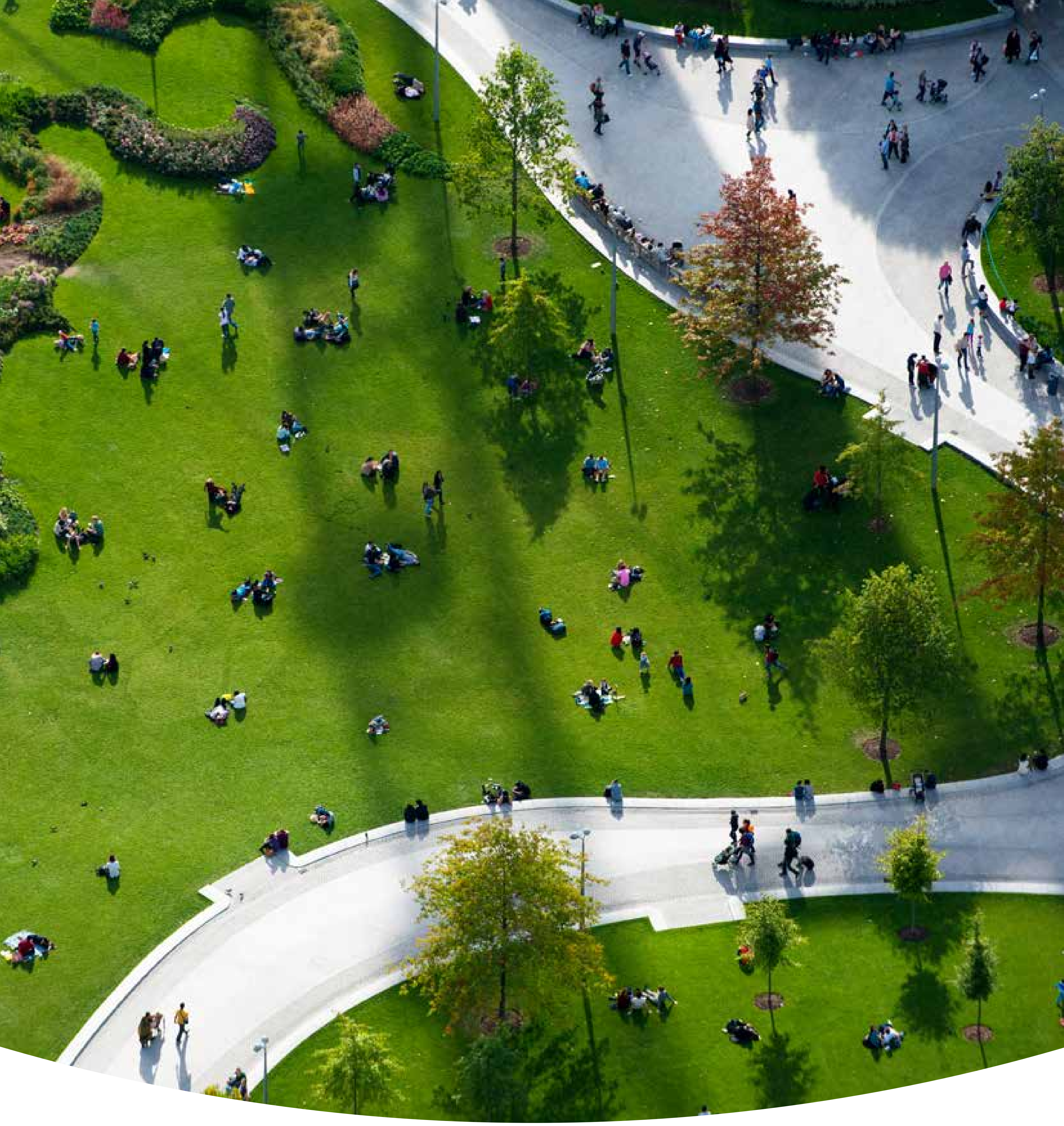


Connecting a smarter future

Spirent Communications plc
Annual Report 2017

Our purpose

We help the world connect

We innovate to help the world communicate and collaborate faster, better and more securely.

We help our customers develop new and better products and networks and ensure, in turn, that their customers get the best performance.

Contents

Results and highlights

Financial highlights

Revenue

$454.8m

-1%

2016 $457.9m

Adjusted operating profit[1]

$58.9m

+27%

2016 $46.5m

Adjusted operating margin[1]

13.0%

+2.8 percentage points

2016 10.2%

Profit/(loss) before tax

$46.6m

+$92.6m

2016 $46.0m loss

Free cash flow[2]

$56.4m

+118%

2016 $25.9m

Adjusted basic earnings per share[3]

7.55c

+43%

2016 5.29c

Dividend per share

4.08c

+5%

2016 3.89c

Special dividend per share

5.00c

2016 Nil

Performance highlights

Networks & Security

- Strong growth in our Positioning and Application Security businesses was offset by some softness in high-speed Ethernet testing as customers transition to new 400G platforms.
- We grew our market share in high-speed Ethernet performance test systems and participated in several first-to-market demonstrations.
- We increased the coverage of our flagship security product (Spirent CyberFlood) with support for ransomware, Internet of Things (IoT), industrial controls and distributed denial of service (DDoS) attacks.
- We remain the world's leading vendor of global navigation satellite simulators and released the GNSS Vulnerabilities and Threats test suite.
- We launched the first Automotive Ethernet protocol conformance and performance test system.

Read more on pages 32 to 35

Lifecycle Service Assurance

- Lifecycle Service Assurance revenue grew 10 per cent, boosted by winning fifteen $1 million+ deals.
- We expanded our footprint in our three largest Tier 1 mobile operator customers, winning four new Tier 1 deployments, addressing critical challenges in the roll out of virtual networks and business mobile services.
- We participated in high-profile demonstrations at TM Forum Live in Nice in a joint demonstration with AT&T, Orange, TIM, Huawei, IBM, Infosys and Tech Mahindra and at Mobile World Congress in Shanghai with China Mobile Research Institute.

Read more on pages 36 to 39

Connected Devices

- We delivered a strong performance turnaround, by materially reducing costs and focusing on our core areas of differentiation, returning to solid profitability.
- We divested Device Intelligence (DI) and Developer Tools (DT) on 30 June 2017 as part of our portfolio review.
- We released our Spirent Elevate IoT device test solution, a cellular test solution designed to support a wide range of IoT applications.
- China Telecom selected our Spirent Umetrix® Voice solution to measure the voice quality of smartphones.

Read more on pages 40 to 43

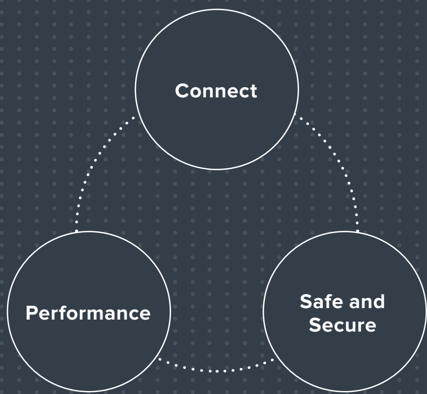
Notes
1. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment amounting to $15.2 million in total (2016 $87.6 million).
2. Operating cash flow after tax, net interest and net capital expenditure.
3. Adjusted basic earnings per share is based on adjusted earnings as set out in note 12 of Notes to the full year consolidated financial statements.

Making connections in a world of opportunity

Focus and differentiation gives Spirent its edge.

We help the world **connect**. We design cutting-edge products and services that accelerate the development of new products and networks and keep the world's networks up and running, measure and optimise their **performance**, and ensure they are **safe and secure**.

We use our skills and expertise in test methodologies, automation, analytics and active testing to provide test and service assurance solutions. It is our strength and competency in these areas that gives us our competitive edge.



Increasing traffic in a connected world

Our products and services keep our customers ahead of traffic growth.

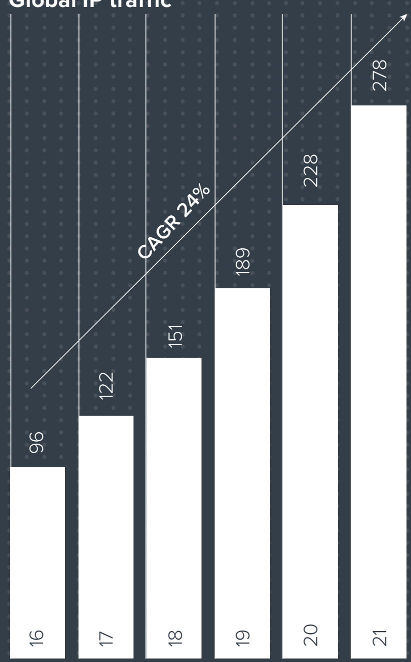
Relentless traffic growth

Cisco forecasts that global internet protocol (IP) traffic will increase nearly threefold over the next five years. Global IP traffic will grow by 24 per cent per year[1], driven by the changing mix of devices and connections and the growth in multi-device ownership.

We are positioned to capitalise on this relentless traffic growth:

- We are the leading provider of high-speed Ethernet performance test systems.
- We have products to benchmark Ethernet services, mobile networks and virtual network functionality performance in the lab and in the network.

Global IP traffic[1]



Exabytes per month

Source
1. Cisco "Visual Networking Index Forecast and Methodology 2016-2021" (6 June 2017).

Better networks, lower costs

We are accelerating the move to virtualised networks.

Business imperative to reduce costs
Although network traffic is climbing at 24 per cent per year[1], network operators face a business imperative to reduce costs. Even though the cost of telecom equipment (per port per gigabit per second) is dropping 15 per cent per year[2], operators seek solutions that automate routine processes and that utlise analytics to accelerate service turn-up and troubleshooting and reduce the need to dispatch field technicians. Operators are moving towards virtualised networks.

We are in a position to help our customers to cut their costs:

- We provide active service assurance and analytics systems for mobile networks and Ethernet services for physical, virtual and hybrid networks.
- We have test management and automation solutions to reduce cost and time for test suite development and management of system testing.

Sources
1. Cisco "Visual Networking Index Forecasting and Methodology 2016-2021" (6 June 2017).
2. IHS Markit "Telecom Trends and Drivers" (8 December 2017).

Collaborating for improved security

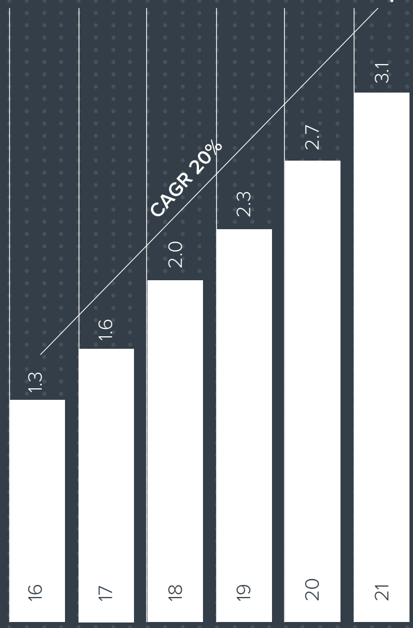
We measure performance and assess security of devices, networks and applications.

Pervasive cyber security threats
Cyberattacks are a global threat. The average annualised cost of cybercrime worldwide is $11.7 million per company and ransomware attacks have doubled in frequency[1]. Global DDoS attacks are growing 20 per cent per year[2].

We are positioned to help our customers secure their devices, networks and applications:

- Spirent's CyberFlood products test the resilience of security products as they are developed and when they are installed in the network.
- Spirent's SecurityLabs service provides security expertise to identify and assess network and application vulnerabilities.

Global distributed denial of service (DDoS) attacks[2]



Millions per month

Sources
1. Ponemon Institute and Accenture "Cost of Cybercrime Study" (2017).
2. Cisco "The Zettabyte Era: Trends and Analysis" (June 2017).

We have organised our business for a sharper focus on our target business opportunities.

Operating segments

We provide innovative solutions to develop new devices and equipment and to operate networks.

We focus on providing test products and services to satisfy three customer imperatives:

- to accelerate the time to develop and launch new products into the market;
- to improve effectiveness to turn-up new services and isolate and resolve problems in the network; and
- to save money.

Notes
1. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment amounting to $15.2 million in total.
2. Percentages calculated by reference to adjusted operating profit before corporate costs.

Networks & Security

We delight in knowing our products and expertise keep people and companies connected, communicating and safe online. It's all part of what we do. Our products enable vendors to accelerate the time to get their products to market while ensuring the quality and performance of their product protects their brand.

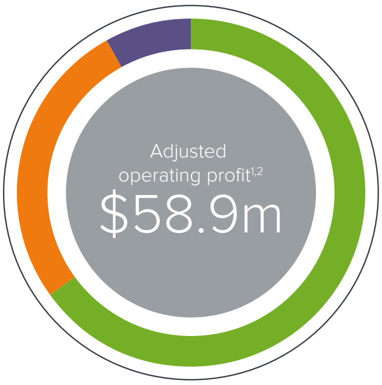
What we do
Develop performance and security test systems to accelerate the development of new devices, networks and applications for high-speed Ethernet/IP, mobile and global satellite navigation systems.

Business focus
High-speed Ethernet, cloud performance, network functions virtualisation, cyber security, positioning and timing simulation and robustness verification.

Highlights
- We are the industry leader in high-speed Ethernet performance test systems.
- We are the industry leader in global navigation satellite test systems.
- We grew our Application Security test business by more than 20 per cent.

Read more on pages 32 to 35

Networks & Security	57%
Lifecycle Service Assurance	24%
Connected Devices	19%



Networks & Security	65%
Lifecycle Service Assurance	27%
Connected Devices	8%

Lifecycle Service Assurance

Our service assurance solutions accelerate the turn-up of new services and measure network and service performance to understand and improve customer experience. We get excited when our service provider customers reduce their costs while radically reducing the time to isolate problems and improve their network performance and customer experience.

What we do

Develop active test and analytics solutions for service turn-up, network performance improvement and customer experience management.

Business focus

Business Ethernet services, mobile networks and the Internet of Things.

Highlights

- We installed four new large active service assurance and analytics solutions in Tier 1 service providers.
- We are the industry leader in mobile test tools for development, system integration and qualification testing.
- We have helped major manufacturers consolidate and automate their labs.

Read more on pages 36 to 39

Connected Devices

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

What we do

Develop automated test systems and offer services to test new devices in the lab or on networks.

Business focus

Voice, video, data services; location-based services; Internet of Things, 4G/LTE and 5G.

Highlights

- We won key deals with our new channel emulator (Spirent Vertex) with unprecedented scalability and modularity for wireless radio frequency testing.
- We released our Spirent Elevate Internet of Things Device Test solution.
- China Telecom selected our Spirent Umetrix® Voice solution for voice quality testing.

Read more on pages 40 to 43

Spirent thrives on the challenges of helping our customers to manage the complexity of their networks and services while they seek to dramatically reduce costs.

Bill Thomas
Chairman

I took on the role of Chairman after the AGM in May 2017. In my time on the Board I have been impressed by our industry leading technology and believe that we have a compelling value proposition for our customers. I have been even more impressed by the calibre and commitment of our people who are truly passionate about delivering value for our customers and shareholders. It is thanks to them that Spirent is so well respected in the industries it serves.

The Board believes that the opportunity to bridge across from the laboratory to live operations represents a major opportunity for Spirent. In order to realise our full potential we require a relentless focus on our go to market strategy, excellent customer service and our market leading products and solutions.

In the last few years, Spirent has seen a huge amount of change in its markets, with the polarisation of the smartphone industry, the consolidation of major network equipment manufacturers and the sudden growth by Asian equipment suppliers. At the same time, it was necessary to sustain high investment levels in order to realign the business for these market changes.

In 2016, the Group's strategy was amended to focus on a few key strategic growth areas – cyber security, network assurance and new wireless services. This strategy has driven success in our Networks & Security business and has moved Lifecycle Service Assurance into a growth market for active test in network operations.

Throughout 2017, we saw the benefits of this tighter focus coming more fully to the fore with Spirent winning new business with major accounts in these key areas, despite a background of tighter cost management across the Group.

Performance in 2017
This new strategic focus led to a material improvement in our financial performance in 2017. Adjusted operating profit[1] grew by 27 per cent to $58.9 million, an adjusted operating margin[2] on revenue of 13.0 per cent (2016 10.2 per cent). Revenue was slightly down by $3.1 million to $454.8 million as we transition to these new focus areas.

Dividend
Following strong earnings growth and cash flow generation the Board is recommending a final dividend of 2.40 cents, resulting in a total dividend for 2017 of 4.08 cents, a 5 per cent increase on 2016.

In addition, the Board is recommending a special dividend of 5.00 cents per share payable at the same time as the final dividend for 2017.

Board composition
The composition of the Board has changed significantly during 2017. Alex Walker, Tom Maxwell, Sue Swenson and Tom Lantzsch all stepped down in 2017 and I would like to thank them for their contributions. In early 2018 we announced the appointment of Edgar Masri and Wendy Koh who will both bring deep technical knowledge in our served markets and extensive knowledge of dealing with our customer base. I am delighted they have agreed to join Spirent and I look forward to their contribution as the refreshed Board seek to help Spirent fully leverage its strengths.

Employees
I would like to thank our employees for helping to deliver increased profitability during the year and for their continued commitment to Spirent's success. I am confident that with good execution against our priorities we will be able to realise Spirent's potential for the benefit of all our stakeholders.

Outlook
The strong growth in our Application Security and Lifecycle Service Assurance businesses indicates that Spirent is headed in the right direction. The demand for high-speed Ethernet, particularly in 400G is expected to increase in the second half of 2018 and the market demand for security testing continues to be strong. I believe we have the strategy, technology, market opportunity and people to build on 2017's successes in the years ahead.

Bill Thomas
Chairman
8 March 2018

Adjusted basic earnings per share[3] up 43% to
7.55c

Dividend per share up 5% to
4.08c

Special dividend per share
5.00c

Notes
1. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment amounting to $15.2 million in total (2016 $87.6 million).
2. Adjusted operating profit as a percentage of revenue in the period.
3. Adjusted basic earnings per share is based on adjusted earnings as set out in note 12 of Notes to the full year consolidated financial statements.

Spirent has adapted to the changes in the test and measurement industry and is aligned with the new opportunities that have been created.

Eric Hutchinson
Chief Executive Officer

Overview – realising our potential
In 2017, we have established a firm basis to realise Spirent's potential.

We focused on our core expertise to enable our customers to develop high-performance, high-security systems in a shorter time. We have taken our expertise in service assurance to deploy innovative new systems, winning new business with well-established and new customers. In doing so, we gained market share with the early adopters in the industry, which should serve Spirent well in 2018 and the long-term.

An essential part of realising our potential has been to focus on our core strategies and take these into the growth opportunities offered by the global trend to move rapidly from development into operations. A natural consequence is a reduction in expenditure as we cease or scale back activities outside this focus area. This, in turn, has helped to increase profitability of Spirent's operations and to increase cash generation.

Strategy – enabling the data revolution
Spirent enables its customers to deliver data connectivity which is faster, has greater capacity and has resilient security. This is essential to the development and deployment of new technologies worldwide: from smart industrial processes, smart home management, autonomous vehicles, smart enterprise business processes to smart city construction. Add in the digitisation of healthcare, and it is clear that ultra-reliable, fail safe connectivity at hyper-scale is necessary to deliver this vision. Spirent has an important role in enabling its customers to deliver these new smart technologies in an economic, secure and timely manner.

Spirent's core expertise in data technologies – founded on high-speed Ethernet, Wi-Fi, cellular wireless, satellite constellations – combined with automated service assurance and analytics, offers a differentiated and powerful set of solutions to our customers. Vital to our customers' success is our ability to deliver our expertise in test, measurement, validation, assurance and security in automated, scalable systems that are easy to use. This will enable our customers to realise their vision of supplying data connectivity with lower cost, higher reliability and security.

The dominant market trends are underpinned by relentless traffic growth. The business imperative is to enable the industry to reduce operating cost and capital expenditure. Operators cannot afford to match traffic growth with higher and higher levels of investment in new data transport equipment. They also have to reduce their cost of operations by implementing new network architecture and operating practices. These imperatives drive the move to software defined networks, network virtualisation and automation. This is why Spirent's strategic focus is to offer enabling technologies, systems and active service assurance so that our customers, existing and new, can meet the challenges in building out virtual networks. Within this broad landscape there are market disrupters: virtualisation, the Internet of Things (IoT), 5G wireless and cyber security.

Network virtualisation is the only way to support the exponential growth in data consumption. Virtualisation allows radical reduction in the capital cost of networks; it also allows rapid deployment for new services. Spirent provides active test systems to assure performance before deployment, and during operation to allow real-time response to changing conditions in the network. The existing hybrid networks, with their inherent complexity, will exist for decades to come.

Connected things range from personal devices, such as a smart stylus, through large autonomous vehicles and industrial infrastructure.

With regard to hyper-connectivity, there are multifarious challenges for developer and network operators. Spirent offers solutions to avoid network bottlenecks, degradation in performance and security breaches.

The continuous evolution in wireless technologies is now moving to the development and deployment of 5G. 5G will allow new applications to access extreme bandwidth and will offer ultra-low latency. This will support new applications such as virtual and augmented reality. New test and assurance capabilities will be required to support 5G both for networks and for devices.

Cyber security is at the forefront of concerns around any data application and network. High profile security incidents make headlines across all aspects of life, from individuals to business to government. The overall prevalence and sophistication of cyber threats continue to rise. There is a necessary increase in spending on cyber security to detect and protect against threats. Spirent offers highly reliable and up to date test and verification solutions to give greater assurance that protections are working.

Spirent's strategic direction is to take our deep expertise in test and assurance in data networking to provide leading-edge solutions and services that enable the realisation of smart connectivity at an economic cost, achieved through automation and lower cost operation. We will consolidate on our leadership positions in high-speed Ethernet and in satellite navigation. We will deliver solutions to meet the challenges of virtualisation and cyber security. We will deploy systems in production networks for active test and management to lower the cost of operations. We will develop new solutions for the growth in 5G wireless technology and to meet the requirements for autonomous vehicles.

Performance highlights 2017

Industry leadership

- We remain the world's leading vendor of high-speed Ethernet performance test systems. We participated in several high profile first-to-market demonstrations: New H3C demonstrated the industry's highest density 100G Ethernet data center; Network World conducted the largest port test of unicast switching capability on a Cisco Nexus 9516 core router switch; and China Telecom China Co. Ltd., Guangzhou Research Institute and Huawei verified 400G Ethernet (400G) short and long range technologies.
- We remain the world's leading vendor of global navigation satellite simulators. We released the GNSS Vulnerabilities and Threats test suite, a continuously-updated cloud-based library of real-world GNSS threats. The European Union's TREASURE project selected our GNSS solution; the aim of the four year project is to provide instantaneous and high accuracy positioning anywhere in the world, exploiting different satellite systems operating together to provide users with positional accuracy of a few centimetres.

Networks & Security

- Our Application Security test business grew revenue by more than 20 per cent.
- We expanded the coverage of our flagship security product (Spirent CyberFlood) with support for ransomware, Internet of Things (IoT), industrial controls and distributed denial of service (DDoS) attacks. CyberFlood was the first platform to offer proactive testing for the WannaCry ransomware and was demonstrated at Black Hat, the world-renowned information security conference.
- We are a founding member of the industry group NetSecOPEN, focused on defining new open standards for testing enterprise network security performance.
- We earned global CREST (Council of Registered Ethical Security Testers) accreditation for penetration testing. UK-based CREST an accreditation and certification body that supports the information security market.

Lifecycle Service Assurance

- Our Lifecycle Service Assurance business grew revenue 10 per cent.
- We expanded our footprint in our three largest Tier 1 mobile operator customers, winning four new Tier 1 deployments, addressing critical challenges in the roll out of virtual networks and business mobile services.
- We participated in high-profile demonstrations at TM Forum Live in Nice in a joint demonstration with AT&T, Orange, TIM, Huawei, IBM, Infosys and Tech Mahindra focusing on automated validation of service enhancements in virtual networks, at Mobile World Congress in Shanghai with China Mobile Research Institute focusing on automated testing for virtual core networks.

Connected Devices

- We won key deals with our new channel emulator (Spirent Vertex) with unprecedented scalability and modularity for wireless radio frequency (RF) testing and support for future technologies, such as 5G.
- We released our Spirent Elevate IoT device test solution, a new cellular test solution designed to support IoT applications, including end-to-end cloud server connectivity, security vulnerability assessment and battery life measurement.

