Spirent Promise. Assured.

Spirent Communications plc
Full year results for the year ended 31 December 2018

$ million	2018	2017	Change (%)
Ongoing businesses[1]			
Order intake[2]	**470.0**	442.6	+6
Revenue	**476.9**	448.9	+6
Adjusted operating profit[3]	**77.1**	57.5	+34
Total Group			
Revenue	**476.9**	454.8	+5
Adjusted operating profit[3]	**77.1**	58.9	+31
Adjusted operating margin[4] (%)	**16.2**	13.0	+3.2
Adjusted profit before tax[5]	**78.4**	59.2	+32
Adjusted basic earnings per share[6] (cents)	**10.86**	7.55	+44
Reported operating profit	**57.5**	43.7	+32
Reported profit before tax	**61.2**	46.6	+31
Free cash flow[7]	**50.9**	56.4	-10
Closing cash	**121.6**	128.4	-5
Dividend per share[8] (cents)	**4.49**	4.08	+10
Special dividend per share (cents)	**-**	5.00	

Strong profitable growth

- Order intake and revenue from ongoing businesses both up 6 per cent year-on-year reflecting positive momentum across all business segments.
- In particular, we benefitted from US Government expenditure for Positioning GPS simulators (circa $10 million special project not expected to repeat) and demand for 400G high-speed Ethernet, which was strong in the second half of the year.
- Cost initiatives offsetting inflation, resulting in a broadly flat cost base. Going forward, we will continue to invest to support our growth agenda, particularly in R&D, whilst retaining an efficient cost base.
- Strong profit performance, with adjusted operating profit from continuing businesses up 34 per cent to $77.1 million and adjusted operating margin up from 13.0 per cent to 16.2 per cent.
- Effective tax rate reduced to 15.4 per cent driven by US tax reform and management initiatives.
- Adjusted basic EPS up 44 per cent to 10.86 cents.
- Strengthened sales and marketing effectiveness, implemented key account management and account-based marketing and refreshed Spirent brand.
- Exceptional items comprised $4.0 million for Guaranteed Minimum Pension (GMP) equalisation and $9.1 million provision for French import duty relating to an ongoing dispute dating back to 2011.
- Cash closed at $121.6 million, after payment of $54.8 million of ordinary and special dividends during the year.
- 10 per cent increase to full year dividend, up 14 per cent in sterling. Final dividend of 2.73 cents per share to be paid in May 2019, resulting in a total ordinary dividend for the full year of 4.49 cents per share.

Operational highlights

- Strategy is delivering on Spirent's potential across all operating segments.
- Networks & Security delivered strong growth with Lifecycle Service Assurance building scale.
- Connected Devices benefitted from cost management actions whilst revenue from ongoing businesses has stabilised.
- 5G development is gathering pace with positive impact on portfolio performance across all segments.

Networks & Security

- Revenue up 9 per cent drove operating margin improvement.
- Multiple strategic wins in high-speed Ethernet and record Positioning performance drives strong result.
- Revenue from our high-speed Ethernet business grew; we won multiple strategic deals to validate our market and product leadership in 400G.
- Our Positioning business secured record sales driven by US military spend, including circa $10 million related to a specific project which is not anticipated to repeat in 2019.
- Application Security growth in order intake was more than 20 per cent, with 25 new customers and increased subscription sales which builds deferred revenue. Application Security expanded the functionality of its flagship product (CyberFlood) and won more consulting business.

Lifecycle Service Assurance

- We focused our investment on laying the foundations for future growth in our Lifecycle Service Assurance business, delivering an increase in revenue of 3 per cent.
- We expanded our deployment of Spirent VisionWorks with our key tier 1 mobile operator customers in North America. We received new orders for VisionWorks from all existing customers and added three new major customers.
- We saw significant demand for our 10G and 100G probes driven by network rollouts of 100G and 10G Ethernet to support increased traffic for mobile backhaul and business services and to prepare for expected mobile traffic growth with 5G.
- We were awarded the Leading Lights Award for Outstanding Test and Measurement Vendor for our innovative Lifecycle Service Assurance strategy.
- 5G drove demand for our Landslide mobile infrastructure test system, for which we now have more than ten 5G customers, including five tier 1 mobile service providers, multiple infrastructure providers and a leading university.

Connected Devices

- Strong profit growth, revenue from ongoing businesses stabilised with previous cost management actions underpinning improved operating margin.
- Our Service Experience business grew on the back of new frequency band and service rollouts in the US and EMEA.
- We have developed a key partnership with National Instruments to launch new 5G device test products in the second half of 2019.
- We won significant 5G channel emulation deals throughout 2018 for testing new, complex 5G RF technologies.
- We demonstrated the world's first 5G Over-the-Air Massive MIMO Beamforming Radio Frequency (RF) Test Bed with the China Academy of Information and Communication Technology and Huawei.

Summary and outlook

In early 2017, we set out a strategy to focus on the parts of our technology portfolio best matched to growth trends, allowing us to leverage from our expertise and strong customer relationships. We continue to demonstrate proof points of the execution of this strategy, resulting in material growth to revenue and earnings.

In 2018, as expected, the demand for 400G high-speed Ethernet was strong in the second half of the year. We benefitted from strong demand from the US Government for our Positioning simulation products, and we expanded our footprint for both security and Lifecycle Service Assurance solutions.

We have a strong technology platform in our chosen areas of focus. 5G is an important driver bringing the next technology upcycle and we are well placed to support our customers' 5G needs across our whole portfolio as they begin to rollout their next phase of infrastructure investments.

The Board is confident that the Group will continue to see steady profitable growth in 2019, leveraging our technology platform to meet demand whilst adopting a balanced approach to driving efficiency and investment to support growth agendas. Therefore, we expect the cost base, as a percentage of revenue, to remain broadly constant looking forward.

Eric Hutchinson, Chief Executive Officer, commented:

"We are delighted to see our previously communicated strategy in action, delivering on Spirent's potential as we continue to maintain market leadership in our major revenue streams and continue to develop solutions to match new growth drivers such as 5G.

"We remain well positioned for future growth, enabling our customers to accelerate time to market and increase their service quality at lower operating costs and we are confident for further progress in the year ahead."

- ends -

Notes

1 The Device Intelligence and Developer Tools lines of business, divested 30 June 2017, and therefore excluded in the measures for ongoing businesses, contributed $5.2 million of order intake, $5.9 million of revenue and $1.4 million of adjusted operating profit to the Connected Devices operating segment result in 2017.
2 Order intake represents commitments from customers to purchase goods and/or services that will ultimately result in recognised revenue.
3 Adjusted operating profit is before charging exceptional items, acquired intangible asset amortisation and share-based payment amounting to $19.6 million in total (2017: $15.2 million).
4 Adjusted operating profit as a percentage of revenue in the period.
5 Before the items set out in note 3 and gain on divestments.
6 Adjusted basic earnings per share is based on adjusted earnings as set out in note 6 of Notes to the full year consolidated financial statements.
7 Operating cash flow after tax, net interest and net capital expenditure.
8 Dividends are determined in US dollars and paid in sterling at the exchange rate prevailing when the dividend is proposed. The final dividend proposed for 2018 of 2.73 cents per Ordinary Share is equivalent to 2.08 pence per Ordinary Share.

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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.

Performance review

Overview – delivering on our potential
In early 2017, Spirent launched a new strategy designed to focus on high-potential areas and deliver sustainable, profitable growth. The Group reorganised into three new segments focused around growth opportunities in each of Networks & Security, Lifecycle Service Assurance and Connected Devices and 2018 saw Spirent deliver a material increase in operating profit and earnings and begin to realise its significant potential.

Market
The prevailing market trends continue to be favourable to Spirent. The world's consumption and generation of data continues to drive relentless traffic growth, while in an effort to increase scale, telecoms equipment manufacturers and network operators need to reduce both operating costs and capital expenditure. Spirent's customers face these issues at the same time as seeking to meet end-customer demands for an improved quality of experience. These challenges are particularly acute for service providers with complex hybrid networks.

These dynamics are driving the need for new high-speed Ethernet technologies, the virtualisation of networks, and the move to utilise capacity through cloud technologies. High-speed Ethernet increases capacity in physical networks and data centers, while virtualisation lowers the cost of capital expenditure in building networks and allows the turn up of new services to be managed more efficiently. Spirent's technology leads in both of these areas, assuring functionality before deployment and during operations to deliver real-time responses to the changing conditions in live networks.

Pervasive security threats are now a daily occurrence, impacting any individual or business connected to the digital world. The cost of cybercrime continues to grow and is heaviest in financial services, utilities, aerospace & defence and healthcare. Spirent's ability to assess vulnerabilities and detect data breaches are therefore especially well-suited to the needs of the security test market.

Perhaps most importantly, we have now begun to see the major market impact of the development and deployment of 5G. Around the globe, vendors and operators race to develop and deploy 5G devices, networks and services. With mobile subscribers and connected devices saturating the global connectivity market, machine-to-machine connections are growing exponentially. Investment in 5G wireless infrastructure will grow to billions of dollars over the next three years, and 5G wireless deployment will enable innovation in the ways in which economic activity is undertaken and how entertainment and services are consumed. The work Spirent has done to position itself to benefit from this trend is starting to bear fruit.

5G development
5G development is accelerating with positive impact on our portfolio performance across our segments. Spirent has the industry's broadest and most innovative set of 5G test and service assurance solutions. We had over 30 customer wins in 2018. Our customers range across tier 1 service providers, major network equipment manufacturers and the largest 5G semi-conductor and device manufacturers. We provide a safe pathway for our customers across the lifecycle as they look to develop, launch and operationalise 5G. 5G drove demand for our mobile infrastructure test system, for which we now have more than ten 5G customers including five tier 1 mobile service providers, multiple infrastructure providers and a leading university.

Strategic priorities

Spirent's vision is to be our customers' trusted adviser, partnering with them to enable and assure their product and service offerings secure their ongoing business success.

Spirent's enabling technology allows customers to accelerate innovation, reduce time to market, achieve superior performance with their products, solutions and services, differentiate their quality of service and enhance their security of operations. Meanwhile, the Group's family of assurance solutions allow customers to manage complexity in an increasingly multi-technology world. It does this through the application of Spirent's expertise and codified methodologies in testing, measurement, assurance, analytics and security.

