of commercializing the scientific studies at the universities and institutionalizing the University - Industry cooperation, 18 Projects are ongoing.

The 1007 Public Institutions Research and Development Project Support Program has been formed in order to meet the requirements of the Public Institutions with Research and Development or to support the projects aimed at solving their problems. In scope of this support 7 Research and Development projects are still ongoing.



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Within the scope of the European Commission 7<sup>th</sup> Cooperation Framework Programs, 6 integration projects were executed. In the “Circulation of the Researchers, Return Grants; Individual Support Private Programme” within the scope of the European Commission 7<sup>th</sup> Cooperation Framework Programmes, 4 projects have gone into effect in the years 2010 and 2011.

Expenses regarding the foreign market research travels realized with respect to the products and the foreign office expenses are used up by the rate and amount of subsidies implemented within the scope of Governmental Grants for Export.

Within the Decision Regarding the Governmental Grant in Investments, there are 6 Investment Incentive Certificates taken from the Turkish Republic Prime Ministry Under secretariat for Treasury General Directorate of Incentives and Implementation.

With such incentive certificates, VAT exemption and customs tax exclusion are utilized. VAT exemption is applied in domestic and foreign purchases and customs tax exemption is used in foreign purchases.

The sources and types of the incentives utilized and the incentive amounts utilized are summarized in the table below collectively.

The Source of Incentives	Type of Advantage	Company	The Amount 31 December 2016 (Thousand TL)
Research and Development Promotion Law numbered 5746	Income tax withholding, Insurance Premium, Stamp Tax	ASELSAN	91.171
Teknopark Law numbered 4691	Income tax withholding, Insurance Premium, Stamp Tax	ASELSAN, Mikro R&D	12.818
Research and Development Promotion Law numbered 5746 and Teknopark Law numbered 4691	Corporate Income Tax	ASELSAN, Mikro R&D	109.553
Support Programme (TÜBİTAK 1501, 1511, 1509)	Monetary Support	ASELSAN, Mikro R&D	10.931
TAGEM	Monetary Support	ASELSAN	357
<b>TOTAL</b>			<b>224.830</b>

### 18. Explanations including the qualities of the production units of the company along with the capacity utilization rates and their developments, general capacity utilization rate, developments in the manufacturing of the products and services which are subjects to activity, amounts, quality, circulation and the prices compared with the previous period figures

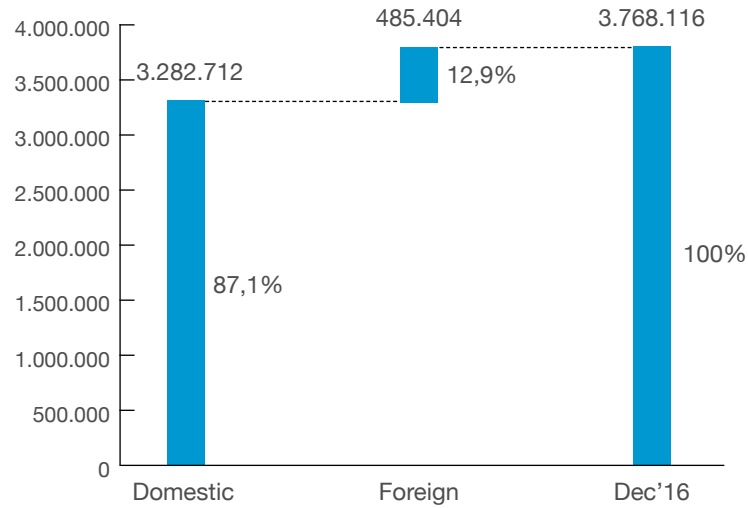
The capacity utilization for the period 1 January - 31 December 2016 was realized at the level of 102%. Substantial part of the production is realized as order based production. Research and Development activities are carried out for the products designed to be tailored for the customer requirements. The qualities of the system and products alone with their quantities and prices vary. Upon the usage of Enterprise Resource Planning System (ERPS), the production processes have been managed more efficiently.

### 19. The prices, sales revenues, sales conditions of the products and services which are subjects of activity with their improvements within the year, developments in the yield and productivity parameters and the reasons of the substantial changes in these compared to the previous years

The Company carries out its operations in the basic fields of: “Communication and Information Technologies”, “Defense System Technologies”, “Radar, Electronic Warfare and Intelligence Systems”, “Microelectronics Guidance and Electro-Optics” and “Transportation, Security, Energy and Automation”.

The Company’s project revenues comprise, according to the relevant sales agreement terms and conditions, order based production, mass production product sales, services, commodities and progress billing sales. Sales terms and conditions are subject to change as for the respective agreements.

As for the consolidated amount of the Group’s realized net sales during the period 1 January - 31 December 2016; TL 3.282.712 Thousand of this realized as domestic sales and TL 485.404 Thousand of it realized as foreign sales.

**Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016****SALES (Thousand TL)**

**20. The basic ratios regarding profitability and liabilities, as calculated on the basis of the financial statements, sales, efficiency, income generation capacity, profitability and liabilities/equity ratios in comparison basis with prior period and information about other matters and future expectations and risks that have been prepared in accordance with Capital Markets Board Communiqué Series: II and No:14.1**

As of 31 December 2016, the Group's financial statements prepared in accordance with the Communiqué Series II. No: 14.1 "Communiqué on Capital Market Financial Reporting Standards" issued by Capital Markets Board, gross margin increased by 2 basis points compared to the same period of the prior year. Operating profit margin (EBIT) has increased by 4 basis points and EBITDA margin has increased by 1 basis points compared to the same period of the prior year. In addition, net profit margin has been at a level of 22% and increased by 14 basis points compared to the last year. While profit capital ratio increased 15 basis points. Average Net Working Capital/Net Sales is around 44%.

<b>BASIC RATIOS/CONSOLIDATED FINANCIAL STATEMENT</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Current Ratio	2,3	2,0
Liquidity Ratio	1,5	1,1
Short Term Current Liabilities/Total Financial Liabilities	75%	74%
Total Financial Liabilities/Total Assets	6%	10%

<b>BASIC RATIOS/CONSOLIDATED BALANCE SHEET</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
Gross Profit Margin	24%	23%
Operating Profit Margin (EBIT)	16%	12%
EBITDA Margin	19%	18%
Net Profit Margin	21%	8%
Return On Equity (ROE)	22%	7%
Average Net Working Capital/Net Sales	44%	46%
Average Net Working Capital/EBITDA	2,3	2,6

The liabilities of the Group are mainly consist of the short and long term order advances received.

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

**Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016****21. Measures planned to be taken to improve the financial structure of the company**

The Group and the Company as for their annual budgets and implementations for the period 2017-2019, have adopted the principles as the basis to take care of savings in all kinds expenditures, to closely follow up the advances and receivables, to pay attention to the proportion of the term and currency in purchasing and sales agreements with the risk status of the domestic/foreign suppliers and sub-contractors.

**22. Changes in the top management within the period and the names and surnames of whose are on duty**

Changes in the top management within the period 1 January - 31 December 2016 and information regarding the ones on duty are given in the below table:

**LIST OF UPPER MANAGEMENT IN SERVICE**

No	Name Surname	Duty	Date of Appointment
1	Mustafa Murat ŞEKER	Chairman/Managing Member	15 May 2013
2	Murat ÜÇÜNCÜ	Vice Chairman/Managing Member	15 May 2013
3	Ziya AKBAŞ	Member of the Board of Directors	31 March 2014
4	Nazım ALTINTAŞ	Member of the Board of Directors	31 March 2015
5	Ercümend ARVAS	Member of the Board of Directors	31 March 2016
6	Turan EROL	Member of the Board of Directors	31 March 2016
7	İsmail GÜMÜŞTEKİN	Member of the Board of Directors	31 March 2015
8	Mehmet Celalettin LEKESİZ	Member of the Board of Directors	31 March 2016
9	Sedat NAZLIBİLEK	Member of the Board of Directors	25 June 2014
10	Dr. Faik EKEN	CEO	24 July 2014
11	Okan TURAN	CFO/Vice President (Financial Management)	4 January 2016
12	Yavuz BAYIZ	Division CEO/Vice President (Communication & Information Technologies Business Sector)	1 September 2014
13	Baki ŞENSOY	Division CEO/Vice President (Microelectronics, Guidance & Electro-Optics Business Sector)	1 September 2014
14	Oğuz ŞENER	Division CEO/Vice President (Radar & Electronic Warfare Systems Business Sector)	1 September 2014
15	Mustafa KAVAL	Division CEO/Vice President (Defense Systems Technologies Business Sector)	1 September 2014
16	Yavuz Suat BENGÜR	Division CEO/Vice President (Transportation, Security, Energy & Automation Systems Business Sector)	1 September 2014
17	Hezarfen ORUÇ	Division CEO/Vice President (Support Services)	1 September 2014
18	İsmet ATALAR	Division CEO/Vice President (R&D and Technology Management)	1 September 2014
19	Hüseyin YAVUZ	Division CEO/Vice President (Human Resource Management)	1 September 2014
20	Abdülkadir GÖKTAŞ	Internal Audit President	1 September 2014

**23. Total amounts of the financial benefits such as attendance fee, remuneration, premium, bonus payments, share profit provided to the managing members and senior executives**

The total amount of the remuneration and similar benefits paid to the senior executives by the Company as for the period that ended on 31 December 2016 is TL 8.658 Thousand.

**Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016**

In the table below the annual gross total amount of the fees paid to the members of the Company's Main Partner Board of Directors and the interests of private health insurance are given.

**ASELSAN ELECTRONICS INDUSTRY AND TRADE INC. LIST OF TOTAL AMOUNT OF FINANCIAL BENEFITS PROVIDED TO THE MANAGING MEMBERS AND SENIOR EXECUTIVES**

No	Name Surname	Duty	Total Amount Paid Thousand TL (Wage and Health Insurance)
1	Mustafa Murat ŞEKER	Chairman/Managing Member	47
2	Murat ÜÇÜNCÜ	Vice Chairman/Managing Member	48
3	Ziya AKBAŞ	Member of the Board of Directors	48
4	Nazım ALTINTAŞ	Member of the Board of Directors	47
5	Ercümend ARVAS	Member of the Board of Directors	34
6	Oğuz BORAT	Member of the Board of Directors	11
7	Hasan CANPOLAT	Member of the Board of Directors	11
8	Oral ERDOĞAN	Member of the Board of Directors	11
9	Turan EROL	Member of the Board of Directors	34
10	İsmail GÜMÜŞTEKİN	Member of the Board of Directors	47
11	Mehmet Celalettin LEKESİZ	Member of the Board of Directors	34
12	Sedat NAZLIBİLEK	Member of the Board of Directors	48
13	CEO/President and Vice Presidents	Higher Level Executives	4.697
<b>TOTAL</b>			<b>5.116</b>

**24. Information regarding the allowances granted to the managing members and the senior executives with the travel, accommodation and representation expenses and financial benefits in kind, insurances and total amounts of the similar benefits**

Total amount of domestic and foreign allowances travel accommodation and representation expenses and financial benefits in kind and total amounts of insurances granted to the senior executives and members of the Board of Directors of the Group for the period ended by 31 December 2016 is TL 1.321 Thousand.

**25. Personnel and workers turnover, collective agreement implementations, rights and benefits provided to the personnel and workers**

The Group recruited a total number of 424 people (116 with fixed term contract) as the personnel including fixed-term contracted personnel, disabled and terror-stricken personnel during the period 1 January - 31 December 2016 and the number of people quit for the same period is 308 (35 with fixed-term contracted).

The rights and benefits provided to the personnel by the Company are bonus payments, meal allowances, marriage benefits, maternity benefits, death allowances, transportation, private health insurance, childcare and kindergarten benefits. The average number of personnel employed by the Group as of 31 December 2016 is 5.608.

There is no collective bargaining agreement in the Company.

**26. Information regarding the donations within the year and social responsibility**

Within the period of 1 January 2016- 31 December 2016, the Group donated TL 48 Thousand in total which includes TL 37 Thousand for 20 wheelchairs within the aid campaign for Afghanistan and TL 11 Thousand to Martyrs' and Village Guards Association.

**27. Information on Business Partnerships, Associates, Subsidiaries, Joint Ventures and Branches**

- The Republic of Turkey, Sivas, ASELSAN-Optics Joint Venture
- The Republic of Turkey, ASELSAN-Bilkent Joint Venture
- Jordan, Amman, ASELSAN-Jordan Joint Venture
- Kazakhstan, Astana, ASELSAN-Kazakhstan Joint Venture
- United Arab Emirates, Abu Dhabi, IGG ASELSAN Joint Venture
- Saudi Arabia, Riyadh, SADEC LLC Joint Venture
- Republic of South Africa, Pretoria Branch
- Republic of Macedonia, Skopje Branch
- United Arab Emirates, Abu Dhabi Office



ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

#### Local Affiliates

##### 1- MİKROELEKTRONİK

Ownership : 85%  
Participation : 2010  
Foundation : 2006  
Assets : \$ 2,0 Million

##### 2- ASELSANNET

Ownership : 100%  
Foundation : 2004  
Assets : \$115,4 Million

##### 3- ROKETSAN

Ownership : 15%  
Partner : TAFF  
Foundation : 1988  
Assets : \$1,1 Billion

##### 4- ASELSAN PRECISION OPTICS

Ownership : 50%  
Partner : Sivas Optik Malzemeleri  
Foundation : 2014  
Assets : \$11,8 Million

##### 5- ASELSAN BİLKENT MİKRO NANO

Ownership : 50%  
Partner : BİLKENT Üniversitesi  
Foundation : 2014  
Assets : \$20,2 Million



#### Global Affiliates

##### 1- ASELSAN-BAKU (AZERBAIJAN)

Ownership : 100%  
Foundation : 1998  
Assets : \$1,6 Million

##### 2- ASELSAN MIDDLE EAST (JORDAN)

Ownership : 49%  
Partner : KADDB Investment Group  
Foundation : 2012  
Assets : \$25,7 Million

##### 3- IGG ASELSAN INTEGRATED SYSTEMS (UAE)

Ownership : 49%  
Partner : IGG  
Foundation : 2011  
Assets : \$4,7 Million

##### 4- KAZAKHSTAN ASELSAN ENGINEERING (KAZAKHSTAN)

Ownership : 49%  
Partner : Kazakhstan Engineering  
Foundation : 2011  
Assets : \$40,4 Million

##### 5- SOUTH AFRICA BRANCH

Ownership : 100%  
Foundation : 2011  
Assets : \$0,8 Million

##### 6- SADEC (Saudi Defence Electronics Company - SAUDI ARABIA)

Ownership : 50%  
Partner : TAQNIA DST  
Foundation : 2016



**Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016****28. Information regarding the shares of the companies subject to consolidation in the parent company**

There is no cross ownership relation between the companies subject to full consolidation (ASELSANNET, ASELSAN BAKU and Mikro AR-GE) and equity pick-up method consolidation (ASELSAN Bilkent, ASELSAN Optik, IGG ASELSAN, ASELSAN Kazakhstan, ASELSAN Jordan and SADEC LLC) and the Company.

**29. As for the preparation process of the consolidated financial statements; comments with respect to the principal factors of the internal audit, internal control and risk management systems of the Group and opinion of the managing body**

The controls are carried out by the Internal Audit Presidency (IAP), Audit Committee and members of the Board of Auditors within the parent company in order to minimize the substantial error risk on the financial statements of the Group. IAP and Audit Committee carry out their duties independent from each other but within the guidance of common objectives and targets, with the aim of maintaining an internal control system, which provides required controls in matters such as the reliability of the financial reporting system, the efficiency of the activities in order to eliminate the operational risks and compliance with the law. Furthermore, the efficiency and sufficiency of the internal control are supported with the directives in effect.

In order to determine the potential risks which may affect the Company and to manage them, the Committee for Early Determination and Management of Risks operates. The committee meets on a periodical basis and reports in every two months to the Board of Directors. The report is also shared with the independent audit firm. In order to coordinate the work of the Committee and to manage the risks that may affect the Company's corporate targets in a comprehensive, integrative and effective manner and to carry out the necessary internal controls, the Corporate Risk Taking and Internal Control Department operates under the Financial Management Vice Presidency. The activities are defined in the company by the guidelines.