> With regard to hyper-connectivity, there are multifarious challenges for developer and network operators. Spirent offers solutions to avoid network bottlenecks, degradation in performance and security breaches.

- We demonstrated enhanced voice services (EVS) with China Mobile at the GSMA Mobile World Congress in Shanghai.
- China Telecom Corporation Limited selected our Spirent Umetrix® Voice solution for voice quality testing of smartphones.
- Our Spirent Umetrix Voice solution was voted VoLTE Innovation of the Year, a prestigious award presented at the recent Telecom Asia Readers' Choice & Innovation Awards ceremony held in Singapore.

Automotive

- We launched the first Automotive Ethernet protocol conformance and performance test system.
- We released the first conformance test solution for WAVE DSRC (wireless access in vehicular environments for dedicated short-range communications). The test suite includes a set of tests required for US Department of Transportation certification.

2017 operating performance
Spirent's adjusted operating profit[1] increased by 27 per cent through focus and judicious cost management. Group revenue was broadly flat, down by $3.1 million to $454.8 million due to the cyclical downturn in Ethernet and wireless technologies. Strong revenue growth was achieved in Lifecycle Service Assurance, up 10 per cent to $109.2 million. Networks & Security revenue decreased by $1.2 million to $261.0 million, reflecting the shift from 40G and 100G to 400G, which saw a delay in the investments by major customers during the year. Connected Devices revenue decreased as expected, by $11.9 million to $84.6 million. This was due to two factors: the continued decrease in device carrier acceptance testing with an new impact of $4.9 million, and our discontinuance of the Device Intelligence and Developer Tools product lines, a reduction of $7.0 million, with a further impact in comparative numbers for 2018 of $5.9 million. Adjusting for the latter total underlying Group revenue was slightly up by $3.9 million.

Eric Hutchinson
Chief Executive Officer
8 March 2018

Adjusted operating profit[1] up 27% to
$58.9m

Adjusted operating margin[2] up to
13%

Q&A with Eric Hutchinson, Chief Executive Officer, on Spirent's values in action

Q

What do you envision the future to be for data technologies and Spirent's role in this area?

A

The future will see the provision and delivery of products, services and environmental management by automated, robotic, intelligent systems. This is where smart technologies are leading the world. This digital revolution is underpinned by data technologies in the broadest sense. Spirent's role will be to facilitate and enable the development of the digital technologies, infrastructure, operations and the security necessary for their implementation and operation.

Q

What are the exciting areas to address in 2018 that give you confidence in the outlook for Spirent?

A

The near-term will be the provision of autonomous service assurance for operations. This is critical to realising the benefits of the innovations that allow network virtualisation. Without these, the world will not feel the economic benefits from the digital revolution. There will be significant investment in digital technologies; some of this will involve demand for our core technologies, some will demand new solutions, such as 5G wireless, all will offer an exciting role for Spirent.

Notes
1. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment amounting to $15.2 million in total (2016 $87.6 million).
2. Adjusted operating profit as a percentage of revenue in the period.

Increased focus on matching our products and services to customer demands amid diverse global trends.

	Technological change and disruption	Cyber security	Cloudification
Market driver	Innovation and changes in Ethernet/IP, mobile networking and data center interfaces and protocols continue as throughput demands increase and response time requirements shorten.	As cyber security threats grow globally, the requirement to verify the effectiveness and performance of security products becomes paramount. The security testing market is forecast to grow from $3.3 billion in 2016 to $7.6 billion in 2021, a compound annual growth rate (CAGR) of 18 per cent[1].	Enterprises adopt the cloud as an increasingly important part of their information technology infrastructure. The worldwide public cloud services market is forecasted to grow by 18 per cent to $247 billion in 2017[2].
Opportunities for Spirent	With every change in networking and data center interfaces and protocols, developers and operators require test tools to measure and validate their performance and security.	Solutions are required to verify the effectiveness and performance of security products as they are developed and deployed.	Service providers and enterprises seek to understand the performance of their cloud services.
Our response	We provide test systems for high-speed Ethernet and mobile networking. Spirent's high-speed Ethernet test solutions (Spirent TestCenter) ensure 50G, 100G, 200G and 400G networks perform to users' expectations. We have products (Spirent Landslide) that emulate network functions and control and data plane traffic for millions of subscribers consuming internet protocol multimedia subsystem (IMS) and over-the-top services.	We provide a comprehensive security testing product (Spirent CyberFlood) and services (Spirent SecurityLabs). We stay current with emerging threats and provide test solutions quickly when new threats are discovered. We are a founding member of the industry group NetSecOPEN, focused on defining new open standards for testing enterprise network security performance. We earned global CREST (Council of Registered Ethical Security Testers) accreditation for penetration testing. UK-based CREST is an accreditation and certification body that supports the information security market.	We developed a new product (Spirent CloudScore), the industry's first comprehensive baseline and benchmarking solution. It provides an assessment and comparison of the performance of any virtualised or cloud infrastructure.

● Read more: Strategy at glance, KPIs, Principal risks and Operating reviews.

Sources
1. MarketsandMarkets, "Security Testing Market" (October 2016).
2. Forbes, "Roundup of Cloud Computing Forecasts, 2017" (April 2017).
3. IHS Technology, "NFV Hardware, Software & Services Tracker" (November 2017).
4. Technavio, "Global 5G Equipment Market" (October 2016).

Network virtualisation

As network operators develop, trial and implement virtualised network functions, developers and operators are faced with challenges to test and deploy their virtualised implementations.

The service provider network functions virtualisation market for purchase of hardware, software and services will grow from $10 billion in 2016 to almost $37 billion in 2021, a CAGR of 30 per cent[3].

Solutions are required to benchmark virtualised network functions under various conditions in the lab and then, as they are deployed in the network, operators are challenged to understand their performance on an ongoing basis and to isolate and diagnose problems as network conditions change.

We have test systems to benchmark virtualised network functions in the lab and to verify their performance in networks using our active service assurance and analytics solutions (Spirent VisionWorks).

5G

The development and deployment of mobile 5G networks and applications is fuelling new investment in the telecom infrastructure and innovative applications, such as autonomous vehicles and augmented reality.

The global 5G equipment market was estimated at $2.4 billion in 2015 and is forecast to reach $9.6 billion by 2020, a CAGR of 32 per cent[4].

New test systems are required for the development and management of 5G devices, networks and applications.

We have products already available for 5G development. We have a new channel emulator for 5G base stations and fronthaul testing (Spirent Vertex). We have products that automate performance and security testing of Cloud RAN virtual environments (Spirent TestCenter and CyberFlood). We have performance test systems for 5G backhaul and testing and benchmarking virtualised network functions (Spirent TestCenter). We have products (Spirent Landslide) to emulate the 5G core network to test 5G New Radio and to test the evolution of the core network. We have products that will be ready to actively test and assure 5G production networks (Spirent VisionWorks).

Brexit

The new relationships that will emerge between the United Kingdom, Europe and other major countries through the Brexit negotiations creates some uncertainty.

We anticipate Brexit will not have an adverse impact on our business. During the current period of uncertainty, we have encountered some difficulties in recruiting people from other parts of Europe to our development site in the United Kingdom.

We anticipate the Brexit agreements will provide a stable environment for attracting and recruiting talent from Europe.

We are working to ensure we can continue to supply our global navigation satellite test systems from the United Kingdom to European organisations without restrictions after Brexit.

We work closely with our customers to design innovative first-to-market products and services.

Business planning
We target attractive business opportunities and we organise and focus our business units on these opportunities.
1

Understanding our customers' needs
We work closely with our customers and participate in industry groups to understand our customers' technology, operational and business direction, challenges and expectations.
2

Maintenance and support
We have professional services for installation and training. We sell annual maintenance and support services.
7

Follow-on business
Much of our income comes from established customers. Long-term customer retention is key to our success.
8

How we create value

1 2

The markets we target
We target large, fast-growing, complex markets, driven by a major disruption or challenge.

We serve customers who develop products and services and who operate and manage networks.

2 7 8

Continuing demand for our products and solutions
We operate in a fast-moving, technologically demanding environment in which everyone and everything is connected. Faster data speeds, complexity, security and innovation drives the demand for our products and solutions.

2 3

Competitive advantage
We aim to be first-to-market. We register intellectual property to create high barriers to entry for competitors and maintain our high-margin and high-value position in the market.

Our competitive differentiation comes from the test methodologies we develop and our active test, automation and analytics expertise and technologies.

Our strategy

We work closely with customers to understand their plans and challenges, and develop first-to-market products and services to fulfil their requirements and exceed their expectations.

How our strategy and business model work together

Our business model embodies our critical success factors of working closely with customers and designing innovative first-to-market products and services and selling through our specialised sales force.

● Read more on pages 18 and 19

3 4 5 7

Our customers selling proposition

Our products and services:

- reduce the time to get products and systems to market;
- ensure the quality of customers' products and networks;
- protect customers' brand reputation; and
- increase the efficiency of their operations through automation and analytics to optimise their activities and investments.

2 3 4 6 7 8

Value-creation culture for our stakeholders and shareholders

We have a culture that focuses on creating value for our stakeholders and shareholders. We attract and retain talented people and offer career development. We have a non-discriminatory workplace and fair and competitive remuneration.

Our dividend policy is to maintain a sustainable dividend for shareholders as we consider the dividend to be a core component of shareholder return and one on which shareholders can depend.

How we drive our business forward.

Our goals
To continuously innovate and develop leading products and services to enable our customers to develop devices and equipment and operate complex networks.

To be recognised by our customers for the ease of use and simplicity of our solutions for testing and assuring complex systems.

1 Grow our business in target markets

Description
Create new products and services, promote our products and services through creative marketing campaigns and industry involvement, and develop our sales channel to grow our business in our global target markets.

Importance
To achieve revenue growth we need to identify and capitalise on emerging business opportunities in our target markets and expand the number of customers we serve.

Performance
Revenue
$454.8m
2016 $457.9m

Commentary
We identify, explore and assess new business opportunities in our target markets in a timely manner and objectively follow our innovation management and portfolio management processes.

Risk
Technology change and inadequate employee skillbase.

Read more on pages 28 and 31

2 Establish and maintain technology leadership

Description
Invest appropriately in exploring new technologies and developing our core competencies. Participate in standardisation bodies and industry groups. Work closely with our customers.

Importance
We operate in highly competitive and specialised markets. If we fail to invest in the business at a sufficient level, we will see our market share decrease.

Performance
Investment in product development
$103.0m
2016 $111.7m

Commentary
In our largest markets we believe that we have strong technology leadership positions after the investment in the business over the last three years. We have achieved significant new product launches as a result of this investment.

Risk
Technology change and inadequate employee skillbase.

Read more on pages 28 and 31

3 Strengthen our customer relationships

Description
Partner with our customers. Create innovative solutions meeting our customers' future needs. Adopt account-based marketing and key account sales management. Focus on quality of service, delivery and support.

Importance
If we work closely with our customers, we have the best chance of understanding and meeting their current and future requirements. We want our customers to view Spirent as their go-to solutions provider.

Performance
Revenue from top 20 customers
$231.6m
2016 $240.6m

Commentary
We have reorganised and developed our global sales team.

We have implemented Salesforce customer relationship management software to improve interaction with customers.

Risk
Loss of customer dependence and business continuity.

Read more on page 29

Strategic objectives
We have identified six priorities that we believe are critical in order to achieve our strategy and, ultimately, our vision.

Our vision
To be the leading experts in methodologies and solutions for the development and operation of communications networks, connected devices and applications.

Read more about KPIs on pages 24 and 25.

Read more about our principal risks and uncertainties on pages 28 to 31.

4 Acquire new capabilities and technologies

Description
Expand our portfolio through partnerships, licensing technologies, acquiring businesses, and recruiting and hiring experts in critical areas.

Importance
We have to deeply understand technologies, networking and their applications to develop methodologies and solutions to test them.

Performance
Investment in Mergers & Acquisitions
nil
2016 $2.6m

Commentary
We prioritised our investments aligned to the market dynamics and business opportunities. We identified the areas of interest for potential acquisitions and alliances that fit our strategic opportunities and gaps. We consolidated business units to focus on target business opportunities.

Risk
Acquisitions underperform.

Read more on page 30

5 Invest in our people

Description
Attract highly qualified and skilled employees, engage our employees with exciting work and opportunities and retain the expertise and knowledge that we have built.

Importance
Our employees are central to our strategy and success. Our strategy is built around innovation and expertise. Without the best possible team, we will not be able to deliver on our strategy.

Performance
Voluntary employee turnover
7.4%
2016 9.1%

Commentary
We work on interesting challenges at the leading-edge of the communications industry. We see the direct impact of our accomplishments in our customers' success. We continue to see voluntary turnover well below industry benchmarking.

Risk
Reductions in employee skillbase.

Read more on page 31

6 Maintain financial stength and flexibility

Description
Maintain a robust balance sheet and strong cash generation that allows us to invest in organic growth, pursue strategic acquisitions, and pay sustainable dividends to shareholders.

Importance
Having financial strength and flexibility means that we are able to act quickly when we see an opportunity to fulfil our strategic priorities.

Performance
Free cash flow[1]
$56.4m
2016 $25.9m

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

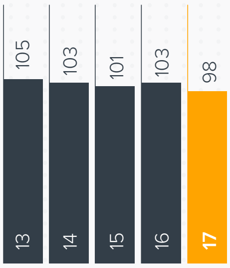
Commentary
We value strong financial diligence within the Group. Turning profit to cash remains a priority.

Risk
Adverse macro-economic changes.

Read more on page 28

The Board has identified the key performance indicators below to measure the Group's strategic progress.

Book to bill[1]
Ratio

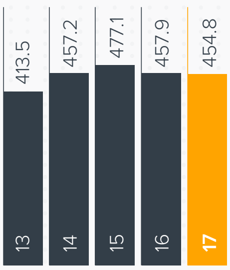


Reason for measurement
The ratio of orders booked to revenue billed is a measure of the visibility of future revenues at current levels of activity and provides an indication of the underlying trend in Spirent's future revenue stream.

Performance
The reduction in book to bill ratio to 98, from 103 in 2016, reflects decline in orders in the Americas, and continued headwinds in the wireless device test market.

Relevance to strategy
The book to bill ratio is an indicator of whether future activity levels are rising or slowing, and therefore how effective we have been in the execution of our strategy.

Revenue
$ million



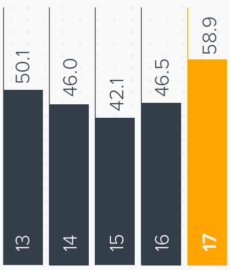
Reason for measurement
Spirent monitors growth in revenue as this shows how successful Spirent has been in expanding its markets and growing its customer base.

Performance
Flat revenue performance, following a 4 per cent decline in 2016, reflecting strong Application Security and Positioning product line performance, offset by declines in core high-speed Ethernet performance test products in the Americas, and continuing headwinds in the wireless device test market.

Relevance to strategy
Revenue demonstrates the effectiveness of our strategy: our success in expanding our markets both organically and through acquisition; maintaining technology leadership; and our strong relationships with our customers, all of which ensure that we continue to win and maintain business.

Read more on page 45

Adjusted operating profit[2]
$ million



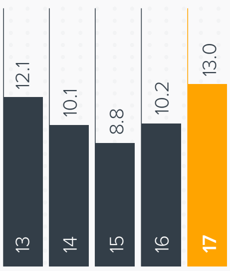
Reason for measurement
Adjusted operating profit is the measure used to evaluate the overall performance of the Group as well as each of the operating segments.

Performance
Adjusted operating profit increased by 27 per cent to $58.9 million from $46.5 million in 2016 as a result of focused cost management across the business.

Relevance to strategy
Adjusted operating profit indicates our financial strength and our ability to invest in the business for future growth.

Read more on page 47

Adjusted operating margin[3]
%



Reason for measurement
Adjusted operating margin is a measure of the Group's overall profitability. Spirent operates in markets which have high operating returns and strives to achieve best in class operating returns compared with its peers.

Performance
Adjusted operating margin increased to 13.0 per cent from 10.2 per cent in 2016, driven in the main by a reduced cost structure.

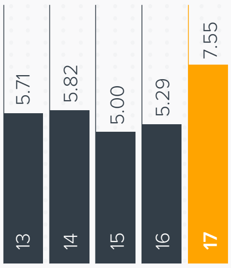
Relevance to strategy
Adjusted operating margin is a measure of how successful we are in our overall strategy and demonstrates our ability to improve margin through efficient operations whilst being mindful of the need to invest for the future.

Read more on page 47

Spirent's strategy focuses on medium to long-term growth and therefore its achievement cannot just be measured by looking at performance in 2017 compared to the prior year; trends over a number of years must also be considered. Key performance indicators relate to continuing operations[6] only.

Notes
1. Ratio of orders booked to revenue in the period.
2. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment.
3. Adjusted operating margin represents adjusted operating profit as a percentage of revenue in the period.
4. Adjusted basic earnings per share is based on adjusted earnings as set out in note 12 of Notes to the full year consolidated financial statements.
5. Operating cash flow after tax, net interest and net capital expenditure.
6. Continuing operations for 2017 includes divestments made in the year (see note 33 of Notes to the full year consolidated financial statements).

Adjusted basic earnings per share[4] (EPS)
Cents



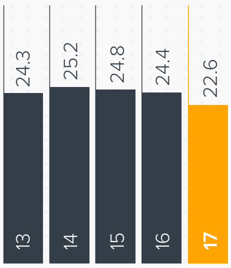
Reason for measurement
Long-term growth in adjusted basic EPS is a fundamental driver to increasing shareholder value.

Performance
Spirent's aim is to achieve growth in adjusted basic EPS. Part of the Executive Directors' remuneration is dependent on achieving EPS targets. In 2017, adjusted basic EPS grew by 43 per cent as a result of the increase in adjusted earnings.

Relevance to strategy
Adjusted basic earnings per share is a measure of how successful we are in our strategy and ultimately how Spirent increases value for its shareholders.

Read more on page 48

Product development spend as a percentage of revenue
%



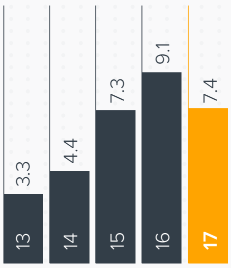
Reason for measurement
To maintain its competitive position, Spirent must invest at suitable levels to support future organic growth initiatives in line with the strategic objectives, whilst driving improved productivity and effectiveness.

Performance
In 2017, product development spend reduced to 22.6 per cent of revenue from 24.4 per cent in 2016 as a result of efficiency savings.

Relevance to strategy
It is critical that Spirent's product development investment keeps pace with the speed of change in technology, and that it is directed at the right key technology areas; it enables us to expand our markets and to maintain our technology leadership position.

Read more on page 46

Voluntary employee turnover
%



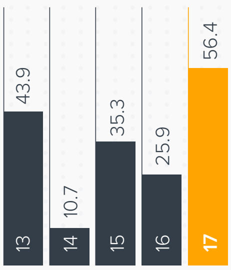
Reason for measurement
Spirent's success is dependent on its talented employees and retaining them is extremely important. Voluntary employee turnover compared to the industry average is the measure used to assess how well the Group has performed.

Performance
Staff turnover has returned to 2015 levels and continues to remain below the industry average. For 2017, the global industry average was 13.3 per cent.

Relevance to strategy
We cannot avoid the fact that some of our employees will move on but we can avoid a skills shortage by appropriately managing, recognising and rewarding our people. Voluntary employee turnover is a measure of how successful Spirent is in its strategy of retaining and investing in its people.

Read more on page 23

Free cash flow[5]
$ million



Reason for measurement
Free cash flow is a measure of the quality of Spirent's earnings. The aim is to achieve a high conversion of earnings into cash.

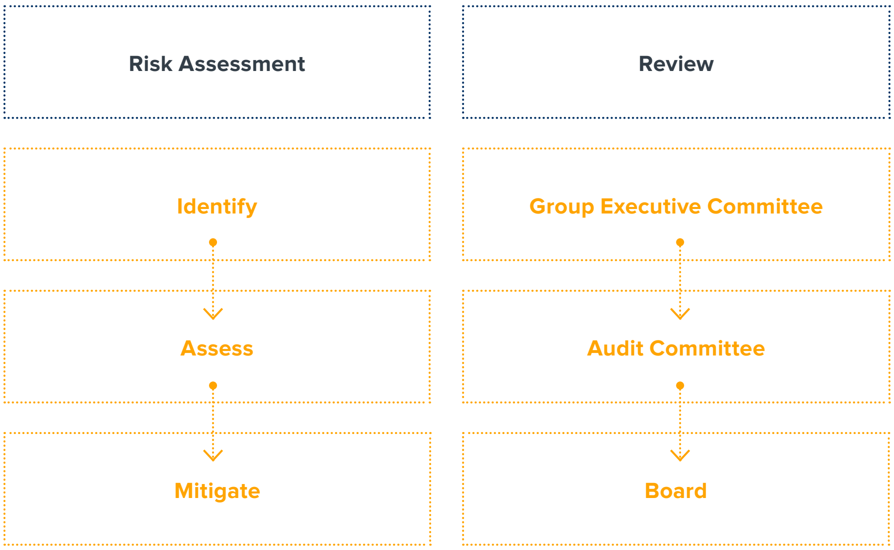
Performance
Free cash flow in 2017 benefited from the operating profit result and a strong working capital performance. Free cash flow conversion for 2017 was 122 per cent of adjusted earnings (2016 80 per cent).

Relevance to strategy
Having strong free cash flow reflects Spirent's ability to generate funds for future investment. It gives us financial strength and flexibility and the ability to pay sustainable dividends to our shareholders.

Read more on page 49

Strong risk management underpins everything we do.

Identifying and assessing risks



Like all businesses, Spirent is exposed to a number of risks and uncertainties. These risks may arise from internal factors, but some will be a result of external factors over which the Group has little or no direct control. It is the effective management of these risks that supports Spirent in delivering on its strategic objectives, safeguards the Group's assets and, over time, will enhance shareholder value. The process to identify and manage the principal risks and uncertainties of the Group is an integral component of the internal control system.

The risk assessment process starts in the businesses, where up-to-date risk registers are maintained and updated as part of the normal operating and control procedures and is facilitated by the Head of Risk & Internal Audit. Each business identifies its key risks and mitigating factors and nominates a risk owner. The impact and the likelihood of occurrence of each risk is ranked, which assists the Group Executive Committee in assessing the likely impact in aggregate of each risk to the Group as a whole. The individual businesses are required to update their risk registers periodically to reflect new or emerging risks as they are identified.

It is not possible to identify every risk that could affect the business and the actions described below to mitigate those risks cannot provide absolute assurance that the risk will not occur or adversely affect the operating or financial performance of the Group.

The Board has classified the principal risks by the impact the risk would be expected to have on the Group should it occur, and the anticipated likelihood that that risk may occur using the following classifications:

Risk	Impact
Impact	High Medium Low
Likelihood of occurrence	Likely Possible Unlikely

The Board takes the view that a High impact risk could lead to a ten per cent or more reduction in revenue, a Medium impact risk a five to ten per cent reduction in revenue and a Low impact risk a reduction of up to five per cent in revenue.

The Audit Committee reviews and monitors the Group's risk processes and reports to the Board on their effectiveness. Risk is considered by the Audit Committee at least twice each year, at which time risk registers for both the Group and the material business units within the Group are reviewed. The Audit Committee challenges and debates the risks with reference to risk tolerance and appetite, as set by the Board. Progress made and any further actions to be taken regarding mitigation plans, as well as any changes to the risk profile, are discussed in detail.

The Board has identified the following principal risks, each of which is discussed on pages 28 to 31:

Risk	Impact	Likelihood	Change
Macro-economic change	High	Likely	↔
Technology change	High	Likely	↔
Customer dependence/ Customer investment plans	High	Likely	↔
Business continuity	High	Likely	↑
Competition	Medium	Possible	↔
Acquisitions	Medium	Possible	↔
Employee skillbase	Medium	Possible	↔

Risk appetite and developing the Viability Statement

Provision C.2.2 of the 2016 UK Corporate Governance Code requires the Board to assess the viability of the Group over a suitable period. The Board has determined that a three-year period should be used when assessing viability, as explained on page 97 of this Annual Report.

