spirent
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SPIRENT COMMUNICATIONS PLC
Results for the six months ended 30 June 2019

$ million	First half 2019	First half 2018	Change (%)
Order intake	**219.5**	205.6	+7
Revenue	**217.4**	209.2	+4
Adjusted operating profit[1]	**20.7**	17.8	+16
Reported operating profit	**18.1**	14.6	+24
Reported profit before tax	**18.7**	17.4	+7
Adjusted basic earnings per share[2] (cents)	**3.03**	2.49	+22
Basic earnings per share (cents)	**2.72**	2.38	+14
Closing cash	**141.8**	95.4	+49
Interim dividend per share[3] (cents)	**1.94**	1.76	+10

Notes
1 Adjusted operating profit is before charging acquisition related costs, acquired intangible asset amortisation and share-based payment amounting to $2.6 million in total (first half 2018: $3.2 million).
2 Adjusted basic earnings per share is based on adjusted earnings as set out in note 5 of Notes to the half year condensed consolidated financial statements.
3 Dividends are determined in US dollars and paid in sterling at the exchange rate prevailing when the dividend is proposed. The interim dividend proposed for 2019 of 1.94 cents per Ordinary Share is equivalent to 1.59 pence per Ordinary Share (first half 2018: 1.34 pence).

Solid H1 progress

- Order intake growth of 7 per cent, reflecting good progress across all segments.
- Revenue growth of 4 per cent; we continue to see demand growth to support our customer base with their 5G development requirements.
- Adjusted operating profit growth of 16 per cent, which together with a lower tax charge, resulted in adjusted EPS growth of 22 per cent.
- Interim dividend increase of 10 per cent to 1.94 cents.
- Robust cash conversion, cash closed at $141.8 million.

Operational highlights

- Over 60 new 5G wins from across the portfolio to support the market's acceleration towards 5G.
- Received important industry awards across all business segments.
- Grew our business in APAC despite US/China trade challenges.
- Maintained our R&D effectiveness and released a number of new products and solutions.
- Extended our key account management programme to develop deeper and broader collaboration with our most important customers.

Networks & Security

- Continued progress on 400G high-speed Ethernet sales, although phasing remains more H2 weighted, as expected.
- Secured multi-million-dollar deal with leading 5G radio access network (RAN) network equipment manufacturer in China to support virtualising the 5G radio network.
- Major releases in the period included a significant enhancement to our TestCenter high-speed Ethernet solution that accelerates troubleshooting, reporting and testing cycles, as well as the world's first commercially available test solution for assuring network functions virtualisation (NFV) performance to the European Telecommunications Standards Institute (ETSI) standards.
- Launched a new CyberFlood Data Breach Assessment security test solution and won new logos for enterprise customers to broaden our customer base.
- Solid trading performance from our Positioning business with particular large deals for US Government, increasing demand from Asia and a strategic win to support the new GNSS constellation system for the UK.

Lifecycle Service Assurance

- Solid demand for 5G lab test management and automation and mobile infrastructure test products.
- First VisionWorks service assurance deal with a US Tier 1 customer to support 5G.
- Additional VisionWorks wins with our North American customers as they continue to deploy our use cases and expand our footprint in these leading service providers.

Connected Devices

- A solid first half performance underpinned by growth in demand for our Wireless products including some important multi-year support contract renewals.
- New 5G performance and location testing solutions for chipsets and devices on track with increasing customer interest and multiple 5G channel emulator deals with leading 5G chipset and network equipment vendors.

Board Update

In November 2018, Eric Hutchinson informed the Board of his wish to retire from the Company which he did on 30 June 2019. Eric Updyke was appointed Chief Executive Officer on 1 May 2019.

Outlook

We continue to invest in our chosen growth areas and we have established a strong technical and operational platform to leverage market opportunities. As in previous years, our performance is expected to be weighted to the second half of the year. The Board remains confident of continued progress and the outlook for the year remains unchanged.

Eric Updyke, Chief Executive Officer, commented:

"I am delighted to have recently joined Spirent, and I am personally excited about the potential for our business. Spirent is well respected by our customers globally and the technical ability, passion and engagement of our resource is impressive. As we move forward, I will be looking to identify specific opportunities to broaden our offerings and to expand our customer base and of course, maximise opportunities that current technology trends can offer such as 5G, 400G high-speed Ethernet and cloud development. The first half results represent a solid platform from which we can drive growth."

- ends -

Enquiries

Eric Updyke, Chief Executive Officer Paula Bell, Chief Financial Officer	Spirent Communications plc	+44 (0)1293 767676
James Melville Ross/Dwight Burden/ Adam Davidson	FTI Consulting	+44 (0)20 3727 1000

The Company will host a results presentation today at 9.15am for 9.30am UK time at FTI Consulting Limited, 200 Aldersgate, Aldersgate Street, London EC1A 4HD. A simultaneous webcast of the presentation will be available in the Investors section of the Spirent Communications plc website https://corporate.spirent.com/.

About Spirent Communications plc

Spirent Communications plc (LSE: SPT) offers test, measurement, analytics and assurance solutions for next-generation devices and networks. Spirent provides products, services and information solutions for high-speed Ethernet, positioning mobile network infrastructure markets, with expanding focus on service assurance, cybersecurity and 5G. Spirent is accelerating the transition of connected devices, network equipment and applications from development labs to the operational network, as it continues to innovate toward fully-automated testing and autonomous service assurance solutions. Further information about Spirent Communications plc can be found at https://corporate.spirent.com/.

Spirent Communications plc Ordinary Shares are traded on the London Stock Exchange (ticker: SPT; LEI: 213800HKCUNWP1916L38). The Company operates a Level 1 American Depositary Receipt (ADR) programme with each ADR representing four Spirent Communications plc Ordinary Shares. The ADRs trade in the US over-the-counter (OTC) market under the symbol SPMYY and the CUSIP number is 84856M209. Spirent ADRs are quoted on the Pink OTC Markets electronic quotation service which can be found at http://www.otcmarkets.com/marketplaces/otc-pink.

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Cautionary statement regarding forward-looking statements

This document may contain forward-looking statements which are made in good faith and are based on current expectations or beliefs, as well as assumptions about future events. You can sometimes, but not always, identify these statements by the use of a date in the future or such words as "will", "anticipate", "estimate", "expect", "project", "intend", "plan", "should", "may", "assume" and other similar words. By their nature, forward-looking statements are inherently predictive and speculative and involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. You should not place undue reliance on these forward-looking statements, which are not a guarantee of future performance and are subject to factors that could cause our actual results to differ materially from those expressed or implied by these statements. The Company undertakes no obligation to update any forward-looking statements contained in this document, whether as a result of new information, future events or otherwise.

Chief Executive Officer Review

Since joining Spirent on 1 May 2019, I have been delighted to find that the strengths I witnessed prior to joining Spirent have been confirmed, namely that this is a business which is very well respected by its customers, has engaged and innovative employees and a solid financial footing.

I firmly believe that we have a real opportunity to accelerate our growth and the potential to push beyond selling products into our customers' labs into production networks. This is a business facing significant opportunities from a range of market drivers and we will remain tightly focussed on those trends, including 5G, 400G Ethernet and cloud. To maximise our potential, all options will be considered, including partnerships and M&A activity.

I also believe that these technology trends and possible partnerships will enable us to broaden our customer base to include more enterprise, Government and cloud customers.

H1 2019 performance

As in 2018, Spirent continues to deliver solid progress. We have realised significant benefit from a number of management actions, ranging from a strategic portfolio review to balancing our investment and cost effectiveness.

Our strategy is to further our leadership position in high-speed Ethernet, positioning and mobile infrastructure, and to focus on target growth opportunities in cybersecurity and lifecycle service assurance, in particular 5G, accelerating the development and deployment of new products and services into the operational network.

We have seen solid progress in the first half against our three core strategic priorities.

1. Sharp focus on target markets

Through the first half of 2019, our customers' planning and investments continued to be driven by a number of important factors - the market's acceleration to 5G, the relentless growth in data traffic, concerns about security and the imperative to reduce operating costs and capital expenditure. Spirent has been able to take advantage of several of these critical opportunities across each of our businesses.

Our 5G solutions and services continue to expand and we have seen a material increase in 5G wins in the first half of 2019 across the majority of our portfolio. Furthermore, we won more than 20 Landslide solution deals to accelerate 5G Core Network evolution, highlighting the communications industry's desire to differentiate beyond data speeds and lay the foundations to engage with new market verticals (industries).

2. Innovate

Our high-speed Ethernet/IP test systems help our customers validate their network infrastructure and the progressive transition to 400G continues, with build-up expected in the second half of 2019. We continue to release new market-leading technology to support our customers as they look to invest in their 5G infrastructure.

In 2018, Spirent announced an important collaboration with National Instruments (Nasdaq: NATI) to develop performance test systems for 5G New Radio (NR) devices. This collaboration will enable the Connected Devices business to provide test solutions that can validate the performance of 5G NR smartphones and Internet of Things (IoT) devices in the lab, without requiring access to expensive and complex base stations, while being flexible enough to quickly adapt to standards as they evolve. The programme is delivering to plan, the partnership is strong and positions us well to support our customers with their emerging 5G requirements.

3. Strong operational and financial performance

The continuing execution of this strategy has delivered a further increase in order intake, revenue, operating profit and earnings through the first half of 2019.

We are pleased to report growth in APAC, even though the US/China trade friction was still present in the first half of 2019. We continue to actively monitor and manage the situation, supporting our customers to the best of our abilities, whilst translating complex, ever-changing US directives appropriately. Whilst the geopolitical risk remains, we continue to stay close to our wide and diverse global customer base, with our largest customer at just 7 per cent of our revenue.

To underpin our growth plans, we further evolved our key account management programme during the first half and extended our reach to more critical customer accounts to deepen relationships, and we continue to invest in developing clear routes to market to exploit our technologies and deliver new products to a widening customer base.