**30. Direct and indirect affiliates of the company and information regarding the share ratios**

ASELSAN owns a 100% of ASELSANNET and ASELSAN Bakü and 85% of Mikro AR-GE, and these companies are subject to the full consolidation.

The affiliated partnerships, subsidiaries subject to joint management and affiliates of the Group recorded as financial investments with their participation ratios and amounts are as follows:

<b>Company</b>	<b>Main Activity Area</b>	<b>Share (%)</b>	<b>31 December 2016 (Thousand TL)</b>
ROKETSAN-Roket Sanayi ve Ticaret A. Ş. <sup>1</sup>	All kinds of missiles, rockets, guided ammunition and their launch systems and propulsion systems and rocket fuels, guidance and control systems, algorithms and softwares related to these systems, warheads and other parts of these systems, all kinds of plugs and all kinds of ballistic protection (armor) system	14.897	516.032
ASELSAN Kazakhstan	Manufacture, sale and technical service of electronic and electro-optical devices and systems	49	30.697
ASELSAN Bilkent	Manufacture of micro and nano-sized devices containing semiconductors and similar technological materials	50	8.774
ASELSAN Jordan	Marketing sales and joint production of group products	49	11.357
ASELSAN Optik	Precision optic technology	50	6.559
ASPIİSAN Askeri Pil Sanayi ve Ticaret A. Ş.	Manufacture and sale of Ni-Cd, Ni-MH, Li-Ion battery/battery blocks and aircraft battery systems	1	147
IGG ASELSAN <sup>2</sup>	Production, integration, sales and technical service of high technology products	49	--
SADEC LLC <sup>3</sup>	Manufacture and sale of radar, electronic warfare and electrooptic products	50	--
<b>TOTAL</b>			<b>573.566</b>

<sup>1</sup> Group's marketable security ROKETSAN-Roket Sanayi ve Ticaret A.Ş. was revaluated and stated at fair value. Fair value determination was performed as of 31 December 2016. by Oyak Yatırım Menkul Değerler A.Ş. which is an independent valuation company of the Group.

<sup>2</sup> As of 31 December 2016. IGG ASELSAN's equity is of negative value therefore subsidiary capital share amounts have not been disclosed.

<sup>3</sup> SADEC LLC was established on 27 December 2016 in Saudi Arabia. As ASELSAN has a capital commitment to SADEC LLC. there is no consolidation effect on the Group's financial

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### 31. Information regarding the company's own shares acquired by itself

There has not been such an event within the period.

### 32. Comments with respect to the private audit and governmental audit realized within the activity period

There has not been such the private and governmental audit within the period.

### 33. Information regarding the lawsuits filed against the company which would have an impact on the financial position and activities of the Group and their possible outcomes

The lawsuits and execution proceedings filed by or against the Group as of 31 December 2016 are summarized below:

Description	31 December 2016 (Thousand TL)
Ongoing lawsuits filed by the Group	1.395
Execution proceedings carried on by the Group	5.210
Lawsuits proceedings carried against the Group	5.332
Lawsuits finalized in favor of the Group within the period	4.076
Lawsuits finalized against the Group within the period	139

### 34. Explanations with respect to the administrative and judicial sanctions applied to the company and the managing members due to the acts contrary to the legislation provisions

No penalties with substantial amounts were paid by the Group within the period.

### 35. If it is an affiliate company, the legal transactions carried out in favor of the parent company or its affiliate with the parent company, with an affiliate company connected to the parent company with the direction of the parent company and all other measures taken or avoided to be taken in favor of the parent company or its affiliate in the previous activity year

There has not been such an event within the period.

### 36. If it is an affiliate company, whether any counter performance was realized for each legal transaction according to the known status and conditions at the time the legal transaction mentioned in article 35 was realized or at the time the measures were taken or avoided to be taken and whether the company incurred losses due to the taken or avoided measure and if the company incurred losses to observe whether this was equalized or not

There has not been any material event that affects the Company's financial statements within the period.

### 37. The determination and management's assessment with respect to the company's unpaid capital or whether the company is deeply in debt

There has not been such an event within the period.

### 38. The status of owning directly or indirectly five, ten, twenty, twenty five, thirty three, fifty, sixty seven or one hundred percent of the shares representing the capital of an equity company or in the event that the proportions go below these percentages and ground for this

There has not been such an event within the period.

### 39. Related party transactions

Detailed table is disclosed in Note 5 in Consolidated Financial Statements of 31 December 2016.

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### APPENDIX-1

#### REPORT FOR COMPLIANCE WITH CORPORATE GOVERNANCE PRINCIPLES

##### CHAPTER I - STATEMENT FOR COMPLIANCE WITH CORPORATE GOVERNANCE PRINCIPLES

ASELSAN, in scope of the Corporate Governance Principles which has been implemented by Capital Markets Board (CMB) since 2003, has been making efforts to work in compliance with the principles under the titles shareholders, public disclosure and transparency, stakeholders and Board of Directors.

ASELSAN, adopting the corporate governance understanding as a principle, was rated with a grade of 8,77 out of 10 as the result of the Corporate Rating Studies carried out by SAHA Corporate Governance and Credit Rating Services Inc (SAHA) in 2012 and therefore was included in the Borsa İstanbul Corporate Governance Index. As a result of the importance given to corporate governance principles, carrying out this effort as a continuous, dynamic process and making improvements accordingly; according to the report of SAHA, which was published on 12 December 2016, ASELSAN's corporate governance rating grade was updated to 9,15 out of 10 points from 9,13 in 2015.

Corporate governance rating grade shows to what extent the companies comply with the corporate governance principles set out by the CMB and the Company's compliance level with the principles is defined with a methodology measuring under the main titles Shareholders, Public Disclosure and Transparency, Stakeholders and Board of Directors. Within this context, the methodology that is based on the "Corporate Governance Principles" published by CMB in January 2014, was used in the rating made by SAHA.

ASELSAN also stands in the first group at World Corporate Governance Index (WCGI) that was published on 1 July 2016 by SAHA. As a result of the efforts made for improving Corporate Governance Rating during 2016, ASELSAN's corporate governance rating was updated as 9,15 over 10 on 12 December 2016 by SAHA A.Ş.

The ratings of 2015 and 2016 and the subtitles are given below:

	2015 Rating Distribution	2016 Rating Distribution
Shareholders	84,09/100	83,62/100
Public Disclosure and Transparency	98,46/100	98,46/100
Stakeholders	94,48/100	95,87/100
Board of Directors	90,07/100	90,32/100
<b>Average 9,15/10,00</b>	<b>9,13/10,00</b>	<b>9,15/10,00</b>

ASELSAN Corporate Governance Ranking Reports published by SAHA can be accessed at the company website: [www.aselsan.com.tr](http://www.aselsan.com.tr)

The compliance with all the mandatory principles of Corporate Governance Principles was achieved. There are no conflicts of interest arising because of the arbitrary principles where compliance has not been achieved. The titles regarding the arbitrary principles, where compliance has not been achieved yet, are given below and are explained in detail through the Compliance Report.

- No recognition of minority rights to those who own less than twentieth of the capital indicated in the Articles of Association.
- Non-existence of a judgement in the Articles of Association; declaring that shareholders may individually demand special audit of certain incidents from the General Assembly even if it is not on the meeting agenda, under the condition that the right to ask to obtain information and examine has been used before and if the exercise of shareholders rights is necessary.
- The article "Group A shares shall not be sold or transferred without the consent of the Board of Directors because of the Company's operations in security and defense industry; in the event that these shares are transferred or sold to third parties partially or completely without the consent of the Board of Directors, the Board of Directors is entitled to abstain from recording this sale in the records" in the Articles of Association of the Company.
- Not disclosing the remuneration of Board Members and executive managers or the benefits provided to them per each individual.



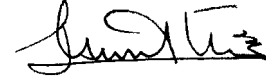
ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

**Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016**

Corporate Governance Committee will carry on the necessary efforts in order to achieve full compliance with Corporate Governance Principles.



Ercüment ARVAS  
Independent Member of Board of Directors  
Corporate Governance Committee Chairman



Murat ÜÇÜNCÜ  
Board of Directors Vice Chairman  
Member of Corporate Governance Committee



Turan EROL  
Member of Board of Directors  
Member of Corporate Governance Committee



Pınar ÇELEBİ  
Investor Relations Manager  
Member of Corporate Governance Committee

## **CHAPTER II - SHAREHOLDERS**

### **2.1. Investor Relations Department**

The information regarding Investor Relations Department responsible for the relations with shareholders is given below.

Okan TURAN	: Chief Financial Officer/Vice President
Aykan ÜRETEN	: Finance Director
Pınar ÇELEBİ	: Investor Relations Manager
Bâni Betül GÖKÇE	: Investor Relations Department/Leader
Başak YÜCEKAYALI	: Investor Relations Department/Senior Specialist
Mehmet IŞILDAR	: Investor Relations Department/Assistant Specialist I

#### Contact Information

Phone: (312) 592 12 33 - 42 - 45 - 59 - 70

e-mail: aselsan.ir@aselsan.com.tr

Investor Relations Department has submitted the report regarding the operations carried during 2016, to Board of Directors on 14 March 2016.

Pınar ÇELEBİ, Investor Relations Manager, has Capital Markets Transactions Level-3 and Corporate Governance Rating Expertise Licenses.

Main operations carried out by Investor Relations Department during 2016 are as follows:

- Maintenance of the exercise of partnership rights of shareholders, updated and safe records regarding shareholders.
- Coordination of public disclosure of material events.
- Answering the written inquiries of shareholders regarding the company, excluding the information considered as confidential, trade secret and which was not disclosed to public.
- Ensuring the execution of General Assembly meeting in compliance with the regulation in force, Articles of Association and other company regulations, records being kept regarding the ballots and the results being reported to shareholders.
- Monitoring of every issue regarding the public disclosure including the regulations and company policies on information.
- Execution of tasks assigned by Corporate Governance Committee.
- Operation of transactions regarding dividend distribution, capital increase and tasks regarding Corporate Governance Principles.
- Coordination of updating the list of people who have access to insider information; informing those people in purpose of protecting the insider information and make sure they follow the confidentiality rules until financial and operational results are disclosed to public.
- Coordination of preparation and publishing of Sustainability Report.
- Performing the tasks regarding the compensation of the beneficiaries with the capital market instruments, the property of which has been lapsed to the Investor Compensation Center (ICC) and have become valid again.

Meetings with 129 corporate investors were made in investor conferences, roadshows, visits to ASELSAN and teleconferences; additionally approximately 100 of our shareholders' questions regarding exercising their rights, public disclosures made, financial tables, etc. were answered either written or verbally in 2016.

The information and explanations, which may affect the exercise of shareholders rights, are provided in the company website.

### Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

#### 2.2. Exercising of Information Acquisition Rights of the Shareholders

Investor Relations Department has taken care of every written and verbal inquiry of all shareholders in 2016 with the most accurate and fastest way. It has paid attention to respond to all the information demands of shareholders with complete and comprehensible responses.

Investor Relations Department has been using Turkish and English website [www.aselsan.com.tr](http://www.aselsan.com.tr) actively in order to inform ASELSAN's investors on a timely and accurate basis and has been updating the information given on the web constantly. The electronic platform is being effectively used regarding the issues that may affect exercising of the shareholders rights. The material event disclosures made through Public Disclosure Platform (KAP) incorporated under Borsa İstanbul are being disclosed in Turkish and also in English along with it starting from 26.10.2015, the material event disclosure and other notifications are being published on our corporate website in Turkish and in English on the same day. In general, any changes occurred in the Company structure are immediately announced on our website and the investor presentations are constantly updated. Capital increases and dividend distribution information are also submitted to our investors' knowledge on the website. In addition, notifications regarding the attendance of shareholders to the General Assembly and electronic general assembly principles within the context of the new Turkish Code of Commerce (TCC) are being made.

Full compliance of both Turkish and English chapters on "Investor Relations" on the website with the regulations was achieved.

Within the context of regulations of CMB, in 2016;

- General Assembly documents within legal deadlines,
- General Assembly minutes and participants list,
- 2015 Annual Report,
- The report for the 1<sup>st</sup> six months' period for 2016,
- The investor presentations which are updated every 3 months,
- Disclosure of material events made in 2016,
- Our Company's Consolidated Financial Statements and Basic Performance Indicators for the last 5 years along with the Financial Report,
- Investor Calendar updates

were published on the website in Turkish and English.

Due to the reason that a regulation is present within the TCC numbered 6102 according to which the shareholders will be able to request from the General Assembly the assignment of a special auditor for the inspection and disclosure of the financial status, and due to the reason that the law and the relevant legislation are considered for the issues not present in the Articles of Association of the Company, there is no respective provision with regard to this issue in the Articles of Association. There was no request of any shareholders with respect to the assignment of a special auditor in 2016.

#### General Assembly Meetings

The agenda and invitation related to the 41<sup>st</sup> Ordinary General Assembly Meeting dated 31 March 2016 with regard to 2015 operations realized at the Company headquarters were duly announced comprising all the necessary information in a daily newspaper published in Turkey and on the website on 8 March 2016 and in the Turkish Trade Registry Gazette dated 10 March 2016. Furthermore the invitation was sent to the main shareholders and the shareholders attended to the previous meeting by post two weeks before the General Assembly. The General Assembly was held with the attendance of 121 shareholders, 8 physically, 113 electronically representing 45.378.874.765 shares (TL 453.788.747.651 nominal) of 50.000.000.000 total shares. Media members did not participate in the General Assembly Meeting, which was held simultaneously both physically and electronically.

In scope of the Communiqué on Corporate Governance numbered II.17-1 of CMB, three weeks before the Ordinary General Assembly on date 8 March 2016, the Ordinary General Assembly Document including the meeting agenda, place, time, copy of the power of attorney, total number of shares as of 8 March 2016 and the voting rights, the number of shares representing the privileged shares and their voting rights, the reasons for the changes in the members of Board of Directors, which is present in the agenda, the list of independent members of the Board of Directors, the proposal of the Board of Directors with respect to the year 2015 dividend distribution, the CV's of the independent members of the Board of Directors and their statements of independence and explanations regarding the agenda items were disclosed on Public Disclosure Platform and were published on our Company website. The annual report was made available for the review of the shareholders at the headquarters 15 days before the General Assembly and handed to the shareholders participating in the General Assembly and to the ones who made requests.

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

For the facilitation of physical attendance to General Assembly Meeting in 2016, transportation from central spots to our Akyurt facility was provided for our shareholders, and our shareholders who attended the General Assembly had a site visit.

In the Ordinary General Assembly Meeting in 2016, the shareholders were informed regarding the presence of managing members, all the Board of Directors members and auditors at the meeting. No proposals were set forth by the shareholders during the meeting regarding the agenda. The shareholders exercised their rights to ask questions regarding the topics in the agenda and the answers to the questions took place in the General Assembly Meeting minutes. There are no questions which has not been answered in the Ordinary General Assembly Meeting and answered by the Investor Relations Department later on. Within the period, there have not been any transactions of which their resolutions were submitted to General Assembly because the confirmative vote of the majority of the independent board members are required where as they have voted negatively. The minutes of the General Assembly Meeting held in 2016 can be accessed from the website of our Company.

No Extraordinary General Assembly Meeting was held during the year 2016. The shareholders were informed about donations and aids were made in 2015, with a separate agenda item at the 41<sup>st</sup> Ordinary General Assembly Meeting.

### 2.3. Right to Vote and Minority Rights

In article 25 of the Articles of Association titled “Right to Vote”, there is a provision stating that “the Shareholders and their representatives who are present at the Ordinary and Extraordinary General Assemblies shall have one right to vote for each share” and there is no privilege or no upper limit pertaining to the numbers of votes. The right to vote arises as soon as the share is acquired and there is no regulation setting forth that the vote shall be used when a certain time passes after the acquisition date of the share.