Our clear strategic priorities are as follows:

1. <u>Focus on key markets and customers</u>

Our first strategic priority is to **focus on target markets and customers** establishing new growth prospects for Spirent. For example, in Lifecycle Service Assurance, through the growth of our VisionWorks solutions, we serve the emerging needs of virtualised networks and 5G wireless service deployment. Another major initiative is the development, nurturing and growth of our new CyberFlood security products and services aimed at enterprise networks. The achievement of new customer wins for both VisionWorks and for CyberFlood shows that the strategy is being executed successfully, while the focus for 2019 will be about increasing the pace of execution. Looking ahead, we will continue to focus on appropriate investment to underpin growth whilst maintaining an efficient cost structure.

2. <u>Innovate and continue leading-edge product development</u>

The second strategic priority is **innovation** to further Spirent's leadership in the development and service assurance markets. Innovation is the life blood of the business, and we have successfully evolved capabilities in the high-speed Ethernet test market to establish leadership in 400G Ethernet and all other required variants. Through this activity, we have laid the foundations for ever-increasing scale. Innovation also includes the creation of new 5G wireless test solutions for both development test and service assurance across the entire portfolio and collaboration with partners. Leveraging Spirent's leadership in Global Navigation Satellite Systems (GNSS), we have also created systems utilised by US Government and commercial businesses to enable the testing of vulnerabilities linked to GNSS, like global positioning systems, sensor fusion, connected autonomous vehicles and transport infrastructure. Importantly, innovation also includes improvement in our internal processes, changing the way Spirent goes to market across its portfolio, to provide seamless service and support to the customer.

3. <u>Maintain financial strength and flexibility</u>

The third strategic priority is to ensure Spirent continues to have **financial strength** and a strong operational platform. 2018 saw the realisation of significant internal efficiency and cost-effective management programmes. Customer relationships have been strengthened through the client partner executive initiative at our key accounts. Our new Pace global channel partner programme was launched in 2018 to help expand Spirent's served markets. We retain a strong balance sheet with $121.6 million of cash, as we continue to focus on optimising cash conversion.

2018 operating performance

Adjusted basic earnings per share increased by 44 per cent to 10.86 cents (2017: 7.55 cents). This reflected the 31 per cent increase in adjusted operating profit to $77.1 million (2017: $58.9 million) and the reduction in the effective tax rate to 15.4 per cent from 22.1 per cent in 2017. Group revenue grew by 5 per cent, an increase of $22.1 million to $476.9 million. Strong revenue growth was achieved in Networks & Security, Lifecycle Service Assurance consolidated its position with major customers and Connected Devices was stable after accounting for the previously reported cessation in certain product lines in 2017.

Board update

As announced in November 2018, Eric Hutchinson has informed the Board of his wish to retire from the Company. A search process is in progress.

Summary and outlook

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In 2018, as expected, the demand for 400G high-speed Ethernet was strong in the second half of the year. We benefitted from strong demand from the US Government for our Positioning simulation products, and we expanded our footprint for both security and Lifecycle Service Assurance solutions.

We have a strong technology platform in our chosen areas of focus. 5G is an important driver bringing the next technology upcycle and we are well placed to support our customers' 5G needs across our whole portfolio as they begin to rollout their next phase of infrastructure investments.

The Board is confident that the Group will continue to see steady profitable growth in 2019, leveraging our technology platform to meet demand whilst adopting a balanced approach to driving efficiency and investment to support growth agendas. Therefore, we expect the cost base, as a percentage of revenue, to remain broadly constant looking forward.

Business review

Spirent operates in three strategic business segments: Networks & Security, Lifecycle Service Assurance and Connected Devices. This structure best positions the company to meet the needs and expectations of our customers and to capitalise on the business opportunities created as they:

- develop innovative devices, applications, network equipment and networks; and
- operate these networks and services.

We improve network performance and end user experience in our connected world and help create our smarter future.

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 and signals to simulate real-world conditions in the lab or in networks. Our portfolio covers high-speed Ethernet/IP, cloud, virtualisation, applications, security and GNSS, such as GPS.

$ million	**2018**	2017	Change (%)
Revenue	**285.1**	261.0	9
Operating profit[1]	**56.4**	43.9	28
Operating margin[1]	**19.8%**	16.8%	3.0

Note
1 Before exceptional items of $3.9 million charged in 2017.

Performance

Networks & Security revenue grew by 9 per cent to $285.1 million (2017: $261.0 million), driven by strong demand for high-speed Ethernet and positioning test systems. During the year a trade embargo with ZTE disrupted supply for a few months only and normal trading operations have resumed. Despite such challenges, sales into China have remained strong and continue to grow.

In the year we benefitted from circa $10 million of Positioning business with one customer which is unlikely to repeat.

Networks & Security generated operating profit before exceptional items of $56.4 million, an increase of 28 per cent on the prior year (2017: $43.9 million). Operating profit margin before exceptional items increased from 16.8 per cent in 2017 to 19.8 per cent.

Strategy

Our business objectives are to extend our market-leadership in Ethernet/IP, mobile infrastructure and positioning test systems and to grow our business in emerging technologies and new application areas, such as cyber security.

- To extend our lead in high-speed Ethernet/IP performance testing for emerging standards for data centers and wide area networks, such as 100G and 400G; wireless LAN and automotive Ethernet.
- To develop software-defined network (SDN) and network functions virtualisation (NFV) test methodologies and tools.

- To expand our security test business footprint in manufacturers, service providers and large enterprises by developing new product capabilities, investing in our security consulting services and expanding our marketing and sales channel globally.
- To extend our lead in GNSS simulation and the detection and assessment of products for security vulnerabilities. We will explore exciting new business opportunities in autonomous vehicles.

Impact of market dynamics on Spirent business

Accelerate time to market

The primary value we deliver is to *accelerate the time to market* for developers and vendors. We enable our customers to launch their new chipsets, modules, devices, equipment and applications and to connect to networks globally, while providing a comprehensive assessment of the performance and security of their products so they can protect and strengthen their brand and reputation. As developers and vendors seek to reduce their time to market and to ensure their product quality, the demand for Spirent's test systems rises.

Meet increasing network performance and security demands

The growth of cloud services drives innovation at an ever faster pace. Service providers worldwide are investing in their networks to keep up with demand. Over the year, we saw strong demand for 100G and 400G Ethernet/IP testing by data center and network equipment suppliers. We also saw the advent of 200G Ethernet development projects. As new routers, switches and other network equipment are developed, manufacturers, service providers and third party test labs buy our test systems to measure and validate their performance and security.

Communications service providers are undergoing vast changes driven by virtualisation enabling technologies, such as SDN and NFV. We provide test tools and services to measure and benchmark the performance of virtualised products in a range of operating environments and under different conditions.

We see strong demand for our security testing solutions across network equipment manufacturers, service providers and enterprise customers. Equipment providers with security capabilities, service providers, enterprises and government organisations contract our Spirent SecurityLabs service. Our security experts carry out assessments and provide a report and advice. Organisations also purchase our application and security products outright in order to evaluate the functionality and performance of their products and networks themselves.

<u>Lifecycle Service Assurance – 24% of Group revenue</u>

Our service assurance solutions accelerate the turn up of new services and the troubleshooting of customer and network performance problems. Our objective is to enable our service provider customers to reduce their costs while radically reducing their time to isolate problems and improve their network performance and customer experience.

$ million	**2018**	2017	Change (%)
Revenue	**112.8**	109.2	3
Operating profit[1]	**17.4**	17.9	(3)
Operating margin[1]	**15.4%**	16.4%	(1.0)

Note
1 Before exceptional items of $0.1 million charged in 2017.

Performance

Lifecycle Service Assurance revenue grew by 3 per cent to $112.8 million (2017: $109.2 million), driven by demand for our VisionWorks solutions at network operators and multiple system operators in North America and 5G applications of our Landslide mobile infrastructure test solution.

In 2018, Lifecycle Service Assurance generated operating profit before exceptional items of $17.4 million, remaining broadly level in comparison to the prior year (2017: $17.9 million), following marketing investments to support our growth agenda.

Strategy

Our business objective is to develop innovative service assurance and analytics solutions focused on the rollout and optimisation of mobile networks and services, Ethernet business services and virtualised network functions.

Our strategy is to radically reduce the time and cost to turn up new services and to speedily diagnose, troubleshoot and resolve issues with production networks and services. We do this through automation, visibility and analytics, all of which improve customer satisfaction and retention while reducing the cost and complexity of operating and managing a network. We provide systems to enable 4G/LTE, Internet of Things (IoT) and 5G devices and applications to connect to networks seamlessly, reducing the time and cost of pre-deployment qualification, and use analytics to manage the on-boarding and scaling of network devices and applications.

Spirent's patented, active test technology provides unprecedented visibility of the customer's true service experience for complex IP services that flow across providers, domains and hybrid networks. Our active test solutions effectively isolate and resolve issues in virtualised network environments. By bringing these capabilities together in the Spirent VisionWorks platform, we expect to win new business and expand our existing business at multiple top-tier carriers, as they expand their mobile networks and deploy SDN, NFV and next-generation IP services, including 5G and IoT.

Impact of market dynamics on Spirent business

We compete in the service assurance market. The estimated size of this market is about $3.1 billion in 2018, with growth forecast at a compound annual rate of 1.7 per cent between 2017 and 2021[1].

Our current business is driven by service provider investment in Ethernet/IP services, virtualisation, in-home data services, carrier Wi-Fi and mobile technologies, such as long-term evolution (LTE), voice over long-term evolution (VoLTE), and IP multimedia subsystem (IMS). The current market dynamics and outlook are favourable for our business. The investment in mobile networks and their operation and management remains a priority for network operators. As 4G LTE rolls out globally, there is wider commercial deployment of VoLTE, more 3G and LTE-connected vehicles and an increase in IoT applications.

Network operators are facing major challenges in reducing operating expenses. We reduce operating costs by accelerating service turn-up, reducing time to diagnose problems and helping our customers understand and improve their network performance and customer experience. Continued growth in the complexity of networks and services, coupled with intense competition between service providers and the fear of customer churn, has led to greater emphasis on customer experience management. Many operators are evolving from network-centric to customer-centric operations, and need to support new technologies, such as VoLTE, voice over Wi-Fi (VoWi-Fi), 5G, IoT and virtualisation.