Operating Segment Review

Spirent focuses on three strategic business segments: **Networks & Security**, **Lifecycle Service Assurance** and **Connected Devices**. This focus positions Spirent to meet the needs and expectations of our customers and to capitalise on these business opportunities, as our customers *develop* innovative devices, applications, network equipment and networks and *operate* networks and services, improving network performance and customer experience.

Networks & Security – 60% of Group revenue

Networks & Security provides functional, performance and security testing products and services to accelerate the development of new devices, networks and applications. Our products generate traffic to simulate real-world conditions in the lab or in networks. Our portfolio covers high-speed IP/Ethernet, cloud, virtualisation, applications, security and Global Navigation Satellite Systems (GNSS), such as GPS.

$ million	**First half 2019**	First half 2018
Order intake	**128.7**	128.9
Revenue	**131.0**	125.3
Adjusted operating profit	**16.0**	14.8
Adjusted operating margin (%)	**12.2**	11.8

Order intake was broadly level in the period however, as previously reported, in the first half of 2018 we benefited from US Government expenditure of circa $10 million for Positioning GPS simulators for a special project, masking the underlying growth that has been delivered. Revenue growth of 5 per cent was delivered, including double digit growth at our security business. Adjusted operating profit increased by 8 per cent.

Performance highlights

- To enable the cloud and 5G transformations of the industry, we launched world class leading offerings for 5G front haul testing and the industry's first standards-based networks functions virtualisation (NFV) Cloud Test Platform. The CloudSure solution assures successful NFV rollouts, service flexibility and agility without sacrificing performance.
- Spirent supported leading Chinese equipment vendor New H3C in Tolly Labs' largest high-density 100G Cluster Core Router performance test to validate their high-density 100G cluster core router (CR19000) with 480 ports of 100G Ethernet.
- We recently demonstrated the world's highest-density 400/200/100/50 Gigabit Ethernet Test System, enabling customers to validate the performance and reliability of new services supporting next-generation network evolution.
- Our Positioning business performed well in the first half of 2019, delivering growth on the same period last year due to continued momentum supporting US Government and Tier 1 defence contractors and securing important wins in Europe and China for space applications.
- Spirent announced our latest security solution 'CyberFlood Data Breach Assessment' at the recent RSA Conference which enables security operations and IT teams to validate the security of production networks by delivering continuous automated assessment of security and data loss prevention policies using up-to-date threat intelligence.

Lifecycle Service Assurance – 24% of Group revenue

Lifecycle Service Assurance provides active test and analytics solutions for service turn-up, network performance improvement and customer experience management. The business includes leading service assurance products, network and customer analytics systems (VisionWorks), mobile network test systems for labs (Landslide) and test management and automation solutions (Velocity and iTest). Spirent solutions enable network operators to understand their network performance and customer experience through active testing and analytics. Our solutions enable customers to radically reduce costs and time to install new services, provision new subscribers and troubleshoot problems. Spirent enables network operators to rapidly on-board and proactively assure critical virtual, mobile and IoT services.

$ million	**First half 2019**	First half 2018
Order intake	**49.4**	41.6
Revenue	**51.0**	48.0
Adjusted operating profit	**4.0**	1.4
Adjusted operating margin (%)	**7.8**	2.9

Strong growth in order intake was delivered in the period, driven by further demand for our Landslide and VisionWorks solutions. Revenue grew 6 per cent as a result and adjusted operating profit increased by $2.6 million, both compared to the same period last year. Operating margin has benefited from an increased proportion of higher margin software content within revenue.

Performance highlights

- We expanded our installed base for VisionWorks service assurance and analytics solutions winning five deals at three Tier 1 operators; three of the deals were over $3 million.
- We won our first 5G VisionWorks service assurance deal with a US Tier 1 customer highlighting that they are focused on assuring performance and quality as they plan, launch and operate new 5G networks.
- Customer demand for our 5G mobile infrastructure testing solution (Landslide) in the lab was strong.
- We continue to develop our assurance tools to support 5G requirements. At Mobile World Congress in Barcelona, Hong Kong Applied Science and Research Institute Limited (ASTRI) and Spirent demonstrated the performance of the new standalone mode for 5G Core Networks, using the Spirent Landslide solution to validate the conformance and performance of ASTRI's 5G standalone core network.

Connected Devices – 16% of Group revenue

Connected Devices provides test systems to accelerate the development of connected devices and to connect them to the network and understand how the device and service performs.

$ million	**First half 2019**	First half 2018
Order intake	**41.4**	35.1
Revenue	**35.4**	35.9
Adjusted operating profit	**5.2**	4.0
Adjusted operating margin (%)	**14.7**	11.1

Order intake included a number of multi-year support contract renewals. Revenue within Connected Devices was broadly level with operating profit growth delivered mainly from cost actions taken in the previous year. Adjusted operating margin improved to 14.7 per cent.

Performance highlights

- Development of our 5G device testing solutions are on track and our strategic partnership with National Instruments is working well.
- We have completed successful test trials with multiple 5G chipset and network equipment vendors and are conducting additional trials; we now look to create a strong pipeline for this important market opportunity.
- We won deals for our Vertex 5G Channel Emulator with 14 customers.
- Spirent and its new Dualos partner announced a collaboration to provide communications test solutions tailored for military and aerospace communications systems to accelerate our penetration in the aerospace and defence communications testing market.

Financial Review

Group financial performance

Spirent delivered a robust financial performance in the first half of 2019, with order intake growth of 7 per cent, revenue growth of 4 per cent and improved adjusted operating profit, up 16 per cent. Profit before tax increased by $1.3 million, or 7 per cent, to $18.7 million. Good progress was made across the portfolio with improved profitability from all segments. We continue to practise effective financial management; with careful cost control and capital allocation. We also benefited from a lower effective tax rate which, together with the adjusted operating profit growth, resulted in an increase to adjusted basic earnings per share of 22 per cent on first half 2018. Cash conversion remained strong, resulting in closing cash of $141.8 million.

As previously communicated, our usual trading performance seasonality is expected to be weighted to the second half of the financial year, in particular for high-speed Ethernet as key customers continue to transition to 400G high-speed Ethernet testing.

The following table shows the summary financial performance for the Group:

$ million	**First half 2019**	First half 2018	Change (%)
Order intake	**219.5**	205.6	+7
Revenue	**217.4**	209.2	+4
Gross profit	**156.5**	148.1	+6
Gross margin (%)	**72.0**	70.8	+1.2
Adjusted operating costs[1]	**135.8**	130.3	+4
Adjusted operating profit[1]	**20.7**	17.8	+16
Adjusted operating margin[1] (%)	**9.5**	8.5	+1.0
Reported operating profit	**18.1**	14.6	+24
Effective tax rate[2] (%)	**13.1**	16.9	-3.8
Reported profit before tax	**18.7**	17.4	+7
Adjusted basic earnings per share[3] (cents)	**3.03**	2.49	+22
Basic earnings per share (cents)	**2.72**	2.38	+14
Free cash flow[4]	**44.6**	13.2	+>100
Closing cash	**141.8**	95.4	+49

Notes
1 Before charging acquisition related costs, acquired intangible asset amortisation and share-based payment amounting to $2.6 million in total (first half 2018: $3.2 million).
2 Effective tax rate is the adjusted tax charge, before tax on adjusting items, expressed as a percentage of adjusted profit before tax.
3 Adjusted basic earnings per share is based on adjusted earnings as set out in note 5 of Notes to the half year condensed consolidated financial statements.
4 Cash flow generated from operations, less tax and net capital expenditure, after interest paid and/or received, and payment of lease liabilities.

Note on Alternative Performance Measures (APM)
The performance of the Group is assessed using a variety of performance measures, including APMs which are presented to provide users with additional financial information that is regularly reviewed by management. These APMs are not defined under IFRS and therefore may not be directly comparable with similarly identified measures used by other companies.

The APMs adopted by the Group are defined in appendix 2. The APMs which relate to adjusted income statement lines are presented and reconciled to GAAP measures using a columnar approach on the face of the income statement and can be identified by the prefix 'adjusted' in the commentary. All APMs are clearly identified as such, with explanatory footnotes to the tables of financial information provided, and reconciled to reported GAAP measures in the Financial Review or Notes to the consolidated financial statements.

Revenue

$ million	**First half 2019**	**%**	First half 2018	%
Revenue by segment				
Networks & Security	**131.0**	**60.2**	125.3	59.9
Lifecycle Service Assurance	**51.0**	**23.5**	48.0	22.9
Connected Devices	**35.4**	**16.3**	35.9	17.2
	217.4	**100.0**	209.2	100.0
Revenue by geography				
Americas	**117.3**	**54.0**	120.2	57.5
Asia Pacific	**75.7**	**34.8**	65.5	31.3
Europe, Middle East and Africa	**24.4**	**11.2**	23.5	11.2
	217.4	**100.0**	209.2	100.0

Overall Group revenue increased by 4 per cent, with Networks & Security and Lifecycle Service Assurance up 5 and 6 per cent, respectively, and Connected Devices broadly flat compared to the same period last year. The growth in Networks & Security primarily came from continuing strong demand for satellite simulators provided by our Positioning business. The cybersecurity line of business, within Networks & Security, also experienced double digit growth, although it is a relatively small part of the overall portfolio. The core high-speed Ethernet test business saw strong growth in Asia and Europe with growth in America expected in the second half of the financial year. Lifecycle Service Assurance revenue growth was driven primarily by demand for our mobile infrastructure test solutions. Connected Devices revenue was stable in the first half of 2019, compared to the same period last year, in line with our expectations as we anticipate the ramp up in demand from 5G starting to benefit revenue next year.