The regulations regarding the voting of the shareholders through their representatives are followed by; in the event of a legal representation, it is certified and the open proxy rule is applied.

Particular attention is paid in exercising the minority rights in our Company and the provisions of Turkish Code of Commerce and the relevant legislation regarding minority rights are applied as is. All shareholders are treated equally in our Company, including the minority and foreign shareholders.

There are no prevailing partners in our Company. In the Articles of Association, there is no provision with respect to the representation of the minority shares in the management and their accumulated casting of votes. Due to the voluntary implementation of this issue regarding the capital market legislation, provision with respect to the current General Assembly quorum is applied.

### 2.4. Dividend Rights

There are no privileges with respect to the participation in the profit gained by the Company. The dividend policy was revised in 2015 and was submitted to General Assembly meeting. The dividend policy published on our website is given below.

“The dividend amounts which shall be calculated considering the sustainable growth rate, market capitalization, net working capital requirements, dividend yield and cash flows, equity ratio, with the relevant legislation and the provisions of the articles of association over the distributable profit amount calculated taking the period profit as the basis which is shown on the financial statements of our Company prepared pursuant to the existing legal regulations (after the compulsory legal reserves are reserved and the taxes, funds and financial liabilities and losses of the previous year, if any, are deducted and the donations are added), the profit distribution proposal which shall be prepared by the Board of Directors in order for the shares which shall be issued by means of adding the cash or the dividend on the capital on the date(s) determined pursuant to the regulations of the Capital Markets Board to be distributed targeting at least 10% of net profit in cash in the defined amounts or as bonus shares or partly in cash, partly as bonus shares in defined amounts, shall be submitted to the approval of the General Assembly. Following the approval of the General Assembly, the determined dividends are distributed to the shareholders within the legal periods on the date determined by the General Assembly.

There is no privilege to participate to the profit of our Company. The dividends are distributed equally regardless of all the existing shares and their issue and acquiring dates.

In case of a revision made on the Dividend Policy, the resolution of Board of Directors regarding this revision and the reason for revision shall be publicly announced with respect to the legislation of Capital Markets Board.”

As per the decision taken in the General Assembly pursuant to the provisions of the Articles of Association and to the Capital Market Law and other legal regulations in 2016 and within the legal periods, out of the profit gained from 2015 operations, the gross amount of 42.000 Thousand TL (4,2 Kurus TL per 1 TL of share, gross 4,2% over the capital) (net 35.700 Thousand TL - 3,6 Kurus TL per 1 TL of share, net 3,6% over the capital) was distributed to our shareholders as cash dividend. As a result of the Company’s capital increase (from 500.000 Thousand TL to 1.000.000 Thousand TL), the amount per share has been recalculated.



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### Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

#### 2.5. Transfer of Shares

The transfer of the nominated Group A shares representing majority part of the capital and which are not traded in Borsa İstanbul has been restricted with the provision of article 6 of the Articles of Association stating “Group A shares shall not be sold or transferred without the consent of the Board of Directors; in the event that these shares are transferred or sold to third parties partially or completely without the consent of the Board of Directors, the Board of Directors is entitled to abstain from recording this sale in the records without stating a reason”.

#### CHAPTER III - PUBLIC DISCLOSURE AND TRANSPARENCY

##### 3.1. Company Website and its Content

In order to inform our shareholders in a timely and accurate manner within the context of public disclosure and transparency; the website of the Company at the address [www.aselsan.com.tr](http://www.aselsan.com.tr) in Turkish and English is actively used and the information published on the web is updated regularly.

The section “Investor Relations” is included on our website also comprising the issues listed in article 2.1.1 of the corporate governance principles of Communiqué on Corporate Governance numbered II-17.1 issued by CMB on 3 January 2014.

Under “Investor Relations” section;

1. Corporate Governance
  - 1.1 Shareholder Structure and Privileged Shares
  - 1.2 Board of Directors
  - 1.3 Key Resolutions of Board of Directors
  - 1.4 Board Committees
  - 1.5 Articles of Association
  - 1.6 Company Profile and Trade Register Information
  - 1.7 Policies
  - 1.8 Ethical Principles
  - 1.9 Corporate Governance Rating
  - 1.10 General Assembly Meeting
  - 1.11 Compliance with Corporate Governance Principles
2. Sustainability
3. Stock Info
  - 3.1 Stock Info
  - 3.2 Capital Increases
  - 3.3 Analyst Coverage
  - 3.4 Registration Statement and Public Offering Circular
  - 3.5 Dividend Info
4. Investor Calendar
5. Annual Reports
6. Financial Data
  - 6.1 Financial Reports
  - 6.2 Financial Highlights
  - 6.3 Investor Presentations
  - 6.4 Board of Directors Reports
7. BİST Disclosures
8. Frequently Asked Questions
9. Contact

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

chapters exist. Necessary records and information are included under these titles. The information given on the Turkish website under “Investor Relations” section is included entirely on the English website.

### 3.2. Annual Report

The Board of Directors prepare the annual report in detail regarding the operations of the Company and enable the public to reach complete and accurate information that can be comprehensive. The 2015 annual report of our Company was prepared as per the Turkish Code of Commerce numbered 6102, the Regulation Regarding the Determination of the Minimum Content of the Annual Reports of Companies issued by the Ministry of Customs and Trade, the Communiqué Regarding the Principles Related to Financial Reporting in the Capital Market and the Communiqué Regarding the Determination and Implementation of the Corporate Governance Principles, both issued by the CMB.

## CHAPTER IV - STAKEHOLDERS

### 4.1. Informing the Stakeholders

The information requests of stakeholders are keenly handled and attention is paid in responding these accurately and in an understandable manner. Our employees are informed with an employee hand book and informative presentations over the intranet; continuous access to data and support is provided through help desk application over the intranet. Nonetheless, general and personal data that can be necessary outside the company are provided to access over the internet.

As for our suppliers, they are informed via internet, e-platforms and our website, in addition, information share is provided through face to face meetings. The efforts are being carried on to build the ASELSAN Suppliers Portal in order to provide efficient information transfer, thus an effective management shall be achieved by transferring, observing and reporting the data process between ASELSAN and its suppliers to the Enterprise Resource Planning (ERP) system.

High quality standards and high technological solutions are offered for services or delivered products with regard to customer needs and expectations so as to meet customer satisfaction. Requirements of these quality standards are met and inspections, tests are applied through every process from projects’ start till the delivery phases. Our all processes are administered by directives, quality plans, standards, audits and test instructions. Our processes have been certified by internationally accepted standards such as AS9100, ISO 9001, AQAP and CMMI so that our products and services are secured to protect quality standards. These certificates are renewed every year with the audits performed. Changes and improvements of international standards are being followed and our processes are developed accordingly. Customer satisfaction, which is the primary objective, is evaluated and reported for the access of related executives. In addition, results and trends are evaluated by the upper management in an annual basis and required recovery activities are planned.

It is possible to increase the quality of product and service correspondingly increasing customer satisfaction by supplying the materials used in products from the right and trusted sources. For this purpose, suppliers are subject to product and/or field of activity based selection and evaluation processes. These activities that target continuous improvement and high quality standards for suppliers are regarded as playing an important role in eventual product quality. In this direction, trainings, technology/equipment transfers, on the job trainings are for creating a high quality supplier portfolio. All information share is done within the context of confidentiality with our suppliers, who have the status of our business partners, and it is not permitted to share this information with unauthorized persons and third party firms. Through related directives, handling any kind of relations between ASELSAN and the suppliers within the scope of law and ethical values, minimizing the occurrence of unsuitable conditions for protecting parties and securing the justice and transparency.

ASELSAN Magazine, published every 4 months, provides information regarding the activities, technical issues and up-to-date social events. Hardcopies of ASELSAN Magazine is delivered to the end users of ASELSAN products, shareholders who participated to the General Assembly Meeting, company employees and other related parties and uploaded to the website right after it is published.

The Compensation Policy can be accessed from our Company’s website under Corporate Governance title.

The members of the Board of Directors and the executives do not perform any activities that may cause shareholders to incur losses or may diminish the Company assets. The subject that no debt shall be given, no loans shall be granted or no pledges such as guarantees in favor thereof may be extended to any members of the Board of Directors or to any employees through the use of ASELSAN assets, is declared within the “ASELSAN Ethical Principles, Values and Conduct Rules Document which is available on our Company’s website.

The e-mail mechanism for the stakeholders to report their complaints regarding the transactions of the company which are against the legislation or deemed unethical, is stated in the ASELSAN Ethical Principles Policy, which was revised last on 7 January 2016. The policy has been published on the Turkish and English web site following the approval of the policy. Within the context of the policy, the Ethics Committee is informing the Corporate Governance Committee.

#### 4.2. Participation of Stakeholders in the Management

In the Articles of Association, there are no provisions regulating the participation of the stakeholders in the management. However, their participation to management shall be supported provided that it does not corrupt the Company activities.

The corporate governance structure of the Company gives the opportunity to all stakeholders including the employees and representatives to convey their worries with regard to transactions, which are inappropriate in terms of legality and ethics.

Our Board of Directors resolved on 30 September 2015 that; employee representatives shall attend to the Board of Directors meetings at least once a year for submitting their opinions, suggestions and requests, in order to further comply with the article “Supporting the Participation of the Stakeholders in the Corporation’s Management” of Corporate Governance Principles of Capital Board, numbered II-17.1. Within this context, by the coordination of the Corporate Governance Committee, the employee representatives have attended to the Board of Directors meeting on 29.12.2016 and have submitted their opinions, suggestions and requests.

In ASELSAN, an Employee Representative is formed in order to increase the motivation and the sense of identity through providing the ASELSAN employees with the opportunities to,

- Submit their expectations and problems to upper management,
- Share the decisions related with themselves timely and accurately,
- To participate in the decision making processes
- Increase communication with upper management.

The resolution of our Board of Directors dated 30 September 2015 is included in the Employee Representative Directive, which became effective on 17 November 2015. As per the directive published, within the new structure;

- Electing of representatives shall be made by the involvement of all employees to the election process once in every two years via Intranet Portal.
- 1 personnel representative shall be representing every 100 employees.
- A fractional bottom-up structure shall be formed that includes sub-committees and a supreme board.
- Problems shall be first solved by the relevant units in-house, and only the ones that could not be solved shall be transferred to the Supreme Board.
- Filter mechanisms shall be developed for agenda setting.
- Representatives shall attend to the Board of Directors meeting at least once a year.

Coordination of representative meetings is held by the Corporate Services Vice Presidency, where the meeting chairman is the CEO. Nevertheless, Human Resources Management Vice Presidency is represented at least at the level of Director.

The elections for the Employee Representative was made in April 2016, and the tasks of the sub-committees and supreme boards are being performed in compliance with the related internal regulations.

#### 4.3. Human Resources Policy

The human resources policy of our Company is to adopt an understanding which adds successful and dynamic talents to ASELSAN family required pursuant to the vision of ASELSAN, which contributes to the sustainable success of ASELSAN with employee oriented approaches, adds value and which takes side of its employee at all times.

Within this scope and pursuant to the vision, mission and the principles of the Company, regulations have been set out pertaining to the working conditions of the personnel, their qualifications, recruitment, promoting, remuneration, rewarding, dismissal, disciplinary treatments, rights, tasks and liabilities and other personal rights.

58% of our employees stand for the engineering group, 29% for the technician group, 7% for the administrative group, 3% for the office personnel and 3% of the worker group.

There were no complaints related to discrimination from the employees in 2016. Performance and rewarding policies are announced to all of our employees through Company directives.

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### 4.4. Ethical Rules and Social Responsibility

#### 4.4.1. Ethical Rules

The ethical rules of our Company have been written and were published on our website. Furthermore, in order to integrate and develop the ethical rules with the implementations, an Ethical Committee was established to meet the evaluation, direction, consulting and recommendation requirements and create shared knowledge.

“ASELSAN Ethical Principles, Values and Conduct Rules” document is announced to all ASELSAN personnel with all its exhibits and the personnel makes a written commitment that s/he acknowledges the information and ethical values. When an amendment or an update is made on this document, the changes are made known to all the personnel and training programs about these changes are organized if deemed necessary.

Ethical Committee comprises of five members, the chairmanship of the Committee is executed by the Human Resources Management Vice President and the secretariat is handled by Human Resources Director. Other members consist of the representatives of Legal Affairs Department, Central Procurement Department or Financial Management Vice Presidency, charged by the approval of the CEO, and two personnel; one shall have at least 15 years, other shall have at least 5 years of ASELSAN experience among the Top 5 ranked nominees with the votes of ASELSAN personnel and assigned by the Board of Directors. If there are no changes in the organization, the Ethical Committee members serve at least for two years.

Ethical Committee meets once a month unless an application or disobedience is present. However, Committee, Board of Directors, Corporate Governance Committee, CEO or the Chairman of the Ethical Committee can call a meeting. Beyond evaluating applications, Ethical Committee represents reason and conscience of ASELSAN and works to increase the awareness about ethical values in ASELSAN family.

When there is an application, ethical committee conducts the required assessment and submit a report to the CEO. At the end of this investigation, necessary steps are taken in accordance with relative law and ASELSAN regulations and directives. The applications for last six months and assessment result is reported to Board of Directors each year within the months January and July.

#### 4.4.2. Social Responsibility

An independent British institution, Carbon Disclosure Project (CDP) which reports how the risks of climate changes are managed by the companies announced the 2016 results of the Turkey Carbon Transparency Project, ASELSAN is placed in the B list, among the firms that most successfully manage climate change risks through production process and has the highest gas emission performance on the outcome of the research conducted by evaluating big firms including firms listed on Borsa Istanbul.

In ASELSAN, where decreasing carbon emission is one of the strategic goals, carbon emission is monitored since 2009. Also, ASELSAN is the first and only company that is ranked with the highest initial score among Defense Industry firms in Turkey by participating in CDP survey.

ASELSAN has decreased carbon emission significantly through its efforts, and continues its operations by increasing momentum in the fields of increasing energy efficiency in production, giving priority to production technologies that decrease carbon emission, switching to use of energy that does not cause carbon emission.

Having certifications for ISO 14001 Environmental Management System and OHSAS 18001 Work Health and Safety Integrated Management System; we will proceed to take part in pioneer applications through actualization of national and international initiatives.

In November 2014, Borsa Istanbul (BIST) has launched Sustainability Index that display the performance of January-March 2014 time period for BIST-30 firms in the fields of financial, environmental, social issues and corporate governance. With respect to that, as of this date, ASELSAN started publishing sustainability reports. As a result of the evaluation of our Company on the ASELSAN Sustainability Report, published in Turkish and English for the first time before the Index assessments, ASELSAN was among the 15 firms that were approved to be included in BIST Sustainability Index. In November 2016, ASELSAN kept its place in the index as a consequence of the re-evaluation of ASELSAN Sustainability Report that was published in June, 2016.

Sustainability reports that are published on our website ([www.aselsan.com.tr](http://www.aselsan.com.tr)) include the details of sustainable applications in the fields of strategic governance, corporate governance, ethical principles, internal audit, bribery and corruption, risk management, communication with stakeholders, supply chain, information systems, facility management, employee development, human rights, occupational health and safety, environmental management.



**Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016**

In 2016 our company sponsored the activities of Turkish Armed Forces Rehabilitation and Care Center Handicapped Sports Club, the publishing of the books of Anıtkabir Command about Mighty Leader Veteran Mustafa Kemal ATATÜRK and his principles and reforms in order to reach to large populations, and a vehicle that is disability friendly, which was needed for the transportation of Turkish Armed Forces personnel's handicapped children for Turkish Armed Forces Elele Foundation. Also, ASELSAN made donations to Anatolia Village Guards Foundation and the aid campaign for Afghanistan.