Service providers remain cautious as they continue their shift from legacy networks to virtualisation and as they determine how best to realise the potential benefits. To manage NFV in a complex hybrid network and to manage new services, network operators require active performance test systems for service turn up and troubleshooting. Active test systems can be combined with analytics to measure network performance and customer experience periodically and to quickly isolate and diagnose performance and customer experience problems.

Connected Devices – 16% of Group revenue

Today, everyone wants to do things faster. Our test systems reduce the time to develop and test new devices and connect them to the network. Using our products or services, manufacturers and service providers can understand how new devices operate on real networks.

$ million	2018	Ongoing businesses[1] 2017	Change (%)
Revenue	**79.0**	78.7	-
Operating profit[2]	**10.5**	3.8	>100
Operating margin[2]	**13.3%**	4.8%	8.5

Notes

1 The Device Intelligence and Developer Tools lines of business, divested 30 June 2017, and therefore excluded in the measures for ongoing businesses, contributed $5.9 million of revenue and $1.4 million of adjusted operating profit to the Connected Devices operating segment result in 2017.

2 Before exceptional items of $1.4 million charged in 2017.

Performance

In 2018, Connected Devices maintained level revenue from ongoing businesses, at $79.0 million (2017: $78.7 million), as our device testing revenue stabilised and we saw early 5G RF test wins and strength in our Service Experience business.

Operating profit before exceptional items from ongoing businesses increased by $6.7 million to $10.5 million (2017: $3.8 million) which resulted in an increase in operating margin before exceptional items to 13.3 per cent (2017: 4.8 per cent). A relentless focus to reduce cost associated with legacy business, whilst directing resource to 5G products, has been implemented successfully.

Strategy

Our business objectives are to stabilise our revenue and improve our operating margin as the mobile device test business consolidates and declines and we develop new solutions for 5G.

Our strategy focuses on reducing cost to develop and launch new devices and services accelerating time to market while helping to ensure the highest service quality and user experience:

- invest in wireless device test products for development, location and carrier acceptance, while adapting those products and offering new services to meet the emerging requirements and changing customer expectations for video services, 5G and IoT;
- provide products and services to test the service experience over different networks or to benchmark a variety of devices over the same network; and
- Spirent announced an important collaboration with National Instruments (Nasdaq: NATI) to develop performance test systems for 5G NR devices. This comes at a time when chipset and device manufacturers are looking to accelerate the development of 5G-capable devices. Through our collaboration with National Instruments, we will be able to provide test solutions that can validate the performance of 5G NR smartphones and 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. We believe this collaboration will allow us to build even stronger, long-term working relationships with industry partners to help them accelerate commercialisation of 5G NR. We will have the first prototype solutions towards the end of 2019 aligned with the emerging market need for 5G NR device performance testing.

Impact of market dynamics on Spirent business

Economic Pressure and Consolidation in Smartphone Supply Chain

Economic pressure and consolidation of top-tier global smartphone, chipset and network equipment vendors has led to a fiercely challenging, competitive and shrinking market. We anticipate the wireless device test market will continue to contract as wireless component, module and network equipment manufacturers' spending slows in the cyclical market lull between ongoing 4G enhancements and the very early days of 5G.

4G LTE services growth

Spirent benefits from the development phase of 4G LTE services, such as VoLTE, and voice over Wi-Fi, and the focus on the user experience. GSA[2] reported that, although already widely deployed, LTE continued to be introduced into markets and regions around the world in 2018. By the end of 2018, GSA had identified 712 operators running LTE networks providing mobile and/or fixed wireless broadband services in 213 countries worldwide.

5G development

The standardisation work plan for 5G has been accelerated. The standard as specified in 3GPP Release 15 has been finalised in 2017 for Non-Standalone 5G NR and by mid-2018 for Standalone 5G NR. Early 5G deployments are anticipated in several markets, including the US, South Korea, Japan and China.

Growing opportunities and challenges in the IoT

The importance of wireless IoT connectivity continues to rise in a variety of segments from connected vehicles, homes and industry, to smart cities. This results in challenges in developing, connecting and operating IoT devices and applications on mobile and non-cellular networks, an attractive new market opportunity for Spirent. The number of IoT connected devices worldwide was 6.2 billion in 2015 and is expected to reach 32.5 billion by 2020, growing at a compound annual growth rate of 39 per cent[3].

Notes

1 Analysys Mason "Service Assurance Systems: Worldwide Forecast 2017–2021" (June 2017).

2 GSA, "Snapshot LTE Ecosystem" (December 2017).

3 Technavio, "GLOBAL 5G EQUIPMENT MARKET 2016–2020" (October 2016).

Financial review

Group overview
A strong performance was delivered in 2018. Robust revenue growth was underpinned by progress across all operating segments as we continue to leverage our leading-edge technology portfolio. Cost efficiency actions implemented during 2017 and 2018 have kept the cost base relatively flat, ensuring strong earnings growth, with a resulting increase in adjusted basic earnings per share of 44 per cent. As we look forward, the market growth drivers remain positive, as we enter a new technology upcycle with the development of 5G.

We will continue to invest effectively in our product development and marketing activities to support growth, whilst carefully managing our operating model to deliver a robust operating margin.

The Group delivered revenue growth from ongoing businesses of 6 per cent, finishing at $476.9 million. The primary driver for this growth was our Networks & Security operating segment, which grew revenue by 9 per cent, with strong demand for GPS test solutions produced by our Positioning business and, as predicted, increasing demand for 400G high-speed Ethernet testing. Our Positioning line of business, in particular, benefitted from a significant one-off project with a US defence contractor for circa $10 million, which we do not expect to repeat. Our Lifecycle Service Assurance operating segment delivered 3 per cent revenue growth but experienced some order placement delays, in particular from reorganisation at key North American customers. Connected Devices maintained level revenue with the transition to 5G progressing as expected.

Effective management of the cost base has continued during the year. Cost inflation has been largely mitigated with the overall cost base maintained broadly flat, allowing the incremental gross profit from higher revenues to flow down to adjusted operating profit. Consequently, adjusted operating profit margin from continuing businesses has increased to 16.2 per cent from 12.8 per cent in 2017.

Exceptional costs include $9.1 million provision for French import duty, following receipt of a Notice of Recovery from French Customs in relation to an ongoing dispute dating back to 2011, previously disclosed as a contingent liability at 31 December 2017, and $4.0 million in relation to Guaranteed Minimum Pension (GMP) equalisation on the UK defined benefit pension plan (2017: $6.7 million of exceptional costs for restructuring and strategic review).

Adjusted basic earnings per share increased by 44 per cent to 10.86 cents reflecting the growth in adjusted operating profit together with the benefit from a reduction in the effective tax rate from 22.1 per cent in 2017 to 15.4 per cent this year, following the implementation of a number of tax management initiatives and US tax reform.

Cash at bank closed at $121.6 million, down slightly on the position at 31 December 2017 of $128.4 million, following dividend payments totalling $54.8 million in the year, including the special dividend of $29.9 million. Free cash flow was $50.9 million, also slightly lower than the prior year (2017: $56.4 million), as higher activity levels in the final quarter of the year were reflected in working capital, despite mitigation from improved receivables collection performance year-on-year. Free cash flow represented 77 per cent of adjusted earnings (2017: 122 per cent).

As a result of the strong financial performance, we propose a 10 per cent increase to the full year dividend per share, from 4.08 cents to 4.49 cents.

The following table shows summary financial performance for the Group:

$ million	**2018**	2017	Change (%)
Ongoing businesses[1]			
Order intake[2]	**470.0**	442.6	+6
Revenue	**476.9**	448.9	+6
Adjusted operating profit[3]	**77.1**	57.5	+34
Total Group			
Order intake[2]	**470.0**	447.8	+5
Revenue	**476.9**	454.8	+5
Gross profit	**344.5**	325.0	+6
Gross margin (%)	**72.2**	71.5	+0.7
Adjusted operating costs[3]	**267.4**	266.1	-
Adjusted operating profit[3]	**77.1**	58.9	+31
Adjusted operating margin[4] (%)	**16.2**	13.0	+3.2
Reported operating profit	**57.5**	43.7	+32
Reported profit before tax	**61.2**	46.6	+31
Adjusted basic earnings per share[5] (cents)	**10.86**	7.55	+44
Basic earnings per share (cents)	**9.14**	4.75	+92
Free cash flow[6]	**50.9**	56.4	-10
Closing cash	**121.6**	128.4	-5
Final dividend per share[7] (cents)	**2.73**	2.40	+14
Special dividend per share (cents)	**-**	5.00	

Notes

1 The Device Intelligence and Developer Tools lines of business, divested 30 June 2017, and therefore excluded in the measures for ongoing businesses, contributed $5.2 million of order intake, $5.9 million of revenue and $1.4 million of adjusted operating profit to the Connected Devices operating segment result in 2017.

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

3 Before exceptional items, acquired intangible asset amortisation and share-based payment amounting to $19.6 million in total (2017: $15.2 million).

4 Adjusted operating profit as a percentage of revenue in the period.

5 Adjusted basic earnings per share is based on adjusted earnings as set out in note 6 of Notes to the full year consolidated financial statements.

6 Operating cash flow after tax, net interest and net capital expenditure.

7 Dividends are determined in US dollars and paid in sterling at the exchange rate prevailing when the dividend is proposed. The final dividend proposed for 2018 of 2.73 cents per Ordinary Share is equivalent to 2.08 pence per Ordinary Share.

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 the Appendix. 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	**2018**	**% of total**	2017	% of total
Revenue by segment				
Networks & Security	**285.1**	**59.8**	261.0	57.4
Lifecycle Service Assurance	**112.8**	**23.6**	109.2	24.0
Connected Devices	**79.0**	**16.6**	84.6	18.6
	476.9	**100.0**	454.8	100.0
Revenue by geography				
Americas	**265.4**	**55.7**	248.6	54.7
Asia Pacific	**159.1**	**33.3**	160.2	35.2
Europe, Middle East and Africa	**52.4**	**11.0**	46.0	10.1
	476.9	**100.0**	454.8	100.0

Group revenue grew by $22.1 million in 2018, an increase of 5 per cent over the prior year. Excluding businesses divested in 2017, which contributed $5.9 million of revenue in the prior year, the increase was higher at $28.0 million, or 6 per cent.