The Americas remains our largest market, accounting for just over half of Group revenue. Revenue in APAC benefited from strong demand from China customers for high-speed Ethernet test and wireless test solutions. Growth in EMEA continued in absolute terms but as a proportion of total Group revenue this region remained unchanged at 11 per cent.

Gross margin

$ million	**First half 2019**	**%**	First half 2018	%
Networks & Security	**93.8**	**71.6**	88.4	70.6
Lifecycle Service Assurance	**38.9**	**76.3**	35.9	74.8
Connected Devices	**23.8**	**67.2**	23.8	66.3
	156.5	**72.0**	148.1	70.8

Gross margin for the total Group was up 1.2 percentage points, compared to the same period last year, due to product mix and the continued growth in software content. All operating segments showed improvement.

Operating costs

$ million	**First half 2019**	First half 2018
Product development	**48.5**	48.6
Selling and marketing	**63.1**	60.5
Administration[1]	**24.2**	21.2
Adjusted operating costs[1]	**135.8**	130.3
Networks & Security	**77.8**	73.6
Lifecycle Service Assurance	**34.9**	34.5
Connected Devices	**18.6**	19.8
Corporate	**4.5**	2.4
Adjusted operating costs[1]	**135.8**	130.3

Note
1 Before charging acquisition related costs, acquired intangible asset amortisation and share-based payment amounting to $2.6 million in total (first half 2018: $3.2 million).

Operating costs in the first half of 2019 were 4 per cent higher than over the same period last year. Growth has primarily come from inflation and targeted investment in sales and marketing activities. The overall investment in product development was maintained, with continuing focus on high growth, high margin areas. Selling and marketing costs reflected, amongst other things, investment in our key account management programme to drive incremental business with our most valuable customers and developing routes to market for our new technologies to a broadening customer base. Administration costs in the first half of 2019 reflected an inflationary increase, a small doubtful debt expense in relation to a US customer that entered Chapter 11 and the increase in corporate costs, which primarily arose from CEO transition.

Other items charged in arriving at operating profit, being acquisition related costs, acquired intangible asset amortisation and share-based payment, amounted to $2.6 million in total (first half 2018: $3.2 million). The acquired intangible asset amortisation charge has reduced compared to the first half of 2018 because some of the assets have reached the end of their useful economic lives and are no longer being amortised.

Operating profit

$ million	**First half 2019**	**Adjusted operating margin[1] (%)**	First half 2018	Adjusted operating margin[1] (%)
Networks & Security	**16.0**	**12.2**	14.8	11.8
Lifecycle Service Assurance	**4.0**	**7.8**	1.4	2.9
Connected Devices	**5.2**	**14.7**	4.0	11.1
Corporate	**(4.5)**		(2.4)	
Adjusted operating profit[1]	**20.7**	**9.5**	17.8	8.5
Acquisition related costs	**(0.1)**		-	
Acquired intangible asset amortisation	**(0.8)**		(1.8)	
Share-based payment	**(1.7)**		(1.4)	
Reported operating profit	**18.1**		14.6	

Note
1 Before charging acquisition related costs, acquired intangible asset amortisation and share-based payment amounting to $2.6 million in total (first half 2018: $3.2 million).

Reported operating profit was up 24 per cent to $18.1 million, compared with $14.6 million for the first half of 2018.

Adjusted operating margin, based on adjusted operating profit, increased by one percentage point to 9.5 per cent from 8.5 per cent over the same period last year.

Currency impact
The Group's revenue and costs are primarily denominated in US dollars or US dollar-linked currencies. Currency exposures arise from trading transactions undertaken by the Group in foreign currencies and on the retranslation of the operating results and net assets of overseas subsidiaries.

The most significant currency exposure arises in relation to movements in pound sterling against the US dollar, which the Group seeks to mitigate by entering into forward foreign currency exchange contacts. There are other less significant currency exposures, notably the Euro and Chinese Yuan.

In the first half year, the Group's income statement included a foreign exchange loss of $0.4 million arising from transactional exposure, reflected in administration costs, compared to a $0.5 million loss over the same period in 2018.

Finance income and costs
Finance income in the first half of 2019 comprised bank interest received of $1.4 million (first half 2018: $0.5 million) and $0.1 million (first half 2018: nil) of interest income in relation to the UK defined benefit pension plans. The increase in bank interest received half-on-half reflected higher cash balances and proactive treasury management across the Group.

Finance costs in the first half were $0.9 million (first half 2018: nil), $0.8 million of which related to interest on lease liabilities following the implementation of IFRS 16 on 1 January 2019.

Tax
The normalised tax charge for the Group, excluding the tax credit on the adjusting items of $0.7 million, was $2.8 million for the first half of 2019, resulting in an effective tax rate of 13.1 per cent of adjusted pre-tax profit. This compared with an effective tax rate of 16.9 per cent for the first half of 2018. For the full year 2019 it is expected that the effective tax rate will be in the region of 13-14 per cent.

Spirent's effective tax rate has benefited from US Tax reform which reduced the tax rate in the US to 21 per cent from 35 per cent. Additionally, the Group receives tax benefits from the UK Patent Box Scheme, the US R&D Tax Credit, and a current year recognition of deferred tax assets in the US.

Earnings per share
Adjusted basic earnings per share was 3.03 cents, compared with 2.49 cents for the first half of 2018, reflecting both the improvement in trading performance and the further reduction in effective tax rate described above. There were 609.9 million weighted average shares in issue (first half 2018: 610.2 million). Basic earnings per share was 2.72 cents compared with 2.38 cents for the first half of 2018. See note 5 to Notes to the half year condensed consolidated financial statements on page 27 for the calculation of earnings per share.

Acquisitions and divestments
On 31 May 2019, Spirent acquired a key business from a small navigation systems company based in the United Kingdom, for cash consideration of $1.9 million. This company develops and supplies the Group with a system for recording GNSS and Wi-Fi signals, and is reported within the Group's Networks & Security operating segment. Costs related to the acquisition of $0.1 million were expensed. With inventory acquired of $0.1 million, the transaction gave rise to an intangible asset of $1.0 million, being current technology with a useful life of five years, and goodwill of $0.8 million.

During the first half of 2018, a $2.0 million loan was repaid to the Group from subsidiaries divested of in 2017. The loan had previously been impaired. The Group also incurred $0.1 million of expenses relating to the divestment. In addition, a provision for $0.4 million relating to a disposal in 2012, which was classified as a discontinued operation, was released.

Financing and cash flow
Cash generated from operations in the first half year was $57.2 million, compared to $21.3 million in the first half of 2018. The first half of 2019 benefited from the continued emphasis on improving working capital management, primarily through focus on debt collection following the busy final quarter of 2018. In addition, higher activity levels at the end of 2018, relative to 2017, naturally led to improved cash flow from operations half-on-half as year end receivables are paid in the first half year.

Free cash flow is set out below:

$ million	**First half 2019**	First half 2018
Cash flow from operations	**57.2**	21.3
Tax paid	**(2.7)**	(4.2)
Cash inflow from operating activities	**54.5**	17.1
Interest received	**1.2**	0.6
Net capital expenditure	**(6.2)**	(4.5)
Payment of lease liabilities, principal and interest[1]	**(4.9)**	-
	44.6	13.2

Note
1 Spirent adopted IFRS 16 on 1 January 2019, in prior periods operating lease payments were included within cash flow from operations.

Tax payments of $2.7 million were made during the period (first half 2018: $4.2 million). Net capital expenditure of $6.2 million was $1.7 million higher than in the first half of 2018, due to investment in 5G.

In the first half of 2019, the final dividend for 2018 of $16.7 million was paid. This compared to total dividends of $44.2 million paid in the first half of 2018, including a special dividend of $29.9 million. Additionally, 3.0 million shares were purchased and placed into the Employee Share Ownership Trust (ESOT) at a cost of $6.1 million (first half 2018: 1.5 million shares at a net cost of $2.4 million).

Following these payments, cash and cash equivalents closed at $141.8 million at 30 June 2019, compared with $121.6 million at 31 December 2018. There continues to be no bank debt.

Defined benefit pension plans
The Group operates two funded defined benefit pension plans which are in the United Kingdom. Both of these schemes were closed some time ago to new entrants.

The accounting valuation of the funded defined benefit pension plans at 30 June 2019 gave rise to a net surplus of $10.9 million, compared with a net surplus of $2.5 million at 31 December 2018. The 30 June 2019 position has benefited from a strong return on pension plan assets, in excess of the increase in plan liabilities. In addition, contributions to the plans paid in the first half of 2019 were $3.3 million (first half 2018: $3.4 million).

The latest triennial actuarial valuation dated 31 March 2018 has been finalised during the first half of 2019. It indicated a deficit of £22.5 million, calculated on a technical provisions basis using more prudent assumptions than the accounting valuation, particularly in relation to discount rate, inflation and demographic. With effect from 1 April 2019, a new deficit reduction plan has been agreed with the Trustees which requires the Company to continue to pay an annual contribution of £5.0 million, increasing in line with CPI, through to June 2023 (or earlier if self-sufficiency is reached). In addition, the Company will fund the plan by an amount equal to 10 per cent of any special dividend paid during that period.

In addition, there is a liability for an unfunded plan of $0.6 million (31 December 2018: $0.6 million).

The Group also operates a deferred compensation plan for employees in the United States. At 30 June 2019, the deficit on this deferred compensation plan amounted to $4.3 million (31 December 2018: $3.5 million).

Provisions
There were no developments during the first half of 2019 which have necessitated a re-assessment of the provision for $8.9 million taken at 31 December 2018 in relation to valuation and classification of duty on certain imports into France.

Balance sheet and dividend
The Board currently intends to maintain a cash positive balance sheet over the medium to long-term. This should allow the Company to maintain a strong capital position in the face of business risks, trading fluctuations and working capital demands. In addition, the Board wishes to maintain flexibility to invest in the business organically and inorganically. Where appropriate, the Company may take on modest gearing to fund inorganic investments.