**CHAPTER V- BOARD OF DIRECTORS****5.1. Structure and Formation of Board of Directors**

In our Company, 3 members of 9 members of Board of Directors are independent members. The duties of Nomination Committee are executed by Corporate Governance Committee. The report regarding the evaluation of the list of Independent Members of Board of Directors prepared by Corporate Governance Committee on 28 January 2016 was presented to Board of Directors on 28 January 2016. Within the scope of CMB's Communiqué on Corporate Governance numbered II.17-1. CMB has not stated any adverse opinion on the nominees list and the evaluation report, which were submitted to CMB on 29 January 2016. The CV's and independence statements of the 9 nominees who has applied to our Company were announced to public on our website on 8 March 2016. As a result of the voting at the General Assembly Meeting on 31 March 2016, 3 nominees were elected as Independent Members of Board of Directors. There are no female members among the Independent Board Members. There were no cases to eliminate the independency of the Independent Members of the Board of Directors in 2016.

The CVs of the Members of the Board of Directors are included in the 2016 annual report and the information with respect to their duty terms is provided in the table below.

Name Surname	Duty	Election Date
Mustafa Murat ŞEKER	Chairman/Managing Member	May 2013
Murat ÜÇÜNCÜ	Vice Chairman/Managing Member	May 2013
Ziya AKBAŞ	Independent Member	March 2014
Nazım ALTINTAŞ	Independent Member	March 2015
Ercümen ARVAS	Independent Member	March 2016
Turan EROL	Member	March 2016
İsmail GÜMÜŞTEKİN	Member	March 2015
Mehmet Celalettin LEKESİZ	Member	March 2016
Sedat NAZLIBİLEK	Member	June 2014
Dr. Faik Eken	CEO	May 2014

In article 13 of the Articles of Association titled "Duties and Authorization of the Board of Directors", the duties and authorization of the Board of Directors have been defined. Besides, the Board of Directors Working Directive also describes the Duties and Authorization of the Board of Directors. With the article 14 of the Articles of Association titled "Assignment of the Authorization to the CEO", the assignment of the authorization of the Board of Directors to the CEO has been set out. The duties and authorization of the executives are described in the "Duties and Responsibilities Directive" formed within the Company.

The duties of the Members of the Board of Directors and of the CEO carried out outside the Company, information regarding the term of office and the statements of the board of members with respect to their independencies:

- There are no members of Board of Directors carrying out an executive duty.
- The statements of independence of the Independent Members of the Board of Directors have been provided at the annex of the Compliance Report.
- The Members of the Board of Directors fulfill their duties without any interest or benefit and pursuant; to the liabilities and authorizations undertaken by the Board of Directors and to the regulations of the Turkish Code of Commerce and CMB.
- Members of the Board of Directors, in accordance with the Working Directive of Board of Directors, are liable not to enter into any commercial treatments directly or indirectly with the Company that coincides with the Company objectives, on their behalf or on behalf of others without the consent of the General Assembly.

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### 5.2. Principles of Activity of Board of Directors

Board of Directors carries out its duties and responsibilities determined with reference to TCC, Capital Market Law and Articles of Association. In this context, the basis of duties and operations are indicated in details in ASELSAN Board of Directors Working Directives.

The agenda of the Board of Directors meetings is formed with the proposals of the Members of the Board of Directors and the committees and the CEO, it is afterwards evaluated by the Board of Directors Chairman and finalized. The subjects emerged as urgent and which are considered worthwhile to discuss may be added to the agenda during the Board of Directors meeting.

As per article 10 of the Articles of Association, the Board of Directors assemble when required and at least once a month. The number of Board of Directors Meetings in 2016 was 44, where 29 of the decisions in the meetings are interim decisions. All of the Members of the Board of Directors attended 80% of the meetings.

The place, date, time and agenda of the next meeting is decided at the Board of Directors Meetings. Documents pertaining to the meeting agenda are sent to the members of Board of Directors at least 3 work days before the meeting by the Presidency.

The Members of the Board of Directors attend the meetings and fulfill their duties as per their authorization and responsibilities. The members who do not attend the meetings submit their excuses.

Board Office is established under Board of Directors in order to coordinate necessary issues in the name of the Board, particularly the relationships with the Presidency and TAFF, to execute planning and support the Board of Directors' operations.

All members have one right to vote, including the chairman. If the numbers of votes are equal, the vote of the chairman does not change the result. Abstaining is not possible, either rejection or acceptance is voted. The vote of the abstaining member is considered as a rejecting vote. The member casting a reject vote states the ground for this in the meeting minutes and undersigns it. According to the article 11 of the Articles of Association titled "Quorum of Meeting and Decision Making"; "The provisions of the TCC, Capital Market Law, regulations of the Capital Markets Board in connection with corporate governance and other relevant legislation are taken into account with respect to the meetings and decision making quorums of the Board of Directors as well as with respect to any Board of Directors members assuming duties and positions outside the Company. Any action and resolutions taken by the Board of Directors without complying with the Corporate Governance Principles, which are made mandatory as to be complied by the Capital Markets Board, are invalid and considered as in contrary to the Articles of Association". In the operation year 2016, there were no related party transactions or any other significant issue, which had to be submitted to the approval of the general assembly, since they were not approved by the Independent Members of the Board of Directors.

The signed decisions are made available to the follow up of the Members of the Board of Directors and Executive Committee Members in the electronic platform.

In accordance with the article 4.2.8 of Capital Markets Board Corporate Governance Communiqué; Executive Liability Insurance Policy was signed for Board of Directors members on 17 July 2016 with the total liability amount of USD 85.000.000.- which corresponds to more than 25% of the paid-in-capital of our Company, with a validity period of 1 year.

### 5.3. Number of Committees Formed in the Board of Directors with Their Structures and Independency

As per the title "Committees Formed in the Board of Directors" in the Communiqué Regarding Determination and Implementation of Corporate Governance Principles by the Capital Markets Board, our Company's Board of Directors, in the meeting dated 10 April 2012, formed an Audit Committee, Corporate Governance Committee and Early Detection and Management of Risk Committee and announced this to the public. There are no Nomination and Remuneration Committees within the Board of Directors and the duties of these are carried out by the Corporate Governance Committee.

The directives of Audit Committee, Corporate Governance Committee and Early Detection and Management of Risk Committee are made available at the website of our Company. The Independent Members of the Board of Directors and four members of the Board of Directors have duties in more than one committee. This is because it is mandatory that all members of the Audit Committee and the chairman of the other committees should be Independent Members of the Board of Directors.

Boards of Directors have made the annual evaluation of the committees composed under its structure and the evaluation report is available in 2015 Annual Report.

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#### AUDIT COMMITTEE

Committee Members (January - March 2016)

Ziya AKBAŞ : Chairman/Independent Member of Board of Directors  
Oral ERDOĞAN : Member/Independent Member of Board of Directors  
Nazım ALTINTAŞ : Member/Independent Member of Board of Directors

Committee Members (April - December 2016)

Ziya AKBAŞ : Chairman/Independent Member of Board of Directors  
Nazım ALTINTAŞ : Member/Independent Member of Board of Directors  
Ercüment ARVAS : Member/Independent Member of Board of Directors

The main duties of the Audit Committee that were set out in the “ASELSAN Audit Committee Work Directives” regulating the working principles of Audit Committee are as follows;

- To enable the disclosure of the financial data of ASELSAN, to pursue the operation and efficiency of the accounting system, independent audit, internal audit and internal control system of the company.
- To assemble at least once in every 3 months, to share the meeting minutes with the Board of Directors

Meetings were held by Audit Committee on dates 7 March 2016, 10 May 2016, 17 August 2016 and 8 November 2016 regarding the financial statements with the participation of the relevant independent audit company in 2016.

In order to increase the efficiency of internal audit, attention was paid to strengthen the cooperation with Internal Audit Presidency and to the supervision of internal audit activities, direct and continuous communication was established between Audit Committee and Internal Audit Presidency.

A dimension of this communication; Audit Committee- Internal Audit Presidency coordination meetings, were held nine times on dates 17 February 2016, 17 March 2016, 22 April 2016, 24 June 2016, 27 July 2016, 12 August 2016, 8 September 2016, 21 October 2016 and 26 December 2016.

The Committee was active in two main topics in 2016.

#### i. Independent Audit Activities and Works Regarding the Audited Financial Statements:

“Communiqué on Financial Reporting in Capital Markets” Serial: II. 14.1 regulated the preparation of financial reports and their basis, principles of presentation to the relevant parties, December 2015, March 2016, June 2016 and September 2016 financials and Board of Directors reports were prepared in accordance with the communiqué numbered II. 14.1, and submitted to Board of Directors by Audit Committee and presented to the public via Public Disclosure Platform.

The procurement process for independent audit services for the year 2016 as per the CMB’S communiqué numbered II-14:1, was handled by the Procurement Department and the purchasing decision that the service shall be provided by “AKİS Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş.” (KPMG) was taken by Board of Directors. The resolution was submitted for approval on the General Assembly Meeting dated 31 March 2016 and was accepted.

#### ii. Internal Audit Presidency:

Within the scope of the internal audit activities of the Company, the relations between the Internal Audit Presidency and the Board of Directors have been carried out through Audit Committee. A direct and continuous contact between Audit Committee and Internal Audit Presidency is present.

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### CORPORATE GOVERNANCE COMMITTEE

Committee Members (2016 January - March)

Oral ERDOĞAN : Chairman/Independent Member of the Board of Directors

Murat ÜÇÜNCÜ : Member/Board of Directors Vice Chairman

Oğuz BORAT : Member/Member of the Board of Directors

Pınar ÇELEBİ : Member/Investor Relations Manager

Committee Members (2016 April- December)

Ercümen ARVAS : Chairman/Independent Member of the Board of Directors

Murat ÜÇÜNCÜ : Member/Board of Directors Vice Chairman

Turan EROL : Member/Member of the Board of Directors

Pınar ÇELEBİ : Member/Investor Relations Manager

The main duties of the Corporate Governance Committee were set out in the “ASELSAN Corporate Governance Committee Work Directives” as follows:

- To carry out studies for the implementation of Corporate Governance Principles in the Company.
- To observe whether the Corporate Governance Principles have been implemented or not and if not implemented to determine the grounds for this and the conflicts of interest arising due to not complying with these principles and to make proposals for improving the status.
- To monitor the activities of the Investor Relations Department.
- Corporate Governance Committee assembles every 3 months and in every situation when necessary. The meeting minutes are submitted to the Board of Directors.

The Corporate Governance Committee assembled eight times within the activity year 2016 on dates, 28 January 2016, 25 February 2016, 7 March 2016, 10 May 2016, 24 June 2016, 21 July 2016, 28 September 2016 and 28 December 2016. The meeting minutes of the Committee may be reached on our website. The committee was active in three respective tasks in 2016:

#### i. Operations of Investor Relations Department:

Investor Relations Department have attended all the meetings in 2016, performed secretariat procedures of the committee with regard to “ASELSAN Corporate Governance Committee Working Directive” and informed the committee periodically about the tasks carried by investor relations department.

In 2016, the subjects discussed and tasks carried by the Corporate Governance Committee within the context of the meetings made are given below:

- Independent Board Member election process
- Investor Relations Department and its operations
- Corporate Governance Rating
- Corporate Governance Committee 2015 Report
- ASELSAN 2015 Compliance with the Corporate Governance Principles Report
- BIST Sustainability Index and sustainability tasks performed in ASELSAN
- ASELSAN Anti Bribery and Anti Corruption Policy
- ASELSAN Ethical Principles
- Tasks carried for the revision of ASELSAN score cards
- Task carried regarding the compensation of the beneficiaries with the capital market instruments, the property of which has been lapsed to the Investor Compensation Center (ICC) and have become valid again.



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#### ii. Corporate Governance Rating:

The evaluation of corporate governance rating performed by SAHA Corporate Governance and Credit Rating Services were concluded during the last quarter of 2016. According to the review, as a result of the enhancements made throughout 2016, the score of 11 December 2015, 9,13 out of 10, was revised as 9,15 out of 10 on 12 December 2016.

Our Company's share has been listed in the corporate governance index since the date 14 December 2012, which it first entered the index. Rating reports can be accessed on the company website.

#### iii. Election Process of Independent Board Members

As given by Corporate Governance Principles, the responsibility of evaluating and reporting the nominations and their independency status to Board of Directors is given to the Nomination Committee, in companies where this committee is not formed because of the structure of the Board of Directors, the responsibility is given to Corporate Governance Committee. Within this context, the evaluation of nominations which were made until 27 January 2016 was carried on by the Committee and the resulting nominee list was presented at the Board of Directors meeting on 28 January 2016. CMB has not stated any opposing opinions regarding the nominees list and evaluation report which was submitted by the Board of Directors on 29 January 2016. The list was submitted to shareholders' voting on General Assembly Meeting on 31 March 2016 and as a result, Ercüment ARVAS, Ziya AKBAŞ and Nazım ALTINTAŞ were elected as independent members to serve for 1 year.

#### EARLY DETECTION AND MANAGEMENT OF RISK COMMITTEE

ASELSAN Board of Directors established the "Early Detection and Management of Risk Committee" with the resolution dated 10 April 2012 and numbered 720/1. The Committee executes as per the directive numbered ASY-01-066.

The Board Members assigned to the committee are given below:

Committee Members (2016 January - March)

Nazım ALTINTAŞ : Chairman/Independent Member of the Board of Directors

İsmail GÜMÜŞTEKİN : Member/Member of the Board of Directors

Ahmet Can ÇEVİK : Member/Member of the Board of Directors

Committee Members : (2016 April - December)

Ziya AKBAŞ : Chairman/Independent Member of the Board of Directors

İsmail GÜMÜŞTEKİN : Member/Member of the Board of Directors

Sedat NAZLIBİLEK : Member/Member of the Board of Directors

In 2016 the Committee continued to identify and evaluate the risks which prevent ASELSAN from reaching its goals; manage the risks in accordance with the company's risk-taking profile; report the risk activities; build risk aware decision mechanisms and internal control. Risks identified through risk management processes are prioritized depending on their probability and impact. It is ensured that important risks are monitored and reported. In this respect, in 2016 the Committee held 5 meetings on 18 February 2016, 25 April 2016, 24 June 2016, 28 September 2016 and 21 November 2016. Committee's activities are summarized below:

- "2015 Evaluation Report" was prepared and submitted to Board of Directors in February 2016.
- "Corporate Risk Evaluation Report" was prepared and submitted to Board of Directors in February 2016, April 2016, June 2016, August 2016, September 2016 and November 2016. In the reports;
- Important risks of ASELSAN were evaluated and monitored. The risk classification, explanation, rating, strategy, owner/responsible, current control operations and relevant indicators were included in the report.
- Risks indicators and the risks which divert from the benchmark are given at the end of the report in order to draw the Board's attention.
- Risk management chapters in the annual report and the other reports set by the legal authorities were prepared.
- Special reports were prepared for specific risks related to recent incidents.

The secretariat formalities of the Committee were performed by Corporate Risk Management and Internal Control Department of Finance Directorate since April 2016.

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### 5.4. Risk Management and Internal Control Mechanism

Internal audit operations and corporate governance are facilitated via risk management and development of efficiency of internal control procedures in ASELSAN. The most important role of internal audit operations is assuring the Audit Committee and Board of Directors that the risks are being managed effectively. Annual audit plan and work programs are prepared on a risk basis and audit results are reported periodically to Audit Committee. Harmonization with legal and firm regulations, the status of application of ethical principles and the effectiveness of risk mitigation is evaluated by Internal Audit Department.

### 5.5. Strategic Objectives of the Company

The Board of Directors is the top level body to make strategic decisions and to execute and represent. As per the Articles of Association of the Company, the Board of Directors is responsible to determine the strategic plans and control their implementations.

Strategic management process is a part of Corporate Governance and is managed by the CEO in the name of Board of Directors, following the approval of the Strategic Plan, prepared with the coordination of Strategic Management Directorate. Reaching ASELSAN's long term goals and sustaining its success can be achieved through environment friendly strategies.