All operating segments achieved revenue growth from ongoing businesses in 2018 but a primary driver was the Networks & Security operating segment with 9 per cent growth year-on-year. Within that segment all our lines of business grew revenue compared to the prior year. As anticipated, we saw growth in 400G in the second half of the year and our Application Security test solutions continued to gain traction. Orders for our Application Security solutions grew more than 20 per cent and subscription-based sales also grew which deliver revenue to future years and generate a sustainable revenue stream over the longer-term. Positioning benefitted from strong US military-related business in the year and, in particular, one US Government contractor placed business worth circa $10 million, which is one-off in nature and not expected to repeat.

Major reorganisations at key service provider customers for our Lifecycle Service Assurance solutions constrained growth to 3 per cent year-on-year. Within this segment, Mobility Infrastructure was again a highlight but this positive was tempered by delays at a major customer experience management project implementation at a key customer. Excluding businesses divested in 2017, Connected Devices revenues were level year-on-year as device testing demand stabilised, we saw early 5G RF test wins and strength in our Service Experience business.

Geographically, we saw good growth in the Americas, driven primarily by Networks & Security, in particular US military business within Positioning. The trend of decreasing revenue in EMEA was reversed in 2018 with strong growth in sales into Europe from Networks & Security and also this year from Mobility Infrastructure within Lifecycle Service Assurance. For ongoing businesses, the growth in revenue in EMEA was even more pronounced at 20 per cent year-on-year. Similarly, excluding businesses divested in 2017, APAC revenue was flat year-on-year, with modest growth in sales to China, despite the trade difficulties, offset by softness in other parts of the region, especially South East Asia.

Gross margin

$ million	2018	%	2017	%
Networks & Security	**205.3**	**72.0**	186.7	71.5
Lifecycle Service Assurance	**87.9**	**77.9**	84.7	77.6
Connected Devices	**51.3**	**64.9**	53.6	63.4
	344.5	**72.2**	325.0	71.5

Gross margin increased by 0.7 percentage points, to 72.2 per cent from 71.5 per cent in the prior year. All the operating segments achieved an improvement in gross margin but it was most pronounced in Connected Devices at 1.5 percentage points, benefitting from a higher proportion of software sales.

Operating costs

$ million	2018	2017
Product development	**96.9**	103.0
Selling and marketing	**123.9**	116.8
Administration[1]	**46.6**	46.3
Adjusted operating costs[1]	**267.4**	266.1
Networks & Security	**148.9**	142.8
Lifecycle Service Assurance	**70.5**	66.8
Connected Devices	**40.8**	48.4
Corporate	**7.2**	8.1
Adjusted operating costs[1]	**267.4**	266.1

Note
1 Before exceptional items, acquired intangible asset amortisation and share-based payment amounting to $19.6 million in total (2017: $15.2 million).

Overall adjusted operating costs were broadly flat in 2018 compared to 2017, with much of the increase due to inflation mitigated by effective cost management actions. $3.8 million of adjusted operating costs in 2017 were associated with the divested businesses held for six months.

Following the completion of the portfolio review programme and sales reorganisation last year, management continues to focus on effective resource allocation and cost control, with investment directed to high-growth, high-margin areas. The impact of the focus on resource allocation is evident from the analysis of operating cost by type and segment, with expenditure focused on investment in sales and marketing to address strategic growth areas and the cost base of Connected Devices materially reduced. The overall level of investment was increased in Networks & Security and, to a lesser extent, in Lifecycle Service Assurance to drive and support increased activity levels. Corporate costs in 2017 included one-off costs associated with governance and tax compliance, which have not repeated in 2018.

The total Group investment in product development was reduced by $6.1 million overall, and by $4.9 million excluding businesses divested in 2017. Connected Devices product development costs represent $4.2 million of the overall decrease.

Selling and marketing costs increased by $7.1 million in total and by $8.9 million excluding businesses divested in 2017. This reflects the full year impact of specific investments made following the review undertaken by external consultants last year, including a key account management programme and an EMEA sales reorganisation. In addition, 2018 reflects the costs associated with the rebranding launched in August.

Administration costs have been maintained essentially flat year-on-year. Overall exchange rate movements have had little impact on the cost base in 2018, compared to 2017.

Following several years of implementing cost initiatives the cost base has now been effectively reshaped to match our strategic agenda, and as we look forward, we will continue to selectively invest in our product development and associated sales and marketing expertise to support our growth agenda.

Operating profit

$ million	**2018**	**Adjusted operating margin[1, 2] %**	2017	Adjusted operating margin[1, 2] %
Networks & Security	**56.4**	**19.8**	43.9	16.8
Lifecycle Service Assurance	**17.4**	**15.4**	17.9	16.4
Connected Devices	**10.5**	**13.3**	5.2	6.1
Corporate	**(7.2)**		(8.1)	
Adjusted operating profit[1]	**77.1**	**16.2**	58.9	13.0
Exceptional items	**(13.1)**		(6.7)	
Acquired intangible asset amortisation	**(3.7)**		(6.3)	
Share-based payment	**(2.8)**		(2.2)	
Reported operating profit	**57.5**		43.7	

Notes
1 Before exceptional items, acquired intangible asset amortisation and share-based payment amounting to $19.6 million in total (2017: $15.2 million).
2 Adjusted operating profit as a percentage of revenue in the period.

Adjusted operating profit increased by 31 per cent to $77.1 million, compared with $58.9 million in 2017, and adjusted operating margin increased to 16.2 per cent from 13.0 per cent in 2017. For ongoing businesses, excluding divestments made in 2017, the growth in adjusted operating profit was 34 per cent (2017 adjusted operating profit from ongoing businesses: $57.5 million) and the increase in adjusted operating margin was more pronounced at 3.4 per cent (2017 adjusted operating margin from ongoing businesses: 12.8 per cent).

Other items charged in arriving at reported operating profit were exceptional items, acquired intangible asset amortisation and share-based payment, which totalled $19.6 million in 2018 compared to $15.2 million last year.

Exceptional items

Exceptional items totalling $13.1 million have been charged in 2018, these were comprised of:

1) $9.1 million provision for import duty following receipt of a Notice of Recovery from French Customs in relation to an ongoing inquiry which commenced in 2011. The Notice of Recovery is disputed. The issue relates to the valuation and classification of imports into France and was disclosed as a contingent liability in note 17 of Notes to the consolidated financial statements in our 2017 Annual Report; and
2) a pension scheme past service cost of $4.0 million (£3.1 million) arising from a benefit change for GMP equalisation under our UK defined benefit pension plans. The requirement to make provision for these costs arose from the High Court ruling on 26 October 2018 on the Lloyds Bank GMP Inequalities case. See the 'Defined benefit pension plans' section below for further detail.

In 2017, the Group incurred $6.7 million of exceptional costs in relation to:

1) a portfolio review together with a programme to increase the effectiveness and efficiency of the sales organisation, which resulted in exceptional restructuring costs of $5.4 million; and
2) a strategic review of Connected Devices at an exceptional cost of $1.3 million.

Acquired intangible asset amortisation and share-based payment

As a result of some acquired intangible assets reaching the end of their useful economic lives and no longer being amortised, acquired intangible asset amortisation has decreased significantly in 2018 to $3.7 million, down from $6.3 million in 2017.

Share-based payment has increased to $2.8 million in 2018 (2017: $2.2 million) reflecting adjustments to the expected vesting of previous awards with non-market based performance conditions and the incremental cost associated with new awards.

Divestments

There were no divestments in 2018.

The gain on divestment in 2018 of $2.4 million arose as a result of the repayment in full of a $2.0 million loan for working capital purposes extended to the purchaser of the Device Intelligence and Developer Tools lines of business, within Connected Devices, divested 30 June 2017, which had previously been impaired. In addition, during 2018 a provision relating to a disposal in 2012, which was classified as a discontinued operation, was released.

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 Group's income statement includes a foreign exchange loss, included in administration costs, of $0.6 million (2017: $1.6 million) arising from:

1) transacting in foreign currencies, primarily US dollars in the United Kingdom, of $0.4 million (2017: $0.9 million); and
2) translation of foreign currency cash balances of $0.2 million (2017: $0.7 million).

Forward foreign currency exchange contracts are entered into to manage the exposure arising from transacting in US dollars in the United Kingdom.

Although the most significant currency exposure arises in relation to movements in pound sterling against the US dollar, there are other less significant currency exposures, notably the Euro and Chinese Yuan.

Finance income and costs

Finance income of $1.4 million was earned from cash held on deposit (2017: $0.6 million). Surplus funds are held principally in the United Kingdom and United States on short-term deposit and earn market rates of interest which remain relatively low. No interest cost arose on the defined benefit pension plan in 2018 (2017: $0.3 million).

Tax

The adjusted effective tax rate, being the adjusted tax charge expressed as a percentage of adjusted profit before tax, shown on the face of the consolidated income statement, was 15.4 per cent in 2018, down from 22.1 per cent in 2017.

The US Tax Cuts and Jobs Act (the Act) became effective on 1 January 2018. The Act includes a number of significant changes in the tax law that have implications for Spirent. The most significant change is a permanent reduction in the corporate income tax rate from 35 per cent to 21 per cent. Other changes that impact the Group include the repeal of the Domestic Production Activity Deduction (DPAD) and the enactment of a new deduction, the Foreign-Derived Intangible Income (FDII) deduction.

The impact of the US tax rate reduction, together with the repeal of the DPAD and the addition of the FDII deduction, and an increased UK Patent Box deduction are the main drivers of the decrease in the Group's 2018 adjusted effective tax rate to 15.4 per cent.

The Group continues to receive a tax benefit from both the US Research & Experimental tax credit and the UK Patent Box Scheme.

Earnings per share

Adjusted basic earnings per share was up 44 per cent to 10.86 cents (2017: 7.55 cents). Basic earnings per share was 9.14 cents (2017: 4.75 cents). There were 610.4 million (2017: 610.6 million) weighted average Ordinary Shares in issue. See note 6 of Notes to the full year consolidated financial statements on page 34 for the calculation of earnings per share.

Cash flow

The Group delivered healthy cash generation in 2018. Cash flow from operations in the prior year benefitted from a release in working capital driven by a focus on improving trade receivables collection performance. Further improvements were made in the current year but working capital was adversely impacted by higher activity levels in the last quarter which drove up trade receivables at the year end. Free cash flow came in marginally lower than last year at $50.9 million (2017: $56.4 million), resulting in a free cash flow conversion which represented 77 per cent of adjusted earnings (2017: 122 per cent).