The Board continues to regularly review the Company's balance sheet in light of current and expected trading performance and cash generation, working capital requirements and expected investments. To the extent the Company has excess cash, it will consider returning such cash to shareholders. The Board will consider from time to time the appropriate mechanism for returning surplus cash to shareholders.

The Board has declared an interim dividend of 1.94 cents per Ordinary Share, a 10 per cent increase over the dividend declared for the first half 2018 of 1.76 cents. This is equivalent to 1.59 pence per Ordinary Share at an exchange rate of $1.22:£1 (first half 2018: 1.34 pence). The payment will be approximately $11.8 million. The dividend will be paid to Ordinary shareholders on 6 September 2019 and to ADR holders on 13 September 2019. The dividend is payable to all shareholders on the Register of Members at the close of business on 9 August 2019.

The Board is continuing to pursue a progressive dividend policy targeting cover of 2 to 2.5 times adjusted earnings.

New accounting standards – IFRS 16

The Group transitioned to IFRS 16, the new lease accounting standard, on 1 January 2019, using the modified retrospective transition method. This approach does not require comparatives to be restated. Instead, the cumulative effect of applying IFRS 16 is applied to the opening balance of retained earnings at 1 January 2019.

The cumulative effect of the adoption of IFRS 16 has resulted in a decrease in net assets of $3.4 million as at 1 January 2019. This reflects the difference between right-of-use assets and lease liabilities, as right-of-use assets depreciate quicker than lease liabilities are settled.

The following balances have been added to the Group's balance sheet at 1 January 2019:

- right-of-use assets of $30.9 million;
- lease liabilities of $36.7 million; and
- deferred tax assets of $1.0 million.

The above balances include net reclassification adjustments to liabilities of $1.4 million.

In terms of the income statement impact, adjusted operating profit marginally increased in the first half of 2019 through the operating lease expense being removed and replaced by a smaller depreciation charge. There was also an increase to finance costs under IFRS 16 as a result of interest on the lease liability, which offset the increase to adjusted operating profit. The impact to the Group's earnings and income statement overall was immaterial.

Details of the change in the Group's accounting policy in respect of leases, related matters consequent upon the adoption of IFRS 16 and an explanation of the impact of IFRS 16 on the Group's financial statements are set out in appendix 1.

Risks and uncertainties

The principal risks and uncertainties affecting the Spirent Communications Group in respect of the remaining six months of the year to 31 December 2019 remain those as identified on pages 26 to 29 of the Annual Report 2018. A copy of the Annual Report 2018 is available on the Company's website at https://corporate.spirent.com/.

In summary, the principal risks and uncertainties are as follows:

Risk	Description
Macro-economic change	Spirent is a global business exposed to current world economic conditions and political uncertainties over which it has no control. In this respect, Spirent continues to actively monitor and manage US/China trade friction issues. The business is also exposed to government spending priorities, principally in the United States.
Technology change	Spirent sells complex solutions in industries that can be subject to rapid technological changes. Testing new technologies drives our business, but the opportunity also brings high risk since keeping at the forefront of these key future technologies is critical to our success and to ensuring that we remain competitive in our markets. It is critical that our product development investment is directed at the right areas in order to deliver the solutions that our customers need, when they need them. Spirent's success is dependent in part on proprietary technology which may be infringed by others. Protecting the Group's proprietary technology is important to enable Spirent to compete successfully.
Customer dependence / Customer investment plans	The Group sells its products and services to a wide range of companies and continually seeks to expand its customer base. In 2018, no one customer accounted for more than 10 per cent of Group revenue, although the top 10 customers represented 40 per cent of Group revenue (2017: 41 per cent). In some of our markets certain customers have a dominant market share, which makes doing business with these customers and their suppliers critical to the success of our business. In addition, many of the companies with which we do business are some of the largest global telecommunications corporations. Therefore meeting our development obligations, producing high quality products, and being on time are vital to Spirent's reputation and success. Changes in our major customers' priorities in technology investments can also have a significant impact on their spending on Spirent products and on those in the customers' supply chain. The industry continues to experience consolidation which does disrupt the spending patterns of affected customers.

Risk	**Description**
Business continuity	Operational risks are present in the Group’s businesses, including the risk of failed internal and external processes and systems, human error and external events, such as a natural disaster or cybersecurity attacks. For example, a significant portion of our communications operations are located in California which has in the past experienced natural disasters, including earthquakes and wildfires. Contract manufacturers are used for the manufacture of a substantial amount of Spirent’s products. Spirent’s major contract manufacturer is located in Thailand. The incidence of cybercrime continues to rise. Spirent is dependent on its information technology systems for both internal and external communications as well as for its day-to-day operations.
Competition	Spirent operates in a range of highly competitive niche markets which experience rapid technological change. In order to compete effectively, it is necessary to establish and maintain technological differentiation in our solutions. The Group faces competition from new market start-ups as well as more established and well-resourced companies. Industry consolidation amongst our direct competitors may bring about a shift in competitive advantage.
Acquisitions	A key element of Spirent’s strategy is to develop new capabilities and technologies, sometimes through acquisition. Integration of acquisitions can be a complex process and the results expected from acquisitions may not be achieved due to problems encountered in integration, changes in market conditions, the rate of adoption of new technologies, or sometimes deficiencies arising in the due diligence processes.
Employee skillbase	Employees are crucial to the success of our business. Attracting and retaining highly qualified and skilled employees is essential to enable the Group to deliver on its strategy and to the success of the business.

Condensed consolidated income statement

$ million	Notes	First half 2019 Adjusted	First half 2019 Adjusting items[1]	First half 2019 Reported	First half 2018 Adjusted	First half 2018 Adjusting items[1]	First half 2018 Reported
Revenue	3	**217.4**	**-**	**217.4**	209.2	-	209.2
Cost of sales		**(60.9)**	**-**	**(60.9)**	(61.1)	-	(61.1)
Gross profit		**156.5**	**-**	**156.5**	148.1	-	148.1
Product development	3	**(48.5)**	**-**	**(48.5)**	(48.6)	-	(48.6)
Selling and marketing		**(63.1)**	**-**	**(63.1)**	(60.5)	-	(60.5)
Administration		**(24.2)**	**-**	**(24.2)**	(21.2)	-	(21.2)
Other items		**-**	**(2.6)**	**(2.6)**	-	(3.2)	(3.2)
Operating profit		**20.7**	**(2.6)**	**18.1**	17.8	(3.2)	14.6
Other items charged in arriving at operating profit:							
Acquisition related costs	9	**-**	**(0.1)**	**(0.1)**	-	-	-
Acquired intangible asset amortisation		**-**	**(0.8)**	**(0.8)**	-	(1.8)	(1.8)
Share-based payment		**-**	**(1.7)**	**(1.7)**	-	(1.4)	(1.4)
Other items		**-**	**(2.6)**	**(2.6)**	-	(3.2)	(3.2)
Finance income		**1.5**	**-**	**1.5**	0.5	-	0.5
Finance costs		**(0.9)**	**-**	**(0.9)**	-	-	-
Gain on divestment	8	**-**	**-**	**-**	-	2.3	2.3
Profit before tax		**21.3**	**(2.6)**	**18.7**	18.3	(0.9)	17.4
Tax	4	**(2.8)**	**0.7**	**(2.1)**	(3.1)	0.2	(2.9)
Profit for the period attributable to owners of the parent Company		**18.5**	**(1.9)**	**16.6**	15.2	(0.7)	14.5
Earnings per share (cents)	5						
Basic		**3.03**		**2.72**	2.49		2.38
Diluted		**3.00**		**2.69**	2.47		2.36

Note
1 Adjusting items comprise acquisition related costs, amortisation of acquired intangible assets, share-based payment, gain on divestment and tax on adjusting items.

The performance of the Group is assessed using a variety of non GAAP alternative performance measures which are presented to provide additional financial information that is regularly reviewed by management. Adjusting items are identified and excluded by virtue of their size, nature or incidence as they do not reflect management's evaluation of the underlying trading performance of the Group. The alternative performance measures are presented in appendix 2.

Condensed consolidated statement of comprehensive income

$ million	Notes	**First half 2019**	First half 2018
Profit for the period attributable to owners of the parent Company		**16.6**	14.5
Other comprehensive income			
Items that may subsequently be reclassified to profit or loss:			
Exchange differences on retranslation of foreign operations		**0.7**	(2.7)
Items that will not subsequently be reclassified to profit or loss:			
Re-measurement of the net defined benefit pension asset		**5.4**	8.6
Income tax effect of re-measurement of the net defined benefit pension asset		**(1.0)**	(1.5)
Re-measurement of the deferred compensation liability	7	**(0.4)**	0.3
Income tax effect of re-measurement of the deferred compensation liability		**0.1**	(0.1)
		4.1	7.3
Other comprehensive income		**4.8**	4.6
Total comprehensive income for the period attributable to owners of the parent Company		**21.4**	19.1