The Board has sought to frame its risk appetite in terms of the markets and technologies in which it is prepared to make significant investments, and those in which it would expect its scale of investment to be more modest. Except where very attractive opportunities were to present themselves to achieve greater scale in well-known markets, the Board would expect to maintain a healthy net cash position.

Management, together with members of the Board, considered which of the principal risks, either alone or in combination, might threaten the Group's viability. The expected aggregate impact of Macro-economic change, Technology change, Customer dependence and Competition were modelled based on historical trends experienced across the Group. A severe but plausible combination of those risks was considered for the purposes of deciding what turnover and free cash flow scenarios should be stress-tested. The impacts were modelled over the three-year period, with emphasis on a stressed scenario in years two and three, given management's view that such risks were unlikely to materialise in year one, as the Group had just completed a detailed full year budget for 2018. Assumptions were made about the ability of the Group to take successful mitigating actions, including the ability to make significant reductions in its non-fixed operating costs. The Board took into account the Company's healthy cash balance of $128.4 million at 31 December 2017 and the ability of the Company to continue to generate positive free cash flow even in stressed scenarios.

The Board reviewed and discussed with management:

- the process undertaken by management to decide which scenarios to stress test;
- the results of the stress testing performed, including an illustration on the reduction in turnover and availability of cash; and
- the ability of management to successfully take the mitigating actions identified.

The resulting Viability Statement is set out in the Directors' report on page 97.

Principal risks and uncertainties

Risk	Potential impact	Mitigating actions
Macro-economic change		
Spirent is a global business exposed to current world economic conditions and political uncertainties over which it has no control. The business is also exposed to government spending priorities, principally in the United States.	Deterioration in economic conditions and a change to the terms of conventional international trade may lead to a reduction in the level of demand for Spirent's products and services and cause customers to delay their purchasing decisions.	The Group closely monitors both market and geographic trends in order to respond to changes in demand and be in a position to take timely actions to protect profitability where possible. In addition, Spirent has a large number of geographically diverse customers, which may mitigate the impact of issues in any one area.
Technology change		
Spirent sells complex solutions in industries that can be subject to rapid technological changes. Testing new technologies drives our business, but the opportunity also brings high risk since keeping at the forefront of these key future technologies is critical to our success and to ensuring that we remain competitive in our markets. It is critical that our product development investment is directed at the right areas in order to deliver the solutions that our customers need, when they need them.	If product development investment does not keep pace with the speed of change in technologies, or if it is not directed at the right key areas, our competitive position and financial performance will suffer. If Spirent's solutions take longer to develop than anticipated or longer to develop than our competitors then our competitive position and financial performance will also suffer. Changes in technologies may lead to a short-term pause by our customers investing in our solutions.	All Spirent's businesses work very closely with customers and remain focused on their requirements. Each business makes investment decisions specifically related to their solutions portfolio based on market needs. Spirent continues to focus its investment into areas that offer the most potential for sustainable earnings growth. In 2017 the product development investment was $103.0 million (2016 $111.7 million).
Spirent's success is dependent in part on proprietary technology which may be infringed by others. Protecting the Group's proprietary technology is important to enable Spirent to compete successfully.	Intellectual property claims can result in significant defence costs, and may affect Spirent's ability to market its products.	Spirent has active intellectual property protection programmes in place to obtain appropriate protection in a cost-effective manner.

Risk	Potential impact	Mitigating actions
Customer dependence / customer investment plans		
The Group sells its products and services to a wide range of companies and continually seeks to expand its customer base. In 2017, no one customer accounted for more than ten per cent of Group revenue, although the top ten customers represented 41 per cent of Group revenue (2016 40 per cent). In some of our markets certain customers have a dominant market share, which makes doing business with these customers and their suppliers critical to the success of our business. In addition, many of the companies with which we do business are some of the largest global telecommunications corporations. Therefore meeting our development obligations, producing high quality products, and being on time are vital to Spirent's reputation and success. Changes in our major customers' priorities in technology investments can also have a significant impact on their spending on Spirent products and on those in the customers' supply chain. The industry continues to experience consolidation which does disrupt the spending patterns of affected customers.	Loss of one or more of Spirent's major customers could have a significant impact on Spirent's financial results. Spend on Spirent's products is often capital in nature and so customer spend can fluctuate significantly from year-to-year. Significant failings in either quality or being able to deliver in the appropriate timescale could cause long-lasting damage to Spirent's reputation and relationships. Over recent years there has been significant consolidation in our customer base amongst service providers and network equipment manufacturers. This trend continues and often results in delays in spending, thereby reducing demand for Spirent's solutions and services. It also reduces the potential number of customers to whom those solutions and services could be sold. Changes in our customers' technology investments can result in reduced spending on our existing solutions before customers and those in the customer's supply chain increase spending on new technologies.	Strong customer relationships are critical to Spirent. We aim to provide innovative solutions which meet customers' needs and we place great emphasis on providing professional service and support. One of the Group's strategic objectives is to invest in deepening our customer relationships. We place engineers on-site with our customers, undertake site surveys of the use and intended plans for the use of test solutions in their business. We seek to establish thought leadership in our industry through participation in standards bodies and industry forums, which in turn creates additional links with customers. Our approach is to play a key part in the wider supply chain to our key service provider customers by aligning with early adopters of technology.
Business continuity		
Operational risks are present in the Group's businesses, including the risk of failed internal and external processes and systems, human error and external events, such as a natural disaster or cyber security attacks. For example, a significant portion of our communications operations are located in California which has in the past experienced natural disasters, including earthquakes and wildfires. Contract manufacturers are used for the manufacture of a substantial amount of Spirent's products. Spirent's major contract manufacturer is located in Thailand. The incidence of cyber-crime continues to rise. Spirent is dependent on its information technology systems for both internal and external communications as well as for its day-to-day operations.	A significant natural disaster could disrupt the Group's ability to conduct business and adversely impact revenue and operating results. Failed internal and external processes, systems or human error could lead to compliance issues. Disruption, financial problems of contract manufacturers or limitations in their manufacturing capacity could limit supply and/or increase cost. If a cyber-attack were to be successful it could result in loss of data, confidential information and damage to Spirent's intellectual property, causing major disruption to the business. There would also be a potential impact on Spirent's credibility in the security market.	An important component of Spirent's corporate governance is its risk management strategy. IT disaster recovery plans are in place for all core business systems and ensure that the wider operations are all fully covered. In 2017, we developed and implemented a new Group Business Continuity and Disaster Recovery Policy and Procedure. Regular meetings are held with contract manufacturers and a regular on-site presence is maintained. In addition, the Group's largest manufacturing subcontractor has multiple worldwide sites and comprehensive business continuity plans. During 2017, we continued with a programme of work to develop processes and procedures in the area of cyber security.

Risk	Potential impact	Mitigating actions
Competition		
Spirent operates in a range of highly competitive niche markets which experience rapid technological change. In order to compete effectively, it is necessary to establish and maintain technological differentiation in our solutions. The Group faces competition from new market start-ups as well as more established and well-resourced companies. Industry consolidation amongst our direct competitors may bring about a shift in competitive advantage.	Actions by competitors and increased competition can bring about pressure on Spirent's gross margin. These factors could also affect Spirent's competitive position, thereby reducing revenue and consequently affecting financial results. In the last two years, significant consolidation has been announced in our sector. The consolidation of competitors may bring opportunities for Spirent but can also change the competitive landscape as competitors are able to leverage product capabilities or sales channels.	The Group's broad solution portfolio, market-leading capabilities and customer focus continue to address this risk. Spirent aims to maintain market-leading positions through significant investment in the development of differentiated products. Competitor activity is closely monitored with a view to maintaining clear differentiation based on Spirent's products, services and global reach.
Acquisitions		
A key element of Spirent's strategy is to develop new capabilities and technologies, sometimes through acquisition. Integration of acquisitions can be a complex process and the results expected from acquisitions may not be achieved due to problems encountered in integration, changes in market conditions, the rate of adoption of new technologies, or sometimes deficiencies arising in the due diligence processes.	Underperformance by acquisitions will impact the Group's results and may lead to impairment of goodwill and/or intangible assets.	Rigorous strategic and financial evaluations of all acquisition opportunities are carried out. Detailed financial and commercial due diligence is performed. The Board will only authorise transactions after all due diligence has been successfully completed and where the financial hurdles are within the agreed guidelines. Integration plans and processes are carefully considered prior to acquisition. The Board reviews post-acquisition performance.

Risk	Potential impact	Mitigating actions
Employee skillbase		
Spirent is its employees. Attracting and retaining highly qualified and skilled employees is essential to enable the Group to deliver on its strategy and to the success of the business.	Intense competition for personnel is faced from other companies and organisations and the loss of key employees, the failure to attract and retain other highly skilled employees, or the failure to adequately plan for succession may impair Spirent's ability to run and expand the business effectively.	Investing in people is at the core of the Group's strategy. The aim is to find, keep and engage the highest calibre of employees and encourage their contribution and development. An environment that fosters innovation and collaboration is critical to Spirent's success, as is ensuring incentive plans are competitive. Succession planning for senior posts in the Company is reviewed periodically by the Board. Appropriate career paths and internal recognition programmes are developed for both technical and non-technical staff. Regular reviews are performed to ensure that all elements of compensation across the Group are competitive with the market.

Networks & Security

We delight in knowing our products and expertise keep people and companies connected, communicating and safe online. It's all part of what we do. Our products enable vendors to accelerate their time to get their products to market while ensuring the quality and performance of their product protects their brand.

Strategy

Our strategy is to maintain our position as the leading provider of performance testing systems for the development and assessment of Ethernet/IP equipment for data centers and networks, cloud and virtualisation, applications, mobile infrastructure, security and global navigation satellite systems. Using our test systems, test engineers create and transmit complex and high-capacity traffic and can assess the resilience of their products to security threats and vulnerabilities.

Our business strategy can be summarised as follows:

- To lead in high-speed Ethernet/IP performance testing of emerging standards for data centers and wide area networks.
- To invest in software-as-a-service, software-defined networks (SDN) and network functions virtualisation (NFV) test methodologies and tools.
- To expand our Application Security test business footprint in manufacturers, service providers and large enterprises through enhancing, marketing and selling our security test tool (Spirent CyberFlood) and our security consulting services (Spirent SecurityLabs).
- To extend our lead in global navigation satellite system simulation and the detection and assessment of products for security vulnerabilities and threats.

Revenue
$261.0m
$262.2m
2016

Operating profit[1]
$43.9m
2016 $47.2m

Operating margin[2]
16.8%
2016 18.0%

Notes
1. Before exceptional items as set out in note 4 of Notes to the full year consolidated financial statements.
2. Segment operating profit before exceptional items as a percentage of segment revenue in the period.

Ahead of the cloud

The rise of cloud computing and streaming high definition video services means that internet traffic is increasing by almost 25 per cent per year – a technical challenge if ever there was one. But along with China Telecom and Huawei, Spirent completed the world's first 400Gbps Ethernet (400G) test to verify short and long-range technologies using test cases based on real-world network applications. In other words, Spirent is keeping the internet running!

"As various international bodies are accelerating the standardisation process of 400G, the perfection and establishment of these standards will rely on early and sufficient testing to verify their performance" said Zhu Yongqing, director for IP technology research of the China Telecom Research Institute. "The collaborative test marks the first of its kind and is a landmark step for the adoption of standardised 400G medium and long-range technologies."

Performance highlights

- Strong growth in our Positioning and Application Security businesses offset by some softness in high-speed Ethernet testing as customers transition to new platforms.
- Remained the world's leading vendor of high-speed Ethernet performance test systems. Participated in several high-profile first-to-market demonstrations.
- Launched the first automotive Ethernet protocol performance test system.
- Grew our Application Security business revenue by more than 20 per cent.
- Founding member of NetSecOPEN.
- Achieved global CREST (Council of Registered Ethical Security Testers) accreditation.
- Remained the world's leading vendor of global navigation and satellite test systems.

What we test

We develop performance and security testing systems for networks and applications, simulating real-world high-capacity conditions in the lab and on the network. Our portfolio covers high-speed Ethernet/IP for data centers and networks, cloud, virtualisation, applications, security, and global navigation satellite systems.

High-speed Ethernet/IP, cloud and virtualisation

Our high-speed Ethernet/IP test systems help our customers to validate high-speed network infrastructures, up to 400G, ensuring network functions and services can scale to millions of subscribers and to assess the security of devices, networks and applications. Our target customers are developers of devices, network equipment, applications and data centers, network operators, cloud and service providers, who want to measure the performance of new products and equipment for their network. In 2017, we experienced some softness as customers slowed test spending as they transitioned to new 400G technology platforms. We expect to see growth from these new speeds pick up in the second half of 2018.

Applications and security

We offer security test tools (Spirent CyberFlood) and security consulting services (Spirent SecurityLabs). Our application and security test products and services offer unprecedented realism, threat modelling and ease of use, addressing the proliferation and complexity of applications and vulnerability concerns of manufacturers, service providers, enterprises and government.

Positioning, navigation and timing

We have a portfolio of test systems and services to support the development of positioning, navigation and timing systems for military, space, research and other high-precision applications.

- Our Spirent GSS9000 global positioning system/global navigation satellite system (GPS/GNSS) simulator is the world's leading global navigation satellite system test solution, giving the very best in performance, flexibility and capability of any GNSS test solution.
- Our Spirent GSS7000 multi-GNSS constellation simulator targets R&D, verification and integration testing of location-enabled civilian and consumer products.
- We have an interference detection system and vulnerability assessment products and services.

Revenue

Strong growth in our Positioning and Application Security products and services did not quite offset a decline in high-speed Ethernet revenue as some customers delayed expenditure as they transitioned to new technology platforms. 2017 revenue was $261.0 million, compared to $262.2 million in 2016.

Profitability

Operating profit before exceptional items for 2017 was $43.9 million, compared to $47.2 million in 2016, reflecting some softness in the year for our high-speed Ethernet testing products.

Accomplishments

We are the leading provider of high-speed Ethernet performance test systems.

- We supported New H3C Group by demonstrating the industry's highest density 100 Gigabit Ethernet data center switch performance with a density of 768 100-gigabit per second ports per chassis.
- At Interop Tokyo, in June 2017, we received two awards. Our Wave 2 wireless local area network (WLAN) solution received the 2017 Best of Interop Grand Prize. Our cloud and security solutions received the 2017 Best of Interop Show Special Prize.
- Using Spirent's high-speed Ethernet performance test system, Network World conducted the largest port test of unicast switching capability on a Cisco Nexus 9516 core router switch. The scale of this test at 50G used 1,024 ports. Our Spirent TestCenter generated traffic to fully load the switch's control and data planes at line-rate with full stateful traffic.
- We collaborated with China Telecom China Co. Ltd., Guangzhou Research Institute and Huawei to verify 400Gbps Ethernet (400G) short and long-range technologies. The test, which is the first of its kind, included the verification of 400G port functions such as line-speed forwarding, multi-service stacking, and fault reporting for short and long-range technologies.

We are the leading provider of global navigation satellite simulators and vulnerability detection and assessment systems.

- Early in 2017, we announced the Spirent PT TestBench, a testing, analysis and reporting application to help developers build more accurate positioning functions quickly, embodying over 30 years of Spirent GNSS testing expertise, enabling users to setup, run and interpret tests with a single mouse click.
- We released the GNSS vulnerabilities and threats test suite, a continuously-updated cloud-based library of real-world GNSS threats. The test suite contains 'real-world' intentional interference waveforms, GNSS segment errors and receiver transitions, jamming and spoofing events, and the latest observed space weather and scintillation, as observed and captured in the field, so that they can be simulated in the lab.

We grew our Application Security business revenue by more than 20 per cent as we penetrated new accounts.

- We expanded the security coverage of our flagship security product (Spirent CyberFlood), including ransomware, IoT, industrial controls and DDoS attacks. We provided near-zero-day testing for the latest application scenarios, attacks and malware. CyberFlood was the first platform to offer proactive testing for WannaCry ransomware, demonstrated at Black Hat.
- We are a founding member of the industry group NetSecOPEN, focused on defining open standards for testing enterprise network security performance.

- We earned global CREST accreditation for penetration testing. UK-based CREST is an accreditation and certification body that supports the information security market.

We developed specialised products for the automotive Ethernet market.

- We launched the first automotive Ethernet protocol conformance and performance test system with the new 1000BASE-T1 physical layer standard. This solution enables automobile manufacturers and suppliers to determine if their data traffic is transmitted correctly and on time over the industry's highest in-vehicle connectivity bandwidth.
- We developed the first conformance test solution for WAVE-DSRC (wireless access in vehicular environments – dedicated short-range communications) that includes a set of tests required for U.S. Department of Transportation certification.

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 manufacturers 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.

Meet increasing network performance demands

The growth of cloud services, from bandwidth-hungry content and hosting services and applications to 'always-connected' social media, drives innovation at an accelerating pace. Service providers worldwide are investing in their networks to keep up with these performance demands. We saw strong demand for 100G Ethernet testing by data center and network equipment suppliers as a consequence of their move to four 25G lanes from ten 10G lanes for 100G interface. In 2017, we saw the advent of 200G and 400G development projects. As network equipment manufacturers develop new routers, switches and other network equipment for service providers, network equipment manufacturers and third-party test labs buy our test systems to measure and validate their performance.

Realise virtualised solutions

The internet protocol network industry is amid a revolutionary technology transformation driven by virtualisation enabling technologies, such as SDN and NFV. As developers and service providers develop their virtualised products, we provide test tools and services to measure and benchmark their performance in a range of operating environments and under different conditions.

Assess resilience against cyber security vulnerabilities and threats

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, in which we have security experts assess the product or service and provide a report on a one-time basis or periodically. Additionally, these organisations purchase our application and security products as they evaluate the functionality and performance of their products and networks themselves.

Threat protection

As use of the internet grows, so does the number of attempts to hack into, or otherwise disrupt, its use. Spirent is at the forefront of data security protection methodologies and has earned global CREST accreditation for penetration testing, strengthening the company's commitment to providing best-in-class security solutions to customers around the world.

"This is a critical time for the cyber security industry," said CREST President Ian Glover. "Spirent's commitment and proactive support of global standards assist with further expansion of CREST's efforts to drive both the quality and standards of global cyber security providers, with alignment to the needs of enterprises and public-sector organisations."

CREST accreditation provides confidence to customers who rely on Spirent's security expertise, including compliance guidance for the EU General Data Protection Regulations (GDPR).

Lifecycle Service Assurance

Our service assurance solutions accelerate the turn-up of new services and measure network and service performance to understand and improve customer experience. We get excited when our service provider customers reduce their costs while radically reducing the time to isolate problems and improve their network performance and customer experience.

Strategy

Our strategy focuses on radically reducing the time and cost to turn-up new services and to diagnose, troubleshoot and resolve issues with production networks and services. We enable our customers to radically reduce time to characterise network performance and to identify and resolve user experience problems through automation, visibility and analytics. We will continue to develop new solutions that capitalise on the benefits that virtualisation enables. This improves customer satisfaction and retention while reducing the cost and complexity of operating and managing the network.

Our strategy is to provide the leading active test assurance platform for hybrid networks by integrating physical and virtual test functions. 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 provide superior ability to isolate and resolve issues in virtualised network environments where traditional passive approaches are less effective. By bringing these capabilities together in the Spirent VisionWorks™ platform, we expect to win business at multiple Tier 1 carriers, expanding their mobile networks and deploying SDN, NFV and next-generation services.

Revenue
$109.2m
$99.2m
2016

Operating profit[1]
$17.9m
2016 $11.2m

Operating margin[2]
16.4%
2016 11.3%

Notes
1. Before exceptional items as set out in note 4 of Notes to the full year consolidated financial statements.
2. Segment operating profit before exceptional items as a percentage of segment revenue in the period.

Eyes over London

"What's that building, mum?" must be one of the most asked, and occasionally dreaded, questions posed on the London Eye. Not anymore, thanks to Spirent's Landslide test platform. When the Coca-Cola London Eye planned to launch London Eye Guide, their augmented reality app of the London skyline, they wanted to be sure that the Telefónica O2 Wi-Fi service would be up to the job. Landslide units were placed in eight cabins to test customer reception and reliability and also to emulate the kind of user load anticipated with an enthusiastic complement of passengers. Landslide verified the service was good to go live with the Eye stationary and in rotation, all without putting the client's brand reputation at the kind of risk real-life customer testing can entail.

"Digital communications have become a vital service, and customers want seamless connectivity no matter where they are," said Robert Franks, Digital Director at O2. "Spirent's test platform allows us to test the overall network experience so that we can be certain the end user experience is the best it can be."

Performance highlights

- Sucessfully secured fifteen deals over $1 miilion, totalling about $50 million in 2017, as evidence our strategy is working.
- Expanded our footprint in our three largest Tier 1 mobile operator customers, winning four new Tier 1 deployments, addressing critical challenges in the roll out of virtual networks and business mobile services.
- Remained the leading global provider of mobile test systems for development and system testing.
- Grew revenue by 10 per cent.
- Operating profit before exceptional items up $6.7 million or 60 per cent and operating margin improved to 16.4 per cent.
- Participated in high-profile demonstrations at TM Forum Live in Nice and Mobile World Congress in Shanghai.

Our strategy can be summarised as follows:

- To develop active service assurance systems for Ethernet business service, mobile network turn-up, troubleshooting and optimisation, enhancing our ability to win business at Tier 1 carriers.
- To expand our footprint in our installed-base and in new service providers.
- To continue to develop new capabilities for mobile infrastructure tests to meet emerging requirements in the labs and, as applicable, in the networks.
- To develop and deploy our test creation, management and automation platform.

What we test

We develop products and services that enable service providers to turn-up new service, measure service quality and customer experience, and diagnose and troubleshoot network performance and customer experience problems.

Service assurance systems

Our service assurance systems help service providers turn-up new services and diagnose and troubleshoot issues within mobile backhaul, business services and global networks to support Ethernet service delivery.

Customer experience management

Our customer experience management solutions help service providers to identify critical network issues affecting customers. They reduce churn by aggregating and analysing data from multiple sources to provide real-time insights into the customers' experience.

Mobile lab test systems

Our mobility lab test systems emulate subscribes and adjacent nodes to enable active testing of mobile network equipment and networks, including mobile core, wireless LAN, internet protocol multimedia subsystems and Diameter networks, in the lab and in the network. Network equipment manufacturers buy our test systems to develop and test their products. Service providers buy our test systems to qualify and validate network equipment in their vendor selection and acceptance testing and to actively test the functionality and performance of their network and services.

Test automation

Our industry leading Lab-as-a-Service and automation solutions deliver efficient, scalable and cost-effective physical and virtual build, test and deployment environments for wireline and wireless service providers, network equipment manufacturers or anyone actively developing software-enabled virtual networks.

Speed up, costs down!

The sheer scale of mobile phone use, requires infrastructure that few users ever contemplate. The load on that infrastructure is set to massively increase with the arrival of 5G services. With that in mind, Nokia deployed a first-of-a-kind 5G Lab-as-a-Service (LaaS) at their network infrastructure testing labs in Oulu, Finland and chose the aptly named Spirent Velocity as their LaaS platform. Spirent Velocity enables unprecedented automation of 5G testing to significantly accelerate Nokia's releases of virtual network functions and physical infrastructure. The 5G LaaS also streamlines the use of shared lab resources across teams and geographies. The system is accessible by hundreds of simultaneous users across the globe, offering engineers unprecedented flexibility. Nokia envisage Spirent Velocity will speed up their 5G lifecycle tests while bringing down the costs.

Needless to say, Nokia were impressed and have further plans. "Our goals for the 5G LaaS include automation of 5G lifecycle testing and more efficient sharing of physical and virtual test resources across teams," said Rauno Jokelainen, Vice President of Radio and Advanced Antennas, Nokia.

Revenue
Lifecycle Service Assurance revenue in 2017 was $109.2 million, an increase of $10.0 million on 2016. The growth in revenue reflects multiple key strategic contract wins with expansion of our footprint in our largest Tier 1 mobile operator customers and new deployments at different Tier 1 mobile operators.

Profitability
Operating profit before exceptional items improved significantly, from $11.2 million in 2016 to $17.9 million, as a result of the increase in revenue.

Accomplishments
We enable network operators to rapidly on-board and proactively assure critical virtual, mobile and IoT services. In 2017, the Spirent VisionWorks™ solutions have been deployed by four Tier 1 North American mobile network operators to address critical challenges stemming from the roll out of virtual and business mobile services.