Cash and cash equivalents were $121.6 million at 31 December 2018, compared with $128.4 million at 31 December 2017. Although 2018 finished lower than last year, this was after paying dividends of $54.8 million in the year, including the special dividend of $29.9 million. There continues to be no debt.

Free cash flow is set out below:

$ million	**2018**	2017
Cash flow from operations	**65.9**	77.7
Tax paid	**(5.7)**	(8.4)
Net cash inflow from operating activities	**60.2**	69.3
Interest received	**1.3**	0.6
Net capital expenditure	**(10.6)**	(13.5)
Free cash flow	**50.9**	56.4

Tax payments of $5.7 million were lower in 2018 than the prior year (2017: $8.4 million), primarily due to the impact of US tax reform which lowered the statutory rate of tax. Net capital expenditure of $10.6 million was lower than last year in part due to timing and also as we continue to exercise careful management of capital investment to ensure efficient use of capital and maximise return on investment.

In 2018, the final dividend for 2017 and an interim dividend for 2018 totalling $24.9 million were paid (2017: $24.6 million). In addition, the special dividend for 2017 of $29.9 million was paid at the same time as the final dividend for 2017 (2017: nil cash out flow from special dividend). Also during 2018, 1.5 million shares were purchased and placed into the Employee Share Ownership Trust at a cost of $2.5 million.

Defined benefit pension plans

The Group operates two funded defined benefit pension plans in the United Kingdom, both of which were closed to new entrants some time ago.

The accounting valuation of the funded defined benefit pension plans at 31 December 2018 gave rise to a net surplus of $2.5 million compared with a net deficit of $2.2 million at 31 December 2017. The basis of the assumptions underlying the valuation at 31 December 2018 were consistent with those used at 31 December 2017. Contributions to the plans paid in the year were $6.8 million (2017: $6.6 million).

The valuation at 31 December 2018 was based on the triennial actuarial valuation dated 31 March 2015. The latest triennial valuation as at 31 March 2018 is in progress. The Company is currently paying an annual contribution of £5.0 million (circa $6.6 million), which commenced 1 July 2016 for a period of seven years, under a deficit reduction plan agreed with the trustees following the 2015 triennial valuation.

In addition, there is a liability for an unfunded plan of $0.6 million (31 December 2017: $0.6 million).

On 26 October 2018, the High Court ruled on the Lloyds Bank GMP Inequalities case. In response to this, an amount of $4.0 million (£3.1 million) has been included on the Company and consolidated balance sheets at 31 December 2018 to make an allowance for the estimated costs arising from the judgement. This is required to be accounted for as a benefit change, included as a past service cost in the income statement for 2018. Due to its size and nature, this charge has been classified as an exceptional item.

The Group also operates a deferred compensation plan for employees in the United States. As at 31 December 2018, the deferred compensation plan deficit amounted to $3.5 million (2017: $3.7 million). The key financial assumptions include a discount rate used to discount plan liabilities of 4.2 per cent (2017: 3.4 per cent) and an expected investment yield of 6.4 per cent (2017: 7.5 per cent).

Balance sheet

The consolidated balance sheet is set out on page 26.

Overall net assets were little changed at $355.3 million, compared to $354.1 million last year. The corresponding small movement in equity reflects the fact that the profit for the year has been almost entirely returned to shareholders as dividend, both ordinary and special.

In terms of non-current assets, amortisation of acquired intangible assets together with management of capital investment has led to a year-on-year decrease of $11.2 million.

Current assets have increased by $5.3 million as a result of growth in trade receivables due to higher activity levels at the end of 2018, compared to 2017, this is despite successful action taken by management to reduce the number of days sales outstanding reflected in trade receivables.

Non-current liabilities are virtually unchanged at $27.2 million, with higher deferred income offsetting a reduction in the defined benefit pension plan deficit.

Current liabilities have decreased by $6.7 million, with lower deferred revenue, due to timing of shipments, lower trade payables, due to a different profile of purchasing in the year, and a fall in the value of payments received on account, offset to some extent by an increase in provisions. The latter being primarily due to the booking of a provision for $8.9 million in respect of French import duty.

Liquidity and dividend policy

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. If and when it is deemed appropriate, the Company may take on modest gearing to fund inorganic investments.

The Board will 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, as it did during 2018 with payment of a special dividend.

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

Dividend

The Board is recommending the payment of a final dividend for 2018 of 2.73 cents (2.08 pence) per share which, together with the interim dividend of 1.76 cents (1.34 pence) per share paid in September 2018, brings the full year dividend to 4.49 cents (3.42 pence) per share. This is a 10 per cent increase compared to the full year dividend for 2017. In sterling terms this represents an increase of 14 per cent. The dividend is covered 2.4 times by adjusted earnings.

Subject to approval by shareholders at the Annual General Meeting on 1 May 2019, the final dividend will be paid on 3 May 2019 to shareholders on the register at 15 March 2019. Payment to ADR holders will be made on 10 May 2019.

Consolidated income statement

$ million	Notes	**Year ended 31 December 2018**			Year ended 31 December 2017		
		Adjusted	**Adjusting items[1]**	**Reported**	Adjusted	Adjusting items[1]	Reported
Revenue	3	**476.9**	**-**	**476.9**	454.8	-	454.8
Cost of sales		**(132.4)**	**-**	**(132.4)**	(129.8)	-	(129.8)
Gross profit		**344.5**	**-**	**344.5**	325.0	-	325.0
Product development	3	**(96.9)**	**-**	**(96.9)**	(103.0)	-	(103.0)
Selling and marketing		**(123.9)**	**-**	**(123.9)**	(116.8)	-	(116.8)
Administration		**(46.6)**	**-**	**(46.6)**	(46.3)	-	(46.3)
Other items		**-**	**(19.6)**	**(19.6)**	-	(15.2)	(15.2)
Operating profit		**77.1**	**(19.6)**	**57.5**	58.9	(15.2)	43.7
Other items charged in arriving at operating profit:							
Exceptional items	4	**-**	**(13.1)**	**(13.1)**	-	(6.7)	(6.7)
Acquired intangible asset amortisation		**-**	**(3.7)**	**(3.7)**	-	(6.3)	(6.3)
Share-based payment		**-**	**(2.8)**	**(2.8)**	-	(2.2)	(2.2)
Other items		**-**	**(19.6)**	**(19.6)**	-	(15.2)	(15.2)
Finance income		**1.4**	**-**	**1.4**	0.6	-	0.6
Finance costs		**(0.1)**	**-**	**(0.1)**	(0.3)	-	(0.3)
Gain on divestment	12	**-**	**2.4**	**2.4**	-	2.6	2.6
Profit before tax		**78.4**	**(17.2)**	**61.2**	59.2	(12.6)	46.6
Tax	5	**(12.1)**	**6.7**	**(5.4)**	(13.1)	(4.5)	(17.6)
Profit for the year attributable to owners of the parent Company		**66.3**	**(10.5)**	**55.8**	46.1	(17.1)	29.0
Earnings per share (cents)	6						
Basic		**10.86**		**9.14**	7.55		4.75
Diluted		**10.75**		**9.05**	7.48		4.71

Note
1 Adjusting items comprise exceptional items, amortisation of acquired intangible assets, share-based payment, gain on divestment, tax on adjusting items and prior year tax. 2017 also includes revaluation of deferred tax assets due to US tax reform.

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 the Appendix.

Consolidated statement of comprehensive income

		Year ended 31 December	
$ million	Notes	**2018**	2017
Profit for the year attributable to owners of the parent Company		**55.8**	29.0
Other comprehensive (loss)/income			
Items reclassified to profit or loss:			
Reclassification of foreign exchange on overseas divestments	12	**-**	(3.1)
Items that may subsequently be reclassified to profit or loss:			
Exchange differences on retranslation on foreign operations		**(3.1)**	4.1
		(3.1)	1.0
Items that will not subsequently be reclassified to profit or loss:			
Re-measurement of the net defined benefit pension asset/liability	9	**2.8**	5.5
Income tax effect of re-measurement of defined benefit pension asset/liability		**(0.6)**	(1.0)
Re-measurement of the deferred compensation liability	9	**0.5**	(0.9)
Income tax effect of re-measurement of the deferred compensation liability		**(0.1)**	0.2
		2.6	3.8
Other comprehensive (loss)/income		**(0.5)**	4.8
Total comprehensive income for the year attributable to owners of the parent Company		**55.3**	33.8

Consolidated balance sheet

$ million	Notes	At 31 December 2018	Restated[1] 2017	Restated[1] At 1 January 2017
Assets				
Non-current assets				
Intangible assets		**158.0**	163.6	169.8
Property, plant and equipment		**36.1**	42.3	47.3
Trade and other receivables		**4.5**	4.1	4.6
Assets recognised from costs to obtain a contract		**0.5**	0.4	0.4
Cash on deposit		**-**	-	0.1
Defined benefit pension plan surplus	9	**2.5**	1.2	0.9
Deferred tax asset	11	**22.0**	23.2	33.1
		223.6	234.8	256.2
Current assets				
Inventories		**25.7**	23.6	27.4
Trade and other receivables		**139.9**	130.1	128.9
Assets recognised from costs to obtain a contract		**0.5**	0.6	0.6
Other financial assets		**-**	0.1	-
Current tax asset		**1.4**	1.0	0.4
Cash and cash equivalents		**121.6**	128.4	96.1
		289.1	283.8	253.4
Total assets		**512.7**	518.6	509.6
Liabilities				
Current liabilities				
Trade and other payables		**(63.1)**	(70.2)	(67.8)
Deferred income		**(55.2)**	(61.7)	(59.4)
Other financial liabilities		**-**	-	(0.1)
Current tax liability		**(1.2)**	(1.4)	(1.5)
Provisions	8	**(10.7)**	(3.6)	(4.2)
		(130.2)	(136.9)	(133.0)
Non-current liabilities				
Trade and other payables		**(5.4)**	(5.4)	(3.4)
Deferred income		**(14.4)**	(11.0)	(11.2)
Deferred tax liability	11	**-**	(0.3)	(0.3)
Defined benefit pension plan deficit	9	**(4.1)**	(7.7)	(16.7)
Provisions	8	**(3.3)**	(3.2)	(2.6)
		(27.2)	(27.6)	(34.2)
Total liabilities		**(157.4)**	(164.5)	(167.2)
Net assets		**355.3**	354.1	342.4
Capital and reserves				
Share capital		**26.0**	27.5	25.3
Share premium account		**25.7**	27.3	25.0
Capital redemption reserve		**16.8**	17.8	16.3
Other reserves		**17.5**	13.4	19.4
Translation reserve		**8.2**	11.3	10.3
Retained earnings		**261.1**	256.8	246.1
Total equity attributable to owners of the parent Company		**355.3**	354.1	342.4

Note
1 Restated for the adoption of IFRS 15 on 1 January 2018. Refer to note 37 of Notes to the consolidated financial statements in the 2018 Annual Report for further details.