Condensed consolidated balance sheet

$ million	Notes	**30 June 2019**	30 June 2018	Audited 31 December 2018
Assets				
Non-current assets				
Intangible assets		**159.5**	160.6	158.0
Property, plant and equipment		**32.6**	38.2	36.1
Right-of-use assets	2	**24.9**	-	-
Trade and other receivables		**7.3**	4.5	4.5
Assets recognised from costs to obtain a contract		**0.3**	0.3	0.5
Defined benefit pension plan surplus	7	**10.9**	9.1	2.5
Deferred tax asset		**21.2**	19.0	22.0
		256.7	231.7	223.6
Current assets				
Inventories		**27.3**	26.6	25.7
Trade and other receivables		**106.5**	109.1	139.9
Assets recognised from costs to obtain a contract		**0.5**	0.5	0.5
Current tax asset		**2.3**	3.4	1.4
Cash and cash equivalents		**141.8**	95.4	121.6
		278.4	235.0	289.1
Total assets		**535.1**	466.7	512.7
Liabilities				
Current liabilities				
Trade and other payables		**(59.3)**	(51.9)	(63.1)
Deferred income		**(54.8)**	(60.2)	(55.2)
Lease liabilities	2	**(9.2)**	-	-
Other financial liabilities		**-**	(0.3)	-
Current tax liability		**(0.4)**	(0.3)	(1.2)
Provisions		**(10.4)**	(2.0)	(10.7)
		(134.1)	(114.7)	(130.2)
Non-current liabilities				
Trade and other payables		**(2.7)**	(6.4)	(5.4)
Deferred income		**(14.5)**	(9.9)	(14.4)
Lease liabilities	2	**(23.7)**	-	-
Defined benefit pension plan deficit	7	**(4.9)**	(4.4)	(4.1)
Provisions		**(2.8)**	(3.2)	(3.3)
		(48.6)	(23.9)	(27.2)
Total liabilities		**(182.7)**	(138.6)	(157.4)
Net assets		**352.4**	328.1	355.3
Capital and reserves				
Share capital		**25.9**	26.9	26.0
Share premium account		**25.7**	26.7	25.7
Capital redemption reserve		**16.7**	17.4	16.8
Other reserves		**17.7**	15.0	17.5
Translation reserve		**8.9**	8.6	8.2
Retained earnings		**257.5**	233.5	261.1
Total equity attributable to owners of the parent Company		**352.4**	328.1	355.3

Condensed consolidated statement of changes in equity

$ million	Notes	Share capital	Share premium account	Capital redemption reserve	Other reserves	Translation reserve	Retained earnings	Total equity
At 1 January 2018 (audited)		27.5	27.3	17.8	13.4	11.3	256.8	354.1
Profit for the period		-	-	-	-	-	14.5	14.5
Other comprehensive income		-	-	-	-	(2.7)	7.3	4.6
Total comprehensive income		-	-	-	-	(2.7)	21.8	19.1
Share-based payment		-	-	-	-	-	1.4	1.4
Tax credit on share incentives		-	-	-	-	-	0.1	0.1
Equity dividends	6	-	-	-	-	-	(44.2)	(44.2)
Employee Share Ownership Trust	12	-	-	-	-	-	(2.4)	(2.4)
Exchange adjustment		(0.6)	(0.6)	(0.4)	1.6	-	-	-
At 30 June 2018		26.9	26.7	17.4	15.0	8.6	233.5	328.1
At 1 January 2019 (audited), as reported		**26.0**	**25.7**	**16.8**	**17.5**	**8.2**	**261.1**	**355.3**
Impact of change in accounting standards – IFRS 16	2	**-**	**-**	**-**	**-**	**-**	**(3.4)**	**(3.4)**
Adjusted balance at 1 January 2019		**26.0**	**25.7**	**16.8**	**17.5**	**8.2**	**257.7**	**351.9**
Profit for the period		**-**	**-**	**-**	**-**	**-**	**16.6**	**16.6**
Other comprehensive income		**-**	**-**	**-**	**-**	**0.7**	**4.1**	**4.8**
Total comprehensive income		**-**	**-**	**-**	**-**	**0.7**	**20.7**	**21.4**
Share-based payment		**-**	**-**	**-**	**-**	**-**	**1.7**	**1.7**
Tax credit on share incentives		**-**	**-**	**-**	**-**	**-**	**0.2**	**0.2**
Equity dividends	6	**-**	**-**	**-**	**-**	**-**	**(16.7)**	**(16.7)**
Employee Share Ownership Trust	12	**-**	**-**	**-**	**-**	**-**	**(6.1)**	**(6.1)**
Exchange adjustment		**(0.1)**	**-**	**(0.1)**	**0.2**	**-**	**-**	**-**
At 30 June 2019		**25.9**	**25.7**	**16.7**	**17.7**	**8.9**	**257.5**	**352.4**

Condensed consolidated cash flow statement

$ million	Notes	**First half 2019**	First half 2018
Cash flows from operating activities			
Cash flow from operations	10	**57.2**	21.3
Tax paid		**(2.7)**	(4.2)
Net cash inflow from operating activities		**54.5**	17.1
Cash flows from investing activities			
Interest received		**1.2**	0.6
Purchase of intangible assets		**(0.3)**	-
Purchase of property, plant and equipment		**(6.1)**	(5.0)
Proceeds from sale of property, plant and equipment		**0.2**	0.5
Net expenses of divestments	8	**-**	(0.1)
Repayment of loans to divested subsidiaries	8	**-**	2.0
Acquisition of business	9	**(1.9)**	-
Net cash used in investing activities		**(6.9)**	(2.0)
Cash flows from financing activities			
Payment of lease liabilities, principal and interest	2	**(4.9)**	-
Dividend paid	6	**(16.7)**	(44.2)
Share purchase into Employee Share Ownership Trust	12	**(6.1)**	(2.4)
Net cash used in financing activities		**(27.7)**	(46.6)
Net increase/(decrease) in cash and cash equivalents		**19.9**	(31.5)
Cash and cash equivalents at the beginning of the period		**121.6**	128.4
Effect of foreign exchange rate changes		**0.3**	(1.5)
Cash and cash equivalents at the end of the period		**141.8**	95.4

Notes to the half year condensed consolidated financial statements

1 General information

The half year condensed consolidated financial statements do not constitute statutory accounts within the meaning of the Companies Act 2006. The statutory accounts for the year ended 31 December 2018 were approved by the Board of Directors on 7 March 2019 and have been delivered to the Registrar of Companies. The auditor's report on those accounts was unqualified, did not draw attention to any matters by way of emphasis and did not contain a statement made under Section 498(2) or (3) of the Companies Act 2006.

The half year condensed consolidated financial statements have been reviewed, not audited, by the Group's auditor pursuant to the Auditing Practices Board guidance on Review of Interim Financial Information. A copy of their review report is included at the end of this report.

The half year condensed consolidated financial statements for the period ended 30 June 2019 were approved by the directors on 1 August 2019.

2 Accounting policies

The accounting policies adopted and methods of computation used are consistent with those applied in the consolidated financial statements for the year ended 31 December 2018, except for the adoption of IFRS 16 'Leases', effective 1 January 2019. The annual financial statements of the Group are prepared in accordance with International Financial Reporting Standards as adopted by the EU.

Basis of preparation
The half year condensed consolidated financial statements have been prepared in accordance with IAS 34 'Interim Financial Reporting' as issued by the International Accounting Standards Board and endorsed by and adopted for use in the EU. This condensed set of half year financial statements has also been prepared in accordance with the Disclosure and Transparency Rules of the Financial Conduct Authority.

As at 30 June 2018, the Group's deferred compensation plan balance has been reclassified from 'trade and other payables – non-current' to 'defined benefit pension plan deficit' to appropriately aggregate pension-related liabilities within the Group's balance sheet. This resulted in a reclassification of $3.8 million. The related cash flow movement in the first half of 2018 was also reclassified using the appropriate corresponding line item within the 'cash flow from operating activities' category in the Group's cash flow statement. This reclassification had no impact on the Group's net assets, income statement or net cash flow from operating activities reported in the first half of 2018.

Critical accounting estimates and judgements
The preparation of the half year financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expense. Actual results may differ from these estimates.

In preparing these half year condensed financial statements, the significant judgements made by management in applying the Group's accounting policies and the key sources of estimation uncertainty were the same as those that applied to the consolidated financial statements for the year ended 31 December 2018, other than those additional areas which have arisen as a result of the adoption of IFRS 16 'Leases'.

Going concern
At 30 June 2019, the Group had cash balances of $141.8 million and no bank debt.

2 Accounting policies continued

The directors are satisfied that the Group has adequate financial resources to continue in operational existence for the foreseeable future, a period of not less than 12 months from the date of this report. Accordingly, and having assessed the principal risks faced by the Group, the going concern basis of accounting continues to be used in the preparation of the condensed consolidated financial statements.

New standards and interpretations
Other than in relation to IFRS 16 'Leases', there have been no new standards or amendments to existing standards effective from 1 January 2019 that are applicable to the Group or that has had any material impact on the financial statements and related notes as at 30 June 2019.

The directors do not anticipate that the adoption of any of the new standards and interpretations issued by the IASB and IFRIC with an effective date for the Group after the date of these interim financial statements will have a material impact on the Group's interim financial statements in the period of initial application.

IFRS 16 Leases
IFRS 16 'Leases' is effective from 1 January 2019 and replaces the existing standard IAS 17 'Leases'. The condensed consolidated financial statements for the interim period ending 30 June 2019 are the first financial statements presented under IFRS 16.

In lessee's financial statements, the standard eliminates the classification of leases as either operating leases or finance leases as per IAS 17 and introduces a single lessee accounting model. Lease agreements give rise to the recognition of an asset representing the right to use the leased item and a corresponding loan obligation for future lease payables.

The Group has applied IFRS 16 using the modified retrospective approach, meaning comparatives do not get restated and the cumulative effect of initially applying the standard is recognised as an adjustment to the opening balance of retained earnings at the date of initial application. Under this option, the Group has decided to calculate the asset value as if the standard had always been applied since the lease commencement date but discounted using the Group's incremental borrowing rate at the date of initial application. Lease liabilities were recognised based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at the date of initial application. The Group has also elected to use the following practical expedients:

- the application of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- use of its onerous lease assessment calculated in accordance with IAS 37 'Provisions, Contingent Liabilities and Contingent Assets' as an alternative to performing an impairment review of right-of-use assets on initial application;
- leases with less than 12 months remaining at date of initial application can be accounted for as short-term leases and continue to be expensed as incurred;
- initial direct costs can be excluded from the measurement of the right-of-use assets at the date of initial application; and
- hindsight can be used in determining the lease term if the contract contains options to extend or terminate the lease.