We participated in several high-profile demonstrations:

- At the TM Forum Live in Nice in May 2017, Spirent collaborated with industry leaders to demonstrate rapid service innovation in virtual networks. In the Catalyst Project sponsored by AT&T, Orange and TIM, and working with Huawei, IBM, Infosys and Tech Mahindra, Spirent developed and demonstrated the automated validation of service enhancements in virtual networks using Spirent VisionWorks. The project demonstrates how network functions virtualisation (NFV) and open interfaces enable radically faster service innovation with fewer resources. The project addresses the core need for rapid service innovation, streamlining and automating the process by which virtual network functions (VNFs) are enhanced, validated and then deployed to the production network.
- At Mobile World Congress in Shanghai in June 2017, Spirent and China Mobile Research Institute demonstrated automated testing for virtual core networks. The demonstration is part of a joint programme to develop a methodology for automated testing of the functionality and performance of China Mobile's Telecom Infrastructure Cloud. The test methodology will be incorporated into an automated testing system developed by China Mobile Research Institute. The system will fully automate testing of services in operational virtual core networks and will be part of the complete virtual evolved packet core (vEPC) environment built by the Institute. Spirent provided the virtualised mobile core network emulation and performance testing tool, called Landslide Virtual, and the automated testing platform, called iTest. These test engines automate various types of performance and functionality tests used to develop, spin-up and monitor the vEPC. DevOps models have been developed for the test methodologies, allowing tests to be completely automated and incorporated into the operation of the virtualised network.

Impact of market dynamics on Spirent business
We compete in the service assurance market, estimated size of about $3.0 billion in 2017 and forecast to grow at a compound annual rate of 1.7 per cent from 2016 to 2021[1].

Our current business depends on service providers' 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. GSA reported there are 814 operators investing in LTE; 644 operators have commercially launched LTE or LTE-Advanced networks. There are 125 commercial VoLTE networks, and 205 operators investing in VoLTE[2].

Network operators are reducing operating expenses. We reduce operating costs by accelerating service turn-up, reducing the 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 detected or reported network performance and customer experience problems.

Sources
1. Analysys Mason "Service Assurance Systems: Worldwide Forecast 2017–2021" (June 2016).
2. GSA, "Evolution from LTE to 5G Update" (October 2017).

Connected Devices

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

Revenue
$84.6m
$96.5m
2016

Operating profit[1]
$5.2m
2016 $4.4m loss

Operating margin[2]
6.1%

Strategy

Our strategy focuses on accelerating time to market and reducing cost to develop and launch new devices and services, while helping to ensure the highest service quality and user experience. Developers seek to accelerate the development of connected devices and to test and qualify devices to ensure they can connect to networks and operate reliably.

Our strategy can be summarised as follows:

- To 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 Internet of Things (IoT).
- To provide products and services to test the service experience on different networks or to benchmark a variety of devices on the same network.

What we test

We develop automated test systems and offer services to test new devices in the lab or in the field on real networks.

Notes
1. Before exceptional items as set out in note 4 of Notes to the full year consolidated financial statements.
2. Segment operating profit before exceptional items as a percentage of segment revenue in the period.

Loud and clear

It's all too easy to take smartphone call quality for granted, but extensive testing has been conducted to achieve the high-standard calls we enjoy today. To ensure that their smartphones deliver the best possible voice quality, China Telecom uses VoLTE (Voice over LTE) on their network and Spirent's Umetrix® Voice solution to measure the performance of every new smartphone against stringent quality requirements.

China Telecom tests how well each smartphone carries voice and how successful they are at establishing and maintaining calls. These tests are performed while simulating realistic network conditions, such as when handsets are moving between cells, when they are in low signal areas, when networks are congested, and while the handset is simultaneously sending and receiving data.

Performance highlights

- Strong performance turnaround, operating profit before exceptional items improved by $9.6 million.
- Exited non-performing businesses, and made further operating cost reductions.
- Won key deals with our new channel emulator (Spirent Vertex) with its unprecedented scalability and modularity for wireless RF testing.
- Released Spirent Elevate IoT Device Test solution.
- Demonstrated enhanced voice services (EVS) with China Mobile at Mobile World Congress in Shanghai.
- China Telecom Corporation Limited selected our Spirent Umetrix® Voice solution for handset call quality testing.
- Spirent Umetrix Voice solution voted “VoLTE Innovation of the Year” at Telecom Asia Readers’ Choice & Innovation Awards 2017 held in Singapore.

Wireless device test

We develop systems for testing functionality and measuring performance of 3G, 4G LTE and 5G mobile devices and services, applicable to the stages of the wireless device lifecycle:

- Research and development: Spirent offers a range of innovative industry-leading test systems that are easy to configure and use for testing LTE technology, including LTE-Advanced, frequency division duplex and time division duplex.
- Conformance and certification: Spirent helps manufacturers, application developers and operators address signalling, data throughput, mobility, and other cellular specification conformance requirements for LTE, universal mobile telecommunications system, code-division multiple access or evolution-data optimised standards.
- Carrier Acceptance: Leading carriers demand performance that goes far beyond industry-standard conformance. Spirent’s solutions enable carriers to validate the most stringent requirements, including internet protocol multimedia subsystem signalling themes, mobility scenarios, and user experience evaluation.

Location test

Our location technology solution (Spirent 8100 LTS), is the most comprehensive, cutting-edge solution for wireless device and chipset location technology testing, addressing both indoor and outdoor testing, scenarios covering E911, eCall, A-GNSS, OTDOA, and cellular positioning. The platforms span conformance, certification and carrier acceptance of mobile devices and chipset design.

Our C2K-ATS is an automated, easy to use, accurate, and scalable single-platform solution for testing wireless 1X and EV-DO Rev. 0/Rev. A/Rev. B handsets and terminal devices.

Our eCall/ERA-GLONASS in-vehicle test system (IVS) is a complete system for verifying the functionality and conformance of the eCall and ERA-GLONASS IVS emergency call systems.

Channel emulation

We enhanced our Spirent Vertex channel emulator, which provides an unprecedented level of scalability and modularity for wireless RF testing. Vertex can scale in the field from two to 32 channels to address a wide range of uses from basic RF device tests to complex multiple-input multiple-output beamforming base station antenna tests. Vertex addresses the high-density channel requirements that the market has been struggling to meet and supports configurations to evaluate future technologies such as 5G.

Experience high-definition-voice quality

China Mobile showcased the Spirent Umetrix Voice solution at the GSMA Mobile World Congress in Shanghai to demonstrate the benefits of enhanced voice services (EVS) bringing high-definition voice to devices operating over 4G networks, as well as compensating for issues such as speech distortions and latency.

The EVS codec is increasingly being deployed on mobile devices as global operators recognise the improvements possible in speech quality for their customers as well as efficiencies gained in managing network resources.

Spirent experts are at the forefront of voice and video services deployment, in both the network and lab environment, working with industry leaders to deliver high quality.

Service experience

Our Umetrix platform accelerates user experience evaluation for new devices and services (VoLTE, VoWi-Fi, etc.). Umetrix assess the launch readiness of services and providers, device acceptance and pre-testing. Fit4Launch is our service to make these tests. We have evaluated over 1,300 devices; over 450 of these devices required some changes due to serious user experience issues detected during the Fit4Launch tests.

Revenue

Connected Devices revenue decreased by $11.9 million to $84.6 million in 2017. The previously flagged decrease was due to the ongoing decline in the wireless device test market and the divestment of DI and DT, which accounted for $4.9 million and $7.0 million of the decrease, respectively.

Profitability

The profitability of Connected Devices turned from a loss before exceptional items of $4.4 million in 2016 to a profit of $5.2 million. This was achieved despite the revenue decline. $3.5 million of the improvement was due to the exit from DI and DT, with the remainder due to cost saving actions and expense control.

Accomplishments

- We won key deals with our new channel emulator (Spirent Vertex).
- We released our Spirent Elevate IoT Device Test solution, a new cellular test solution designed to support Internet of Things applications, including end-to-end cloud server connectivity, security vulnerability assessment and battery life measurement. The compact and flexible device test solution addresses critical areas that are affected when designing 3G, LTE and upcoming narrowband wireless technologies into IoT devices.
- We demonstrated EVS with China Mobile at the GSMA Mobile World Congress in Shanghai. The EVS codec is increasingly being deployed on mobile devices as global operators recognise the improvements possible in speech quality for their customers and efficiencies gained in managing network resources.
- The Signals Research Group completed the first study of a commercial video service over an LTE network. With video content increasing rapidly worldwide, operators are exploring enhanced multimedia broadcast multicast service (eMBMS) as an advanced method of delivering that content. The study was conducted on a commercial LTE network in Australia and the Spirent Umetrix Video test platform was used to evaluate how the eMBMS network streamed video content and benchmark these results against the traditional unicast transmission.
- China Telecom Corporation Limited, one of the world's largest mobile telephone operators, selected our Spirent Umetrix Voice solution to help ensure that handsets are able to deliver superior call quality by setting stringent quality requirements and by measuring the performance of every new smartphone.
- Our Spirent Umetrix Voice solution was voted "VoLTE Innovation of the Year". The prestigious award was presented at the 2017 Telecom Asia Readers' Choice & Innovation Awards held in Singapore.

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 transition as wireless component, module and network equipment manufacturers' spending changes in the market shift between ongoing 4G enhancements and the early days of 5G. Spirent continues to manage this transition.

4G LTE services growth

Spirent benefits from the development phase of 4G LTE services, such as VoLTE and Wi-Fi, and the focus on user experience. GSA reported in December 2017 that there are 9,544 LTE user devices from 570 suppliers in existence; this is almost 60 per cent more than the number of devices in September 2016[1].

5G development

The standardisation work for 5G has been accelerated. The standard as specified in 3GPP Release 15 was finalised in 2017 for non-standalone 5G new radio (NR) and will be set by mid-2018 for standalone 5G NR. Early 5G deployments are anticipated in several markets, including the United States, South Korea, Japan and China. The first commercial networks based on standalone 5G NR are expected to go live in 2019, with major network deployments from 2020. By the end of 2023, over one billion 5G subscriptions for enhanced mobile broadband are forecasted[2]. Spirent is starting to see opportunities for 5G NR.

Growing opportunities and challenges in the Internet of Things

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, resulting in an attractive new market opportunity for Spirent. The number of IoT connected devices worldwide was 11.1 billion in 2015 and is forecasted to reach 32.5 billion by 2020, increasing at a CAGR of 39 per cent[3].

Sources
1. GSA, "Snapshot LTE Ecosystem" (December 2017).
2. Ericsson, "Ericsson Mobility Report" (November 2017).
3. Technavio, "Global 5G Equipment Market 2016–2020" (October 2016).

2017 saw effective cost control, very strong cash management and improved profitability. We are transitioning to provide services that fundamentally reduce our customers' cost base.

Free cash flow[4]
$56.4m
up 118%

Cost savings
$16.7m

Paula Bell
Chief Financial Officer

Group overview
Strong earnings growth and improved cash generation were delivered following the implementation of our improvement programmes, which included a portfolio review of our business and targeted cost and working capital management initiatives.

The Group delivered a strong increase in both adjusted basic earnings per share, up by 43 per cent and free cash flow, up by 118 per cent. Adjusted operating profit increased by $12.4 million or 27 per cent, on slightly reduced revenue. The highlights were a robust performance from Lifecycle Service Assurance, with 10 per cent revenue growth and adjusted operating margin increased to 16.4 per cent, and the profitability turnaround of Connected Devices, which delivered an improvement in adjusted operating profit of $9.6 million on lower revenue. Within Networks & Security, there were strong performances from our Positioning and Application Security lines of business but this was tempered by some softness for high-speed Ethernet testing, as we have previously noted, which is expected to rebound in the second half of 2018.

The adjusted operating cost base of the Group reduced by $16.7 million, excluding foreign exchange and despite inflation, as the cost saving actions from the portfolio review programme and restructuring of the sales organisation which commenced in late 2016, began to deliver benefits. These change programmes concluded at the end of 2017, with $6.7 million of in year exceptional costs with a very fast cash pay back.

Adjusted basic earnings per share increased by 43 per cent to 7.55 cents reflecting the growth in adjusted operating profit and reduced tax charge in 2017.

Cash at bank closed at $128.4 million, an increase of $32.3 million on the position at 31 December 2016. Free cash flow more than doubled as a result of increased profit, and a reduced level of working capital. Free cash flow represented 122 per cent of adjusted earnings[3].

Following US tax reform, we expect the Group's effective tax rate to decrease from 22 per cent in 2017 to an estimated 17 per cent from 2018 onwards. Further clarification of some of the new legislation is awaited which may impact this estimate.

As a result of improved financial performance and a review of our capital allocation policy, we propose a 5 per cent increase to the full year dividend per share, from 3.89 cents to 4.08 cents, and a further special dividend of 5.00 cents per share.

The following table shows summary financial performance for the Group:

$ million	2017	2016
Order intake	**447.8**	471.7
Revenue	**454.8**	457.9
Gross profit	**325.0**	324.3
Gross margin %	**71.5**	70.8
Adjusted operating costs[1]	**266.1**	277.8
Adjusted operating profit[1]	**58.9**	46.5
Adjusted operating margin[2] %	**13.0**	10.2
Reported operating profit/(loss)	**43.7**	(41.1)
Reported profit/(loss) before tax	**46.6**	(46.0)
Adjusted basic earnings per share[3] (cents)	**7.55**	5.29
Basic earnings/(loss) per share (cents)	**4.75**	(6.93)
Free cash flow[4]	**56.4**	25.9
Closing cash	**128.4**	96.1
Final dividend per share[5] (cents)	**2.40**	2.21
Special dividend per share[5] (cents)	**5.00**	–

Notes
1. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment amounting to $15.2 million in total (2016 $87.6 million).
2. Adjusted operating profit as a percentage of revenue in the period.
3. Adjusted basic earnings per share is based on adjusted earnings as set out in note 12 of Notes to the full year consolidated financial statements.
4. Operating cash flow after tax, net interest and net capital expenditure. See reconciliation on page 49.
5. 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 2017 of 2.40 cents per Ordinary Share is equivalent to 1.73 pence per Ordinary Share.
   - The special dividend proposed for 2017 of 5.00 cents per Ordinary Share is equivalent to 3.60 pence per Ordinary Share.

Revenue

$ million	2017	% of total	2016[1]	% of total
Revenue by segment				
Networks & Security	**261.0**	**57.4**	262.2	57.3
Lifecycle Service Assurance	**109.2**	**24.0**	99.2	21.6
Connected Devices	**84.6**	**18.6**	96.5	21.1
	454.8	**100.0**	457.9	100.0
Revenue by geography				
Americas	**248.6**	**54.7**	254.1	55.5
Asia Pacific	**160.2**	**35.2**	149.3	32.6
Europe, Middle East and Africa	**46.0**	**10.1**	54.5	11.9
	454.8	**100.0**	457.9	100.0

Note
1. Restated for changes to the Group's operating segments effective 1 January 2017 as set out in note 4 of Notes to the full year consolidated financial statements.

Overall, Group revenue was broadly level compared to last year and up 2.4 per cent excluding Connected Devices which continues to be managed carefully during the decline of the wireless device testing market.

On 30 June 2017, we divested both the Device Intelligence (DI) and Developer Tools (DT) lines of business from Connected Devices which together generated revenue of $12.9 million in 2016 and $5.9 million for the first six months of 2017.

Continuing Group revenue, excluding the DI and DT businesses divested at the end of the first half of 2017, increased by $3.9 million or 1 per cent. Lifecycle Service Assurance had a particularly robust finish to the year increasing revenue by 10 per cent, $10.0 million ahead of last year, Networks & Security was essentially level after a strong 2016 and Connected Devices experienced a decline of $11.9 million ($4.9 million excluding DI and DT), in line with our expectations.

Within Networks & Security, our Positioning and Application Security test lines of business saw strong demand and good growth but this was offset by lower demand for high-speed Ethernet performance test solutions as some customers delayed expenditure as they transitioned to new technology platforms, and also 2016 represented a strong comparator year. All of our lines of business within Lifecycle Service Assurance experienced growth on last year; particular highlights were Mobility Infrastructure and Customer Experience Management. Connected Devices included our DI and DT lines of business, which were divested on 30 June 2017. Excluding these businesses, the operating segment's revenue decline slowed to 6 per cent in 2017, from 25 per cent in 2016.

Geographically, the trends we have experienced in recent years continued into 2017 with growth in Asia Pacific and decline in EMEA. Americas remained our largest regional market constituting 55 per cent of total Group revenue but was down marginally in absolute terms on last year impacted by Cloud and IP, Connected Devices and the divestment of DI and DT. Asia Pacific again increased its share of Group revenue, to 35 per cent from 33 per cent, an increase of $10.9 million. China drove much of the growth in the Asia Pacific region, contributing $7.3 million of the increase, being 9 per cent growth. The decline in EMEA reflected continuing softness in service provider and network equipment manufacturer investment in the region, as well as the divestment of DI and DT; excluding these businesses the decrease was $5.4 million or 11 per cent.

Gross margin

$ million	2017	%	2016[1]	%
Networks & Security	**186.7**	**71.5**	184.9	70.5
Lifecycle Service Assurance	**84.7**	**77.6**	77.7	78.3
Connected Devices	**53.6**	**63.4**	61.7	63.9
	325.0	**71.5**	324.3	70.8

Note
1. Restated for changes to the Group's operating segments effective 1 January 2017 as set out in note 4 of Notes to the full year consolidated financial statements.

Gross margin increased by 0.7 percentage points to 71.5 per cent (2016 70.8 per cent) benefitting from a robust performance from the Positioning business and growth in our Application Security business, both reported within the Networks & Security operating segment.

Operating costs

$ million	2017	2016[1]
Product development	**103.0**	111.7
Selling and marketing	**116.8**	125.4
Administration[2]	**46.3**	40.7
Adjusted operating costs[2]	**266.1**	277.8
Networks & Security	**142.8**	137.7
Lifecycle Service Assurance	**66.8**	66.5
Connected Devices	**48.4**	66.1
Corporate	**8.1**	7.5
Adjusted operating costs[2]	**266.1**	277.8

Notes
1. Restated for changes to the Group's operating segments effective 1 January 2017 as set out in note 4 of Notes to the full year consolidated financial statements.
2. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment amounting to $15.2 million in total (2016 $87.6 million).

As in 2016, 2017 was another year of material cost reductions. Despite inflation and excluding foreign exchange charges, total Group adjusted operating costs reduced by $16.7 million or 6 per cent compared to 2016, as a result of the cost reduction actions implemented under the portfolio review programme and sales reorganisation, and to a lesser extent, the divestment of DI and DT at 30 June 2017. This follows a similar level of cost reduction in 2016 and reflects management's continuing focus on effective resource allocation and cost control. Investment is being focused on high-growth, high-margin areas and this is apparent from the segmental analysis of operating costs, with the reduction in costs targeted in Connected Devices and the level of investment maintained and increased in Lifecycle Service Assurance and Networks & Security, respectively.

Compared to 2016, the year-on-year movement in foreign exchange charged in the income statement, was a negative impact of $5.0 million. The net change in total operating costs before adjusting items was therefore $11.7 million.

The total Group investment in product development was reduced by $8.7 million, despite cost inflation, which reflects our focused approach to concentrate resources on specific higher growth potential areas.

Selling and marketing costs decreased by $8.6 million, being the full year effect of the cost reduction actions commenced at the end of 2016 following the review of the sales organisation and remuneration structures undertaken by external consultants. This programme has continued through 2017 with further actions and exceptional implementation costs.

Administration costs in 2016 benefitted from $3.4 million of foreign exchange gains, related to exchange rate volatility between the US dollar and pound sterling, whereas 2017 includes a foreign exchange loss of $1.6 million. Therefore, the majority of the movement in administration costs year-on-year, is due to foreign exchange. The current year level of administration costs is considered more typical.

Looking forward into 2018, we will focus on driving improved productivity in product development.

Operating profit

$ million	2017	Adjusted operating margin[2] %	2016[1]	Adjusted operating margin[2] %
Networks & Security	**43.9**	**16.8**	47.2	18.0
Lifecycle Service Assurance	**17.9**	**16.4**	11.2	11.3
Connected Devices	**5.2**	**6.1**	(4.4)	NA
Corporate	**(8.1)**		(7.5)	
Adjusted operating profit[2]	**58.9**	**13.0**	46.5	10.2
Exceptional items	**(6.7)**		(4.8)	
Acquired intangible asset amortisation	**(6.3)**		(12.9)	
Goodwill and acquired intangible asset impairment	**–**		(69.1)	
Share-based payment	**(2.2)**		(0.8)	
Reported operating profit/(loss)	**43.7**		(41.1)	

Notes
1. Restated for changes to the Group's operating segments effective 1 January 2017 as set out in note 4 of Notes to the full year consolidated financial statements.
2. Before exceptional items, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment amounting to $15.2 million in total (2016 $87.6 million).

Adjusted operating profit increased by 27 per cent to $58.9 million, compared with $46.5 million in 2016, and adjusted operating margin increased to 13.0 per cent from 10.2 per cent in 2016.

Notwithstanding the ongoing reduction in the operating cost base, we have continued to invest in key growth areas identified from the portfolio review.

Exceptional items

During the second half of 2016, the Group commenced a portfolio review with the objective of focusing Spirent's lines of business on those test technologies and services which will best drive sustainable earnings growth. In addition, external consultants were engaged to benchmark the sales organisation and a programme was implemented to increase our effectiveness and efficiency in this area. These initiatives resulted in cost reduction actions which commenced at the end of 2016 and continued throughout 2017, concluding at the end of the year. In addition, in 2017, the Group undertook a strategic review of the Connected Devices operating segment. In total, $6.7 million of exceptional costs were incurred in the year, including $5.4 million of portfolio review and sales organisation restructuring costs (2016 $4.8 million) and $1.3 million of costs related to the strategic review of Connected Devices.

Acquired intangible asset amortisation, impairment and share-based payment

In 2016, the Group took a total impairment charge of $69.1 million in relation to goodwill and acquired intangible assets within the DI and DT lines of business and the Connected Devices cash generating unit. As a result, acquired intangible asset amortisation has decreased significantly in 2017, from $12.9 million in 2016 to $6.3 million.

Share-based payment has increased to $2.2 million in 2017 (2016 $0.8 million) reflecting the expected vesting of awards and the cost associated with the 2017 grant.

Divestments

A consequence of the portfolio review was the decision to not invest further in the DI and DT lines of business within Connected Devices and this necessitated the impairment in full of the goodwill and acquired intangible assets in these businesses in 2016. At 30 June 2017, these businesses were divested to an Israeli company established by the former General Manager of the business units, for a total cash consideration of $1. As part of the sale, Spirent made a $2.0 million interest bearing loan to the divested subsidiaries to fund working capital requirements. This loan has been fully provided for by the Group and expensed in the calculation of the gain on divestments which amounted to $2.6 million. The businesses combined contributed $12.9 million revenue in 2016 and $5.9 million for the first six months of 2017.

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 $1.6 million (2016 $3.4 million gain) arising from:

1) transacting in foreign currencies, primarily US dollars in the United Kingdom, of $0.9 million (2016 $2.3 million gain); and

2) translation of foreign currency cash balances of $0.7 million (2016 $1.1 million gain).

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 $0.6 million was earned from cash held on deposit (2016 $0.3 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. Finance costs of $0.3 million (2016 $0.7 million) comprised mainly of the interest cost on the defined benefit pension plan.

Share of result of associated company

Spirent's share of the loss incurred by its associate, Jolata, Inc. (Jolata), was nil in 2017 following the impairment of the full value of Spirent's investment in Jolata taken at 31 December 2016 (2016 $4.5 million loss, including an impairment charge of $2.6 million).

Tax

The adjusted effective tax rate for 2017 was 22.1 per cent, down from 26.9 per cent in 2016, primarily reflecting benefits achieved from the successful introduction of UK Patent Box and a positive impact from the divestment of the DI and DT lines of business, which had unrelieved losses.

On 22 December 2017, the US President signed the Tax Cuts and Jobs Act (the Act) into law. The Act includes a number of significant changes in the tax law that will 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 with effect from 1 January 2018. Other changes that will 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. It is estimated that the impact of the US tax rate reduction together with the repeal of the DPAD and the addition of the FDII deduction will decrease the Group's 2018 effective tax rate to circa 17 per cent and deliver increased earnings and cash benefits. The precise impact is still to be determined as we are awaiting further guidance from the US government.