ASELSAN's vision is to be a national technology company that maintains its sustainable growth by creating value in the global market, is being preferred due to its competitiveness, is being trusted as a strategic partner, and is caring for the environment and the people. Within this concept, annually updated 5 year Strategic Plan and Business Plans and 3 year budgets are prepared. With this methodology, short and middle term targets are specified by considering long term goals. The operations to be carried out for these targets are executed by Sectors Presidencies and performance evaluations are made based on Balanced Scorecard method, which is widely used in the world.

### 5.6. Financial Rights

Remuneration procedures for Board of Directors Members and Managers with Executive Responsibility, which are set in written form in accordance with the Corporate Governance Principles, are published on our Company's website.

Monthly remunerations provided to our Members of the Board of Directors are determined by the General Assembly and no other benefits are granted apart from the monthly remuneration. Pursuant to the resolution taken at the 41<sup>st</sup> Ordinary General Assembly held on 31 March 2016, the Members of the Board of Directors are paid TL 3.000.- per month. As for the determination of the financial rights of the board members, no reward system is applied to reflect the Company performance and which is based on the performance of the Members of the Board of Directors.

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### Statement of Independence

TO THE BOARD OF DIRECTORS OF ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.


ANKARA

Date: 18 January 2016

With respect to the corporate governance principle numbered 4.3.6 of the Capital Markets Board's Communiqué on Corporate Governance numbered II-17.1, in order for me to be selected as an Independent Board Member of ASELSAN Elektronik Sanayi ve Ticaret (Company), I hereby agree, represent and undertake that I;

- a) do not have a relationship in terms of employment at an administrative level to take upon significant duty and responsibilities within the last five years, do not own more than 5% of the capital or voting rights or privileged shares either jointly or solely or do not have established a significant commercial relation between the corporation, companies on which the corporation hold control of management or significant effect and shareholders who hold control of management of the corporation or have significant effect in the corporation and legal entities on which these shareholders hold control of management and myself, my spouse and my relatives by blood or marriage up to second degree,
- b) have not been a shareholder (5% and more), an employee at an administrative level to take upon significant duty and responsibilities or member of board of directors within the last five years in companies that the corporation purchases or sells goods or service at a significant level within the framework of the contracts executed, especially on audit (including tax audit, statutory audit, internal audit), rating and consulting of the corporation, at the time period when the corporation purchases or sells services or goods,
- c) have professional education, knowledge and experience in order to duly fulfill the duties assigned for being an independent board member,
- d) will not be serving as a full time employee at public authorities and institutions after being elected, except being an academic member at university provided that is in compliance with the relevant legislation,
- e) am residing in Turkey in accordance with the Income Tax Law (I.T.L) dated 31.12.1960 and numbered 193,
- f) am capable to contribute positively to the operations of the corporation, to maintain my objectivity in conflicts of interests between the corporation and the shareholders, have strong ethical standards, professional reputation and experience to freely take decisions by considering the rights of the stakeholders,
- g) am able to allocate time for the corporation's business in order to follow up the activities of the corporation and duly fulfill the allocated duties,
- h) have not conducted membership of board of directors more than a term of six years in the last ten years,
- i) am not the independent member of the board of directors in more than three of the corporations as such; the corporation or the controlling shareholders of the corporation who hold the control of management corporations and in more than five corporations in total which are admitted to the trading on the exchange,
- j) have not been registered and announced as a board member representing a legal entity.

I hereby submit this to the knowledge of the Board of Directors, shareholders and all relevant parties.



Sincerely yours,  
Ziya AKBAŞ

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### Statement of Independence

TO THE BOARD OF DIRECTORS OF ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.

ANKARA

Date: 27 January 2016

With respect to the corporate governance principle numbered 4.3.6 of the Capital Markets Board's Communiqué on Corporate Governance numbered II-17.1, in order for me to be selected as an Independent Board Member of ASELSAN Elektronik Sanayi ve Ticaret (Company), I hereby agree, represent and undertake that I;

- a) do not have a relationship in terms of employment at an administrative level to take upon significant duty and responsibilities within the last five years, do not own more than 5% of the capital or voting rights or privileged shares either jointly or solely or do not have established a significant commercial relation between the corporation, companies on which the corporation hold control of management or significant effect and shareholders who hold control of management of the corporation or have significant effect in the corporation and legal entities on which these shareholders hold control of management and myself, my spouse and my relatives by blood or marriage up to second degree,
- b) have not been a shareholder (5% and more), an employee at an administrative level to take upon significant duty and responsibilities or member of board of directors within the last five years in companies that the corporation purchases or sells goods or service at a significant level within the framework of the contracts executed, especially on audit (including tax audit, statutory audit, internal audit), rating and consulting of the corporation, at the time period when the corporation purchases or sells services or goods,
- c) have professional education, knowledge and experience in order to duly fulfill the duties assigned for being an independent board member,
- d) will not be serving as a full time employee at public authorities and institutions after being elected, except being an academic member at university provided that is in compliance with the relevant legislation,
- e) am residing in Turkey in accordance with the Income Tax Law (I.T.L) dated 31.12.1960 and numbered 193,
- f) am capable to contribute positively to the operations of the corporation, to maintain my objectivity in conflicts of interests between the corporation and the shareholders, have strong ethical standards, professional reputation and experience to freely take decisions by considering the rights of the stakeholders,
- g) am able to allocate time for the corporation's business in order to follow up the activities of the corporation and duly fulfill the allocated duties,
- h) have not conducted membership of board of directors more than a term of six years in the last ten years,
- i) am not the independent member of the board of directors in more than three of the corporations as such; the corporation or the controlling shareholders of the corporation who hold the control of management corporations and in more than five corporations in total which are admitted to the trading on the exchange,
- j) have not been registered and announced as a board member representing a legal entity.

I hereby submit this to the knowledge of the Board of Directors, shareholders and all relevant parties.



Sincerely yours,  
Ercüment ARVAS



ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

#### Statement of Independence

TO THE BOARD OF DIRECTORS OF ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.

ANKARA

Date: 27 January 2016

With respect to the corporate governance principle numbered 4.3.6 of the Capital Markets Board's Communiqué on Corporate Governance numbered II-17.1, in order for me to be selected as an Independent Board Member of ASELSAN Elektronik Sanayi ve Ticaret (Company), I hereby agree, represent and undertake that I;

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- b) have not been a shareholder (5% and more), an employee at an administrative level to take upon significant duty and responsibilities or member of board of directors within the last five years in companies that the corporation purchases or sells goods or service at a significant level within the framework of the contracts executed, especially on audit (including tax audit, statutory audit, internal audit), rating and consulting of the corporation, at the time period when the corporation purchases or sells services or goods,
- c) have professional education, knowledge and experience in order to duly fulfill the duties assigned for being an independent board member,
- d) will not be serving as a full time employee at public authorities and institutions after being elected, except being an academic member at university provided that is in compliance with the relevant legislation,
- e) am residing in Turkey in accordance with the Income Tax Law (I.T.L) dated 31.12.1960 and numbered 193,
- f) am capable to contribute positively to the operations of the corporation, to maintain my objectivity in conflicts of interests between the corporation and the shareholders, have strong ethical standards, professional reputation and experience to freely take decisions by considering the rights of the stakeholders,
- g) am able to allocate time for the corporation's business in order to follow up the activities of the corporation and duly fulfill the allocated duties,
- h) have not conducted membership of board of directors more than a term of six years in the last ten years,
- i) am not the independent member of the board of directors in more than three of the corporations as such; the corporation or the controlling shareholders of the corporation who hold the control of management corporations and in more than five corporations in total which are admitted to the trading on the exchange,
- j) have not been registered and announced as a board member representing a legal entity.

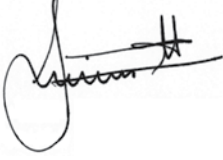
I hereby submit this to the knowledge of the Board of Directors, shareholders and all relevant parties.



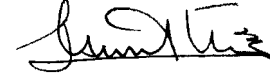
Sincerely yours,  
Nazım ALTINTAŞ

## Annual Report of the Board of Directors for the Period Between 01 January - 31 December 2016

### ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş. SIGNATURE SECTION OF ANNUAL REPORT OF THE BOARD OF DIRECTORS FOR THE PERIOD BETWEEN 1 JANUARY - 31 DECEMBER 2016



Mustafa Murat ŞEKER  
Chairman of the Board of Directors Chairman  
of the Board of Directors



Murat ÜÇÜNCÜ  
Vice Chairman of the  
Board of Directors



Ziya AKBAŞ  
Member of the Board of Directors



Nazım ALTINTAŞ  
Member of the Board of Directors



Ercümend ARVAS  
Member of the Board of Directors



Turan EROL  
Member of the Board of Directors

İsmail GÜMÜŞTEKİN

Member of the Board of Directors  
(Not Attended)

M. Celalettin LEKESİZ

Member of the Board of Directors  
(Not Attended)



Sedat NAZLIBİLEK  
Member of the Board of Directors

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

## Statement of Responsibility

TO THE PRESIDENCY OF BORSA ISTANBUL  
34467-Emirgan-İSTANBUL

Date: 20/02/2017  
No: AS011-2017-0002

ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.

BOARD OF DIRECTORS MEETING ON APPROVAL OF FINANCIAL TABLES AND ANNUAL REPORTS

DATE OF RESOLUTION: 20/02/2017

RESOLUTION NUMBER: 922

STATEMENT OF RESPONSIBILITY AS PER SECTION TWO, ARTICLE 9 OF THE CAPITAL MARKETS BOARD COMMUNIQUE SERIAL NUMBERED II, NUMBERED 14.1

We hereby declare that;

- We have examined the consolidated balance sheet dated 31 December 2015 and comparative consolidated balance sheet dated 31 December 2016, consolidated income statement issued for the period 1 January 2015 - 31 December 2015 and comparative consolidated income statement issued for the period 1 January 2016 - 31 December 2016, consolidated additional financial tables, all audited independently, notes dated 31 December 2016 and annual report of the Board of Directors issued for the period ending on 31 December 2016,
- As per the information we obtained in line with our duties and responsibilities at the company, the financial tables and annual report of the Board of Directors do not include any comments which materially misrepresent the facts and any missing data which might be misleading as of the announcement date,
- As per the information we obtained in line with our duties and responsibilities at the Company, the consolidated financial statements prepared in accordance with the CMB Communiqué Serial II, No:14.1, accurately represents the assets, liabilities, financial position and profit or loss informations of the Company and the companies in the scope of consolidation; the annual report accurately represents the development and performance of the business, the financial position of the Company and the companies in the scope of consolidation and the significant risks and uncertainties which may company faces.

Regards,



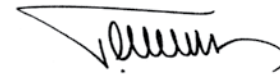
Ziya AKBAŞ  
Audit Committee Chairman



Prof. Dr. Ercüment ARVAS  
Audit Committee Member



Nazım ALTINTAŞ  
Audit Committee Member



Okan TURAN  
Chief Financial Officer  
Vice President

## Aselsan Board of Directors

### Assessment Report Regarding Committee Activities in 2016

In accordance with the title “Committees Formed within the Structure of Board of Directors” of Capital Markets Board’s (CMB) “Communiqué on Determination and Application of Corporate Governance Principles”; Audit Committee, Corporate Governance Committee and Early Detection and Management of Risk Committee were formed and disclosed to public in our Company’s Board of Directors meeting held on 31.03.2016. There are no Nomination and Remuneration Committees within the formation of Board of Directors and in accordance with the Communiqué the duties of these are carried out by the Corporate Governance Committee.

At our Company’s Board of Directors meeting held on 31.03.2016 following the Ordinary General Assembly Meeting; in accordance with the Communiqué of CMB it was resolved that,

- Independent Member of Board of Directors Ziya AKBAŞ shall be assigned as the chairman and Independent Members of Board of Directors Nazım ALTINTAŞ and Ercüment ARVAS shall be assigned as members of the Audit Committee,
- Independent Member of Board of Directors Ercüment ARVAS shall be assigned as the chairman and Murat ÜÇÜNCÜ, Turan EROL and pursuant to Capital Markets Board’s Communiqué on Corporate Governance numbered II-17.1, Investor Relations Manager Pınar ÇELEBİ shall be assigned as the members of Corporate Governance Committee,
- Independent Member of Board of Directors Ziya AKBAŞ shall be assigned as the chairman and Sedat NAZLIBİLEK and İsmail GÜMÜŞTEKİN shall be assigned as the members of the Early Detection and Management of Risk Committee.

While resolving on the forming of committees, Board of Directors paid attention for the members of the Audit Committee; the chairmen of Corporate Governance Committee and Early Detection and Management of Risk Committee to be chosen from the independent members of the Board of Directors and Investor Relations Department executive is a member of the Corporate Governance Committee within the framework of Capital Markets Board regulation.

The work directives, which regulate the field of activities and working principles of the committees, are approved by the Board of Directors and are submitted to public information in our Company website.

In 2016, each Board of Directors Committee fulfilled its duties and responsibilities and worked efficiently, with regard to Corporate Governance Principles and their own work directives.

Audit Committee assembled four times with the participation of authorities from the financial table related audit company within the year 2016 on dates 07.03.2016, 10.05.2016, 17.08.2016 and 08.11.2016. The issues submitted to the information and assessment of Audit Committee and the tasks carried out within the scope of the meetings held, are summarized below:

- The discussion of financial tables dated 31.12.2015, 31.03.2016, 30.06.2016 and 30.09.2016 and their submission to Board of Directors.
- The discussion of 2015 dividend distribution proposal.
- Assessments regarding the election of the independent audit company which will carry the audit task in year 2016 and its submission to Board of Directors.

In order to maintain the efficiency of internal audit, coordination meetings were held with the Internal Audit Presidency to strengthen the communication and establish direct and continuous communication between Audit Committee and Internal Audit Presidency. Audit Committee-Internal Audit Presidency coordination meetings are the most important factor in communicating between Audit Committee and Internal Audit Presidency and in this direction, nine meetings were conducted on dates 17.02.2016, 17.03.2016, 22.04.2016, 24.06.2016, 27.07.2016, 12.08.2016, 08.09.2016, 21.10.2016 and 26.12.2016 within the year 2016.



ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Aselsan Board of Directors

### Assessment Report Regarding Committee Activities in 2016

Corporate Governance Committee assembled eight times within the year 2016 on dates 28.01.2016, 25.02.2016, 07.03.2016, 10.05.2016, 24.06.2016, 21.07.2016, 28.09.2016 and 28.12.2016. The issues submitted to the information and assessment of Corporate Governance Committee and the tasks carried out within the scope of the meetings held, are summarized below:

- Election process of independent board of directors members,
- Task regarding the revision of ASELSAN Ethical Principles,
- Tasks carried for the revision of ASELSAN score cards,
- Investor Relations Department and its operations,
- Preparation of Corporate Governance Committee Assessment Report for the year 2015 and its submission to Board of Directors,
- Preparation of ASELSAN 2015 Compliance with Corporate Governance Principles Report and its submission to Board of Directors,
- ASELSAN Anti-Bribery and Anti-Corruption Policy,
- Corporate governance rating,
- BIST Sustainability Index and sustainability tasks performed in ASELSAN.
- The tasks to be performed regarding the re-validation of capital market instruments, the property of which has been lapsed to the Investor Compensation Center (ICC).

Corporate Governance Committee, which was formed in order to monitor our Company's compliance to Corporate Governance Principles, to conduct studies about the enhancement of compliance and to propose suggestions to the Board of Directors; have detected whether Corporate Governance Principles are applied in our Company or not, and if not, the reason for it along with the conflicts occurring because of not complying fully to these principles; have submitted proposals for improvement of Corporate Governance practices to the Board of Directors and monitored the activities of Investor Relations Department.