The Group also made use of the exemptions in respect of short-term leases and leases for which the underlying asset is of low value in accordance with paragraph 6 of IFRS 16.

Details of the change in the Group's accounting policy in respect of leases, related matters consequent upon the adoption of IFRS 16 and an explanation of the impact of IFRS 16 on the Group's financial statements is set out in appendix 1.

3 Operating segments

The Group's organisational structure is based on differences in the products and services offered by each segment and information regularly reviewed by the Group's Chief Executive Officer, its chief operating decision maker, is presented on this basis. The Group's operating segments follow this structure.

The Group's reportable operating segments are Networks & Security, Lifecycle Service Assurance and Connected Devices. The Group evaluates adjusted operating profit before acquisition related costs, acquired intangible asset amortisation and share-based payment. Finance income, finance costs and gain on divestment are not allocated to the reportable segments. Corporate is not an operating segment and costs are separately reported and not allocated to the reportable segments. Information on segment assets and segment liabilities is not regularly provided to the Group's Chief Executive Officer and is therefore not disclosed below. There is no aggregation of operating segments.

The Group disaggregates revenue from contracts with customers by nature of products and services and primary geographical markets, as management believe this best depicts how the nature, amount, timing and uncertainty of the Group's revenue and cash flows are affected by economic factors.

$ million	Networks & Security	Lifecycle Service Assurance	Connected Devices	Corporate	Total
First half 2019					
Revenue					
Nature of products and services					
Sale of hardware and software	**107.6**	**29.2**	**14.4**	**-**	**151.2**
Maintenance and support services	**23.4**	**21.8**	**21.0**	**-**	**66.2**
	131.0	**51.0**	**35.4**	**-**	**217.4**
Primary geographical markets					
Americas	**58.8**	**39.4**	**19.1**	**-**	**117.3**
Asia Pacific	**55.0**	**6.1**	**14.6**	**-**	**75.7**
Europe, Middle East and Africa	**17.2**	**5.5**	**1.7**	**-**	**24.4**
	131.0	**51.0**	**35.4**	**-**	**217.4**
Profit before tax					
Total reportable segment profit	**16.0**	**4.0**	**5.2**	**(4.5)**	**20.7**
Acquisition related costs *note 9*					**(0.1)**
Acquired intangible asset amortisation					**(0.8)**
Share-based payment					**(1.7)**
Operating profit					**18.1**
Finance income					**1.5**
Finance costs					**(0.9)**
Profit before tax					**18.7**
Other information					
Product development	**28.0**	**13.9**	**6.6**	**-**	**48.5**
Intangible asset amortisation – other	**-**	**-**	**0.4**	**-**	**0.4**
Depreciation	**6.8**	**2.3**	**2.0**	**0.2**	**11.3**
Inventory write-down	**0.1**	**-**	**-**	**-**	**0.1**

3 **Operating segments** continued

$ million	Networks & Security	Lifecycle Service Assurance	Connected Devices	Corporate	Total
First half 2018					
Revenue					
Nature of products and services					
Sale of hardware and software	103.2	26.3	16.1	-	145.6
Maintenance and support services	22.1	21.7	19.8	-	63.6
	125.3	48.0	35.9	-	209.2
Primary geographical markets					
Americas	61.1	39.4	19.7	-	120.2
Asia Pacific	48.2	3.6	13.7	-	65.5
Europe, Middle East and Africa	16.0	5.0	2.5	-	23.5
	125.3	48.0	35.9	-	209.2
Profit before tax					
Total reportable segment profit	14.8	1.4	4.0	(2.4)	17.8
Acquired intangible asset amortisation					(1.8)
Share-based payment					(1.4)
Operating profit					14.6
Finance income					0.5
Gain on divestment *note 8*					2.3
Profit before tax					17.4
Other information					
Product development	26.8	14.8	7.0	-	48.6
Intangible asset amortisation – other	-	-	0.4	-	0.4
Depreciation	4.9	1.6	1.8	0.1	8.4
Inventory write-down	(0.1)	(0.1)	(0.2)	-	(0.4)

Inter-segment revenue is eliminated in the above periods. All of the Group's revenue arose from contracts with customers.

Generally, revenue from the sale of hardware and software is recognised at a point in time and revenue from maintenance and support services is recognised over time.

Europe, Middle East and Africa includes United Kingdom revenue of $4.1 million (first half 2018: $3.6 million).

Americas includes United States revenue of $112.2 million (first half 2018: $114.6 million).

Asia Pacific includes China revenue of $41.2 million (first half 2018: $33.1 million).

Revenues are attributed to regions and countries based on customer location.

No one customer accounted for 10 per cent or more of total Group revenue in either 2019 or 2018.

The Group's activities are seasonal and are typically weighted towards the second half of the year.

4 Tax

$ million	**First half 2019**	First half 2018
Current income tax		
Overseas tax	**1.3**	0.7
Total income tax	**1.3**	0.7
Deferred tax		
Recognition of deferred tax assets	**(1.7)**	(0.8)
Reversal of temporary differences	**2.5**	3.0
Total deferred tax	**0.8**	2.2
Tax charge in the income statement	**2.1**	2.9

The effective tax rate for the first half year is 13.1 per cent (first half 2018: 16.9 per cent), being the current period tax charge, excluding tax on adjusting items, as a percentage of adjusted profit before tax.

5 Earnings per share

Basic
Basic earnings per share is calculated by dividing the profit for the period attributable to owners of the parent Company by the weighted average number of Ordinary Shares outstanding during the period.

Diluted
Diluted earnings per share is calculated by dividing the profit for the period attributable to owners of the parent Company by the weighted average number of Ordinary Shares outstanding during the period plus the weighted average number of Ordinary Shares that would be issued on the conversion of all dilutive potential Ordinary Shares into Ordinary Shares.

$ million	**First half 2019**	First half 2018
Profit for the period attributable to owners of the parent Company	**16.6**	14.5
Number million		
Weighted average number of Ordinary Shares in issue – basic	**609.9**	610.2
Dilutive potential of employee share incentives	**7.6**	5.5
Weighted average number of Ordinary Shares in issue – diluted	**617.5**	615.7
Cents		
Earnings per share		
Basic	**2.72**	2.38
Diluted	**2.69**	2.36

5 Earnings per share continued

The Group is disclosing adjusted earnings per share for continuing operations attributable to owners of the parent Company in order to provide a measure to enable period-on-period comparisons to be made of its performance. The following items are excluded from adjusted earnings:

- Acquisition related costs
- Acquired intangible asset amortisation
- Share-based payment
- Gain on divestment
- Tax effect on the above items

		First half 2019		First half 2018
	$ million	**EPS cents**	$ million	EPS cents
Profit for the period attributable to owners of the parent Company	**16.6**	**2.72**	14.5	2.38
Acquisition related costs	**0.1**		-	
Acquired intangible asset amortisation	**0.8**		1.8	
Share-based payment	**1.7**		1.4	
Gain on divestments	**-**		(2.3)	
Tax effect on the above items	**(0.7)**		(0.2)	
Adjusted basic	**18.5**	**3.03**	15.2	2.49
Adjusted diluted		**3.00**		2.47

6 Dividends paid and proposed

		First half 2019		First half 2018
	Cents per Ordinary Share	**$ million**	Cents per Ordinary Share	$ million
Amounts recognised as distributions to equity in the period				
Final dividend paid for previous year	**2.73**	**16.7**	2.40	14.3
Special dividend paid for previous year	**-**	**-**	5.00	29.9
Amounts approved by the directors (not recognised as a liability at the balance sheet date)	**1.94**	**11.8**	1.76	10.7

An interim dividend of 1.94 cents per Ordinary Share (2018: 1.76 cents per Ordinary Share) was declared by the Board on 1 August 2019 and will be paid to Ordinary shareholders on 6 September 2019 and to ADR holders on 13 September 2019. This dividend has not been included as a liability in these financial statements. The dividend is payable to all shareholders on the Register of Members at the close of business on 9 August 2019.

Dividends are declared or proposed in US dollars but will be paid in pounds sterling at the exchange rate prevailing when the dividend is declared or proposed. The exchange rate used for determining the amount of interim dividend to be paid was $1.22:£1.

7 Defined benefit pension plans

The Group has ongoing obligations in relation to two funded defined benefit pension plans in the United Kingdom. In addition, there is a United Kingdom unfunded plan.

The most recent actuarial valuations, at 31 March 2018, of the plans' assets and the present value of the plans' obligations, using the projected unit credit method, have been used and updated at 30 June 2019 as the basis for the accounting valuation.

The key financial assumptions are as follows:

%	**First half 2019**	First half 2018	Year 2018
Inflation - RPI	**3.2**	3.1	3.2
Inflation - CPI	**2.1**	2.0	2.1
Rate of increase in pensionable salaries	**2.1**	2.0	2.1
Rate of increase for pensions in payment			
Pre 2001 service	**3.7**	3.6	3.7
2001 to 5 April 2005 service	**3.1**	3.0	3.1
Post 5 April 2005 service	**2.1**	2.1	2.1
Rate of increase in deferred pensions	**2.1**	2.0	2.1
Rate used to discount plan liabilities	**2.3**	2.7	2.8

An operating charge of $0.4 million (first half 2018: $0.2 million) and finance income of $0.1 million (first half 2018: nil) have been recognised.