While the changes highlighted above impact Spirent from 1 January 2018 going forward, there is an adverse impact to the Group's US deferred tax assets (DTA). These assets have been previously booked with the expectation of a future US tax benefit at the pre-2018 35 per cent statutory tax rate. Our 2017 financial statements reflect a revaluation of these DTA using the new 21 per cent statutory tax rate. The resulting decrease in the value of DTA on our balance sheet of $7.9 million is reflected as a corresponding deferred tax expense in the income statement, classified as an adjusting item in the year.

Earnings per share

Adjusted basic earnings per share was up 43 per cent at 7.55 cents (2016 5.29 cents). There were 610.6 million (2016 610.6 million) weighted average Ordinary shares in issue. Basic earnings per share was 4.75 cents compared with a loss per share of 6.93 cents for 2016. See note 12 of Notes to the full year consolidated financial statements on page 130 for the calculation of earnings per share.

Treasury management

The key objective of the Group's treasury department is to manage the financial risks of the business and to ensure that sufficient liquidity is available to the Group. All treasury activity operates within a formal control framework. The Board has approved treasury policies and guidelines and perodically reviews treasury activities. Additionally, it is the Group's policy that speculative treasury transactions are expressly forbidden.

Spirent's financial risk management objectives and policies and its exposure to risks are discussed in note 27 of Notes to the consolidated financial statements.

Financing and cash flow
The Group was highly cash generative in 2017. Following a refreshed focus on working capital management, we were able to more than double the free cash flow from $25.9 million in 2016 to $56.4 million in 2017, resulting in a free cash flow conversion which represented 122 per cent of adjusted earnings (2016 80 per cent). Working capital levels reduced in the year driven by lower inventory levels and higher payables. Cash and cash equivalents were $128.4 million at 31 December 2017 compared with $96.1 million at 31 December 2016, an increase of $32.3 million. There was no debt.

Free cash flow is set out below:

$ million	2017	2016
Cash flow from operations	**77.7**	47.4
Tax paid	**(8.4)**	(4.7)
Net cash inflow from operating activities	**69.3**	42.7
Interest received	**0.6**	0.3
Net capital expenditure	**(13.5)**	(17.1)
Free cash flow	**56.4**	25.9

Net capital expenditure of $13.5 million was $3.6 million lower than last year due to the refit of an engineering lab in the United States in 2016. The Group exercised careful management of capital investment to ensure efficient use of capital and maximise return on investment.

In 2017, the final dividend for 2016 and an interim dividend for 2017 totalling $24.6 million were paid (2016 $24.2 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 these plans at the end of 2017 showed a net deficit of $2.2 million, a marked improvement on the net deficit of $12.8 million at 31 December 2016. The deficit has reduced because of contributions paid in the year, stronger asset returns and a beneficial change to the mortality assumption underpinning the value placed on liabilities, offset to some extent by a change to commutation factors and a decrease in the discount rate, both of which increase the value placed on liabilities. In addition, movements in the US dollar to sterling exchange rate impacts the deficit expressed in US dollars. The accounting valuation is based on the actuarial valuation dated 31 March 2015.

The Group has also reported a liability of $0.6 million (31 December 2016 $0.7 million) in respect of UK unfunded plan liabilities.

The next Triennial Valuation of the plans is due on 31 March 2018. The technical deficit on 31 March 2015, the date of the last Triennial Valuation was $46.0 million, which is currently being funded over a seven-year period, which commenced 1 July 2016, by an annual contribution of $7.0 million (£5.0 million).

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

The Board 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.

We aim to build cover for the dividend to 2 to 2.5 times adjusted earnings and follow a progressive dividend policy.

Dividend
The Board is recommending the payment of a final dividend for 2017 of 2.40 cents (1.73 pence) per share which, together with the interim dividend of 1.68 cents (1.27 pence) per share paid in September 2017, brings the full year dividend to 4.08 cents (3.00 pence) per share. This is a 5 per cent increase in the full year dividend for 2017 compared to full year 2016. In sterling terms this represents a decrease of 2 per cent. The dividend is covered 1.9 times by adjusted earnings.

The Board has also considered the Company's cash position in line with the policies outlined above. As a result, it has decided to recommend a special dividend of 5.00 cents (3.60 pence) per share which equates to a cash distribution of circa $30.5 million.

Subject to approval by shareholders at the Annual General Meeting on 2 May 2018, the final and special dividends will be paid on 4 May 2018 to shareholders on the register at 16 March 2018. Payment to ADR holders will be made on 11 May 2018

Restatement of operating segments
Full year 2016 operating segment information has been restated due to changes to the Group's operating segments which came into effect on 1 January 2017. Further details are disclosed in note 4 of Notes to the full year consolidated financial statements.

FuturePositive:
Our sustainability approach
The way we do business matters to our long-term success. Our approach is focused on identifying and managing the material sustainability issues and opportunities for the Group through our FuturePositive programme.

Our commitment to improved corporate responsibility drives business performance by ensuring we meet our legal obligations, drive efficiency, and unlock sustainability performance for our customers with our products and services.

The key areas of management and performance are set out below, but we also publish a comprehensive report on our corporate responsibility activities which is available on our website https://corporate.spirent.com.

Sustainability at Spirent
We are committed to embedding the highest standards of environmental management, social practices and governance into our operations, products and across our supply chain.

We look to create long term value for our shareholders by:

- protecting our reputation and ability to grow;
- helping us to win business from customers who value strong environmental, social and governance ("ESG") performance;
- enhancing our efficiency;
- enabling our people to work productively in a safe and ethical environment;
- helping us to attract and retain talent, and encouraging employees to take pride in working for us; and
- reducing the risk of incidents and their associated costs.

Our material sustainability issues
Our material sustainability issues were identified in 2016 using the AA 1000 standard. The 2016 revision reaffirmed the importance of anti-corruption and business ethics for the business and identified the importance of our product functionality in unlocking sustainability performance for our customers.

Policies
Spirent is governed by its suite of responsible business policies. The policies commit the Group to compliance with high standards of ethics and business integrity, environmental management and employee and community welfare.

The Group Sustainability Policy sets out our overarching approach to manage all sustainability issues and is supported by issue specific policies for business ethics and environmental management.

The Group is also committed to compliance with all applicable regulations in each of the jurisdictions in which it operates, including environmental, health and safety, labour practices and fair business practices.

All policies are available on our website at https://corporate.spirent.com.

Helping to revolutionise R&D labs: dramatically reducing test times and environmental impacts
Hardware R&D labs are energy intensive, with test equipment and development hardware mounted in racks in a noisy, air-conditioned environment. Labs can be inefficient with unused equipment left on, equipment duplicated across teams and sites, and equipment configured manually.

Spirent's product Velocity helps companies to revolutionise their labs, dramatically reducing the time taken to complete tests whilst significantly reducing environmental impacts.

Using Velocity, Spirent has helped companies to:

- Reduce testing time: Velocity has helped complete tests four times quicker;
- Reduce equipment needed: Velocity allows global sharing of equipment and automates test scheduling, improving utilisation by up to 77 per cent;
- Consolidate labs: Velocity allows engineers to use and configure equipment from anywhere in the world, which means fewer labs;
- Automate power controls for each device: Velocity can automatically switch off equipment when not needed;
- Reduced energy use and carbon emissions: The improved equipment utilisation can reduce energy use and carbon emissions by up to 63 per cent.

Progress in 2017

Key achievements

Reporting: Continual Improvement

We have continued to make improvements in our sustainability performance and reporting this year, with our improvements recognised and rewarded by our inclusion in the FTSE4Good index in December 2017.

We have achieved a B score in the 2017 CDP ratings, received a silver ESG rating following a supplier assessment undertaken by EcoVadis and were finalists at this year's QuEST Sustainability Awards.

Sustainability in our products

We expanded the coverage of our sustainable product development processes during the period under review, introducing the processes at two additional business units.

Our focus areas

Our FuturePositive programme has four main focus areas: Product, People, Property and Procurement. Full details of our programmes are set out in our 2017 Sustainability Report available at https://corporate.spirent.com

Product

Electronic waste and use of hazardous materials

Spirent's business units comply with the EU's Waste Electrical and Electronic Equipment Regulations 2013 and Batteries Directive and the California Electronic Waste Recycling Programme.

Spirent's hardware products came into scope of the EU's Restriction of Hazardous Substances Directive ("RoHS") in June 2017 and all comply with the requirements of the Directive.

Conflict minerals

The Group is not directly required to comply with or report under Section 1502 of the Dodd-Frank Act, the US Conflict Minerals Law. However, it has robust procedures in place to ensure that it would be in compliance if it were brought within the scope of this legislation. The Group will be subject to the EU Directive on Conflict Minerals when it is enacted into national policy in the UK. We are monitoring the development of the standards and are confident our existing practices will meet the specifications required.

Significant power reduction in Spirent's latest 100Gb Ethernet test solutions

We have reduced the power consumption per port of the latest version of our 100Gb ethernet test module, the mX3, by 27 per cent compared to the previous model.

The multi-speed mX3 modules are used to test the performance of datacenter and service provider network infrastructure, mounted in Spirent's N11U or 4U chassis.

Energy performance has been an important consideration during the design process, and the mX3 benefits from the latest semi-conductor technology, with smaller components and more ports per board. We have also made significant improvements in heat management, improving air-flow and heat sink design. We have introduced intelligent power controls that shut down unused test modules, along with variable speed fans and more efficient power supplies.

As a result, we have reduced power consumption from 200 Watts per slot per port in the MX-100G-P2 to 145 Watts in the mX3.

People

Business ethics and human rights

Spirent's core values and principles and the standards of behaviour to which every employee across the Group is expected to work are set out in the Group's Ethics Policy. These values and principles are applied to all dealings with our customers, suppliers and other stakeholders, not only forming part of our pre-contract due diligence, but also being monitored through our ongoing supplier audit programme.

The Group has a zero-tolerance approach to all forms of bribery and corruption. As a UK registered company, Spirent Communications plc is bound by the laws of the UK, including the Bribery Act 2010, in respect of our conduct both at home and abroad. In addition, we will uphold all laws relevant to countering bribery and corruption, including the US Foreign Corrupt Practices Act as well as human rights, in all jurisdictions in which we operate.

During the period under review, anti-bribery and anti-corruption training was undertaken by all employees with customer-facing roles, with this training scheduled to be rolled out to all employees during 2018.

Equality and diversity

The Group employs a diverse workforce and prides itself in providing equal opportunities for all. High value is placed on rewarding our people for their commitment, their integrity and their service. We aim to ensure that no employee is discriminated against, directly or indirectly, on the grounds of colour, race, ethnic and national origins, sexual orientation or gender, marital status, disability, religion or belief, being a part time employee or on the grounds of age.

These practices are governed by our Business Ethics and HR policies.

At 31 December 2017, Spirent employed 1,477 employees of whom 316 were female (21.4 per cent) and 1,161 were male (78.6 per cent). 31 of the Group's senior management were female (16.2 per cent) and 160 were male (83.8 per cent), with one female member of the Board (20 per cent) and four male (80 per cent).

Gender Pay Gap

Under the current criteria, Spirent is not required to comply with the Gender Pay Gap reporting regulations but is looking at this issue and expects to publish its findings when they are available.

Health and Safety

The Board has designated the Chief Financial Officer as being responsible for health and safety performance within the Group and procedures are in place for incidents to be reported through the Audit Committee to the Board as necessary.

The health and safety risk profile for the Group remained low during 2017, with 14 reportable accidents, none of which required hospitalisation.

Training and skills

Spirent provides all its employees with a wide range of technical and business training opportunities. We manage training through personal development plans which are assessed by all managers and updated periodically.

Higher education and schools

Through knowledge transfer partnerships, we continue to promote STEM skills and innovation in early career development and young students. Our work in this area has been recognised by the BITC with Spirent being short-listed for their "Supporting Young Talent" award in 2016 and reaccredited in 2017.

Information security

Spirent takes data security and privacy seriously and we continually review the security of our data systems and procedures in order that we can react to areas of heightened risk promptly and effectively.

In preparation for the introduction of the General Data Protection Regulation (GDPR) in 2017, Spirent has undertaken a full review of its data protection policies and procedures in order to comply with the new regulation.

Spirent have procedures to restrict the type and quantity of confidential information collected and stored and there are robust procedures in place to protect customer data from unauthorised access and disclosure.

Periodic information security risk assessments are performed, and training is provided to staff to prevent information security breaches. Our internal controls are audited, and we have a whistleblower procedure in place for staff to report information security or any other concerns.

Spirent has implemented a response procedure to manage breaches of confidential information if they were to occur.

Confidential waste is shredded if in hard copy and certificates of destruction are provided for any electronic storage devices disposed of at end-of-life.

STEM initiatives and community impact projects

Spirent actively encourages its employees to become STEM ambassadors around the globe. Our ambassadors work with students in local schools and institutions to help them develop STEM skills and help them in their professional journey.

We also provide our employees in the US and EMEA with volunteering time off to make a positive contribution to the communities in which they work.

Through financial donations and staff volunteering, Spirent has continued to support community projects worldwide. Projects include ongoing initiatives to rebuild homes after hurricanes Sandy and Harvey in the US, and supporting education projects in India and China.

Property

Energy use

Energy use is an important environmental impact for Spirent. Our properties, which house engineering and development labs, are key energy-using processes within the scope of our direct operations.

Spirent's energy use fell in 2017 by 16.5 per cent to 14,023MWh. This is predominantly due to a 60 per cent decrease in gas use across our UK and US sites and a 12.5 per cent reduction in electricity use across our global estate.

Greenhouse gas emissions

Greenhouse gas emissions are a material issue for Spirent and we are committed to reporting emissions and acting to combat climate change. The group once again reported to the Carbon Disclosure Project in 2017, completing the Climate Change and Supply Chain questionnaire. In 2017 we achieved a B rating.

Methodology

Reporting on emission sources is required under the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 and these sources fall within our consolidated financial statements. We have reported on all the emission sources that fall within our consolidated financial statements. We do not have responsibility for any emission sources that are not included in our consolidated financial statements. We have used the GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition), along with data gathered to fulfil our requirements under these Regulations, and emission factors from the UK Government's GHG Conversion Factors for Company Reporting 2017 for all countries except the United States, where US EPA 2016 eGrid emissions factors for the applicable individual states was used.

Supplier audit programme expanded in 2017

Spirent's supply chain team conducted audits on 18 of our key suppliers in 2017, which represents 52 per cent of our supply chain spend.

The on-site audits review the management and performance of the suppliers, and cover quality, health and safety, business ethics, labour and human rights, and environmental management.

Since the introduction of the supplier sustainability audit programme in 2016, around 70 per cent of components now come from suppliers who have been audited by Spirent directly, or by our contract manufacturer or as part of the EICC VAP audit programme, exceeding our year-end target of 60 per cent.

Greenhouse gas emissions 2017 have been assured using the AA 1000 AS (2008) standard. The assurance statement can be found in our 2017 Sustainability Report at https://corporate.spirent.com.

Year	Programme	Disclosure Score	Performance Band
2017	Climate Change 2017	N/A	B
2016	Climate Change 2016	N/A	A-
2015	Climate Change 2015	95	C
2014	Climate Change 2014	73	D

	2017 Tonnes of CO_2e	2016 Tonnes of CO_2e
Emissions from:		
Combustion of fuel & operation of facilities (scope 1)	**100.5**	139.3
Electricity, heat, steam and cooling purchased for own use (scope 2)	**6,099.7**	6,487.4
Total emissions	**6,200.2**	6,626.7
Emissions intensity metrics:		
Normalised per square metre of gross internal area of our facilities	**0.137**	0.146
Normalised per $ million of revenues	**13.63**	14.47

Performance against target

The Group set a target to reduce carbon emissions by five per cent relative to revenue from 2016 figures. We have achieved this target, having reduced carbon emissions per $m of revenues by 5.8 per cent. 19 of our 39 sites have achieved absolute reductions in GHG emissions of five per cent or more.

Compliance

The Group is not required to comply with stage 1 of the UK Energy Savings Opportunity Scheme (ESOS) Regulations 2014. We will review whether we are required to comply with stage 2 of the scheme at the qualification date, 31 December 2018. If the Group meets the qualification criteria, Spirent has a compliance plan in place to ensure compliance by the deadline of 5 December 2019.

Procurement

Vendor assessment and auditing

Vendors are required to abide by our Code of Conduct which sets out our expectations for environmental management, labour and human rights, health and safety, and business ethics. They are assessed using a detailed questionnaire. The questionnaire was revised in 2016 and again in 2017 to include enhanced disclosures of environmental, social and business ethics management.

Priority suppliers are audited by Spirent's procurement team: 18 supplier audits were conducted in 2017 at contract manufacturers and component suppliers, representing 52 per cent of our supply chain spend. No material issues were identified.

We also make use of industry-body audit programmes to determine the compliance status of our suppliers.

Compliance

We comply with the requirements of the UK Modern Slavery Act 2015 and the California Transparency in Supply Chains Act 2010. We require slavery and human trafficking to be eradicated from our direct supply chain for the products we sell and monitor suppliers by performing regular evaluation surveys to assure ourselves of each supplier's commitment in this area. Spirent's full statement on Modern Slavery and Human Trafficking can be found on the Company's website at https://corporate.spirent.com.

Pages 1 to 54 form part of the Strategic Report which has been reviewed and approved by the Board.

Angus Iveson
Company Secretary
8 March 2018

Accountability, integrity and respect are the cornerstones for a healthy business.

My first priority has been to expand the Board with new members who could bring strong technical backgrounds, international experience in our industry and who have specific knowledge of working with our customer base.

Dear Shareholder
I am pleased to report to you the Governance section of our Annual Report 2017.

I stepped into the role of Chairman in May 2017 having joined the Board in December 2016. During 2017 I have met with a large cross section of the stakeholders in our business to solicit a wide range of views on the opportunities and challenges that Spirent faces. I will continue to maintain that dialogue with as wide a cross section of the stakeholders in our business as possible as I aim to ensure that Spirent delivers not only on its financial goals, but also on its wider responsibilities as an employer in the communities in which it operates.

From a governance perspective, my first priority has been to expand the Board with new members who could bring strong technical backgrounds, international experience in our industry and who have specific knowledge of working with our customer base. In appointing Edgar Masri and Wendy Koh at the beginning of 2018, the Board and I are confident that we have found people with just the right profiles. They will help to supplement and develop the skillset and experience of the Board which will, in turn, help us to support our management team and build a platform for Spirent to grow in a sustainable way.

Just as important as the set of skills and experience of the Board is that we have the appropriate governance framework in place to ensure we meet our obligations. I am pleased to confirm that this year Spirent has complied in full with the principles of the UK Corporate Governance Code 2016. As you will see from reading our Remuneration and Audit Committee reports, we have sought to build on the existing strong governance framework in order that the Board can be confident that it has full visibility of issues within Spirent's businesses and that we are fully considering the changing expectations of our stakeholders with regard to matters such as executive pay. I note our inclusion on the Investment Association register of companies with a significant vote against our Directors' report on remuneration at the 2016 AGM and, as explained by our Chair of Remuneration Committee in his letter on page 74, we are engaging with all investors to understand their points of view and, where possible, address their concerns.

Finally, I would like to extend my thanks and appreciation to my colleagues on the Spirent Board who stood down in the year under review. The composition of the Board changed significantly during the course of 2017 and I would like to acknowledge in particular the contribution that Alex Walker made, serving on the Spirent Board for a total of 10 years, including seven years as Chairman. In that time, he led the Board with distinction as Spirent expanded into profitable and fast-growing markets and dealt with the challenges of rapid technology change. We wish him well in his retirement.

I look forward to meeting any shareholders who are able to attend our AGM in May and thank you for your continued support as we look to the year ahead.

Bill Thomas
Chairman
8 March 2018

An experienced and strengthened Board providing the right mix of skills and knowledge.

Bill Thomas
Chairman
Appointed: Chairman in May 2017;
Non-executive Director in December 2016
Committees: Nomination (Chair)

Skills and experience
Bill brings strong commercial and management experience to the Board. His extensive international technology experience, together with his track record in leading major change in large organisations provide valuable insight. Bill is a former Senior Vice President at Hewlett Packard and was on the executive committee of EDS plc as Executive Vice President.

Other roles
Member of the Council and President of the Alumni Association at Cranfield University School of Management; Chair of Node4, a private equity-owned IT services firm; Chair of the Royal Navy and Royal Marines Charity; non-executive director of The Co-operative Bank; member of Advisory Board of FireEye, Inc.

Eric Hutchinson
Chief Executive Officer
Appointed: CEO in September 2013;
Chief Financial Officer in January 2000

Skills and experience
Eric has extensive experience in the technology industry worldwide. He joined the Company in 1983 and was appointed to the Board as Chief Financial Officer in 2000, stepping up to the role of Chief Executive Officer in September 2013.

Eric is a Fellow of the Association of Chartered Certified Accountants.

Other roles
Member of the Financial Reporting Review Panel.

Paula Bell
Chief Financial Officer
Appointed: Chief Financial Officer in September 2016

Skills and experience
Paula joined Spirent in 2016, bringing extensive board experience of working with global technology and engineering businesses. Paula has demonstrable experience of effective financial and commercial management, driving cost-efficient organisations and improved cash management whilst driving a strategic agenda. Paula was previously CFO at John Menzies Plc from 2013 and CFO at Ricardo Plc from 2006 to 2013. Paula has held senior management roles at BAA plc, AWG plc and Rolls-Royce, leading business development for international growth underpinned by extensive M&A activity.

Paula is a Fellow of the Chartered Institute of Management Accountants and a Chartered Global Management Accountant.

Other roles
Non-executive director and Chair of Audit Committee of Laird plc.

Jonathan Silver
Senior Independent Non-Executive Director
Appointed: Senior Independent Non-executive Director November 2016;
Chair of Audit Committee: August 2015;
Non-executive Director: June 2015;
Committees: Audit (Chair), Nomination, Remuneration

Skills and experience
Jonathan brings experience in finance, risk, control, governance and international business expertise. He was Chief Financial Officer at Laird plc until 2015, having held a variety of roles in his 30 years with the company.

Jonathan is a Member of the Chartered Accountants of Scotland.

Other roles
Non-executive director and Chair of Audit Committee of Invesco Income Growth Trust; non-executive director and Chair of Audit Committee of East and North Hertfordshire NHS Trust.

Gary Bullard
Independent
Non-Executive Director
Appointed: Chair of Remuneration Committee May 2017; Non-executive Director December 2016
Committees: Remuneration (Chair), Audit, Nomination

Skills and experience
Gary brings extensive experience in senior management positions, including sales and marketing roles, at IBM and BT Group plc and was a non-executive director of Chloride Group plc. Until 2012 he was President at Logica UK and a member of the Executive Committee of Logica plc.

Other roles
Non-executive chairman of Gooch & Housego PLC; non-executive director and Chair of Remuneration Committee of Rotork plc.

Wendy Koh
Non-Executive Director
Appointed: Non-executive Director January 2018
Committees: Audit, Nomination, Remuneration

Skills and experience
Wendy brings strong technology sector experience from various strategic and sales roles she has undertaken in the APAC region with Juniper Networks, most recently as Senior Vice President Global GTM Strategy and Business Development, a global role focused on leading transformational strategy and establishing partnerships to increase value proposition for customers. Wendy also previously worked for Cisco Systems from 1998 to 2003.

Wendy holds a Bachelor of Engineering in Electrical and Electronics from Nanyang Technological University and a Graduate Diploma in Marketing management from the Singapore Institute of Management.

Other roles
Vice President, Pathways, Alliance & Strategy APAC at NetApp Singapore.

Edgar Masri
Non-Executive Director
Appointed: Non-executive Director January 2018
Committees: Audit, Nomination, Remuneration

Skills and experience
Edgar brings to the Board wide-ranging experience of managing companies across the technology sector with a focus on driving investment and profitability. Edgar was President and Chief Executive Officer of Qualtré, Inc., a US-based startup acquired by Panasonic Corporation in December 2016 at the same time as acting as a member of the board of Calient Technologies until its acquisition by Chunxing Precision Mechanical Co., Ltd. Prior to this, Edgar was President and CEO of 3Com Corporation, a leading global data networking company, bringing the company to record revenue and gross margins before it was taken into private ownership.