Consolidated statement of changes in equity

		Attributable to the equity holders of the parent Company						
$ million	Notes	Share capital	Share premium account	Capital redemption reserve	Other reserves	Translation reserve	Retained earnings	Total equity
At 1 January 2017, as reported		25.3	25.0	16.3	19.4	10.3	245.3	341.6
Impact of change in accounting standards – IFRS 15		-	-	-	-	-	0.8	0.8
At 1 January 2017, restated[1]		25.3	25.0	16.3	19.4	10.3	246.1	342.4
Profit for the year		-	-	-	-	-	29.0	29.0
Other comprehensive income[2]		-	-	-	-	1.0	3.8	4.8
Total comprehensive income		-	-	-	-	1.0	32.8	33.8
Share-based payment		-	-	-	-	-	2.2	2.2
Tax credit on share incentives		-	-	-	-	-	0.3	0.3
Equity dividends	7	-	-	-	-	-	(24.6)	(24.6)
Exchange adjustment		2.2	2.3	1.5	(6.0)	-	-	-
At 1 January 2018, restated[1]		**27.5**	**27.3**	**17.8**	**13.4**	**11.3**	**256.8**	**354.1**
Profit for the year		**-**	**-**	**-**	**-**	**-**	**55.8**	**55.8**
Other comprehensive (loss)/income[3]		**-**	**-**	**-**	**-**	**(3.1)**	**2.6**	**(0.5)**
Total comprehensive (loss)/income		**-**	**-**	**-**	**-**	**(3.1)**	**58.4**	**55.3**
Share-based payment		**-**	**-**	**-**	**-**	**-**	**2.8**	**2.8**
Tax credit on share incentives		**-**	**-**	**-**	**-**	**-**	**0.4**	**0.4**
Equity dividends	7	**-**	**-**	**-**	**-**	**-**	**(54.8)**	**(54.8)**
Employee Share Ownership Trust[4]		**-**	**-**	**-**	**-**	**-**	**(2.5)**	**(2.5)**
Exchange adjustment		**(1.5)**	**(1.6)**	**(1.0)**	**4.1**	**-**	**-**	**-**
At 31 December 2018		**26.0**	**25.7**	**16.8**	**17.5**	**8.2**	**261.1**	**355.3**

Notes

1 Restated for the adoption of IFRS 15 on 1 January 2018. Refer to note 37 of Notes to the consolidated financial statements in the 2018 Annual Report for further details.

2 The amount included in other comprehensive income for 2017 of $3.8 million represents re-measurement gains on the net defined benefit pension liability of $5.5 million, net of a tax charge of $1.0 million, and re-measurement losses on the deferred compensation liability of $0.9 million, net of a tax credit of $0.2 million. The amount included in the translation reserve of $1.0 million represents other comprehensive income related to the translation of foreign operations of $4.1 million net of an other comprehensive loss arising on the reclassification of foreign exchange on overseas divestments of $3.1 million.

3 The amount included in other comprehensive (loss)/income for 2018 of $2.6 million represents re-measurement gains on the net defined benefit pension asset of $2.8 million, net of a tax charge of $0.6 million, and re-measurement gains on the deferred compensation liability of $0.5 million, net of a tax charge of $0.1 million. The amount included in the translation reserve of $3.1 million represents other comprehensive loss related to the translation of foreign operations.

4 During the year 1.5 million shares were purchased and placed into the Employee Share Ownership Trust at a cost of $2.5 million.

Consolidated cash flow statement

$ million	Notes	Year ended 31 December 2018	2017
Cash flows from operating activities			
Cash flow from operations	10	**65.9**	77.7
Tax paid		**(5.7)**	(8.4)
Net cash inflow from operating activities		**60.2**	69.3
Cash flows from investing activities			
Interest received		**1.3**	0.6
Purchase of intangible assets		**-**	(0.4)
Purchase of property, plant and equipment		**(12.0)**	(14.9)
Proceeds from the sale of property, plant and equipment		**1.4**	1.8
Net expenses of divestments	12	**(0.2)**	(0.7)
Loan from/(to) divested subsidiaries	12	**2.0**	(2.0)
Net cash used in investing activities		**(7.5)**	(15.6)
Cash flows from financing activities			
Dividend paid	7	**(54.8)**	(24.6)
Share purchase into Employee Share Ownership Trust		**(2.5)**	-
Net cash used in financing activities		**(57.3)**	(24.6)
Net (decrease)/increase in cash and cash equivalents		**(4.6)**	29.1
Cash and cash equivalents at the beginning of the year		**128.4**	96.1
Effect of foreign exchange rate changes		**(2.2)**	3.2
Cash and cash equivalents at the end of the year		**121.6**	128.4

Notes to the full year consolidated financial statements

1 Financial information presented

The financial information contained in this document does not constitute the Group's statutory accounts for the year ended 31 December 2018.

As required by the European Union's IAS Regulation and the Companies Act 2006, the Group has prepared its consolidated financial statements for the year ended 31 December 2018 in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and issued by the International Accounting Standards Board. The comparative financial information is based on the statutory accounts for the year ended 31 December 2017 which have been delivered to the Registrar of Companies. The report of the auditors 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 of the Companies Act 2006.

The full year announcement was approved by the Board of Directors on 7 March 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 2017, except for the adoption of IFRS 9 'Financial Instruments' and IFRS 15 'Revenue from Contracts with Customers', both effective 1 January 2018. The annual financial statements of the Group are prepared in accordance with IFRS as adopted by the EU.

New accounting standards
There have been no new standards or amendments to existing standards and interpretations that have been applied by the Group which have resulted in a significant impact on its consolidated results or financial position, other than in relation to IFRS 9 'Financial Instruments' and IFRS 15 'Revenue from Contracts with Customers'.

IFRS 9 Financial Instruments
IFRS 9 'Financial Instruments' is effective from 1 January 2018 and replaces the existing standard, IAS 39 'Financial Instruments: Recognition and Measurement'. The consolidated financial statements for the year ending 31 December 2018 are the first financial statements presented under IFRS 9. There is no material impact to the financial statements on transition to IFRS 9, other than classification effects, which have not impacted the measurement or carrying amount of financial instruments.

IFRS 15 Revenue from Contracts with Customers
IFRS 15 'Revenue from Contracts with Customers' is effective from 1 January 2018 and replaces all existing revenue requirements in IFRS. The consolidated financial statements for the year ending 31 December 2018 are the first financial statements presented under IFRS 15.

IFRS 15 applies to all revenue arising from contracts with customers unless the contracts are in scope of other standards.

The Group has applied IFRS 15 fully retrospectively in accordance with paragraph C3 (a) of the standard, restating the prior period comparatives and electing to use the following practical expedients:

- in respect of completed contracts, the Group will not restate contracts that (i) begin and end within the same annual reporting period; or (ii) are completed contracts at the beginning of the earliest period presented (para. C5(a)); and

- for all reporting periods presented before the date of initial application, the Group will not disclose the amount of the transaction price allocated to the remaining performance obligations or an explanation of when the Group expects to recognise that amount as revenue (para C5(d)).

An explanation of the impact on the Group's prior period financial statements and related matters consequent upon the adoption of IFRS 15 are set out in note 37 of Notes to the consolidated financial statements in the 2018 Annual Report.

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 financial statements will have a material impact on the Group's financial statements in the period of initial application other than in relation to IFRS 16 which is discussed below.

IFRS 16 Leases
IFRS 16 'Leases' was issued in January 2016 to replace IAS 17 'Leases' and is effective for accounting periods beginning on or after 1 January 2019. The Group will first adopt IFRS 16 in the financial year ending 31 December 2019.

The Group has completed its impact assessment and determined that the application of the new standard will have a material impact on both gross assets and gross liabilities, adding circa $29 million of right-of-use assets and circa $32 million of lease liabilities. There will be a decrease in retained earnings of circa $3 million. There will also be an impact to the income statement, resulting in an increase to adjusted operating profit through the operating lease expense being removed and replaced with a smaller depreciation charge. This impact is deemed to be immaterial. There will be an interest expense under the new accounting that would not have occurred under IAS 17 which will substantially offset the increase in operating profit and result in an immaterial difference to profit before tax. There will not be an impact to total cash flows, however there will be an increase in cash flows from operating activities of circa $7 million, and a corresponding decrease in cash flows from financing activities.

At the point of transition the Group has elected to apply the standard using the modified retrospective approach, in accordance with paragraph C7 of the standard, meaning comparatives do not get restated. Under this option, the Group has decided to calculate the asset value as if the standard had always been applied (para. C8 (b)(i)).

A detailed disclosure on the impact of IFRS 16 is set out in note 2 of Notes to the consolidated financial statements in the 2018 Annual Report.

Going concern
At 31 December 2018, the Group had cash balances of $121.6 million and no debt.

The directors have reviewed the detailed financial projections for a period of 12 months from the date of this report and the business plans for the 2020 and 2021 financial years. They have also considered the principal risks and uncertainties that the Group faces and its current financial position and 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, the going concern basis of accounting continues to be used in the preparation of the financial statements.