Early Detection and Management Risk of Committee has the duties of identifying and assessing the risks that may affect ASELSAN from reaching its goals; managing these risks in conformity with our company's risk taking profile, reporting them, include them in the decision mechanisms and in this direction, auditing and executing the activities for establishing internal control systems. For this reason, Early Detection and Management of Risk Committee assembled five times on dates 18.02.2016, 25.04.2016, 24.06.2016, 28.09.2016 and 21.11.2016 in 2016. The tasks carried out by Early Detection and Management of Risk Committee and assessment of Early Detection and Management of Risk Committee are summarized below:

- "2015 Assessment Report" was prepared and submitted to the information of Board of Directors in February 2016.
- "Corporate Risk Evaluation Report" was submitted to Board of Directors in February 2016, April 2016, June 2016, August 2016, September 2016 and November 2016. Within this report:
  - Important risks of ASELSAN were evaluated and monitored. The risk classification, explanation, rating, strategy, owner/responsible, current control operations and relevant indicators were included in the report.
  - Warning levels of benchmarks for risk indicators were determined and the risk indicators which divert from the benchmark and can signal the poor performance of a goal during the reporting period were also reported.
- Risk management chapters in the annual report and the other reports set by the legal authorities were prepared.
- Special reports were prepared for specific risks related to recent incidents.

## Audit Committee Work Directives

### 1. PURPOSE

The purpose of These Directives is to determine duties, authorities, responsibilities and work principles of the Audit Committee.

### 2. SCOPE

These Directives cover the works and activities to be performed by the Audit Committee as per the related regulations.

### 3. DEFINITIONS

- 3.1 Independent Auditing Firm (IAF):** Firms meeting the requirements of the Capital Markets Board Communiqué and granted with the authority of independent audit on the capital market as per Article 22, 4/c of the Act.
- 3.2 Auditor:** Auditor titles of any seniority and rank assigned to make audits by the Independent Auditing Firms.
- 3.3 Audit Committee:** Committee appointed among the company's Board of Directors as per Capital Markets Board Communiqué Serial numbered X, numbered 22.
- 3.4 Audit Committee Secretariat:** ASELSAN personnel arranging operations and meetings of Audit Committee, archiving correspondences and coordinating communication between the members.
- 3.5 Financial Tables:** Balance sheets and incomes statements issued as interim and annual documents, including the footnotes, and tables enclosed to such documents.
- 3.6 Financial Reports:** Reports including financial tables, Board of Directors activity reports and states of responsibility.
- 3.7 Internal Auditor:** Personnel assigned for internal auditing activities.
- 3.8 Internal Audit Department (IAD):** ASELSAN Department in charge of internal audit activities.
- 3.9 Executives:** Persons having titles such as under Financial Management Vice Presidency, Vice President, Director and Managers that are authorized to represent and bind the company.
- 3.10 Stakeholders:** In achieving the objectives of the Company or with an interest in the activities of employees, creditors, customers, suppliers, various non-governmental organizations as well as individuals, institutions or interest groups.

### 4. RELATED REFERENCE DOCUMENTS

- 4.1.** Capital Markets Board Communiqué on Independent Audit on Capital Market dated 12.06.2006, Serial numbered X and numbered 22.
- 4.2.** Capital Markets Board Communiqué on Determination and Practice of Corporate Governance Principles dated 03.01.2014, Serial numbered II and numbered 17.
- 4.3.** ASELSAN Board of Directors Work Directives numbered ASY-01-060.
- 4.4.** Turkish Commercial Code (TCC).

### Audit Committee Work Directives

#### 5. DUTIES AND RESPONSIBILITIES

##### 5.1. BOARD OF DIRECTORS' DUTIES AND RESPONSIBILITIES REGARDING THE AUDIT COMMITTEE

5.1.1. Appointing Audit Committee members,

5.1.2. Authorizing Committee Members,

5.1.3. Making separate Board of Directors Resolution for approving interim and annual financial tables and reports evaluated by the Committee and submitted to the Board of Directors,

5.1.4. Taking necessary actions for facilitating operations of Audit Committee members.

##### 5.2. DUTIES, AUTHORITIES AND RESPONSIBILITIES OF THE AUDIT COMMITTEE

###### 5.2.1. GENERAL DUTIES AND RESPONSIBILITIES OF THE AUDIT COMMITTEE

5.2.1.1. The Audit Committee shall ensure; company's accounting system, public disclosure of financial information, independent audit of the Company's internal control and makes supervision of the operation and effectiveness of the internal control system. Selection of independent audit company, prepared independent audit contracts and the initiation of the audit process and the independent auditors' work in each stage is carried out under the supervision of Audit Committee.

5.2.1.2. The Audit Committee notify, their duties and responsibilities identified in the field and their evaluations and recommendations on the subject immediately to the Board of Directors.

5.2.1.3. The Audit Committee's duties include reviewing, settling the complaints forwarded to the Company about ASELSAN's accounting, internal audit system and independent audit; determining the methods and criteria to be practiced on assessing company personnel's statements on company's accounting and independent audit as per the confidentiality principles are determined by Audit Committee.

5.2.1.4. The Audit Committee might seek assistance of independent consultants on matters required for its operations provided that the costs shall be covered by ASELSAN. But in this case the person who received services/organizations with information about these people/organizations of any relationship with the company on the issue of whether information is given in the annual report.

5.2.1.5. The duties and responsibilities of the Audit Committee shall not relive Board of Directors from its responsibilities imposed by the Turkish Commercial Code.

###### 5.2.2. DUTIES AND RESPONSIBILITIES OF THE AUDIT COMMITTEE REGARDING INDEPENDENT AUDIT OF ASELSAN

5.2.2.1. The Audit Committee shall determine the services to be provided by the Independent Auditing Firm and services and submit to the Board of Directors approval.

5.2.2.2. It shall ensure signing a contract with IAF.

5.2.2.3. It shall monitor compliance with contract provisions during IAF operations.

## Audit Committee Work Directives

- 5.2.2.4.** It shall always be in contact with the independent auditor for monitoring any incidents having an impact on the independency or objectivity of the independent auditor and shall ensure elimination of such incidents, if any, and efficient performance of the auditor.
- 5.2.2.5.** It shall evaluate the outcomes of audits performed by IAF and financial tables at the joint meetings to be scheduled.
- 5.2.2.6.** It shall evaluate the important findings received from IAF about ASELSAN accounting policy and practices and the auditor's suggestions.
- 5.2.2.7.** It shall obtain the correspondences made between IAF and ASELSAN Management from the Firm.
- 5.2.2.8.** It shall ensure that Independent Audit activities are included on the Board of Directors agenda minimum every 3 months for the purpose of determining efficiency of IAF operations.
- 5.2.2.9.** IAF shall immediately inform the Audit Committee in written about important issues related to ASELSAN's accounting policy and practices, alternative implementation and public disclosure options from Public Oversight Accounting and Auditing Standards Authority as per the firm's accounting standards and accounting principles previously declared to the Company management and possible outcomes, practice suggestions as well as important correspondences made with the Company management.

### 5.2.3. DUTIES AND RESPONSIBILITIES OF THE AUDIT COMMITTEE REGARDING THE FINANCIAL REPORTS

- 5.2.3.1.** The Audit Committee shall consult the company's authorized executives and IAF about interim and annual financial reports to be disclosed to the public in terms of compliance to the Company's accounting principles and to the actual figures and shall inform the Board of Directors in written with its own evaluation.
- 5.2.3.2.** It shall sign the interim and annual financial tables, activity reports controlled and undersigned by the ASELSAN's authorized executives as well as the statement of responsibility enclosed as Annex-A quarterly and ensure public disclosure of these.
- 5.2.3.3.** Financial Reports approved by the Audit Committee and Board of Directors shall be disclosed to the public on the Public Disclosure Platform and Company's website.

### 5.2.4. DUTIES AND RESPONSIBILITIES OF THE AUDIT COMMITTEE REGARDING TO INTERNAL CONTROLS

- 5.2.4.1** It shall monitor efficiency and adequacy of the internal control system adopted by the company and its subsidiaries and ensures its acknowledgement by the personnel and support of the management.
- 5.2.4.2.** It shall evaluate auditor and internal auditor suggestions related to internal control and whether or not the necessary ones are applied.
- 5.2.4.3.** It shall monitor the process of forming a mechanism for reviewing and settling complaints received from Stakeholders related to company transactions, which violate the regulation and are unethical, and its operations as per the confidentiality principle.

### 5.2.5. DUTIES AND RESPONSIBILITIES OF THE AUDIT COMMITTEE REGARDING TO THE INTERNAL AUDITS

- 5.2.5.1.** It shall review efficiency of IAD directives, structure and activities and ensure settlement of particulars limiting the internal audit operations.
- 5.2.5.2.** It shall monitor the coordination and communication between the IAD and Company's other departments, subsidiaries and independent audits for ensuring smooth processes.
- 5.2.5.3.** It shall evaluate the audit plans and internal audit reports issued by IAD.



## Audit Committee Work Directives

### 5.3. DUTIES AND RESPONSIBILITIES OF AUDIT COMMITTEE SECRETARIAT

- 5.3.1. It shall provide communication between the members, prepare committee meetings, keep meeting minutes and duly archive correspondences.
- 5.3.2. It shall plan, realize and follow up formalities before, during and after the Committee meetings in order to ensure outmost efficiency.
- 5.3.3. It shall ensure timely communication all of kinds of information to the committee members.
- 5.3.4. It shall always keep the records available to the members.

### 6. STRUCTURE OF THE AUDIT COMMITTEE

- 6.1. The Audit Committee shall be as a member of Board of Directors and have minimum 2 (two) members. If the committee has two members the both members shall be Board of Directors Non-executive independent members If there are more than two members, then the same rule shall be applicable for majority of the members. Members of the Audit Committee should have experience at least five (5) years at audit/accounting and finance subject.
- 6.2. As per the Capital Markets Board regulations, the Audit Committee shall be formed and authorized on the first Board of Directors Meeting held after the Annual Ordinary ASELSAN General Assembly Meeting.
- 6.3. At least two Audit Committee members shall be required for the committee meetings and at least two members are required for decisions.
- 6.4. The Audit Committee shall convene minimum every 3 months and four times a year and outcome of the meeting connecting with the minute submitted to the Board of Directors. The audit committee's activities and about the outcome of the meeting must be disclosed in the annual report. During the period how many times the audit committee makes written notification to the Board shall indicated in the annual report.
- 6.5. The Committee's secretariat duties related to the financial tables shall be performed by the Chief Office of Capital Markets Board Financial Control and Reporting attached to the Accounting Department and the secretariat duties related to internal control and internal audit activities shall be performed by IAD.

### 7. ENFORCEMENT

These Directives have been approved by the Board of Directors as per the resolution dated 22.09.2003 and numbered 443/16 and came into force as of 25.09.2003

### 8. EXECUTION

The Audit Committee shall be responsible for executing the provisions listed on these Directives.

### 9. CIRCULATION PLAN

The document shall be circulated as per ASELSAN PLAN A. It shall be published to all users via intranet and internet.

### 10. Annex- STATEMENT OF RESPONSIBILITY

Annex- STATEMENT OF RESPONSIBILITY

## Audit Committee Work Directives

TO THE PRESIDENCY OF  
BORSA ISTANBUL

.././20xx  
AS300-14M

ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.

BOARD OF DIRECTORS MEETING ON APPROVAL OF FINANCIAL TABLES AND ANNUAL REPORTS

DATE OF RESOLUTION:

RESOLUTION NUMBER:

STATEMENT OF RESPONSIBILITY AS PER SECTION TWO, ARTICLE 9 OF THE CAPITAL MARKETS BOARD COMMUNIQUE SERIAL  
NUMBERED II, NUMBERED 14

We hereby declare that;

- We have examined the consolidated balance sheet dated .././20xx and comparative consolidated balance sheet dated .././20xx, consolidated income statement issued for the period .././20xy - .././20xy and comparative consolidated income statement issued for the period .././20xx - .././20xx, consolidated additional financial tables, all audited independently, notes dated .././20xx and annual report of the Board of Directors issued for the period ending on .././20xx,
- As per the information we obtained in line with our duties and responsibilities at the company, the financial tables and annual report of the Board of Directors do not include any comments which materially misrepresent the facts and any missing data which might be misleading as of the announcement date,
- As per the information we obtained in line with our duties and responsibilities at the Company, the consolidated financial statements prepared in accordance with the CMB Communiqué Serial II, No:14.1, accurately represents the assets, liabilities, financial position and profit or loss informations of the Company and the companies in the scope of consolidation; the annual report accurately represents the development and performance of the business, the financial position of the Company and the companies in the scope of consolidation and the significant risks and uncertainties which may company faces.

Regards,  
Aselsan A.Ş.

Audit Committee Chairman

Audit Committee Member

Audit Committee Member

Deputy General Manager

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Board of Directors' Early Detection and Management of Risk Committee Work Directives

#### 1. PURPOSE

The purpose of these directives is to determine the duties, authorities, responsibilities and work principles of the Early Detection and Management of Risk Committee, which is established under Article 378 of the Turkish Commercial Code numbered 6102 and Board of Directors Resolution dated 10.04.2012, as per the Turkish Commercial Code and Corporate Governance Principles announced by the Capital Markets Board.

#### 2. SCOPE

These directives cover works and actions to be performed as per the Turkish Commercial Code and Corporate Governance Principles by the Early Detection and Management of Risk Committee and/or Company personnel not a member of the Committee but assigned by the Committee.

#### 3. DEFINITIONS

- 3.1. Independent Auditing Firm (IAF):** Firms meeting the requirements of the Capital Markets Board Communiqué and granted with the authority of independent audit on the capital market as per Article 22/d of the Act.
- 3.2. Auditor:** Auditor titles of any seniority and rank assigned to make audits by the Independent Auditing Firms
- 3.3. Early Detection and Management of Risk Committee (Committee):** A committee to be appointed by the Board of Directors among the Board of Directors members or third parties specialized in certain areas for the purpose of fulfilling the liabilities listed on the Turkish Commercial Code for systematic early detection and management of company risks and executing, coordinating related risks.
- 3.4. Early Detection and Management of Risk Committee Secretariat (Secretariat):** ASELSAN personnel arranging operations and meetings of Early Detection and Management of Risk Committee, archiving correspondences and coordinating communication between the members.
- 3.5. Capital Markets Board:** Public legal entity established as per Article 17 of the Capital Market Law.
- 3.6. Company:** ASELSAN Elektronik Sanayi ve Ticaret A.S.

#### 4. RELATED REFERENCE DOCUMENTS

- 4.1.** Turkish Commercial Code.
- 4.2.** Capital Markets Board Regulations.
- 4.3.** Corporate Governance Principles published by the Capital Markets Board
- 4.4.** Regulations, provisions and principles on ASELSAN Articles of Association

#### 5. DUTIES AND RESPONSIBILITIES

##### 5.1. DUTIES AND RESPONSIBILITIES OF ASELSAN EARLY DETECTION AND MANAGEMENT OF RISK COMMITTEE

- 5.1.1.** The main function of the Early Detection and Management of Risk Committee is early detection of risks threatening existence, development and sustainability of ASELSAN as well as taking action for the risks determined and trying to manage the risks determined.
- 5.1.2.** The Committee shall determine, identify the potential risks having an impact on ASELSAN beforehand and ensure duly management of the risks according to the risk-taking approach of the company.
- 5.1.3.** It shall evaluate the situation by means of a report to be submitted to the Board of Directors every two months as well as pointing out the threats, if any, and suggesting solutions.
- 5.1.4.** It shall review the changes suggested to the risk management systems by the Financial Analysis and Enterprise Risk Monitoring Department under Finance Directorate as often as the agenda permits but minimum once a year.
- 5.1.5.** The Committee shall advise the Board of Directors on internal audit systems including risk management and information systems and processes minimizing the risks and related impacts to be suffered by the shareholders and company stakeholders.
- 5.1.6.** The Committee shall prepare an annual assessment report, including meeting frequency of Committee members and activities performed, which shall be included in the Annual Company Activity Report and basis to the Board of Directors assessment related to the work principles and Committee's efficiency.
- 5.1.7.** The resolutions taken at the meetings shall be documented and undersigned by the Committee Members and archived by the Secretariat.