Edgar holds a Diplome d'Ingenieur from Ecole Centrale de Paris, a Master of Science degree in Electrical Engineering from the University of California at Berkeley, and a Master of Business Administration with distinction (Arjay Miller Scholar) from Stanford University.

Other roles
Director of Kollective Technology, Inc; Board adviser and senior consultant to Accton Technology Corporation

Directors' statement on corporate governance

Compliance with the UK Corporate Governance Code

As a premium listed company on the London Stock Exchange, the Company is reporting in accordance with the UK Corporate Governance Code (the "Code") published in April 2016 which sets out standards of good practice in relation to board leadership and effectiveness, remuneration, accountability and relations with shareholders. The Code is published by the UK Financial Reporting Council ("FRC") and a copy of the Code is available from the FRC website at www.frc.org.uk.

The Board confirms that the Company has complied in full with the Code throughout the period under review.

Index to Code disclosures			Page
Leadership	Every company should be headed by an effective board which is collectively responsible for the long-term success of the company.	Board of Directors The Board	56-57 59
	There should be a clear division of responsibilities at the head of the company between the running of the board and the executive responsibility for running of the company's business.	Chairman and Chief Executive Officer	59
	The chairman is responsible for leadership of the board and ensuring its effectiveness on all aspects of its role.	Chairman and Chief Executive Officer	59
	As part of their role as members of a unitary board, non-executive directors should constructively challenge and help develop proposals on strategy.	Non-executive Directors Board Composition	59 62
Effectiveness	The board and its committees should have the appropriate balance of skills, experience, independence and knowledge of the company to enable them to discharge their respective duties and responsibilities effectively.	Board of Directors Nomination Committee Report	56-57 66-67
	There should be a formal, rigorous and transparent procedure for the appointment of new directors to the board.	Election and Re-election of Directors Appointments to the Board Nomination Committee Report	60 62 66-67
	All directors should be able to allocate sufficient time to the company to discharge their responsibilities effectively.	Commitment	62
	All directors should receive induction on joining the board and should regularly update and refresh their skills and knowledge.	Board development	62
	The board should be supplied in a timely manner with information in a form and of a quality appropriate to enable it to discharge its duties.	Information flow	63
	The board should undertake a formal and rigorous annual evaluation of its own performance and that of its committees and individual directors.	Board performance evaluation	63
	All directors should be submitted for re-election at regular intervals, subject to continued satisfactory performance.	Election and re-election of directors Re-election of directors	60 67
Accountability	The board should present a fair, balanced and understandable assessment of the company's position and prospects.	Strategic Report Directors' Report	1-54 94-97
	The board is responsible for determining the nature and extent of the principal risks it is willing to take in achieving its strategic objectives. The board should maintain sound risk management and internal control systems.	Risk Management Internal control and risk management Audit Committee Report	26-27 64 68-73
	The board should establish formal and transparent arrangements for considering how they should apply the corporate reporting, risk management and internal control principles and for maintaining an appropriate relationship with the company's auditors.	Audit Committee Report	68-73
Remuneration	Executive directors' remuneration should be designed to promote the long-term success of the company. Performance-related elements should be transparent, stretching and rigorously applied.	Directors' report on remuneration	74-93
	There should be a formal and transparent procedure for developing policy on executive remuneration and for fixing the remuneration packages of individual directors. No director should be involved in deciding his or her own remuneration.	Directors' report on remuneration	74-93
Relations with shareholders	These should be a dialogue with shareholders based on the mutual understanding of objectives. The board as a whole has responsibility for ensuring that a satisfactory dialogue with shareholders takes place.	Relations with shareholders	65
	The board should use general meetings to communicate with investors and to encourage their participation.	Stakeholder engagement	65

Leadership

The Board

The Board of Directors is collectively responsible to the Company's shareholders for the direction and oversight of the Company to ensure its long-term success.

The Board met regularly throughout the year to approve the Group's strategic objectives, to lead the Group within a framework of effective controls which enable risk to be assessed and managed and to ensure that sufficient resources are available to meet the objectives set.

There are a number of matters which are specifically reserved for the Board's approval. These are set out in a clearly defined schedule which includes: matters relating to the Group's strategic plan; approving the annual business strategy and objectives; the nature and extent of principal risks to be taken to achieve the strategic objectives; changes relating to structure and capital; approval of trading statements, half year results, final results and annual report and accounts; declaring interim dividends and recommending final dividends; the Group's policies and systems of internal control and risk management, approving capital projects, acquisitions and disposals valued at over $2 million; and provision of adequate succession planning.

The schedule of matters reserved for the Board was reviewed during the year and approved and adopted at the March 2017 Board meeting.

Certain specific responsibilities are delegated to the committees of the Board, notably the Audit, Nomination and Remuneration Committees, which operate within clearly defined terms of reference and report regularly to the Board. For further details, please see the reports of each Committee that follow this statement.

Chairman and Chief Executive Officer

The roles of the Chairman and the Chief Executive Officer are separately held and the division of their responsibilities is clearly established, set out in writing, and agreed by the Board to ensure that no one person has unfettered powers of decision. The Chairman is responsible for the operation and leadership of the Board, ensuring its effectiveness and setting its agenda. The Chief Executive Officer is responsible for leading and managing the Group's business within a set of authorities delegated by the Board and the implementation of Board strategy and policy.

Authority for the operational management of the Group's business has been delegated to the Chief Executive Officer for execution or further delegation by him for the effective day-to-day running and management of the Group. The Group Executive Committee, led by the Chief Executive Officer, consists of the Chief Financial Officer, the Chief Operating Officer, the EVP Global Sales, the EVP Strategic Marketing and the Company Secretary & General Counsel.

Senior Independent Director

The role of Senior Independent Director is to act as a sounding board for the Chairman and to serve as an intermediary for other directors as necessary. He is also available to shareholders to convey concerns to the Board which they have been unable to convey through the Chairman or through the executive directors. During the year, led by the Senior Independent Director, the non-executive directors have met without the presence of the Chairman (including to appraise the Chairman's performance).

Non-executive Directors

In addition to their responsibilities for strategy and business results, the non-executive directors play a key role in providing a solid foundation for good corporate governance and ensure that no individual or group dominates the Board's decision making. They each occupy, or have occupied, senior positions in industry, bringing valuable external perspective to the Board's deliberations through their experience and insight from other sectors enabling them to contribute significantly to Board decision making. The formal letters of appointment of the non-executive directors are available for inspection at the Company's registered office.

Board
Non-executive Chairman, two executive directors, four independent non-executive directors

Audit Committee
Four independent non-executive directors
Provides oversight and governance over the Group's financial reporting, internal controls, risk management and relationship with external auditor
Committee report pages 68 to 73

Nomination Committee
Non-executive Chairman
Four independent non-executive directors
Primary responsibility for succession planning, director selection and Board composition
Committee report pages 66 and 67

Remuneration Committee
Four independent non-executive directors
Agrees remuneration policy and sets individual compensation levels for executive directors and senior management
Committee report pages 74 to 93

Executive Directors
Chief Executive Officer, Chief Financial Officer

Group Executive Committee
Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, EVP Global Sales, EVP Strategic Marketing, Company Secretary & General Counsel

Board Committees

The Board has established three principal Board committees, to which it has delegated certain of its responsibilities. These are the Audit Committee, the Nomination Committee and the Remuneration Committee. The membership, responsibilities and activities of these committees are described later in this corporate governance statement and, in the case of the Remuneration Committee, in the Report on directors' remuneration beginning on page 74. Membership of these committees is reviewed annually and minutes of committee meetings are made available to all directors on a timely basis.

The chairmen of the Audit, Nomination and Remuneration Committees intend to be present at the Annual General Meeting to answer questions on the work of their respective committees.

The written terms of reference for the Audit, Nomination and Remuneration Committees, all of which were reviewed, updated where necessary and approved during the year, are available on the Company's website at https://corporate.spirent.com.

Election and re-election of Directors

In accordance with the Code's recommendations, all directors who wish to continue in their roles will be proposed for election or re-election at the 2018 Annual General Meeting to be held in May.

The Board confirms that each of the directors standing for re-election has been subject to a formal performance evaluation in relation to their duty to act in the long-term interests of the Company, while also having regard to other stakeholders.

Company Secretary

In his role of Company Secretary and General Counsel, Angus Iveson is responsible for advising and supporting the Chairman and the Board on corporate governance matters as well as ensuring that there is a smooth flow of information to enable effective decision making. All directors have access to the advice and services of the Company Secretary and can take independent professional advice in respect of their duties, at the Company's expense.

Board meetings

The Board held seven meetings during the year, including a two-day strategy meeting held at the Company's site in Paignton, UK.

	Board	Audit Committee	Nomination Committee	Remuneration Committee
Alex Walker[1]	3/3	–	1/1	–
Bill Thomas[2, 3]	6/7	2/2	1/2	2/3
Paula Bell	7/7	–	–	–
Eric Hutchinson	7/7	–	–	–
Gary Bullard	7/7	4/4	2/2	6/6
Tom Lantzsch[4]	1/1	1/1	1/1	1/1
Tom Maxwell[5]	3/3	2/2	1/1	1/1
Jonathan Silver	7/7	4/4	2/2	6/6
Sue Swenson[6]	1/1	1/1	1/1	1/1

Notes
1. Alex Walker stepped down from the Board following the AGM on 3 May 2017.
2. Bill Thomas was appointed Chairman of the Board with effect from 19 May 2017, and therefore ceased to be a member of the Audit and Remuneration Committees on that date.
3. Bill Thomas did not attend the Nomination Committee, Board and Remuneration Committee meetings held on 18 May 2017 as the meetings dealt with the recommendation and approval of his appointment as Chairman of the Board and his remuneration in the new role.
4. Tom Lantzsch stepped down from the Board on 3 March 2017.
5. Tom Maxwell stepped down from the Board following the AGM on 3 May 2017.
6. Sue Swenson stepped down from the Board on 8 March 2017.

Senior executives below Board level are invited, when appropriate, to attend Board meetings and to make presentations relating to the results and strategies of their business units and Group-wide responsibilities. Papers for Board and Committee meetings are provided to directors in advance of the meeting. The attendance of the directors at Board and Committee meetings during the year under review is shown in the table above. If a director is unable to participate in a meeting either in person or remotely, the Chairman will solicit their views on key terms of business in advance of the relevant meeting, so that that these can be shared with the meeting.

Directors' indemnity provisions

In accordance with its Articles of Association, the Company has granted a qualifying third party indemnity, to the extent permitted by law, to each director. The Company also maintains directors' and officers' liability insurance.

These provisions are qualifying third party indemnity provisions as defined in section 234 of the Companies Act 2006. Neither the Company's indemnity nor the insurance provides cover in the event that a director is proven to have acted dishonestly or fraudulently.

Board activities during 2017

At each Board meeting, the Chief Executive Officer presents an update on the performance, strategy and business issues across the Group and the Chief Financial Officer presents a detailed analysis of the financial performance of the business units. Senior executives below Board level attend relevant parts of Board meetings in order to make presentations on their areas of responsibility; this gives the Board access to a broader group of executives and helps the directors make ongoing assessments of the Group's succession plans. The Board has a rolling programme of visits to business unit locations to deepen its appreciation of the different opportunities and challenges that each unit faces.

Key issues considered by the Board during 2017

	Governance / Compliance	Finance	Business / Strategy
March	• Stakeholder engagement • 2016 Full Year compliance and Annual Report review • Diversity review • Legal review • NED and Chairman succession planning	• 2016 Full Year results review • Viability statement review • Dividend policy review • Tax update • Capital policy review • Receive Audit Committee report on internal controls and risk management	• Group performance review • Sector / industry review • Portfolio review update
March (2)	• Stakeholder engagement update		
May	• AGM voting review • NED and Chairman succession planning update	• 2017 Q1 results review	• Group performance review • Strategy presentations
May (2)	• Approval of appointment of Chairman		
August	• 2017 Half-year compliance review • Board evaluation kick-off • Regulatory and legal review • NED succession planning	• 2017 Half-year results review • CFO update • Insurance review	• Group performance review • Business initiatives review • IT strategy review • Operations / Supply chain review • Business segment review
November	• Board evaluation results review • Governance compliance review • CSR review • Legal review • NED succession planning update	• 2017 Q3 results review • Treasury policy review	• Group performance review • Business initiatives update and review • Future investments review
December	• Governance compliance review • Talent management review • NED succession planning update	• Return on investment review • Budget 2018	• Group performance review • Business initiatives update and review • Future investments review

Effectiveness

Board composition
At the date of this Report, the Board comprises a non-executive Chairman, four independent non-executive directors and two executive directors.

The Chairman and the non-executive directors contribute entrepreneurial leadership and external expertise and experience in areas of importance to the Company, such as strategic investments, corporate finance, general finance and corporate governance. They also contribute independent challenge and rigour to the Board's deliberations and assist in the development of the Company's strategy, scrutiny of the performance of management in meeting agreed goals and targets, and satisfying themselves of the integrity of the Company's internal controls and risk management systems. The Board believes that all of the directors devote sufficient time and attention as is necessary in order to perform their duties.

The Chairman holds regular discussions with the non-executive directors without the executive directors present to ensure a free and frank exchange of views on the effectiveness of the executive directors and senior management.

Independence
The independence of each non-executive director is reviewed on appointment and at least annually. The Board determined that the current non-executive directors are each independent in character and judgement, save for the Chairman who was deemed independent by the Board at the date of his appointment. None have been employed by the Company previously in any capacity or have any current material business relationship with any Group company.

Non-executive directors at Spirent receive no remuneration from the Company other than their fees (detailed in the Report on directors' remuneration on page 80) and each non-executive director has confirmed that they do not represent any significant shareholder in the Company. No individual or group of individuals dominates the Board's decision making and the Code requirement stating that at least half of the Board (excluding the Chairman) should comprise independent non-executive directors is satisfied.

Appointments to the Board
There is a formal, rigorous and transparent procedure for the appointment of new directors to the Board. Details are available in the Nomination Committee report on pages 66 and 67 which also provides details of the Committee's role and activities.

Commitment
The letters of appointment for the Chairman and non-executive directors set out the expected time commitment required of them and are available for inspection at the Company's registered office and at the Annual General Meeting. Other significant commitments of the Chairman and non-executive directors are disclosed on appointment and require approval thereafter.

Board development
On appointment, directors are offered an induction programme on the operations and activities of the Group, the role of the Board and the matters reserved to its decision, the Group's corporate governance practices and procedures and their duties, responsibilities and obligations as directors of a listed public limited company. This may be supplemented by visits to key locations and meetings with, and presentations by, senior executives.

Further training for directors is available as required and can be provided by means of external courses, internal computer-based training, briefings from specific consultants or in-house presentations. In addition, directors' knowledge of the legal and regulatory environment is updated through the provision of information by the Group's advisers and by means of regular updates from the Company Secretary.

New directors are encouraged to take advantage of opportunities to meet with major shareholders and attend presentations to analysts where possible.

Board performance evaluation

An evaluation to assess the performance of the Board as a whole, its committees and that of the individual directors is conducted annually.

In accordance with the Code requirement that the evaluation should be conducted by an external facilitator at least every three years, in 2015 Useful Thinking Limited ("UTL") was engaged to undertake a review of the Board and its Committees. UTL is independent, with no other connection with the Company. During the final quarter of 2017, an internally-led review took place.

Process

Following a scoping exercise with the Chairman and the Company Secretary to agree the priority areas and issues to be addressed in the review, the directors completed an online questionnaire, centring on themes including the strengths and values of the Board, the quality of succession planning, the interaction of the Board members with the Group's various business units, the process of managing strategic planning and the management of risk.

During the year, the implementation of a number of recommended action points arising from the 2016 evaluation was overseen by the Chairman and included the following actions:

2017 actions

- More clearly articulate Spirent's strategic vision;
- Strengthen knowledge of emerging sectors in order to better understand allocation of research and development resources;
- Review appropriateness of KPIs;
- Assess senior leadership depth in more detail;
- Review existing internal control procedures in the light of the recent appointment of a new Chief Financial Officer.

All respondents to the 2017 evaluation agreed that the conduct of Board meetings allows for an open and constructuve communication style and that the appointment of new non-executive directors would continue to expand the breadth of market and sector experience to the benefit of the Company.

The Board members agreed that the Board and its principal committees continued to perform effectively.

The Board concluded that the actions arising from the 2017 review would continue to be developed through 2018, with the addition of the following areas of focus:

2018 Objectives

- Further explore the articulation of Spirent's strategic vision;
- Continue to review the effectiveness of research and development spend;
- Deepen visibility of product development investment decisions and understanding of progress of such investments;
- Increase exposure to senior management for the purposes of developing internal talent pipeline;
- Monitor effectiveness of revised internal control procedures; and
- Review 'Go To Market' approach.

Information flow

The Company Secretary manages the provision of information to the Board at appropriate times in consultation with the Chairman and Chief Executive Officer. In addition to formal meetings, the Chairman and Chief Executive Officer maintain regular contact with all directors. The Chairman also holds informal meetings with non-executive directors, without any of the executives being present, to discuss any issues affecting the Group, if this is thought necessary. Regular management updates are sent to directors to keep the non-executive directors informed of events throughout the Group between Board meetings and to ensure that they are kept fully advised of the latest issues affecting the Group.

Conflicts of interest procedures

The Company has procedures in place, which were reviewed and updated during the year, to deal with the situation where a director has a conflict of interest. As part of this process, the Board:

- considers each potential conflict situation separately on its particular facts;
- considers the potential conflict situation in conjunction with the rest of the directors' duties under the Companies Act 2006;
- keeps records and Board minutes as to authorisations granted by directors and the scope of any approvals given; and
- regularly reviews conflict authorisation.

Accountability

Financial and business reporting

The Board recognises its responsibility to present a fair, balanced and understandable assessment of Spirent in all of its reporting obligations. This responsibility covers the Annual Report and extends to the half year report and other regulatory announcements. The Directors consider this Annual Report, taken as a whole, to be fair, balanced and understandable, providing the information necessary for shareholders to assess the Company's performance, business model and strategy. In arriving at this position, the Board asked the Audit Committee to review and confirm a process is in place to support this assessment. The Audit Committee confirmed that a robust approach is in place to support the fair, balanced and understandable assessment, details of which can be found in the Audit Committee's report on pages 68 to 73.

Business model

A description of the Company's business model for sustainable growth is set out in "Our business model" on pages 20 and 21. This section provides an explanation of the basis on which the Group generates value and preserves it over the long-term and its strategy for delivering its objectives.

Going concern

After making enquiries, the directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, and consistent with the guidance contained in the document titled 'Guidance on Risk Management, Internal Control and Related Financial and Business Reporting' published by the FRC, they continue to adopt the going concern basis in preparing the annual financial statements.

Internal control and risk management

The Board acknowledges its responsibilities for the Group's system of internal control to facilitate the identification, assessment and management of risk, the protection of shareholders' investments and the Group's assets. The directors recognise that they are responsible for providing a return to shareholders which is consistent with the responsible assessment and mitigation of risks.

Effective controls ensure that the Group's exposure to avoidable risk is minimised, that adequate accounting records are maintained, that the financial information used within the business is reliable and that the consolidated accounts preparation and financial reporting processes comply with all relevant regulatory reporting requirements. The dynamics of the Group and the environment within which it operates are continually evolving, together with its exposure to risk. Internal controls can only provide reasonable and not absolute assurance against material misstatement or loss.

The directors confirm that there is an ongoing, robust process for identifying, evaluating and managing the principal risks faced by the Group and the operational effectiveness of the related controls, which has been in place for the year under review and up to the date of approval of the annual report and accounts. They also confirm that they have regularly reviewed the system of risk management and internal controls utilising the review process set out below.

The directors confirm that a robust assessment of the principal risks facing the Company has been carried out, including those risks that would threaten its business model, future performance, solvency or liquidity. More details are set out in the Principal risks and uncertainties section on pages 28 to 31 of this Annual Report.

Standards

Guidelines on the minimum Group-wide requirements for health and safety and environmental standards are set out in policy documents and procedures. There are also guidelines on the minimum level of internal control that each of the business units should exercise over specified processes. Each business has developed and documented policies and procedures to comply with the minimum control standards established, including procedures for monitoring compliance and taking corrective action.

High level controls

All businesses prepare annual operating plans and budgets which are supplemented by regular forecasts throughout the year. Performance against budget is monitored at operational level and centrally, with variances being reported promptly. The cash position at Group and operational level is monitored constantly and variances from expected levels are investigated thoroughly.

Clearly defined guidelines have been established for capital expenditure and investment decisions. These include the preparation of budgets, appraisal and review procedures, and delegated authority levels.

Financial reporting

Detailed management accounts are prepared every month, consolidated in a single system and reviewed by senior management and the Board. They include a comprehensive set of financial reports and key performance indicators covering commercial and operational issues. Performance against budgets and forecasts is discussed regularly at Board meetings and at meetings between operational and Group management. The adequacy and suitability of key performance indicators is reviewed regularly.

Internal audit

All of the internal audit activities are co-ordinated by the Head of Risk & Internal Audit, who has direct access to the Board Chairman and to the Audit Committee Chairman and is accountable to the Audit Committee.

All Group businesses are required to comply with the Group's financial control framework that sets out minimum control standards. A key function of the Group's internal audit resource is to undertake audits to ensure compliance with the financial control framework and make recommendations for improvement in controls where appropriate.

Senior members of the Group finance team meet with the Chairman of the Audit Committee as appropriate but at least annually, without the presence of executive management, and have direct access to the Chairman.

Remuneration

The Directors' report on remuneration is set out on pages 74 to 93 and provides details of our remuneration policy and how it has been implemented, together with the activities of the Remuneration Committee.

Articles of Association and share capital

Information in relation to share capital, the appointment and powers of directors and the issue and buy back of shares and significant interests in share capital is set out in the Directors' report on pages 94 to 97.

Relations with shareholders

The Board is committed to maintaining good communications with shareholders. The Chairman, Chief Executive Officer and Chief Financial Officer have regular face to face contact with individual institutional shareholders in order to develop an understanding of their views which are then discussed with the Board. Key themes for discussion in 2017 have included the appointment processes for the new Chairman and non-executive directors and the Remuneration Committee's approach to executive remuneration.

All directors are offered the opportunity to develop a dialogue with major shareholders to listen to their views and executive directors receive regular reports prepared by an independent capital markets advisory firm which provides comprehensive information relating to the Company's major shareholders.

Presentations are made to analysts, investors and prospective investors covering the full year and half year results and the Company seeks to maintain a dialogue with the various bodies which monitor the Company's governance policies and procedures. On 5 May 2017, the Company held a Capital Markets Day for analysts and investors, with all presentations being made available to all shareholders via the Company's website.

The Company is always keen to hear the views of its private shareholders and we encourage them to access our website at https://corporate.spirent.com for our Company reports and business information and to use our shareholder mailbox at investor.relations@spirent.com for detailed enquiries.

Any concerns raised by shareholders or their representatives, whether expressed directly or through voting patterns at the Company's AGM, are discussed by the directors and an appropriate response given either specifically to the concerned party or, if it is felt to be of wider benefit, made available to all shareholders via the Company's website.

Annual General Meeting

The Company's 2018 Annual General Meeting ("2018 AGM") will be held at 10.30am on 2 May 2018 at the offices of FTI Consulting, 200 Aldersgate, Aldersgate Street, London EC1A 4HD.

The Board views the AGM as a valuable opportunity to communicate with private shareholders in particular, for whom it provides the opportunity to hear about the general development of the business and to ask questions of the Chairman and, through him, the chairmen of the key Committees and other directors.

The Board looks forward to welcoming all our shareholders to our 2018 AGM and to updating them on our business developments.