The assets and liabilities in the funded defined benefit pension plans were as follows:

$ million	**First half 2019**	First half 2018	Year 2018
Fair value of defined benefit pension plans' assets	**275.1**	270.8	254.2
Present value of defined benefit pension plans' obligations	**(264.2)**	(261.7)	(251.7)
Net UK funded defined benefit pension plan surplus on the balance sheet	**10.9**	9.1	2.5

The assets and liabilities on the balance sheet are as follows:

$ million	**First half 2019**	First half 2018	Year 2018
Schemes in net asset position			
UK funded defined benefit pension plan	**10.9**	9.1	2.5
Schemes in net liability position			
UK unfunded plan	**(0.6)**	(0.6)	(0.6)
US deferred compensation plan	**(4.3)**	(3.8)	(3.5)
	(4.9)	(4.4)	(4.1)
	6.0	4.7	(1.6)

7 Defined benefit pension plans *continued*

The Group also operates a deferred compensation plan for employees in the United States. The plan has elements of a defined benefit pension retirement obligation and therefore is required to be valued in accordance with IAS 19 'Employee Benefits'. At 30 June 2019, the deferred compensation deficit amounted to $4.3 million (31 December 2018: $3.5 million). A re-measurement loss of $0.4 million (31 December 2018: $0.5 million gain) was recognised directly in the statement of comprehensive income. The key financial assumptions include a discount rate used to discount plan liabilities of 3.4 per cent and an investment yield of 6.4 per cent (31 December 2018: 4.2 per cent discount rate and 6.4 per cent investment yield).

8 Divestments

In the first half of 2018, a $2.0 million loan was repaid to the Group from subsidiaries divested of in 2017. The loan had previously been impaired. The Group also incurred $0.1 million of expenses relating to the divestment. In addition, a provision for $0.4 million relating to a disposal in 2012, which was classified as a discontinued operation, was released.

9 Business combinations

On 31 May 2019, Spirent acquired a key business from Integrated Navigation Systems Limited (INS), a company based in United Kingdom, for cash consideration of $1.9 million. The acquired business is reported within the Group's Networks & Security operating segment.

INS develops and supplies the Group with a system for recording GNSS and Wi-Fi signals. The business acquisition will enable Spirent to streamline its supply chain process and improve gross margin on this product line.

From the date of acquisition to 30 June 2019, the acquired business did not contribute any revenue or profit before tax to the result of the Group before charging $0.1 million of acquisition related costs. If the combination had occurred at the beginning of the financial year, there would not have been any revenue, and $0.5 million of profit before tax, as a result of lower cost of sales, would have been included in the Group result, before charging $0.1 million of acquisition related costs and $0.1 million of acquired intangible asset amortisation.

The fair value of the identifiable net assets acquired is set out below:

$ million	**First half 2019**
Intangible assets	**1.0**
Inventory	**0.1**
Total identifiable net assets	**1.1**
Goodwill	**0.8**
Consideration	**1.9**

The intangible assets acquired represent current technology and have been assigned a provisional useful life of five years.

The goodwill arising of $0.8 million consists largely of the synergies and economies of scale expected from the combination together with intangible assets not qualifying for separate recognition such as workforce in place. The goodwill recognised is expected to be partly deductible for income tax purposes.

Acquisition related costs were $0.1 million and have been expensed to other items within the income statement.

10 Reconciliation of profit before tax to cash generated from operations

$ million	**First half 2019**	First half 2018
Profit before tax	**18.7**	17.4
Adjustments for:		
Finance income	**(1.5)**	(0.5)
Finance expense	**0.9**	-
Intangible asset amortisation	**1.2**	2.2
Depreciation of property, plant and equipment	**7.5**	8.4
Depreciation of right-of-use assets	**3.8**	-
Loss on the disposal of property, plant and equipment	**0.4**	-
Gain on divestments	**-**	(2.3)
Share-based payment	**1.7**	1.4
Changes in working capital		
Deferred income (released)/received	**(0.4)**	0.3
Decrease in receivables	**33.4**	20.3
Increase in inventories	**(1.6)**	(3.0)
Decrease in payables	**(3.8)**	(18.7)
Decrease in provisions	**(0.1)**	(1.2)
Defined benefit pension plan	**(3.3)**	(3.4)
Deferred compensation plan	**0.3**	0.4
Cash flow from operations	**57.2**	21.3

11 Fair value

The directors consider that the carrying amounts of the financial instruments included within trade and other receivables, trade and other payables and contractual provisions approximates their fair value.

Corporate owned life insurance, included within trade and other receivables, is stated at fair value and is at Level 1 in the fair value hierarchy as the valuation of the linked investments is based on quoted prices in active markets.

12 Employee Share Ownership Trust

During the first half of 2019, 3.0 million shares were purchased and placed into the Employee Share Ownership Trust (ESOT) at a cost of $6.1 million (first half 2018: 1.5 million shares at a cost of $2.5 million), and 2.6 million shares were transferred from the ESOT to satisfy options exercised under the Spirent employee share plans (first half 2018: 1.2 million transferred, raising proceeds of $0.1 million). At 30 June 2019, the ESOT held 1.0 million Ordinary Shares (31 December 2018: 0.6 million Ordinary Shares).

13 Related party transactions

There have been no related party transactions in the first half of 2019 which have significantly affected the financial position or the performance of the Group.

Related parties are consistent with those disclosed in the Group's Annual Report for the year ended 31 December 2018.

14 Capital commitments and contingent liabilities

There are no significant capital commitments. There have been no significant changes since 31 December 2018 to the Group's indemnities and contingencies.

Statement of directors' responsibilities

The directors confirm that to the best of their knowledge:

The condensed set of financial statements has been prepared in accordance with IAS 34 'Interim Financial Reporting' as issued by the IASB and endorsed and adopted by the EU.

The half year management report includes a fair review of the information required by:

(a) DTR 4.2.7R of the Disclosure and Transparency Rules, being an indication of important events that have occurred during the first six months of the financial year and their impact on the condensed set of financial statements; and a description of the principal risks and uncertainties for the remaining six months of the financial year; and

(b) DTR 4.2.8R of the Disclosure and Transparency Rules, being related party transactions that have taken place in the first six months of the current financial year and that have materially affected the financial position or performance of the entity during that period; and any changes in the related party transactions described in the 2018 Annual Report.

The directors of Spirent Communications plc are listed below and are unchanged from the Spirent Communications plc Annual Report for 31 December 2018 except for the appointment of Eric Updyke and the resignation of Eric Hutchinson.

William Thomas
Eric Updyke
Paula Bell
Jonathan Silver
Gary Bullard
Wendy Koh
Edgar Masri

By order of the Board of Spirent Communications plc.

E A Updyke
Chief Executive Officer
1 August 2019

Independent review report to Spirent Communications plc

Introduction

We have been engaged by the Company to review the condensed set of financial statements in the half yearly financial report for the six months ended 30 June 2019 which comprises the condensed consolidated income statement, condensed consolidated statement of comprehensive income, condensed consolidated balance sheet, condensed consolidated statement of changes in equity, condensed consolidated cash flow statement and the related notes 1 to 14. We have read the other information contained in the half yearly financial report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the condensed set of financial statements.

This report is made solely to the Company in accordance with guidance contained in International Standard on Review Engagements 2410 (UK and Ireland) "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Auditing Practices Board. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company, for our work, for this report, or for the conclusions we have formed.

Directors' Responsibilities

The half yearly financial report is the responsibility of, and has been approved by, the directors. The directors are responsible for preparing the half yearly financial report in accordance with the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

As disclosed in note 2, the annual financial statements of the Group are prepared in accordance with IFRSs as adopted by the European Union. The condensed set of financial statements included in this half yearly financial report has been prepared in accordance with International Accounting Standard 34, "Interim Financial Reporting", as adopted by the European Union.

Our Responsibility

Our responsibility is to express to the Company a conclusion on the condensed set of financial statements in the half yearly financial report based on our review.

Scope of Review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the condensed set of financial statements in the half yearly financial report for the six months ended 30 June 2019 is not prepared, in all material respects, in accordance with International Accounting Standard 34 as adopted by the European Union and the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

Ernst & Young LLP
London
1 August 2019

Appendix 1 – Impact of IFRS 16

The Group adopted IFRS 16 ‘Leases’ on 1 January 2019 using the modified retrospective transition method. This approach does not require restated comparative figures and therefore the comparative information is reported under IAS 17. Instead, the cumulative effect of applying IFRS 16 is applied to the opening balance of retained earnings at 1 January 2019. This appendix details the Group’s accounting policy for leases from 1 January 2019 and presents the impact of the adoption of IFRS 16 on the Group’s financial statements.

The cumulative effect of the adoption of IFRS 16 has resulted in a decrease of net assets of $3.4 million as at 1 January 2019. This reflects the difference between right-of-use assets and lease liabilities, as right-of-use assets depreciate quicker than lease liabilities are settled.

The following balances have been added to the Group’s balance sheet at 1 January 2019:

- right-of-use assets of $30.9 million;
- lease liabilities of $36.7 million; and
- deferred tax assets of $1.0 million.

Of the above balances:

- $1.5 million of the right-of-use assets have been reclassified from property, plant & equipment at 1 January 2019, offset by $0.6 million reclassified from provisions at 1 January 2019; and
- $2.3 million of the lease liabilities relates to lease incentives that have been derecognised from trade and other payables at 1 January 2019.

Therefore, the net decrease in net assets and adjustment to retained earnings is $3.4 million. The net decrease in retained earnings reflects the additional expense that would have be charged to the income statement under IFRS 16 before 1 January 2019.

In terms of the income statement impact in the first half of 2019, the operating lease expense per IAS 17, amounting to $4.6 million, was removed and replaced by a smaller depreciation charge of $3.8 million. Finance costs, being interest on the lease liabilities, of $0.8 million were also incurred resulting in an immaterial impact overall to the Group’s profit before tax and earnings.

Lease accounting policy applicable from 1 January 2019

The Group as a lessee

The Group assesses whether a contract is or contains a lease, at inception of a contract. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The vast majority of the Group's leases are buildings and therefore the new definition of a lease under IFRS 16 did not change the population of contracts that meet the definition of a lease for the Group.