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 exceptional items, 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
2018					
Revenue					
Nature of products and services					
Sale of hardware and software	**239.8**	**66.9**	**40.0**	**-**	**346.7**
Maintenance and support services	**45.3**	**45.9**	**39.0**	**-**	**130.2**
	285.1	**112.8**	**79.0**	**-**	**476.9**
Primary geographical markets					
Americas	**133.7**	**93.4**	**38.3**	**-**	**265.4**
Asia Pacific	**112.6**	**9.8**	**36.7**	**-**	**159.1**
Europe, Middle East and Africa	**38.8**	**9.6**	**4.0**	**-**	**52.4**
	285.1	**112.8**	**79.0**	**-**	**476.9**
Profit before tax					
Total reportable segment profit before exceptional items	**56.4**	**17.4**	**10.5**	**(7.2)**	**77.1**
Exceptional items *note 4*	**-**	**-**	**-**	**(13.1)**	**(13.1)**
Total reportable segment profit	**56.4**	**17.4**	**10.5**	**(20.3)**	**64.0**
Acquired intangible asset amortisation					**(3.7)**
Share-based payment					**(2.8)**
Operating profit					**57.5**
Finance income					**1.4**
Finance costs					**(0.1)**
Gain on divestment *note 12*					**2.4**
Profit before tax					**61.2**
Other information					
Product development	**53.0**	**29.6**	**14.3**	**-**	**96.9**
Intangible asset amortisation – other	**-**	**-**	**0.6**	**-**	**0.6**
Depreciation	**9.7**	**3.1**	**3.6**	**0.1**	**16.5**

3 Operating segments *continued*

$ million	Networks & Security	Lifecycle Service Assurance	Connected Devices	Corporate	Total
2017					
Revenue					
Nature of products and services					
Sale of hardware and software	214.2	68.6	37.7	-	320.5
Maintenance and support services	46.8	40.6	45.7	-	133.1
Royalty income	-	-	1.2	-	1.2
	261.0	109.2	84.6	-	454.8
Primary geographical markets					
Americas	116.9	90.0	41.7	-	248.6
Asia Pacific	111.4	12.2	36.6	-	160.2
Europe, Middle East and Africa	32.7	7.0	6.3	-	46.0
	261.0	109.2	84.6	-	454.8
Profit before tax					
Total reportable segment profit before exceptional items	43.9	17.9	5.2	(8.1)	58.9
Exceptional items *note 4*	(3.9)	(0.1)	(1.4)	(1.3)	(6.7)
Total reportable segment profit	40.0	17.8	3.8	(9.4)	52.2
Acquired intangible asset amortisation					(6.3)
Share-based payment					(2.2)
Operating profit					43.7
Finance income					0.6
Finance costs					(0.3)
Gain on divestment *note 12*					2.6
Profit before tax					46.6
Other information					
Product development	53.6	30.9	18.5	-	103.0
Intangible asset amortisation – other	-	-	0.8	-	0.8
Depreciation	9.6	3.5	4.8	0.1	18.0

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 $6.8 million (2017: $8.1 million).

Americas includes United States revenue of $254.1 million (2017: $237.8 million).

Asia Pacific includes China revenue of $92.2 million (2017: $88.3 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 2018 or 2017.

3 Operating segments *continued*

$ million	**2018**	2017
Non-current assets[1]		
Americas	**184.6**	195.4
Asia Pacific	**4.4**	4.9
Europe, Middle East and Africa	**5.1**	5.6
	194.1	205.9

Note
1 Non-current assets excludes trade and other receivables, assets recognised from costs to obtain a contract, defined benefit pension plan surplus and deferred tax asset.

Europe, Middle East and Africa includes United Kingdom non-current assets of $2.0 million (2017: $2.9 million).

Americas includes United States non-current assets of $171.1 million (2017: $182.5 million).

4 Exceptional items

$ million	**2018**	2017
French Customs duty	**9.1**	-
UK pension fund GMP equalisation past service cost	**4.0**	-
Portfolio review and sales organisation restructuring	**-**	5.4
Strategic review of Connected Devices	**-**	1.3
	13.1	6.7

In 2018, the Group has recognised a $9.1 million charge in relation to an ongoing compliance dispute with Direction Générale des Douanes et Droits Indirects (French Customs) concerning the valuation and classification of imports into France which commenced in 2011. The amount is comprised of an $8.9 million provision (note 8) and $0.2 million other costs.

In addition, following the Lloyds Bank GMP inequalities court judgement published in October 2018, the Group has equalised GMP benefits amounting to $4.0 million (£3.1 million) of defined benefit pension past service costs. See note 9 for further details.

In 2017, Spirent concluded a portfolio and sales organisation review and also incurred a contract amendment fee in relation to outsourced research and development services. In addition, in 2017 the Group undertook a strategic review of the Connected Devices operating segment incurring advisors' fees of $1.3 million.

The tax effect of exceptional items is a credit of $3.8 million (2017: $1.9 million). The total cash outflow in respect of exceptional items charged in 2018 is anticipated to be $9.1 million, with $0.2 million paid in the year (2017: $6.8 million with $3.4 million paid in that year). The cash outflow in 2018 in respect of exceptional items charged in 2017 was $3.4 million (2017: $2.5 million).

The total cash outflow in respect of exceptional items charged in 2018 will be reported within cash flows from operating activities in the consolidated cash flow statement.

5 Tax

$ million	2018	2017
Current income tax		
UK tax	**0.1**	0.1
Foreign tax	**6.2**	7.4
Amounts (overprovided)/underprovided in previous years	**(1.2)**	0.1
Total current income tax charge	**5.1**	7.6
Deferred tax		
Recognition of deferred tax assets – US Research and Experimental tax credit	**-**	(1.5)
Recognition of deferred tax assets – other	**(0.8)**	(0.8)
Write-off of previously recognised tax assets including rate changes	**-**	8.0
Reversal of temporary differences	**1.4**	3.0
Adjustments in respect of prior years	**(0.3)**	1.3
Total deferred tax charge	**0.3**	10.0
Tax charge in the income statement	**5.4**	17.6

The tax charge for the year ended 31 December 2018 was $5.4 million (2017: $17.6 million). This was after a prior year tax credit of $1.5 million and a tax credit on the adjusting items of $5.2 million (2017: prior year charge of $1.4 million and tax charge on adjusting items of $3.1 million). Excluding the prior year and tax charge on adjusting items, the effective tax rate was 15.4 per cent (2017: 22.1 per cent).

6 Earnings per share

Basic

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

Diluted

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

6 Earnings per share *continued*

$ million	2018	2017
Profit for the year attributable to owners of the parent Company	**55.8**	29.0

Number million	2018	2017
Weighted average number of Ordinary Shares in issue – basic	**610.4**	610.6
Dilutive potential of employee share incentives	**6.5**	5.5
Weighted average number of Ordinary Shares in issue – diluted	**616.9**	616.1

Cents	2018	2017
Earnings per share		
Basic	**9.14**	4.75
Diluted	**9.05**	4.71

Adjusted

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:

- exceptional items
- acquired intangible asset amortisation
- share-based payment
- gain on divestment
- tax effect on the above items
- prior year tax (adjustments made to provisions in respect of prior years)
- revaluation of deferred tax assets due to US tax reform (in 2017)

A reconciliation is provided below:

	2018		2017	
	$ million	**EPS cents**	$ million	EPS cents
Profit for the year attributable to owners of the parent Company	**55.8**	**9.14**	29.0	4.75
Exceptional items *note 4*	**13.1**		6.7	
Acquired intangible asset amortisation	**3.7**		6.3	
Share-based payment	**2.8**		2.2	
Gain on divestment	**(2.4)**		(2.6)	
Tax effect on the above items	**(5.2)**		(4.8)	
Revaluation of deferred tax assets due to US tax reform	**-**		7.9	
Prior year tax	**(1.5)**		1.4	
Adjusted basic	**66.3**	**10.86**	46.1	7.55
Adjusted diluted		**10.75**		7.48

There were no Ordinary Share transactions that occurred after 31 December that would have significantly changed the number of Ordinary Shares or potential Ordinary Shares outstanding at the period end if those transactions had occurred before the end of the reporting period in either year.

7 Dividends paid and proposed

$ million	**2018**	2017
Declared and paid in the year		
Equity dividend on Ordinary Shares		
Final dividend 2017 of 2.40 cents (1.73 pence) per Ordinary Share (2016: 2.21 cents (1.59 pence))	**14.3**	14.2
Special dividend 2017 of 5.00 cents (3.60 pence) per Ordinary Share	**29.9**	-
Interim dividend 2018 of 1.76 cents (1.34 pence) per Ordinary Share (2017: 1.68 cents (1.27 pence))	**10.6**	10.4
	54.8	24.6
Proposed for approval at AGM (not recognised as a liability at 31 December)		
Equity dividend on Ordinary Shares		
Final dividend 2018 of 2.73 cents (2.08 pence) per Ordinary Share (2017: 2.40 cents (1.73 pence))	**16.7**	14.3
Special dividend 2017 of 5.00 cents (3.60 pence) per Ordinary Share	**-**	29.9
	16.7	44.2

The directors are proposing a final dividend in respect of the financial year ended 31 December 2018 of 2.73 cents per Ordinary Share (2.08 pence) (2017: 2.40 cents), which will absorb an estimated $16.7 million of shareholders' funds (2017: $14.3 million). The final dividend will be paid on 3 May 2019 to Ordinary shareholders who are on the Register of Members at close of business on 15 March 2019. Payment will be made to ADR holders on 10 May 2019. No liability is recorded in the financial statements in respect of these dividends.

Dividends are determined in US dollars and paid in pounds sterling. The exchange rate for determining the amount of the final dividend to be paid for 2018 was $1.31: £1 (2017: $1.39: £1).

8 Provisions

$ million	Lease provisions	Restructuring provisions	Other provisions	Total
At 1 January 2017	3.1	2.3	1.4	6.8
Charged in the year	0.8	3.7	0.5	5.0
Asset retirement obligation	0.1	-	-	0.1
Released in the year	(0.1)	-	(0.1)	(0.2)
Utilised in the year	(0.3)	(4.6)	-	(4.9)
Unwind of discount	0.1	-	-	0.1
Disposals	(0.2)	(0.1)	-	(0.3)
Exchange difference	-	0.1	0.1	0.2
At 1 January 2018	**3.5**	**1.4**	**1.9**	**6.8**
Charged in the year	**-**	**0.5**	**9.4**	**9.9**
Asset retirement obligation	**0.5**	**-**	**-**	**0.5**
Released in the year	**-**	**(0.1)**	**(0.9)**	**(1.0)**
Utilised in the year	**(0.5)**	**(1.8)**	**(0.1)**	**(2.4)**
Unwind of discount	**0.1**	**-**	**-**	**0.1**
Exchange difference	**-**	**-**	**0.1**	**0.1**
At 31 December 2018	**3.6**	**-**	**10.4**	**14.0**

$ million	2018	2017
Current	**10.7**	3.6
Non-current	**3.3**	3.2
	14.0	6.8

The lease provisions are for the continuing obligations under leases in respect of space which has been vacated by the Group and property dilapidation and restoration provisions. Where material, lease obligations are discounted. The Group expects these provisions to be utilised over one to six years.