Stakeholder engagement

Stakeholder	Why is it important to engage?	Ways Spirent engages	Stakeholders' key interests
Customers	Understanding our customers' needs and behaviours allows us to deliver relevant products and services, retain customers and also attract new ones. It also identifies opportunities for growth.	• Social media engagement • Product website • Customer relevant events • Industry forums and customer groups	• Value for money • Customer service • Reliability
Colleagues	Interactions with our colleagues are the main ways that customers experience the brand of the Company. Our colleagues are fundamental to the achievement of our customer experience ambitions and are the cornerstone of our service and services proposition.	• Training and development programme • Recognition and reward • Apprenticeship and intern programmes	• Career opportunities • Pay and conditions • Training and development • Innovation • Colleague engagement
Suppliers	Engaging with our supply chain means that we can ensure security of supply and speed to market. Our brand relies heavily on the high standards of our carefully selected suppliers, in order for us to deliver market-leading products and services.	• Logistics efficiencies and environmental management • Supplier audits	• Quality management • Cost efficiency • Ethical business model
Investors	As a publicly listed company we need to provide fair, balanced and understandable information to instil trust and confidence and allow informed investment decisions to be made.	• Annual reports • Regulatory news releases • Annual General Meetings • Investor presentations • Corporate website • One-on-one meetings	• Future-oriented information • Risk information • Operating and financial performance • Dividend • Access to management
Communities	Ensures continued viability of the business into the long-term. We aim to contribute positively to the communities and environment in which we operate.	• Community investment initiatives	• Impact of Group activities on the wider community
Media and industry analysts	Ensures transparency of information on the business and Spirent's brand position in the various markets we serve.	• Press releases • Media and analyst events • Participation in industry reports	• Reliable product information • Transparency of reliable and timely Group information
Government	Policies and regulatory changes may provide opportunities and pose risk to our operations.	• Participation in government funded / sponsored smart technology initiatives	• CO_2 reduction strategies • Ethical business model • Socially responsible strategy

We set out to recruit directors with strong technical backgrounds, with international experience and specific knowledge of our customers. Our new Non-executive Directors meet all these criteria.

As part of its ongoing assessment of senior leadership depth, the Committee and the Board continue to work towards developing a diverse internal pipeline for future succession to the Board and senior management.

Members

During the year and at the date of this report:

- Bill Thomas (Chairman from 19 May 2017)
- Alex Walker (Chairman, retired 3 May 2017)
- Jonathan Silver (Chairman from 3 May 2017 to 19 May 2017)
- Gary Bullard
- Tom Lantzsch (retired 3 March 2017)
- Tom Maxwell (retired 3 May 2017)
- Sue Swenson (retired 8 March 2017)
- Wendy Koh (appointed 11 January 2018)
- Edgar Masri (appointed 11 January 2018)

Key duties

In accordance with its terms of reference, the Nomination Committee's key duties include:

- leading the search process and making recommendations to the Board for the appointment of new directors;
- regularly reviewing the Board structure, size and composition (including the skills, knowledge, independence, experience and diversity), recommending any necessary changes and considering plans for orderly succession; and
- making recommendations to the Board about suitable candidates for the role of Senior Independent Director, and membership of the Audit and Remuneration Committees in consultation with the chairmen of the relevant Committees.

How the Committee operates

Members of the Nomination Committee are appointed by the Board from the directors of the Company. The Committee comprises a minimum of three independent non-executive directors. A quorum consists of two members, being either two independent non-executive directors or one independent non-executive director and the Chairman.

Only members of the Committee have the right to attend Committee meetings. Other individuals, such as the Chief Executive Officer and external advisers, may be invited to attend meetings when appropriate.

When dealing with the appointment of the Chairman, the Committee is chaired by the Senior Independent Director.

The terms of reference of the Nomination Committee, which were updated as necessary and approved during the year, are available on the Company's website at https://corporate.spirent.com.

Meetings
The Nomination Committee met three times during the year under review and has met once in 2018 to the date of this Report.

Committee activities during 2017
Board appointments process
The Chairman leads the process for new appointments with external, independent consultants engaged to conduct a search for potential candidates. These are considered on the basis of their skills, experience and fit with the existing members of the Board. Procedures for appointing a non-executive or an executive director are set out in the Committee's terms of reference.

Appointment of new Chairman
Following the announcement in November 2016 of Alex Walker's intention to retire as both Chairman and Non-executive Director at the conclusion of the 2017 AGM, the Senior Independent Director was asked by the Committee to initiate a search for a replacement.

The services of external executive search firm Spencer Stuart were retained to assist with the process. Spencer Stuart is independent, with no other connection to the Company and is a signatory to the "Voluntary Code of Conduct for Executive Search Firms" on diversity and best practice.

Following an extensive process of interviews and assessments with both external and internal candidates for the role, on 18 May 2017 the Board approved the appointment of Bill Thomas, an existing non-executive director of the Company, as Chairman.

Appointment of new Independent non-executive directors
During the year, the Chairman led the process for the appointment of two new independent non-executive directors as part of the progressive refreshing of the Board.

The services of external executive consulting firm Russell Reynolds Associates were retained to identify candidates. Russell Reynolds Associates is independent, with no other connection to the Company, and is a signatory to the "Voluntary Code of Conduct for Executive Search Firms" on diversity and best practice.

Following a rigorous process of interviews and assessments and, on the recommendation of the Nomination Committee, the Board approved the appointments of Wendy Koh and Edgar Masri with effect from 11 January 2018.

Diversity policy at Board level
The Board does not currently set specific aspirations in respect of diversity at Board level but supports fully the Code's principles in respect of this key issue.

As part of its ongoing assessment of senior leadership depth, the Committee and the Board continue to work towards developing a diverse internal pipeline for future succession to the Board and senior management.

Spirent as a whole recognises the benefits of diversity beyond that of gender, taking account of diversity of social and ethnic backgrounds and cognitive and personal strengths when considering appointments at all levels whilst ensuring appointments are made on merit and ability to enhance the performance of the business.

Performance review
The performance of the Committee was evaluated as part of the annual Board performance evaluation and the Committee was found to be operating effectively.

Re-election of Directors
The Committee reviews the results of the annual Board performance evaluation that specifically relate to the composition of the Board and whether the time commitment of those who fulfil the roles of Chairman, Senior Independent Director and non-executive director was appropriate.

The Committee was satisfied that all non-executive members of the Board devote sufficient time to their duties and remain independent in nature and recommends all continuing directors for re-election by shareholders at the forthcoming AGM.

The Committee remains fully committed to championing good financial and risk reporting and to ensuring we have in place the appropriate internal controls.

Alongside the investment in our approach to Internal Audit, we have augmented our approach to the internal reporting of any ethics or integrity breaches by employees through the appointment of an independent third party offering a confidential whistleblowing hotline.

Dear Shareholder
On behalf of the Audit Committee, I am pleased to present its report for the period ending 31 December 2017.

In 2017 the Committee completed its review of the Company approach to internal audit. We have now introduced a co-sourced function consisting of a Head of Risk & Internal Audit employed by the Company, supported by external professional advisers to assist with delivery of an internal audit programme. We believe that this will give the Committee greater assurance that internal controls operate as intended and provide greater visibility of potential enhancements that could be introduced. Alongside the investment in our approach to Internal Audit, we have augmented our approach to the internal reporting of any ethics or integrity breaches by employees through the appointment of an independent third party offering a confidential whistleblowing hotline. In addition, in 2017 there was a thorough review and subsequent refresh of the delegated levels of authority which was subject to review by the Committee and recommended to the Board.

Looking ahead, the Committee is aware that under the EU Audit Regulations it will be necessary to change the Company external auditors in time for the new auditor's term to begin in 2021. The Committee will begin preparation for formal tendering of the external audit during 2019.

As stated in last year's Audit Committee report, the Group will report in accordance with IFRS 15 with effect from the period beginning on 1 January 2018. The Committee has received several reports on the preparations being made to report under IFRS 15 and understand that this new standard will not result in a material impact to our financial results.

Further details on the Committee's activities during the year under review are set out in the report to follow.

As you would expect, the Committee remains fully committed to championing good financial and risk reporting and to ensuring we have in place the appropriate internal controls.

I look forward to meeting any shareholders who attend our AGM this year to answer any questions shareholders may have on this report or on the Committee's activities.

Jonathan Silver
Chairman, Audit Committee
8 March 2018

Fair, balanced, understandable
In making its recommendation to the Board that the Annual Report, taken as a whole, is fair, balanced and understandable, the Committee applied robust governance arrangements, including:

- clear guidance and instruction of the disclosure requirement provided to contributors;
- comprehensive Group and subsidiary accounts processes, with written confirmations provided by business unit management teams on the health of the financial control environment;
- a verification process applied to factual content with the aim of providing the information necessary to assess the Company's performance, business model and strategy;
- reviews of the Annual Report undertaken at different levels of the Group and by the senior management team that aim to ensure consistency and overall balance;
- additional scrutiny by senior management including focused review of risk registers;
- additional Committee reviews of the draft Annual Report in advance of final sign-off; and
- external audit review.

Final approval of the Annual Report is provided by the Board, on the recommendation of the Committee.

Members
During the year and at the date of this report, Committee members were:

- Jonathan Silver (Committee Chairman)
- Gary Bullard
- Wendy Koh (appointed 11 January 2018)
- Tom Lantzsch (until 3 March 2017)
- Edgar Masri (appointed 11 January 2018)
- Tom Maxwell (until 3 May 2017)
- Sue Swenson (until 8 March 2017)
- Bill Thomas (until 18 May 2017)

It is intended that the Audit Committee is comprised of at least three members, all of whom are independent non-executive directors of the Company who have the necessary range of financial and commercial expertise to challenge management. Two members constitute a quorum. For much of 2017, following the resignation of non-executive directors from the Board, the Committee comprised only two members until successors were appointed in January 2018.

The Code requires the inclusion of one financially qualified member (as recognised by the Consultative Committee of Accountancy Bodies) with recent and relevant financial experience. Currently, the Committee Chairman fulfils this requirement.

Key duties
In accordance with its terms of reference, the Audit Committee's key duties include:

- monitoring the integrity of the Group's financial statements and any formal announcements relating to the Company's performance, reviewing significant financial reporting judgements contained in them before their submission to the Board for approval;
- on matters of financial reporting reviewing and challenging where necessary the consistency of and any changes to accounting and treasury policies; for example whether the Group has followed appropriate accounting policies and made appropriate estimates and judgements, the clarity and completeness of disclosure, significant adjustments resulting from the audit, and the going concern assumption and compliance with auditing standards;
- at the request of the Board, reviewing the content of the Annual Report and Accounts and advising the Board on whether, taken as a whole, it is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy;
- as requested by the Board, assisting in relation to the Board's assessment of the principal risks facing the Company and the prospects of the Company for the purposes of disclosures required in the Annual Report and Accounts;
- reviewing the effectiveness of the Group's internal financial controls, including the policies and overall process for assessing established systems of internal financial control and timeliness and the effectiveness of corrective action taken by management;
- reviewing the most appropriate fulfilment of the internal audit function, agreeing and assessing the annual internal audit plan and its effectiveness in the context of the Company's overall risk management system;
- overseeing the Group's policies, procedures and controls for preventing bribery, identifying money laundering, and the Group's arrangements for whistleblowing; and
- overseeing the relationship with the Group's external auditors, reporting to the Board each year whether it considers the audit contract should be put out to tender taking into account any legal requirements for tendering or rotation of the audit contract, reviewing and monitoring their objectivity and independence including seeking information from the external auditor on an annual basis about its policies and procedures for maintaining independence, agreeing the scope of their work and fees paid to them for audit, assessing the effectiveness of the audit process, and agreeing the policy in relation to the provision of non-audit services.

How the Committee operates

All Committee members are expected to be financially literate and to have an understanding of the following areas:

- the principles of, and developments in, financial reporting including applicable accounting standards and statements of recommended practice;
- key aspects of the Company's operations including corporate policies and the Group's internal control environment;
- matters which may influence the presentation of accounts and key figures;
- the principles of, and developments in, company law, sector-specific laws and other relevant corporate legislation;
- the role of internal and external auditing and risk management; and
- the regulatory framework for the Group's businesses.

The Committee invites the Chief Executive Officer, Chief Financial Officer and senior representatives of the external auditor to attend its meetings in full, although it reserves the right to request any of these individuals to withdraw.

During the year, the Committee held two meetings with the external auditor without any executive members of the Board being present.

The Committee has unrestricted access to Company documents and information, as well as to employees of the Company and the external auditor.

The Committee's effectiveness is reviewed on an annual basis as part of the Board's performance evaluation process and the Committee was found to be operating effectively.

The terms of reference of the Audit Committee were reviewed and updated during the year and can be viewed on the Company's website at https://corporate.spirent.com.

Meetings

The Audit Committee met four times during the year, with the Committee agenda linked to events in the Group's financial calendar.

Activities during 2017

The Audit Committee's activities principally related to financial reporting, internal control and risk management, the preparation for publishing a viability statement and the external audit. In addition, the Audit Committee considered other specific matters such as the Group's approach to IT controls and cyber security.

Financial reporting and significant issues

During the year, the Audit Committee:

- reviewed the full year and half year financial statements, trading updates, key accounting policies and significant financial reporting judgements contained therein (with particular reference to the critical accounting assumptions and judgements as set out in note 2 of the consolidated financial statements) and recommended the financial statements to the Board for approval;
- reviewed whether the Annual Report taken as a whole is fair, balanced and understandable and formed an opinion thereon prior to recommending it to the Board;
- reviewed and monitored risk management processes and their potential to impact on the viability of the Group;
- reviewed and considered assumptions in relation to the going concern basis for preparation of financial statements; and
- reviewed the external auditor's report on the interim review and year end audit and management's responses to the issues raised.

The Committee Chairman reports any significant findings or identified weaknesses to the Board.

Significant financial issues considered

The Audit Committee has reviewed each of the following key significant financial risks by:

- reviewing papers and management updates;
- holding discussions with management and key finance staff to challenge assumptions made;
- debating alternative treatments;
- receiving periodic reports on key areas of judgement;
- discussing with the external auditor; and
- considering presentations to analysts to assess for inconsistencies or areas of bias.

Revenue recognition

The Committee is aware that pressure on management to meet certain targets, and to respond to specific customer requests may drive additional deal complexity which in turn could lead to complex accounting. This may result in inappropriate recognition of revenue and associated balances. The Committee has been briefed on the finance organisation's implementation of the new revenue recognition standard (IFRS 15), which will apply to the Company's financial statements for the period beginning 1 January 2018.

As part of their audit procedures agreed with the Committee, Ernst & Young LLP ("EY") would examine the allocation of revenue, reviewing specific large and complex transactions and contracts containing non-standard acceptance clauses to ensure that revenue has been recognised appropriately. EY has also tested the allocation of revenue to the service element of multi-element contracts to ensure that deferred revenue and other associated balances have been recognised in accordance with Group accounting policies and IFRS.

Deferred tax assets

The Committee recognises there is a risk that inappropriate use of brought forward tax losses and volatility in forecast sales may result in incorrect recognition of deferred tax assets. In addition, following the significant reduction in US Federal tax rates in 2017, due consideration has been given to the change in the measurement and resulting disclosures of these assets. Anticipated restrictions on the utilisation of carry forward losses in the UK may also increase the risk and uncertainty.

The Committee noted that EY has performed a detailed review of the recognition of deferred tax assets in the Group accounts as part of their audit review, with a good level of challenge of management's underlying assumptions.

Goodwill impairment

Following the review of the lines of business by management in 2016 to focus on key areas for sustainable growth, changes were introduced to the Group's operating segments which resulted in a reorganisation of the cash generating units for goodwill impairment purposes and some reallocations of goodwill to the new cash generating units. At the end of 2016, management performed an impairment review and a $69.1 million charge was made against goodwill and acquired intangible assets to reflect the reorganisation of reporting segments, the intended reduction of investment in certain business units, the changing outlook for certain areas of the business, the reassessment of value in use and a more competitive landscape. The Committee noted that as a result of this review, some areas of the business had limited remaining headroom for goodwill purposes.

Management undertook its annual review of impairment at the end of 2017 and the Committee challenged the assumptions made and concluded that management's assessment of goodwill is appropriate.

As part of its audit process, EY undertook a review of the procedures followed and judgements made by management and agreed that management's conclusions related to the impairments were reasonable.

Misstatements

Management reported to the Committee that they were not aware of any material or immaterial misstatements made intentionally to achieve a particular outcome. The auditor reported to the Committee that all misstatements they had found in the course of their work had been corrected. After due consideration, the Committee concurred with management that no adjustments were required.

Internal control and risk management

During the year, the Audit Committee:

- monitored and reviewed internal control and risk management systems;
- reviewed and approved the internal audit programme for 2017; and
- reviewed regular reports on taxation, treasury operations, health and safety and cyber security.

The Board has overall responsibility for the Group's system of internal control and risk management and for reviewing its effectiveness. The Board, assisted by the Audit Committee, has reviewed the effectiveness of this system and has enhanced the approach to Internal Control and Raising Concerns at Work as described below during 2017.

Internal Audit

During 2017 the Group further developed its assurance approach and resource and a Head of Risk & Internal Audit was appointed alongside an outsourced provider for financial control activities, with an Internal Audit Charter being approved by the Committee.

The Committee approved the programme of work for the Internal Audit function, which was focused on addressing both financial and overall risk management objectives across the Group. The Committee oversees and monitors the work of the Internal Audit function, which reviews key controls and processes throughout the Group on a rolling basis, including resources, scope and effectiveness of the function.

The Head of Risk & Internal Audit has direct access to the Board Chairman and to the Committee Chairman, is accountable to the Committee and meets regularly with both the Committee and its Chairman, without the presence of management, to consider the work of Internal Audit.

Raising Concerns at Work

In 2017 the whistleblowing procedure in place across the Group was reviewed. The Committee aims to ensure that employees are able to raise any concern about any possible improprieties in business practices, or other matters, in confidence. In January 2018 an external third party was appointed to receive any concerns raised by employees. Going forward, the disclosures under this arrangement will be investigated promptly by the Company Secretary, with the support of the Head of Risk & Internal Audit, and escalated to the Executive Directors and the Committee as appropriate, with follow-up action being taken as soon as practicable thereafter. With the revised procedure now in place, the Committee is satisfied that the means for employees to raise concerns at work are approporiate to the size and scale of the Group.

The primary aim of the Group's internal controls is to operate a system which is appropriate to the business and which can support the Group in delivering its strategic objectives, safeguard the Group's assets and, over time, enhance shareholder value. The system is designed to identify, evaluate and manage the significant risks faced by the Group rather than to eliminate the risk of failure to achieve business objectives and can only provide reasonable and not absolute assurance against material misstatement or loss. This is in accordance with the Guidance on Risk Management, Internal Control and Related Financial and Business Reporting issued by the Financial Reporting Council in September 2014.

The Chief Financial Officer is responsible for internal control and for ensuring that the finance department employs a level of management and specialists appropriate for maintaining financial records and processes that provide financial information that is relevant, reliable, complies with applicable laws and regulations, and is distributed both internally and externally in a timely manner. A review of the consolidation and financial statements is undertaken by senior management to ensure that the financial position and results of the Group are appropriately reflected. All financial information published by the Group is subject to the approval of the Audit Committee prior to it being approved by the Board.

Risk Management

Members of the Group Executive Committee meet with each business unit periodically to challenge and debate the assessment of risk within each business unit, who then submit local risk registers for analysis and ranking together with Company-wide risks to form a robust corporate risk register. This corporate risk register is presented to the Audit Committee at least twice each year. Actions arising from the Audit Committee's review of the corporate risk register are fed back to the business units for their management.

Committee Oversight

Day-to-day responsibility for effective internal control and risk management and monitoring rests with senior management at business unit level. During the year, the Chief Financial Officer has attended all Audit Committee meetings to report on internal control and risk management and to notify the Committee of any control weaknesses, control failings and risks, their impact and the actions taken to deal with the issues. Detailed updates on specific areas, such as cyber security or business continuity, are provided by the Chief Financial Officer at the Committee's request.

The Board and Audit Committee consider that having the following key elements in place is critical to underpinning the overall internal control environment:

Operating structure and controls
An organisational structure with clear operating procedures, defined lines of responsibility and delegated levels of authority which were subject to a thorough review and refresh during 2017.

Financial control structure
A comprehensive strategic planning, financial control and budgeting system which is properly documented and regularly reviewed.

Ethics Policy
A policy that sets standards of professionalism and integrity for all employees and operations. The Ethics Policy includes sections relating to bribery and corruption to ensure that all of Spirent's systems, controls and training comply with the anti-bribery and corruption legislation in the countries in which we operate and that a culture of prevention and detection of all forms of bribery and corruption is in place.

Acquisitions and divestments
A disciplined due diligence process and post-acquisition integration programme.

Fraud
The Group's Ethics Policy has been communicated to all employees and states that all employees have a responsibility for fraud prevention and detection. Any suspicion of fraud will be reported immediately and investigated vigorously.

External audit

The Committee is responsible for overseeing the Company's relations with the external auditor.

The Committee places great importance on ensuring that high standards of quality and effectiveness are maintained within the external audit process. It considers a number of areas in relation to the external auditor: their performance in discharging the audit and interim review of financial statements, their independence and objectivity, and their re-appointment and remuneration.

Auditor appointment

Each year the Committee assesses and reports to the Board on the qualification, expertise and resources, and independence of the external auditor and the effectiveness of the audit process, with a recommendation on whether to propose to the shareholders that the external auditor be re-appointed.

The Committee notes and confirms compliance with the Competition and Markets Authority Order 2014 ("CMA Order") in respect of statutory audit services for large companies.

Following the recommendation of the Board, EY was appointed (as predecessor firm Lindsay, Jamieson & Haldane) by the Company at its Annual General Meeting on 9 May 1950 to audit the financial statements of the Company for the period ending 31 December 1949 and subsequent financial periods. EY's total uninterrupted period of engagement, covering the period from appointment to the period currently under review, is 68 years.

The Committee is aware that the transitional provisions of the CMA Order and the EU Audit Regulations (which became effective on 17 June 2016) will require the Company to change its external auditor no later than 2021. The Committee further affirms that its current intention is to change the external auditor no later than the expiry of the five-year term of the external audit partner (ie by 2021) and that on that basis, a competitive tender process will commence for the new auditor's term to begin in 2021.

The Committee will continue to monitor legislative developments and will continue to review its conclusions on an annual basis, however it believes it is appropriate to recommend the re-appointment of the incumbent external auditor at the 2018 AGM.

There are no contractual obligations in existence that restrict the Company's choice of auditor.

Auditor effectiveness

The Committee assesses the effectiveness of the audit process on an ongoing basis, with particular attention to the mindset and culture, skills, character and knowledge, quality control and judgement of the external auditor in their handling of key judgements, responsiveness to the Committee and in their commentary where appropriate on the systems of internal control.

The Committee holds regular private meetings with the external auditor to assist with their assessment, including discussion of:

- how the auditor has identified and addressed potential risks to audit quality;
- the controls in place within the audit firm to identify risks to audit quality, including the results of internal and external inspections of the audit team and firm;
- whether the auditor has met the agreed audit plan, in particular how it has responded to any changes that have been required during the process;
- feedback from the key people involved in the audit;
- the content of the auditor's management letter.

The Committee reviewed and appropriately challenged the basis for these before agreeing the proposed approach and the scope of the external audit was identified.

As part of the review, the external auditor was questioned and challenged by the Committee about the work undertaken, its findings and what key assumptions had been made during the audit, especially with regard to the key areas of audit risk identified.

Auditor independence

The Committee assesses the independence and objectivity of the external auditor annually, taking into consideration relevant UK law, regulation, the FRC Revised Ethical Standard and other professional requirements. EY has provided a letter confirming its belief that it remained independent throughout 2017 and has discussed with the Committee the threats to its independence and the safeguards applied to mitigate those threats.

As part of this review, the Committee examined in particular:

- a report from the external auditor describing its arrangements to identify, report and manage any conflicts of interest; and
- the extent of non-audit services provided by the external auditor.

Policy on non-audit services

The Committee is responsible for approving non-audit services, with the objective of ensuring that the provision of such services by the external auditor does not impair its independence or objectivity. Taking into account relevant ethical guidance, the Committee's policy precludes a number of non-audit services, including those relating to the accounting records and financial statements, internal audit, IT consulting, legal and investment services and other services deemed by regulators to be precluded. The Committee accepts that certain work of a non-audit nature may be best undertaken by the external auditor. The policy is reviewed annually and financial limits for the provision of non-audit services, including audit-related fees and other fees, are set on the same annual basis (2017 $0.3 million (2016 $0.6 million)) and were one-third of the Group's Audit fee of $0.9 million (2016 $0.9 million). In accordance with the Revised Ethical Standard issued by the FRC in June 2016, the lead audit engagement partner is required to notify the Audit Committee Chairman in advance for pre-approval of any proposed non-audit services. The Committee can confirm that no such non-audit services were provided by EY during the period under review (2016 $0.1 million).