## Board of Directors' Early Detection and Management of Risk Committee Work Directives

### 5.2. DUTIES AND RESPONSIBILITIES OF THE EARLY DETECTION AND MANAGEMENT OF RISK COMMITTEE SECRETARIAT

- 5.2.1. It shall provide communication between the members, prepare committee meetings, keep meeting minutes and duly archive correspondences.
- 5.2.2. It shall plan, realize and follow up formalities before, during and after the Committee meetings in order to ensure utmost efficiency.
- 5.2.3. It shall ensure timely communication all of kinds of information to the committee members.
- 5.2.4. It shall always keep the records available to the members.

### 6. STRUCTURE AND AUTHORITIES OF THE EARLY DETECTION AND MANAGEMENT OF RISK COMMITTEE

#### 6.1. COMMITTEE'S STRUCTURE

- 6.1.1. The Committee shall be formed and authorized at the first Board of Directors meeting held after the Annual Ordinary General Assembly Meeting of the company, as per the Capital Markets Board regulations.
- 6.1.2. The Committee shall have minimum two members. If the committee has two members then both members shall be Board of Directors members not having executive function and if there are more than two members, then majority of the members shall not have executive functions. Third parties specialized in certain areas can also be appointed as Committee members. The Committee chairman shall be appointed among Independent Members of Board of Directors.
- 6.1.3. The Chief Executive Officer/General Manager shall not take office in the committee.
- 6.1.4. The secretariat formalities of the Committee including the preparation of the report submitted to the Board of Directors shall be performed by Financial Analysis and Enterprise Risk Monitoring Department under Finance Directorate.
- 6.1.5. One more than half of the total members shall be required for committee meetings and majority is required for decisions.
- 6.1.6. The Committee shall convene once every two months, unless otherwise is required, and, if required, it shall convene at the Company's registered office following a call to be made by the Secretariat on behalf of the Committee Chairman. The Committee Chairman might offer to reschedule the meeting date, hour and place provided that the Committee Members are informed beforehand.

#### 6.2. AUTHORITIES OF THE COMMITTEE

- 6.2.1. If required, the Committee shall start special inspections and appoint people specialized in their areas as consultant for the purpose of ensuring assistance in such inspections.
- 6.2.2. If required, the Committee shall hold meetings with representatives of Company's related parties and specialists, including Company personnel or subsidiaries; and under the provision of the Board of Directors and coordinated with the General Manager, it shall seek external and professional consultancy service.
- 6.2.3. The Committee shall act according to its authorities and responsibilities and make recommendations to the Board of Directors however the Board of Directors shall always have the final decision making responsibility and the Committee shall not relieve the Board of Directors from its duties and responsibilities arising from the Turkish Commercial Code.

### 7. ENFORCEMENT

These directives have been approved by the Board of Directors as per the resolution dated 29.11.2012 and numbered 750/4.3.e and came into force as of 29.11.2012.

### 8. EXECUTION

ASELSAN Early Detection and Management of Risk Committee shall be responsible for executing the provisions listed on these directives.

### 9. CIRCULATION PLAN

The document shall be circulated as per ASELSAN PLAN A. It shall be published to all users via intranet and internet. The document shall be circulated as per ASELSAN PLAN A. It shall be published to all users via intranet and internet.



ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Board of Directors' Corporate Governance Committee Work Directives

#### 1. PURPOSE

The purpose of these directives is to determine the duties, authorities, responsibilities and work principles of the Corporate Governance Committee established as per the Corporate Governance Principles announced by the Capital Markets Boards (CMB).

#### 2. SCOPE

These directives cover works and actions to be performed as per the Corporate Governance Principles by the Corporate Governance Committee and/or Company personnel not a member of the Committee but assigned by the Committee.

#### 3. DEFINITIONS

- 3.1. Corporate Governance:** Index of relations between the Board of Directors, shareholders and other stakeholders of a company.
- 3.2. Corporate Governance Committee (Committee):** A committee to be appointed by the Board of Directors among the Board of Directors members or third parties specialized in certain areas for the purpose of executing and coordinating Corporate Governance Principles related formalities of the Company, provided that majority of the members are from the Board of Directors and the executive of Investor Relations Department shall be appointed as a member of the Committee.
- 3.3. Corporate Governance Committee Secretariat (Secretariat):** ASELSAN personnel arranging operations and meetings of Corporate Governance Committee, archiving correspondences and coordinating communication between the members.
- 3.4. Capital Markets Board:** Public legal entity established the Capital Market Law numbered 6362.
- 3.5. Company:** ASELSAN Elektronik Sanayi ve Ticaret A.Ş.

#### 4. RELATED REFERENCE DOCUMENTS

- 4.1.** Capital Markets Board Regulations.
- 4.2.** Corporate Governance Principles published by the Capital Markets Board.
- 4.3.** Prepared as per the regulations, provisions and principles on ASELSAN Articles of Association.

#### 5. DUTIES AND RESPONSIBILITIES

##### 5.1. DUTIES AND RESPONSIBILITIES OF ASELSAN CORPORATE GOVERNANCE COMMITTEE

- 5.1.1.** The Corporate Governance Committee shall mainly work on implementing corporate governance principles at the Company.
- 5.1.2.** The Committee shall determine whether or not the Corporate Governance Principles are implemented and if not implemented, the Committee shall determine the reasons as well as conflicts of interest caused by failing to fully comply with these principles.
- 5.1.3.** It shall monitor the operations of Investor Relations Department.
- 5.1.4.** It shall play a leading part in maintaining effective communication between the Board of Directors, Company and shareholders, eliminating and settling any possible disputes as well as advising the Board of Directors accordingly.
- 5.1.5.** The Committee shall advise the Board of Directors on due effectiveness of infrastructures related to management applications aiming at improving company performance as well as acknowledgement by the personnel and support of the management.
- 5.1.6.** The Committee shall issue the Company's Corporate Governance Compliance Report.
- 5.1.7.** The Committee shall revise the Company's Activity Report to be disclosed to the public and checks whether or not the information included in the Report conform to the information possessed by the Committee.
- 5.1.8.** The Committee shall prepare an annual assessment report, including meeting frequency of Committee members and activities performed, which shall be included in the Annual Company Activity Report and basis to the Board of Directors assessment related to the work principles and Committee's efficiency.

## Board of Directors' Corporate Governance Committee Work Directives

- 5.1.9.** The Committee shall make suggestions ensuring compliance to the law and regulations, company's Information Policy in terms of public disclosures to be made.
- 5.1.10.** The Committee shall present its operations and suggestions to the Board of Directors in the form of a report.
- 5.1.11.** The resolutions taken at the meetings shall be documented and undersigned by the Committee Members and archived by the Secretariat.
- 5.1.12.** If Nomination Committee and Remuneration Committee cannot be established separately due to the structure of the Board of Directors, the Committee shall perform the duties assigned to these committees as per the Corporate Governance Principles published by the Capital Markets Board.
- 5.1.13.** Within the scope of the responsibilities of Nomination Committee; the Committee carries the duties on creating a transparent system for the evaluation of the nominees for Board of Directors and the nominees for the executives with administrative responsibility, their training and setting out policies and strategies regarding these matters. In this context, the Committee also regularly makes assessments on the structure and efficiency of Board of Directors and presents suggestions for improvement related to these issues.
- 5.1.14.** Within the scope of the responsibilities of Remuneration Committee; the Committee determines and monitors the principles, criteria and the practices for the remuneration of the members of Board of Directors and executives with administrative responsibility, considering the long term objectives of the Company. In this context, the Committee also presents suggestions about the remuneration of the members of Board of Directors and executives with administrative responsibility, taking the level of achievement regarding the remuneration criteria met into account.

### 5.2. DUTIES AND RESPONSIBILITIES OF THE CORPORATE GOVERNANCE COMMITTEE SECRETARIAT

- 5.2.1.** It shall provide communication between the members, prepare Committee meetings, keep meeting minutes and duly archive correspondences.
- 5.2.2.** It shall plan, realize and follow up formalities before, during and after the Committee meetings in order to ensure utmost efficiency.
- 5.2.3.** It shall ensure timely communication all of kinds of information to the Committee members.
- 5.2.4.** It shall always keep the records available to the members.
- 5.2.5.** It shall periodically submit reports on investor questions and content.

## 6. STRUCTURE AND AUTHORITIES OF THE CORPORATE GOVERNANCE COMMITTEE

### 6.1. COMMITTEE'S STRUCTURE

- 6.1.1.** The Committee shall be formed and authorized at the first Board of Directors meeting held after the Annual Ordinary General Assembly Meeting of the company, as per the Capital Markets Board regulations.
- 6.1.2.** The Committee shall be formed by at least 3 (three) members; two of whom shall be members of Board of Directors and one shall be the Investor Relations Department Executive. The majority of the members of Board of Directors in the Committee shall not have executive functions. Investor Relations Department Executive must have the "Capital Markets Activities Advanced Level" and "Corporate Governance Rating Expertise" certificates and must be working full time in the Company.
- 6.1.3.** Third parties specialized in certain areas who are not members of Board of Directors can also be appointed as Committee members. The Committee Chairman shall be appointed among Independent Members of Board of Directors.
- 6.1.4.** The Chief Executive Officer/General Manager shall not take office in the Committee.
- 6.1.5.** The secretariat formalities of the Committee shall be performed by Investor Relations Department.

ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi and Its Subsidiaries

### Board of Directors' Corporate Governance Committee Work Directives

**6.1.6.** One more than half of the total members shall be required for Committee meetings and majority is required for decisions.

**6.1.7.** The Committee shall convene every 3 (three) months as a principle and, if required, it shall convene at the Company's registered office following a call to be made by the Secretariat on behalf of the Committee Chairman. The Committee chairman might reschedule the meeting date, hour and place provided that the Committee Members are informed beforehand.

#### **6.2. AUTHORITIES OF THE COMMITTEE**

**6.2.1.** If required, the Committee shall start special inspections and appoint people specialized in their areas as consultant for the purpose of ensuring assistance in such inspections.

**6.2.2.** If required, the Committee shall hold meetings with representatives of Company's related parties and specialists, including Company personnel or subsidiaries; and it shall seek external and professional consultancy service.

**6.2.3.** The Committee shall act according to its authorities and responsibilities and make recommendations to the Board of Directors however the Board of Directors shall always have the final decision making responsibility.

#### **7. ENFORCEMENT**

These directives have been approved by the Board of Directors as per the resolution dated 23.02.2006 and numbered 529/2.d and came into force as of 30.05.2006.

#### **8. EXECUTION**

ASELSAN Corporate Governance Committee shall be responsible for executing the provisions listed on these directives.

#### **9. CIRCULATION PLAN**

The document shall be circulated as per ASELSAN PLAN A. It shall be published to all users via intranet and internet.

## Profit Distribution Proposal

ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş. 2016 DIVIDEND DISTRIBUTION TABLE (TL)			
1- Issued Capital			1.000.000.000,00
2- First Legal Reserve (According to Legal Records)			58.969.457,83
Information regarding the privileges on profit distribution as per the Company Articles of Association, if there are any			There are no privileges
		According to Capital Markets Board	According to the Legal Records
3- Profit for the Period		734.023.088,00	534.069.625,36
4- Taxes Payable (+) <sup>(1)</sup>		61.177.405,00	0
5- <b>NET PROFIT FOR THE PERIOD (=) <sup>(2)</sup></b>		<b>795.190.609,00</b>	<b>534.069.625,36</b>
6- Accumulated Loss (-)		0	0,00
7- First Legal Reserve (-)		26.703.481,27	26.703.481,27
8- <b>NET DISTRIBUTABLE PROFIT FOR THE PERIOD (=)</b>		<b>768.487.127,73</b>	<b>507.366.144,09</b>
9- Donations Made throughout the Year (+)		48.000,00	
10- <b>Net Distributable profit for the period, donations included</b>		<b>768.535.127,73</b>	
11- First Dividend to Shareholders		50.000.000,00	50.000.000,00
- Cash		50.000.000,00	50.000.000,00
- Non paid-up share		0	0
- Total		50.000.000,00	50.000.000,00
12- Dividends distributed to Preferred Shareholders		0	0
13- Dividends distributed to;		0	0
- Members of the Board of Directors		0	0
- Employees		0	0
- Other than Shareholders		0	0
14- Dividends distributed to Holders of Usufruct Right Certificates		0	0
15- Second Dividend to Shareholders		4.000.000,00	4.000.000,00
16- First Legal Reserve		400.000,00	400.000,00
17- Statutory Reserve		0	0
18- Special Reserve		0	0
19- <b>EXTRAORDINARY RESERVE</b>		<b>714.087.127,73</b>	<b>452.966.144,09</b>
20- Other Resources to be distributed		0	0

<sup>(1)</sup> Our Company has gained Continuing Operations Tax Income valuing TL 61.177.405,-, within the scope of the Law regarding the Support of Research and Development Activities, numbered 5746.

<sup>(2)</sup> The net profit for the period attributable to equity holders of the parent valuing TL 795.200.493,- is used, since TL 9.884,- of the net profit for the period corresponds to non-controlling interests, where our Company's net profit for the period is TL 795.190.609,-.

As presented in the table above, of the net profit generated by our company from its 2016 activities;

- In accordance with Article 519/(1) of the Turkish Commercial Code, General Legal Reserves amounting to TL 26.703.481,27 is going to be allocated,
  - Net distributable profit to the shareholders for the period, calculated in the framework of the profit distribution regulations and decisions of the Capital Markets Board is proposed as:
  - Gross profit, TL 54.000.000 (Kuruş 5,4 per share of TL 1 and 5,4% on the basis of the capital) (net profit TL 45.900.000 – Kuruş 4,59 per share of TL 1 and 4,59% on the basis of the capital) as in the form of cash,
  - In accordance with Article 519/(2) of the Turkish Commercial Code, General Legal Reserves amounting to TL 400.000 is going to be allocated,
  - The remaining profit is going to be allocated as Extraordinary Legal Reserves,
- and distribution of the dividends to the shareholders are planned to be distributed as of May 31, 2017.