The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease agreements in which it is the lessee at the commencement date of the lease (i.e. the date the underlying asset is available for use), except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Group recognises the lease payments as an operating expense within the income statement on a straight line basis over the period of the lease.

At the commencement date of the lease, the lease liability is initially measured at the present value of lease payments to be made over the lease term, discounted using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate. Under the modified retrospective transition method, lease liabilities are required to be discounted using the incremental borrowing rate at date of transition. The Group has set the discount rate based upon the local base rate with an additional premium to reflect various factors such as credit risk. This approach enables an appropriate rate to be set for each lease depending on geographic location and lease classification.

The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognised as an expense in the period on which the event or condition that triggers the payment occurs.

The lease liability is presented as a separate line in the consolidated balance sheet.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method), and by reducing the carrying amount to reflect the lease payments made. It is re-measured when there is a change in future lease payments arising from a change in an index or rate, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option. Interest on the lease liability is presented within finance costs in the income statement.

When the lease liability is re-measured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero. The Group did not make any such measurements during the periods presented.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the corresponding lease liability, adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The right-of-use assets are presented as a separate line in the consolidated balance sheet.

Lease payments for short-term leases, lease payments for low value assets and variable lease payments not included in the measurement of the lease liability are classified as cash flows from operating activities within the consolidated cash flow statement. The Group has classified the principal and interest portions of lease payments within financing activities.

The Group as a lessor
When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or operating lease.

To classify each lease, the Group makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease.

The Group subleases certain of its buildings where the subleases are classified as finance leases. In these instances, the Group derecognises the right-of-use asset on the head lease at the sublease commencement date and continues to account for the original lease liability in accordance with the lessee accounting model. The Group, as a sublessor, recognises a net investment in the sublease within trade and other receivables in the balance sheet and evaluates it for impairment. The net investment in the sublease is subsequently measured by increasing the carrying amount to reflect interest (using the effective interest method), and by reducing the carrying amount to reflect sublease income received. Interest on the net investment in the sublease is presented within finance income in the income statement.

In 2019, the Group entered into a sublease on an office building that it leases. This resulted in a derecognition of right-of-use assets amounting to $2.4 million.

Cash flows from the principal and interest of the finance lease receivables received are classified as investing activities within the consolidated cash flow statement.

Under IAS 17
In the comparative period, as a lessee all of the Group's leases were operating leases and were not recognised in the consolidated balance sheet. Payments made under operating leases were charged to the income statement on a straight line basis over the period of the lease.

The Group did not have any leases in which it was a lessor before 1 January 2019.

Critical accounting assumptions and judgements
The Group has set the discount rate based upon the local base rate with an additional premium to reflect various factors such as credit risk. This approach requires judgement and impacts the amount recognised as a lease liability and corresponding right-of-use asset, and therefore the amount of depreciation on the right-of-use asset and interest on the lease liability that are charged to the income statement.

The Group exercises judgement in determining whether it is reasonably certain that a building lease extension or termination option will be exercised. The Group assesses at lease commencement whether it is reasonably certain to exercise the extension options. The Group reassesses whether it is reasonably certain to exercise the options if there is a significant event or significant change in circumstances within its control. This judgement impacts the carrying amounts of right-of-use assets and lease liabilities.

Impact on financial statements

On transition to IFRS 16, the following adjustments were made to the Group's balance sheet:

$ million	Notes	At 1 January 2019
Right-of use assets cost	A	**65.2**
Right-of-use assets accumulated depreciation	B	**(35.2)**
Right-of-use assets impairment	C	**(0.6)**
Lease reinstatement reclassification from property, plant and equipment		
Right-of-use assets cost	D	**2.7**
Right-of-use assets accumulated depreciation	D	**(1.2)**
Total right-of-use assets recognised, at net book value		**30.9**
Lease liabilities	E	**(36.7)**
Lease reinstatement provisions reclassified to right-of-use assets	C	**0.6**
Property, plant and equipment reclassified to right-of-use assets	D	**(1.5)**
Lease incentives reclassified from trade and other payables	F	**2.3**
Deferred tax assets recognised	G	**1.0**
Total decrease to retained earnings, at 1 January 2019		**(3.4)**

Notes

A. Right-of-use assets cost recognised at 1 January 2019 (excluding lease reinstatement costs in note D). The Group has taken advantage of the practical expedient that permits initial direct costs to be excluded from the measurement of the right-of-use assets at the date of initial application (para. C10 (d)).

B. Right-of-use assets accumulated depreciation at 1 January 2019 (excluding lease reinstatement costs in note D).

C. Reclassification of onerous lease provision to right-of-use assets. On initial application of IFRS 16, the onerous lease assessment calculated in accordance with IAS 37 is permitted as an alternative to an impairment assessment (para. C10 (b)).

D. Reclassification of lease reinstatement costs from property, plant and equipment to right-of-use assets on 1 January 2019. Under IFRS 16, the right-of-use assets cost includes an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located. Under IAS 17, the lease reinstatement costs were included within property, plant and equipment.

E. Lease liabilities recognised at 1 January 2019. The Group has applied a single discount rate to a portfolio of leases with similar characteristics (para. C10 (a)) and hindsight has been used in determining the lease term if the contract contains options to extend or terminate the lease (para. C10 (e)).

F. On transition to IFRS 16, lease incentives previously included within trade and other payables have been derecognised as they form part of the measurement of the lease liability.

G. Deferred tax impact on transition to IFRS 16.

A reconciliation between the Group's operating lease commitment at 31 December 2018 and the lease liabilities at 1 January 2019 is presented below:

$ million	**At 1 January 2019**
Operating lease commitment at 31 December 2018 as disclosed in the Group's consolidated financial statements	**40.5**
Discounted using the incremental borrowing rate at 1 January 2019	**(4.6)**
Other	**0.8**
Lease liabilities recognised at 1 January 2019	**36.7**

The lease liabilities were discounted at the incremental borrowing rate at 1 January 2019. The weighted average discount rate was 4.9 per cent.

Appendix 2
Alternative Performance Measures (APM)

The performance of the Group is assessed using a variety of APMs which are presented to provide users with additional financial information that is regularly reviewed by management. The APMs presented are not defined under IFRS and therefore may not be directly comparable with similarly identified measures used by other companies.

In management's view, the APMs reflect the underlying performance of the Group and provide an alternative basis for evaluating how the Group is managed and measured on a day-to day basis. Such APMs should not be viewed in isolation or as an alternative to the equivalent GAAP measure.

The APMs and key performance indicators are aligned to the Group's strategy and collectively are used to measure the performance of the Group and form the basis of the metrics for director and management remuneration. The Group's key performance indicators are presented within the Strategic Report of its 2018 Annual Report.

Order intake
Order intake represents commitments from customers to purchase goods and/or services from Spirent that will ultimately result in recognised revenue.

Order intake is a measure of operating performance used by management to assess whether future activity levels are increasing or slowing and therefore how effective we have been in the execution of our strategy. Order intake is a key performance indicator used to measure Group, operating segment and regional performance for internal reporting purposes.

Order intake is a non-GAAP measure and as such should not be considered in isolation or as a substitute for GAAP measures of operating performance.

Adjusted operating profit
Adjusted operating profit is reported operating profit excluding acquisition related costs, amortisation of acquired intangible assets and share-based payment. Management uses adjusted operating profit, in conjunction with other GAAP and non-GAAP financial measures, to evaluate the overall operating performance of the Group as well as each of the operating segments and believes that this measure is relevant to understanding the Group's financial performance, as specific items (adjusting items) are identified and excluded by virtue of their size, nature or incidence, as they do not reflect the underlying trading performance of the Group. The exclusion of adjusting items from adjusted operating profit is consistent from period to period.

Adjusted operating profit is also used in setting director and management remuneration targets and in discussions with the investment analyst community.

Adjusted operating margin
Adjusted operating margin is adjusted operating profit as a percentage of revenue. It is a measure of the Group's overall profitability and how successful we are in executing on our overall strategy, and demonstrates our ability to improve margin through efficient operations and cost management whilst being mindful of the need to invest for the future.

Adjusted basic earnings per share
Adjusted basic earnings per share (EPS) is adjusted earnings attributable to owners of the parent Company divided by the weighted average number of Ordinary shares outstanding during the period. Adjusted earnings is reported profit before tax excluding acquisition related costs, amortisation of acquired intangible assets, share-based payment, gain on divestment and tax on adjusting items.
Adjusted basic EPS is a measure of how successful we are in executing on our strategy and ultimately delivering increased value for shareholders. Adjusted basic EPS is also used in setting director and management remuneration targets and in discussions with the investment analyst community. The Group sets out the calculation of adjusted basic EPS in note 5 of Notes to the half year condensed consolidated financial statements.

Free cash flow
Free cash flow is cash flow generated from operations, less tax and net capital expenditure, after interest paid and/or received, and payments of lease liabilities.

Free cash flow is a measure of the quality of the Group's earnings and reflects the ability to convert profits into cash and ultimately to generate funds for future investment. It gives us financial strength and flexibility and the ability to pay sustainable dividends to our shareholders. Free cash flow is an important indicator of overall operating performance as it reflects the cash generated from operations after capital expenditure, financing and tax which are significant ongoing cash flows associated with investing in the business and financing the operations.

Free cash flow excludes corporate level cash flows that are independent of ongoing trading operations such as dividends, acquisitions and disposals and share repurchases and therefore is not a measure of the funds that are available for distribution to shareholders.

A reconciliation of cash generated from operations, the closest equivalent GAAP measure, to free cash flow is provided within the Financial review on page 13.

Free cash flow conversion
Free cash flow conversion is the ratio of free cash flow to adjusted earnings, presented as a percentage.

Free cash flow conversion is a measure used in conjunction with free cash flow to assess the Group's ability to convert profit into cash and ultimately to generate funds for future investment.