Other provisions comprise environmental provisions related to property disposed of, provisions relating to legal claims and a provision relating to a Notice of Recovery received from French Customs, discussed below. The Group expects these provisions to be utilised in less than one year.

The Group has made a provision for $8.9 million following the receipt of a Notice of Recovery from the Direction Générale des Douanes et Droits Indirects (French Customs) in relation to the valuation and classification of duty on certain imports into France. This is an ongoing dispute which commenced with enquiries in 2011. Spirent adopted a duty tariff based on World Customs Organisation guidelines which conflicted with European Union regulation. A contingent liability relating to French Customs was disclosed in the prior year.

The import regulations changed on 1 January 2017 and no liability exists after that date. Spirent has provided for the liability up until the date of the change, which encompasses the period covered by the Notice of Recovery. The amount of the provision includes uncertainties with regard not only to the legitimacy of the basis of the claim made by the French authorities, but also in relation to the period in question, the appropriate tariff classification, the recoverability of import VAT, and the population and valuation of goods potentially subject to duty. The Group strongly refutes the basis of claim received under the Notice of Recovery.

9 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 2015, of the plans' assets and the present value of the plans' obligations, using the projected unit credit method, have been used and updated at 31 December 2018 as the basis for the accounting valuation.

The key financial assumptions are as follows:

%	2018	2017
Inflation - RPI	**3.2**	3.1
Inflation - CPI	**2.1**	2.0
Rate of increase in pensionable salaries	**2.1**	2.0
Rate of increase for pensions in payment		
Pre 2001 service	**3.7**	3.6
2001 to 5 April 2005 service	**3.1**	3.0
Post 5 April 2005 service	**2.1**	2.1
Rate of increase in deferred pensions	**2.1**	2.0
Rate used to discount plan liabilities	**2.8**	2.5

An operating charge of $0.6 million (2017: $0.5 million) and finance costs of nil (2017: $0.2 million) have been recognised. Additionally, on 26 October 2018, the High Court ruled on the Lloyds Bank GMP inequalities case. In response to this, an allowance of $4.0 million (£3.1 million) has been included on the Group balance sheet at 31 December 2018 to make provision for the estimated costs arising from the judgement. The past service cost has been charged as an exceptional item in the income statement in the year and relates to the Staff Plan. There is no impact on the Cash Plan.

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

$ million	2018	2017
Fair value of defined benefit pension plans' assets	**254.2**	282.6
Present value of defined benefit pension plans' obligations	**(251.7)**	(284.8)
Net UK funded defined benefit pension plan surplus/(deficit) on the balance sheet	**2.5**	(2.2)

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

$ million	2018	2017
Schemes in net asset position		
UK funded defined benefit pension plan surplus	**2.5**	1.2
Schemes in net liability position		
UK funded defined benefit pension plan deficit	**-**	(3.4)
UK unfunded plan	**(0.6)**	(0.6)
US deferred compensation plan	**(3.5)**	(3.7)
	(4.1)	(7.7)
	(1.6)	(6.5)

9 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 31 December 2018, the deferred compensation deficit amounted to $3.5 million (31 December 2017: $3.7 million). A re-measurement gain of $0.5 million (31 December 2017: $0.9 million loss) was recognised directly in the statement of comprehensive income. The key financial assumptions include a discount rate used to discount plan liabilities of 4.2 per cent and an investment yield of 6.4 per cent (31 December 2017: 3.4 per cent discount rate and 7.5 per cent investment yield).

10 Reconciliation of profit before tax to cash generated from operations

$ million	**2018**	2017
Profit before tax	**61.2**	46.6
Adjustments for:		
Finance income	**(1.4)**	(0.6)
Finance costs	**0.1**	0.3
Intangible asset amortisation	**4.3**	7.1
Depreciation of property, plant and equipment	**16.5**	18.0
Loss on the disposal of property, plant and equipment	**-**	0.2
Gain on divestment	**(2.4)**	(2.6)
Share-based payment	**2.8**	2.2
Changes in working capital:		
Deferred income (released)/received	**(2.5)**	5.1
Increase in receivables	**(11.0)**	(2.3)
(Increase)/decrease in inventories	**(2.2)**	3.7
(Decrease)/increase in payables	**(4.7)**	5.5
Increase in provisions	**7.6**	0.1
Defined benefit pension plan	**(6.7)**	(6.1)
Defined benefit pension plan re-measurement (GMP equalisation)	**4.0**	-
Deferred compensation plan	**0.3**	0.5
Cash flow from operations	**65.9**	77.7

11 Deferred tax

The movements in the deferred tax assets/(liabilities) are as follows:

$ million	Temporary differences	Tax losses	Tax credits	UK pension plans	Total
At 1 January 2017, restated[1]	18.1	8.2	3.9	2.6	32.8
Credited in the year	(5.3)	(1.3)	(2.3)	(1.1)	(10.0)
Deferred tax on defined benefit pension plan	-	-	-	(1.0)	(1.0)
Deferred tax on deferred compensation plan	0.2	-	-	-	0.2
Deferred tax on share incentives recognised in equity	0.3	-	-	-	0.3
Exchange adjustment	0.1	0.5	-	-	0.6
At 1 January 2018, restated[1]	**13.4**	**7.4**	**1.6**	**0.5**	**22.9**
Charged/(credited) in the year	**2.3**	**(1.5)**	**(0.7)**	**(0.4)**	**(0.3)**
Deferred tax on defined benefit pension plan	**-**	**-**	**-**	**(0.5)**	**(0.5)**
Deferred tax on deferred compensation plan	**(0.1)**	**-**	**-**	**-**	**(0.1)**
Deferred tax on share incentives recognised in equity	**0.3**	**-**	**-**	**-**	**0.3**
Transfers	**-**	**(1.0)**	**1.0**	**-**	**-**
Exchange adjustment	**(0.2)**	**(0.1)**	**-**	**-**	**(0.3)**
At 31 December 2018	**15.7**	**4.8**	**1.9**	**(0.4)**	**22.0**
Amounts on the balance sheet:					
At 31 December 2017					
Deferred tax asset	13.7	7.4	1.6	0.5	23.2
Deferred tax liability, restated[1]	(0.3)	-	-	-	(0.3)
	13.4	7.4	1.6	0.5	22.9
At 31 December 2018					
Deferred tax asset	**15.9**	**4.8**	**1.9**	**-**	**22.6**
Deferred tax liability	**(0.2)**	**-**	**-**	**(0.4)**	**(0.6)**
	15.7	**4.8**	**1.9**	**(0.4)**	**22.0**

Note
1 Restated for the adoption of IFRS 15 on 1 January 2018. Refer to note 37 of Notes to the consolidated financial statements in the 2018 Annual Report for further details.

In 2018, the deferred tax asset and liability have been offset on the consolidated balance sheet as they relate to income taxes raised by the same tax authority on the same taxable entity.

A deferred tax asset of $22.0 million has been recognised at 31 December 2018 (restated 2017: $23.2 million asset and $0.3 million liability, respectively).

The Finance Bill 2016 was enacted 15 September 2016 and reduced the UK rate of corporation tax from 20 per cent as of 1 April 2017 to 19 per cent and by a further 2 per cent to 17 per cent from April 2020. In line with these rate changes, deferred tax assets and liabilities being realised or settled before 2020 have been based on a rate of 19 per cent. Those being realised or settled after 2020 have been based on a rate of 17 per cent.

12 Divestments

There were no divestments in 2018.

The gain on divestments in 2018 of $2.4 million represents the repayment of a $2.0 million loan from the subsidiaries the Group divested of on 30 June 2017, together with the release of a $0.5 million provision relating to unsettled legal claims from a disposal the Group made in 2012. The $2.0 million loan had previously been impaired. The Group also incurred legal fees of $0.1 million relating to the divestments made in 2017. The net cash inflow from divestments in 2018 was $1.8 million.

On 16 February 2017, the Group divested of certain assets and liabilities of Epitiro Group Limited (Epitiro) for consideration of $0.4 million. Epitiro was reported within the Lifecycle Service Assurance operating segment.

On 30 June 2017, the Group divested the entire issued share capital of its subsidiaries, Spirent Communications Israel Limited, its Developer Tools (DT) line of business, and Spirent Holdings Denmark ApS and its subsidiaries, its Device Intelligence (DI) line of business, to Dorfi Limited, an Israeli entity established by the former General Manager of the business units, for a total cash consideration of $1. Both DI and DT were reported within the Connected Devices operating segment.

In 2017, DI and DT reported combined revenue of $5.9 million and made an adjusted operating profit and profit before tax of $1.4 million.

These divestments did not constitute discontinued operations under IFRS 5 'Non-current Assets Held for Sale and Discontinued Operations'.

The gain on divestments during the prior year was as follows:

$ million	DI/DT	Epitiro	2017 Total
Gross consideration	-	0.4	0.4
Net liabilities/(assets) at date of divestment	2.9	(0.5)	2.4
Provision against loan to divested subsidiaries	(2.0)	-	(2.0)
Expenses of sale	(0.8)	(0.5)	(1.3)
Foreign exchange adjustments	3.1	-	3.1
Net gain/(loss) on divestments before and after tax	3.2	(0.6)	2.6

Accumulated foreign exchange gains of $3.1 million were recycled to profit or loss on divestment of DI and DT in 2017.

Appendix

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 a more meaningful comparison of 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.

Book to bill

Book to bill is the ratio of orders booked to revenue billed in the period and is a measure of the visibility of future revenues at current levels of activity. Book to bill is a key performance indicator used to measure Group and operating segment performance for internal reporting purposes.

Book to bill 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 exceptional items, 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 year to year.

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 year. Adjusted earnings is reported profit before tax excluding exceptional items, amortisation of acquired intangible assets, share-based payment, gain on divestment, tax on adjusting items, significant one-off tax impacts, for example revaluation of deferred tax assets due to US tax reform in 2017 and prior year tax.

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 EPS in note 6 of Notes to the full year 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.

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 21.

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.