Yours Faithfully,  
Board of Directors



# ABBREVIATIONS

**EU:** European Union

**US:** United States

**ACAR:** Surveillance Radar

**ACCV:** Asian Computing Conference

**ADOP-2000:** Artillery Fire Support Automation Project

**AETR:** European Agreement concerning the Work Crews of Vehicles Engaged in International Road Transport

**AESA:** Active Electronic Scanning Array

**AIC:** Fire Control Instrument

**AKKOR:** Active Protection System

**ALTAY Project:** Turkish National Main Battle Tank Project

**AMKB:** Avionic Control Computer

**ANKA:** Unmanned Air Vehicle in TAF's inventory

**APEK:** Deliveries of Smart Pod Electronic Kits

**ARI:** Avionic Modernization of T-38 Aircrafts

**APCO:** Association of Public Safety Communications Officials

**ASPILSAN:** ASPILSAN Energy

**ATP:** Automatic Train Protection System

**ASES-235M:** Turkish Maritime Patrol Aircraft EW Self Protection System

**ATAK:** T-129 ATAK Helicopter in TAF's inventory

**ATILGAN:** PMADS on track wheeled platform

**BAE:** UAE

**BATUR:** Battle Management and Unit Tracking System

**BMD:** Ballistic Missile Defense

**BİLKENT UMRAM:** The National Magnetic Resonance Research Center at Bilkent University

**BIRMO:** Development of Microorganism Based Explosive Material Detection and Identification

**BIST:** Borsa İstanbul

**BOTAŞ:** Petroleum Pipeline Company

**BTK (ICTA):** Information and Communication Technologies Authority

**BTIS:** Battlefield Target Identification System

**CAMP:** Channel Amplifier

**CATS:** Common Aperture Targeting System

**CBRN:** Chemical, Biologic, Radiologic and Nuclear Threats

**CCU:** Central Control Unit

**CERN:** European Organization for Nuclear Research

**CFD:** Chaff Flare Decoy

**CMDS:** Countermeasure Dispensing System

**CIO:** Chief Information Officer

**COMET:** Metallizing Composite Waveguide Surfaces

**COMINT/DF:** Communications Intelligence and Direction Finding

**C3:** Command Control and Communication

**ÇAFRAD:** Multifunction Active Phased Array Radar System

**ÇBSMT:** Multi-band Digital Combined Radio

**ÇEHRE:** Face Recognition System

**DAKA:** Acoustic Countermeasure Decoy System for Submarines

**DECOY:** Deceptive Countermeasure Units

**DFD:** Digital Frequency Discriminators

**DLVA:** Logarithmic Video Amplifiers

**DMR:** Digital Mobile Radio

**DSP:** Digital Signal Processing

**DİKONS:** Dynamic Positioning System

**DOCON:** Frequency Down-Converter

**ED (ES):** Electronic Support

**EDH:** Early Delivery Helicopter

**EGM:** Turkish Police

**EW:** Electronic Warfare

**EHDM:** Electronic Warfare Support Center Service

**EWSP:** Electronic Warfare Self Protection Systems

**EHF:** Extremely High Frequency

**ERCİYES:** C-130 Modernization Program

**ERTMS:** European Rail Traffic Management System

**EA:** Electronic Attack

**EKADAS:** Electronic Crypto Key Distribution System

**ELD:** Integrated Logistic Support

**ELMAS:** The development of an infrastructure to enhance the sturdiness of the export licensed LCD monitors

**EKÜ:** Integrated Bridge System

**ETSI:** European Telecommunications Standarts Institute

**EO/IR:** Electro-optic/Infrared

**EUREKA Program:** An international cooperation program supporting projects for the development of market-specific products and processes

**EİRS:** Early Warning Radar Systems

**EYP:** Handmade Explosive

**EMS:** Energy Management System

**EBITDA:** Earnings Before Interest, Tax, Depreciation and Amortization

**FCS:** Fire Control System

**FIRTINA:** 155mm Fırtına Self-Propelled Howitzer

**GaN:** Gallium Nitride

**GERGEDAN:** Portable RCIED Jammer System

**GÖKTÜRK-1:** Surveillance and Reconnaissance Satellite Project

**GPS:** Global Positioning System

**HERIKKS:** Air Defence Early Warning, Command and Control System

**HEWS:** Helicopter EW Suite

**HGS:** Passive RFID based ETC

**HGK:** Precision Guided Kits

**HIZIR:** Surface Ship's Torpedo Countermeasure System

**HWIL:** Hardware in the Loop

**HİSAR-A/O:** Low and Medium Range Air Defense Missile Systems

**HMI:** Human Machine Interface

**HÜRKUŞ:** Is a primary and basic trainer aircraft designed and manufactured by TUSAŞ

**IFF:** Interrogation Friend or Foe

**IGBT:** Insulated Gate Bipolar Transistor

**IGG:** International Golden Group

**IR/LLTV:** Infra-red / Low Level Light TV

**IRFS:** Integrated RF System

**IMS 2016:** International Microwave Symposium 2016-San Francisco/USA

**INNOVATE UK:** UK's Innovation Agency

**ISMRM:** The International Society for Magnetic Resonance in Medicine

**ISIF'16:** İstanbul International Invention Fair

**IOT:** Interoperability

**IP:** Internet Protocol

**İHA:** Unmanned Aerial Vehicle

**İHTAR:** Anti-Drone System

**JEMUS:** Gendarmerie Integrated Communications and Information System (A radio network that can be used by the Gendarmerie Forces throughout the country)

**JRC:** Joint Research Center

**JREAP:** Joint Range Extension Applications Protocol

**JSF:** Joint Strike Fighter

**KACST:** King Abdülaziz Science and Technology Center

**KAE:** Kazakhstan ASELSAN Engineering

**KADDB:** King Abdullah II Design And Development Bureau

**KALKAN:** Air Defense Early Warning Radar

**KAPLAN:** Unmanned Ground Vehicle

**KARAOK:** Short-Range Antitank Missile

# ABBREVIATIONS

**KASUMSİS:** Kılıç Type Fast Patrol Boats Military Satellite Communication System

**KGYS:** City Security Management System

**KIG:** KADDB Investment Group

**KKA:** KORKUT Command Post

**KMS:** Pedestal Mounted Air Defense System (PMADS)

**SME:** Small and Medium-sized Enterprises

**KORAL:** Mobile Electronic Warfare System

**KORKUT:** Self Propelled Air Defence Gun System

**KÖYDES:** Investment Surveillance System Project

**KTF:** Controlled Test Missile

**KULAÇ:** Echo Sounder System

**LCD:** Liquid Crystal Display

**LGK:** Laser Guided Kits

**LHD:** Landing Helicopter Dock

**LMM:** Lightweight Multirole Missile

**LİS:** Laser Warning System

**LRU:** Line Replacable Unit

**LST:** Landing Ship Tank

**LWR:** Laser Warning Receiver

**MATESS:** Mine Detections Sonar System

**MAKS:** Spatial Address Recording System Gun

**MELTEM:** Maritime Patrol Aircraft EW System Project

**METU:** Middle East Technical University

**MGEO:** Microelectronics, Guidance & Electro-Optics

**MLRS:** Multiple Launcher Rocket Systems

**MTBA:** Modular Temporary Base Area

**MİDAS:** Fiber Optic Sensor Breach Detection System

**MİLGEM:** Turkish Corvette Program

**MİLKAR:** Jamming System

**MILPARS:** Indigenous EM speed-log system

**MİUS:** Mini Unmanned Flying Systems

**MMIC:** Monolithic Microwave Integrated Circuit

**MIT:** Massachusetts Institute of Technology

**MKE:** Mechanical and Chemical Industry Company

**MKR-İC:** Mikroelektronik Araştırma

Geliştirme Tasarım ve Ticaret Ltd. Company

**MR:** Magnetic Resonance

**MRI:** Magnetic Resonance Imaging

**MSB:** Ministry of National Defense

**MORAD:** Mobil Radar

**MOSHIP:** Submarine Rescue Mother Ship

**MUHAFİZ:** 30mm Stabilized Naval Gun System

**MWS:** Missile Warning System

**MWS-TU:** Missile Warning System-Turkey

**NATO:** North Atlantic Treaty Organization

**NIAG:** NATO Industrial Advisory Group

**NETWORLD 2020:** European Technology Platform for Communications Networks and Services

**NRTC:** Pakistan National Radio Telecommunications Company

**ODTÜ GÜNAM:** METU Center for Solar Energy Research and Application

**ODTÜ OGAM:** METU Center for Visual Analysis

**ODTÜ MEMS:** METU Center for Micro-Electro-Mechanical Systems Research and Application

**OGS:** Microwave based ETC

**OMTAS:** Mid-Range Antitank Missile

**ÖSYM:** Student Measuring, Selection and Placement Center

**PCSIM:** Personnel Computer Simulation

**PDL:** Performance Based Logistics

**PNFT:** Pakistan Navy Fleet Tanker Project  
**PTS:** Plate Recognition System Project  
**POYRAZ:** Firtina Howitzer Ammunition Resupply Vehicle  
**RATSHIP:** Rescue and Towing Ship  
**RCWS:** Remote Controlled Weapon Systems  
**R&D:** Research and Development  
**REHiS:** Radar & Electronic Warfare Systems  
**RF:** Radio Frequency  
**RFJ:** RF Jamming  
**RKYS:** Radar Absorbing Composite Structure  
**RPG:** Antitank Guided Missiles  
**RWR:** Radar Warning Receiver  
**SASAD:** Defense Industry Manufacturers' Association  
**SADM:** Ship Air Defence Model  
**SADEC:** Saudi Defense Electronics Company  
**SAKARYA:** 122mm Multiple Launch Rocket System Project  
**SAR:** Synthetic Aperture Radar  
**SARP:** Stabilized Advanced Remote Platform  
**SARP DUAL:** SARP System with coaxial machine gun  
**SARP - L:** Light Stabilized Advanced Remote Platform  
**SARP-NSV:** SARP System fitted with NSV gun  
**SARPER:** Synthetic Aperture Radar  
**SAYP:** Researchers Training for Manufacturers Protocol  
**SCPU:** Suit Central Processing Unit  
**SERÇE:** Multi Rotor UAS  
**SERDAR:** Coastal Surveillance Radar  
**SERHAT:** Mortar Detection Radar  
**SGRS:** Coastal Surveillance Radar System  
**SPEWS:** Self Protection EW Systems for F-16 Fighters  
**SiC:** Silicon Carbide

**SiGe:** Silicon Germanium  
**SSM:** Undersecretariat for Defense Industries  
**SST:** Defense Systems Technologies  
**STAMP:** Stabilized Machine Gun System  
**STAMP-2:** New generation STAMP  
**STANAG:** NATO Standardization Agreement  
**STM:** Savunma Teknolojileri Mühendislik ve Ticaret Corp.  
**STC:** Digital Tachograph Device  
**STO:** NATO Science Technology Organization  
**STOP:** 25 mm Stabilized Artillery System  
**SK:** Digital Encrypted  
**SK/O:** Industrial Participation / Offset  
**SOJ:** Stand Off Jammer  
**SONOBUOY:** Expendable Floating Sonar System  
**TAFICS:** Turkish Armed Forces Integrated Communication System  
**TAGEM:** General Directorate of Agricultural Research and Policies  
**TARP-EO/IR:** Turkish Airborne Reconnaissance Program (TARP)  
**TASMUS:** Tactical Area Communication System  
**TAYAS:** New Mobile System  
**TBGTH:** Turkish Bosphorus Vessel Traffic Management Systems  
**TEKMET:** Metallizing Fabric Materials to Make Them Frequency Selective  
**TEMPEST:** Telecommunications Electronics Material Protected from Emanating Spurious Transmissions



**TESİD:** Turkish Industrialists Association

**TETRA:** Terrestrial Trunked Radio

**TİM:** Turkish Exporters Assembly

**TKKMBS:** Tank Command Control Communication and Information System

**TSK:** Turkish Armed Forces

**TSKGV:** Turkish Armed Forces Foundation

**TİTGV:** Technology Development Foundation of Turkey

**TORK:** Anti-Torpedo-Torpedo System

**TUSAŞ/TAI:** Turkish Aerospace Industries, Inc.

**TÜBİTAK:** Scientific and Technological Research Council of Turkey

**TÜBİTAK BİLGEM:** TÜBİTAK Software Technologies Research Institute

**TÜBİTAK TEYDEP:** TÜBİTAK Technology and Innovation Grant Programs

**TÜBİTAK ARDEB:** TÜBİTAK Research Support Programmes

**TÜBİTAK MAM:** TÜBİTAK Marmara Research Center

**TÜBİTAK SAVTAG:** TÜBİTAK Defence and Security Technologies Research Grant Group

**TUMSİS:** X-Band Satellite Communication System

**TÜRKSAT 6A:** National Communication Satellite

**UGES:** Transportation, Security, Energy and Automation Systems

**UMTAS:** Long-Range Antitank Missiles

**ULAK:** 4.5G/LTE-A Communication System Development Project

**USB:** Universal Serial Bus

**VAG:** Virtual Air Gap System

**VATOZ:** Naval Mission Management System

**YANKİ:** Acoustic Identification of Shooting Location System

**YENER:** Imaging Radar with Ground Penetration Capability

**YİTAL:** Semiconductor Technologies Research Laboratory

**YUNUS:** Naval Bases Surface/Underwater Surveillance System

**WECDIS:** Warship Electronic Chart Display and Information System

**WIMAX:** Worldwide Interoperability for Microwave Access

**ZABIT:** Average Speed Detection System

**ZARGANA:** Submarine Torpedo Counter Measure System

**ZOKA:** Expendable Acoustic Units for Submarine Torpedo Countermeasure Systems

**ZIPKIN:** PMADS on tactical wheeled platform

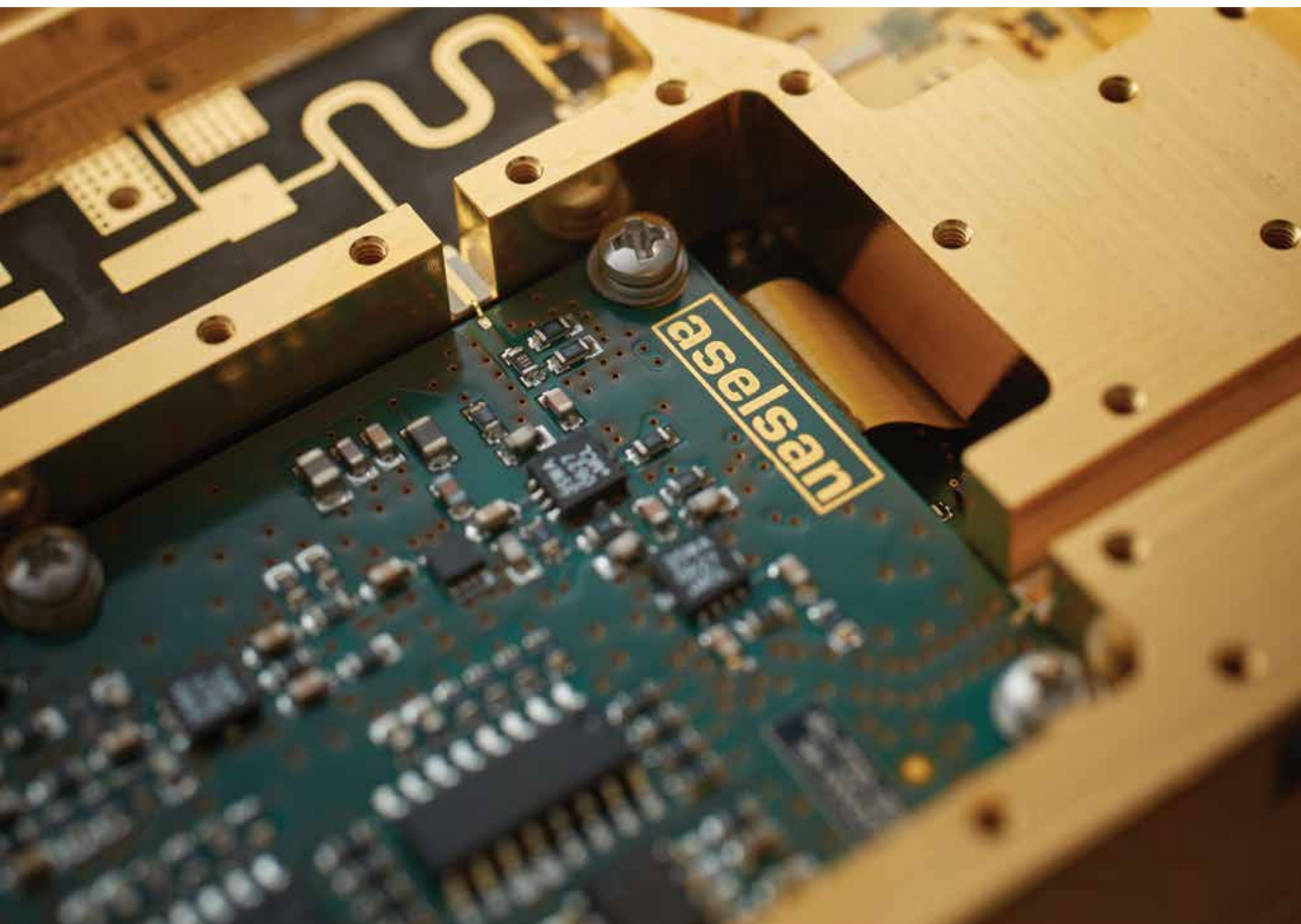
**112:** Emergency Call Center

**156:** Gendarmerie Hotline

**3GPP:** The 3<sup>rd</sup> Generation Partnership Project

**5G:** The 5<sup>th</sup> Generation Mobile Communications System

# RELIABLE TECHNOLOGY



# aselsan

P.O. BOX 1, Yenimahalle, 06172 ANKARA - TURKEY  
Phone: +90 (312) 592 10 00 Fax: +90 (312) 354 13 02 - 354 26 69  
[www.aselsan.com.tr](http://www.aselsan.com.tr)



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