In response to the introduction of further measures under the EU Audit Reform Directive, the Committee reviewed its policy regarding the provision of non-audit services. Tax-related services previously provided by the external auditor were re-tendered and, as a result of that process, these services are now provided by Deloitte LLP ("Deloitte"). The Committee is satisfied that Deloitte is independent, thoughtful and challenging; fees paid to Deloitte during the period totalled $0.1 million (2016 $0.1 million) based on time and materials.

We will seek to bring our executive reward model into alignment with the evolving expectations of investors.

The Committee is striving to respond to the increasing requests for transparency on the breadth and depth of our disclosure.

Dear Shareholder
I am pleased to present our Report on Directors' remuneration for the year ended 31 December 2017. This Report has been prepared on behalf of the Board by the Committee and has been approved by the Board.

Investor expectations and the Committee's approach to remuneration

I took on the Chairmanship of the Committee after the AGM in May 2017. There has been considerable change in the recent past in investor expectations both in terms of the breadth and depth of disclosures related to remuneration and to the structure of long term incentives. Although a clear direction of travel has been established with respect to certain matters, there is not yet alignment across all those with investments in Spirent on the preferred model of executive reward.

The Committee last presented its Remuneration Policy for approval at the 2016 AGM, with 96.7 per cent of shareholders voting in its favour. The advisory vote on the Remuneration Report at the 2017 AGM resulted in a vote in favour of 79.27 per cent. Accordingly, the Company was added to the Investment Association's list of those companies who had received more than a 20 per cent vote against their remuneration reports. For Spirent, the vote against reflected what are currently irreconcilable differences in views between certain significant investors. While the Committee is keen to respond to shareholder views, there is also recognition that a balance needs to be struck where there are disparate views amongst our major investors.

Against that background, the Committee is striving to respond to the increasing requests for transparency on the breadth and depth of our disclosures and we believe this Remuneration Report achieves that goal.

During 2018 the Committee will undertake a full review of Spirent's remuneration policy in preparation for seeking shareholder approval of a revised policy at the 2019 AGM. Where we believe it is in the best interests of the Company, we will seek to bring our executive reward model into alignment with the evolving expectations of investors, for example with regard to the deferral of bonuses and the introduction of post-vesting holding periods for the Long-term Incentive Plan.

Committee's activities in 2017

In 2017 the Committee focused on:

- Reviewing the fees for the new Chairman of the Board;
- Reviewing the base salary of the Executive Directors;
- Reviewing metrics and setting targets for annual cash incentives;
- Reviewing metrics and targets for long term incentives;
- Monitoring the changing landscape of investor expectations with regard to remuneration; and
- Consulting with shareholders on remuneration proposals for 2018.

Variable Remuneration for 2017

Cash incentives in 2017 were based on achievement of targets for profitability, revenue and personal and strategic objectives. Details of achievements against targets can be found on page 78; this reflected a very good profit performance in the period, the achievement of a good proportion of personal and strategic objectives and reasonable performance against the revenue targets for the period.

Long-term incentives that were due to vest during 2017 failed to reach threshold for earnings per share or total shareholder return performance conditions, and therefore lapsed.

Shareholder engagement

At the end of 2017 I wrote to a number of our major shareholders explaining our proposed approach to base salary, cash incentive and long-term incentive awards for 2018 and sought their views. We did not propose material changes to the approach taken in 2017. The Committee and I believe that the metrics we will measure our executive directors against are appropriate, the targets challenging, and that reward is strongly linked to corporate performance for the benefit of Spirent and its shareholders. The Committee remains committed to engaging in regular, meaningful dialogue with shareholders and, where appropriate, investor representative bodies.

Remuneration in 2018

Base salaries of Executive directors were increased by three per cent over the prior year. This reflected the general increase awarded to the larger employee population. It should be noted that for the CEO, no increase in base salary had been made since his appointment in 2013.

For the annual cash incentive, on-target opportunities for the CEO and CFO will be reduced to 90 per cent of base salary and 60 per cent of base salary respectively. As explained on page 76, the metrics used to determine any payout will be revenue (30 per cent), adjusted operating profit (50 per cent) and strategic and operational priorities (20 per cent). Although the financial metrics have not changed from 2017, the weightings have been adjusted as we seek to increase the proportion of the incentive related to revenue and growth in the top line. The Committee believe the targets set are challenging and appropriate. In 2018, the Executive directors will, in addition to meeting what the Board believe are key operational priorities to drive the performance of the business, also need to deliver demanding profitability targets and restore the business to significant top line growth to achieve significant payouts in 2018.

Long-term incentive awards in 2018 will be at the same level as in 2017. The Committee has retained the earnings per share ("EPS") and Absolute Total Shareholder Return ("TSR") metrics and weightings at 50 per cent. The EPS targets reflect significant growth in the EPS of the company over the performance period; threshold vesting requires high single digit growth over the 2017 outcome, with vesting at the upper end of the range requiring a significant outperformance of current consensus forecasts. The Committee acknowledges that the use of an Absolute TSR measure is relatively unusual, but we continue to be of the view that due to the limited number of true comparator companies, it remains an appropriate metric and retains the advantage of providing alignment with shareholders.

Finally, I would like to give my thanks to Tom Maxwell who chaired the Committee with distinction for the last seven years prior to my taking up the post. I would like to thank him for his valuable contribution to the Company and the work of the Committee.

I hope you find this Report clear and informative. I will be available at the 2018 AGM to respond to any questions that shareholders may have with respect to the work of the Committee.

Gary Bullard
Chairman, Remuneration Committee
8 March 2018

Compliance statement

This Report on Directors' remuneration for the year ended 31 December 2017 has been prepared on behalf of the Board by the Remuneration Committee in accordance with Schedule 8 to the Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013 and the relevant sections of the Companies Act 2006 and meets the requirements of the Listing Rules of the Financial Conduct Authority. The Report also describes how the Board has complied with the provisions of the 2016 UK Corporate Governance Code.

The Report is presented in two parts: the Directors' Annual Remuneration Report and the Directors' Remuneration Policy.

The Directors' Annual Remuneration Report sets out details of how our remuneration policy was implemented for the year ended 31 December 2017 and how it will be applied for the year ended 31 December 2018. At the 2018 AGM to be held on 2 May 2018 the Directors' Annual Remuneration Report on pages 76 to 87 will be put to an advisory shareholder vote.

The current Directors' Remuneration Policy was approved by a binding vote at the 2016 AGM and became effective on 5 May 2016.

Directors' Annual Remuneration Report 2017

Statement of implementation of Remuneration Policy in 2018 (unaudited)

Information on how the Company intends to implement the Directors' Remuneration Policy in 2018 is set out below.

Salary

	2018	2017
Eric Hutchinson	**£412,000**	£400,000
Paula Bell	**£339,900**	£330,000

Benefits

- Life insurance cover of four times annual base salary
- Permanent health insurance
- Private healthcare cover for executive and family
- Car allowance

Retirement benefits

Eric Hutchinson and Paula Bell will each receive a taxable cash sum in lieu of pension at a rate of 20 per cent of base salary.

Annual cash incentive

The Committee has set targets for the year focused on adjusted operating profit, revenue and strategic and operational priorities. Although the target detail is considered commercially sensitive, the weightings for the year ended 31 December 2018 are as follows:

Adjusted Operating Profit	50%
Revenue	30%
Strategic and Operational Priorities	20%

On-target and maximum annual cash incentive payments are as follows:

	On target performance % of base salary	Maximum % of base salary
Eric Hutchinson	90	150
Paula Bell	60	100

Details of these targets and their achievement will be disclosed in the Directors' Annual Remuneration Report 2018.

Award under Spirent Long-term Incentive Plan

It is anticipated that the following award will be made under the LTIP in 2018:

	Anticipated value of award
Eric Hutchinson	£618,000
Paula Bell	£339,900

The awards are made in the form of performance shares, which are valued at the share price on the date of grant.

Having reviewed the performance targets for awards under the LTIP, the Committee has determined that for the Performance Shares awards to be made in 2018, the following parameters are appropriate, calculated over a three-year performance period:

50 per cent of award:

The EPS performance period starts at the beginning of the financial year in which the award is made, in this case on 1 January 2018, and ends after three years, in this case on 31 December 2020.

Target EPS (adjusted) at the conclusion of the performance period	Proportion of Performance shares vesting (%)
Below 9.3 cents	0
9.3 cents	25
Above 9.3 cents and below 10.6 cents	On a straight-line basis between 25 and 50
10.6 cents	50
Above 10.6 cents and below 13.5 cents	On a straight-line basis between 50 and 100
13.5 cents and higher	100

50 per cent of award:

In determining TSR growth for the Company, share prices will be averaged over 90-day periods immediately prior to the announcement of the 2017 Full Year results on 8 March 2018 and the 2020 Full Year results.

Absolute TSR[1]	Proportion of Performance shares vesting (%)
Below 17% growth	0
17% growth	25
Above 17% growth but below 25% growth	On a straight-line basis between 25 and 50
25% growth	50
Above 25% growth but below 42% growth	On a straight-line between 50 and 100
42% growth or higher	100

Note
1. Share price including reinvested dividends.

Audited information

Single figure of total remuneration for 2017

The table below provides a single figure of total remuneration for 2017 and 2016 for the executive directors[1].

	Salary[2] £000	Benefits[3] £000	Annual cash incentive[4] £000	Long-term incentive[5] £000	Pension[6] £000	Total 2017 £000
Eric Hutchinson	**400.0**	**17.0**	**520.8**	**–**	**80.0**	**1,017.8**
Paula Bell	**330.0**	**16.2**	**310.6**	**–**	**66.0**	**722.8**

	Salary[2] £000	Benefits[3] £000	Annual cash incentive[4] £000	Long-term incentive[5] £000	Pension[6] £000	Total 2016 £000
Eric Hutchinson	400.0	16.9	135.7	–	80.0	632.6
Rachel Whiting[7]	163.9	1.1	27.8	–	23.0	215.8
Paula Bell[8]	107.9	182.2	111.3	–	21.6	423.0

Notes
1. All executive directors who served during 2016 and 2017 are UK based and paid in sterling, therefore the data is presented in this currency.
2. Salary and fees: cash paid in respect of the year.
3. Benefits: taxable value of all benefits in respect of the year which comprise relocation expenses, private healthcare, permanent health insurance, life insurance and car allowance.
4. Annual cash incentive: cash incentive payable in respect of the year.
5. Long-term incentive: value of Performance Shares vesting in the year based on the performance condition that ends in the year.
6. Pension: cash value in lieu of pension.
7. Rachel Whiting stepped down from the Board on 4 May 2016 and retired from the Company on 6 September 2016; the figures shown represent the amounts earned until the date of her retirement in September 2016.
8. Paula Bell was appointed to the Board on 5 September 2016.

Annual performance incentives

During 2017, cash incentives were available to executive directors on an annual basis, with a maximum total cash incentive available of 150 per cent of base salary and 100 per cent for Eric Hutchinson and Paula Bell respectively.

The maximum annual incentive which could be earned was determined by reference to growth targets in the Company's adjusted operating profit and revenue, representing 60 per cent and 20 per cent of the incentive respectively, with performance against an agreed set of strategic and operational priorities linked to improving Spirent's operational effectiveness in the areas of sales, engineering and finance representing the remaining 20 per cent of the incentive.

Adjusted operating profit element (60 per cent of annual incentive)

	Target	Achievement
Entry point	$43.0m	
On-target	$53.0m	
Maximum	$57.0m	$58.9m

Revenue (20 per cent of annual incentive)

	Target	Achievement
Entry point	$451.5m	
On-target	$454.6m	
Maximum	$464.6m	$454.8m

Strategic and Operational Priorities (20 per cent of annual incentive)

	Achievement
Eric Hutchinson	66.7 per cent
Paula Bell	100.0 per cent

Total annual incentive

	2017			2016	
	% of on-target annual incentive	**% of base salary**	**£**	% of base salary	£
Eric Hutchinson	**130.2**	**130.2**	**520,800**	33.9	135,680
Paula Bell[1]	**134.5**	**94.1**	**310,596**	33.9	25,331
Rachel Whiting[2]	**–**	**–**	**–**	33.9	27,804

Note
1. Paula Bell was appointed to the Board on 5 September 2016; her cash incentive payment for 2016 was pro-rated for time served in role.
2. Rachel Whiting stepped down from the Board on 4 May 2016 and retired from the Company on 6 September 2016; her cash incentive payment for 2016 was pro-rated for time served until the date of her retirement.

Relocation expenses
No relocation expenses were paid to either Executive Director during 2017.

Following her appointment as Chief Financial Officer in 2016, Paula Bell received £176,940 in cash as relocation expenses. The amount reimbursed is subject to a three-year clawback from her start date (5 September 2016), with the balance of the clawback reducing by one-third on each anniversary of that start date.

Total pension entitlements
Eric Hutchinson receives a taxable cash allowance in lieu of pension of 20 per cent of base salary. For 2017, the allowance paid was £80,000 (2016 £80,000).

Paula Bell receives a taxable cash allowance in lieu of pension of 20 per cent of base salary. For 2017, the allowance paid was £66,000 (2016 £21,500).

External appointments
Eric Hutchinson held no external positions during the year under review or to the date of this Report.

On appointment in 2016, the Board agreed that it was acceptable for Paula Bell to continue with her non-executive role with Laird plc. Fees in respect of this directorship are paid directly to and retained by Ms Bell.

Payments to past directors
There were no payments made to past directors during the year under review.

Payments for loss of office
There were no payments for loss of office during the year under review.

Payments of advances, credits or guarantees
There were no payments of advances, credits or guarantees to directors during the year under review.

Non-executive director fees
Details of individual appointments are as follows:

Director	First appointed as a director	Current appointment due to expire
Gary Bullard	1 December 2016	2020 AGM
Wendy Koh	11 January 2018	2018 AGM
Edgar Masri	11 January 2018	2018 AGM
Jonathan Silver	25 June 2015	2019 AGM
Bill Thomas	1 December 2016	2020 AGM

During 2017, fees for the non-executive directors were reviewed with effect from 1 January 2018. Having been frozen since 1 January 2008, it was determined that the basic annual fee for non-executive directors should increase to £50,000 per annum for 2018 (2017 £40,000). Fees for the Chairman, which are determined by the Remuneration Committee, will remain at £160,000 per annum for 2018, having been frozen since 1 January 2009. The Chairmen of the Audit and Remuneration Committees each receive additional fees of £11,000 and £9,000 per annum respectively in recognition of the increased time commitment of these roles (2017 £11,000 and £9,000 respectively). During the period under review, the person who filled the role of Senior Independent Director was entitled to receive an additional fee of £7,500 per annum in recognition of the increased time commitment associated with the role but chose to waive the additional fee during the period under review.

Fees for non-executive directors and the Chairman will be reviewed again in 2020 for the period from 1 January 2021.

Details of fees paid to non-executive directors in 2017 and 2016 are as follows:

	2017 £000	2016 £000
Bill Thomas (Chairman)[1]	**114.2**	3.3
Alex Walker (Chairman)[2]	**55.2**	160.0
Gary Bullard[3]	**45.9**	3.3
Tom Lantzsch[4]	**7.1**	40.0
Duncan Lewis[5]	**–**	10.0
Tom Maxwell[6]	**16.9**	49.0
Jonathan Silver	**51.0**	51.0
Sue Swenson[7]	**7.4**	46.3
Total	**297.7**	362.9

Notes
1. Bill Thomas was appointed to the Board on 1 December 2016 and was appointed Chairman on 19 May 2017.
2. Alex Walker stepped down as Chairman and from the Board on 3 May 2017.
3. Gary Bullard was appointed to the Board on 1 December 2016 and was appointed Chairman of the Remuneration Committee on 3 May 2017.
4. Tom Lantzsch stepped down from the Board on 3 March 2017.
5. Duncan Lewis served as a director until his death in March 2016.
6. Tom Maxwell stepped down as Chairman of the Remuneration Committee and from the Board on 3 May 2017.
7. Sue Swenson stepped down from the role of Senior Independent Director and from the Board on 8 March 2017.

Statement of directors' shareholdings and share interests

The beneficial interests of the directors and their connected persons in the shares of the Company are set out below:

	At 31 December 2016 Ordinary Shares[1]	At 31 December 2017 Ordinary Shares[1]	At 8 March 2018 Ordinary Shares[2]
Executive directors			
Paula Bell	–	150,000	150,000
Eric Hutchinson	1,727,324	2,007,219	2,007,707
Non-executive directors			
Gary Bullard	–	40,000	40,000
Tom Lantzsch[3]	60,000	60,000	n/a
Tom Maxwell[4]	100,000	100,000	n/a
Jonathan Silver	70,000	70,000	70,000
Sue Swenson[5]	–	–	–
Bill Thomas	–	46,199	46,199
Alex Walker[6]	342,458	417,458	n/a

Notes
1. Directors' beneficial interests do not form part of the remuneration provided by the Company.
2. Events since 31 December 2017:
   On 24 January 2018, Eric Hutchinson acquired 246 Ordinary Shares under the UK Employee Share Purchase Plan at a price of 101.6 pence per share.
   On 24 February 2018, Eric Hutchinson acquired 242 Ordinary Shares under the UK Employee Share Purchase Plan at a price of 103.0 pence per share.
3. Tom Lantzsch stepped down from the Board on 3 March 2017; the figures shown represent his beneficial interests on that date.
4. Tom Maxwell stepped down from the Board on 3 May 2017; the figures shown represent his beneficial interests on that date.
5. Sue Swenson stepped down from the Board on 8 March 2017; the figures shown represent her beneficial interests on that date.
6. Alex Walker stepped down from the Board on 3 May 2017; the figures shown represent his beneficial interests on that date.

Shareholding guidelines for executive directors

The Committee believes that to further align their interests with those of shareholders, executive directors should have a significant shareholding in the Company equivalent to at least 100 per cent of their base salary in the form of shares and unfettered share incentive awards which may be built up over time following appointment as an executive director.

The table below sets out the holdings of the executive directors who served during the year at 31 December 2017 or the date they left the Company:

	Guideline holding	Beneficially owned shares	Unfettered share incentives	Guideline met?
Paula Bell[1]	100% of base salary	150,000	–	No
Eric Hutchinson	100% of base salary	2,007,219	–	Yes

Note
1. Paula Bell is a recent hire, having joined the Board in September 2016, and is in the process of building up a shareholding to meet this guideline.

Outstanding share incentive awards[1]

The share incentive interests of executive directors who served during the period 1 January 2017 to the date of this Report are set out below:

Paula Bell

Plan Type	LTIP	LTIP	LTIP
Award Type	PS	PS	PS
Award Date	30 September 2016	30 September 2016	04 May 2017
At 1 January 2017 (or date of appointment)	268,293	292,683	–
Granted during the period	–	–	279,661
Vested during the period	–	–	–
Lapsed during the period	–	–	–
Any other adjustments during the period	–	–	–
At 31 December 2017 (or at date of cessation)	268,293	292,683	279,661
Market price at date of award (£)[2]	0.8200	0.8200	1.1800
Face value of award granted in period (£)	–	–	330,000
Exercise price (£)[3]	Nil	Nil	Nil
Subject to performance conditions?	Yes	Yes	Yes
Performance condition	50% EPS, 50% TSR	50% EPS, 50% TSR	50% EPS, 50% TSR
Performance condition testing date[4]	08 March 2018[5]	30 September 2019	04 May 2020
Result of performance condition testing	–	–	–
Market price at vesting date (£)	–	–	–
Exercise date	–	–	–
Market price at exercise date (£)	–	–	–
Gain on exercise (£)	–	–	–
Expiry date	23 March 2018[5]	30 September 2019	04 May 2020

Eric Hutchinson

Plan Type	EIP	EIP	LTIP	LTIP
Award Type	PS	PS	PS	PS
Award Date	28 April 2014	18 May 2015	16 June 2016	04 May 2017
At 1 January 2017 (or date of appointment)	493,583	578,035	781,758	–
Granted during the period	–	–	–	508,474
Vested during the period	–	–	–	–
Lapsed during the period	493,583[6]	–	–	–
Any other adjustments during the period	–	–	–	–
At 31 December 2017 (or at date of cessation)	–	578,035	781,758	508,474
Market price at date of award (£)[2]	1.0130	0.8650	0.7675	1.1800
Face value of award granted in period (£)	500,000	500,000	600,000	600,000
Exercise price (£)[3]	Nil	Nil	Nil	Nil
Subject to performance conditions?	Yes	Yes	Yes	Yes
Performance condition	50% EPS, 50% TSR	50% EPS, 50% TSR	50% EPS, 50% TSR	50% EPS, 50% TSR
Performance condition testing date[4]	28 April 2017	18 May 2018	16 June 2019	04 May 2020
Result of performance condition testing	0% vest	–	–	–
Market price at vesting date (£)	1.1725	–	–	–
Exercise date	–	–	–	–
Market price at exercise date (£)	–	–	–	–
Gain on exercise (£)	–	–	–	–
Expiry date	28 April 2017	18 May 2018	16 June 2019	04 May 2020

Notes
An explanation of each share plan and its operation is given in note 30 to the audited consolidated financial statements of the Group.
1. Key to share plan and type of award:
   EIP PS – 2005 Employee Incentive Plan Performance Shares awarded as conditional share awards.
   LTIP PS – 2016 Long-term Incentive Plan Performance Shares awarded as conditional share awards.
2. The market price on date of grant is the price of an Ordinary Share at the close of business on the day before the date of grant.
3. There is no exercise price payable for a Performance Share upon vesting.
4. Awards which have passed the date first exercisable have vested and are unfettered, having passed the relevant performance conditions.
5. The performance conditions for this award are based on (i) an EPS growth target based on performance reported for 31 December 2017 and (ii) a TSR growth target based on the Company share price averaged over a 90 day period immediately prior to the announcement of the 2017 Full Year results. Full Year results for 2017 and EPS performance to 31 December 2017 will be reported on 8 March 2018, not 5 March 2018 as previously anticipated and therefore the performance condition testing date for this award has been updated accordingly.
6. The awards of EIP Performance Shares granted on 28 April 2014 were due to vest on 28 April 2017. However, after the testing of performance conditions attached to these awards the Remuneration Committee confirmed that the performance condition thresholds (15 per cent growth in EPS and 25 per cent growth in Absolute TSR) had not been met, resulting in the lapsing of the awards in full.

Share incentive interests awarded during the year

In 2017, the Committee approved an award of Performance Shares to Mr Hutchinson and Ms Bell equivalent to 150 per cent and 100 per cent of base salary respectively.

50 per cent of award:

Target annual compound growth rates in EPS (adjusted)	Proportion of Performance shares vesting (%)
Below 15% growth	0
15% growth	25
Above 15% growth and below 20% growth	On a straight-line basis between 25 and 50
20% growth	50
Above 20% growth and below 32% growth	On a straight-line basis between 50 and 100
32% growth and higher	100

The EPS performance period normally starts at the beginning of the financial year in which the award is made.

50 per cent of award:

Absolute TSR	Proportion of Performance shares vesting (%)
Up to 17% growth	0
At 17% growth but below 42% growth	On a straight-line basis between 25 and 100
42% growth or higher	100

In determining TSR growth for the Company, share prices will be averaged over 90 day periods immediately prior to the announcement of the 2016 Full Year results on 2 March 2017 (91.92 pence) and the 2019 Full Year results.

Share incentive interests vesting during 2018

Ms Bell's award which is due now to vest on 23 March 2018 is subject to an EPS performance condition and a TSR performance condition. The EPS condition has passed the growth threshold required for partial vesting, but has not achieved the growth required for full vesting. The TSR condition will be tested after the conclusion of the performance period.

Mr Hutchinson's award which is due to vest on 18 May 2018 is subject to an EPS performance condition and a TSR performance condition. The EPS condition has passed the growth threshold required for partial vesting, but has not achieved the growth required for full vesting. The TSR condition will be tested after the conclusion of the performance period.

No new shares were issued during the year, with all exercises of share incentives being satisfied by the transfer of shares held by the Company's Employee Share Ownership Trust ("ESOT"). At the date of this Report, the ESOT holds 0.6 million Ordinary Shares for the purpose of satisfying the exercises of current and future awards by employees and former employees of the Group.

Dilution

Overall shareholder dilution resulting from the Company's share incentive plans (on a rolling ten-year basis) has fallen by 1.4 per cent when comparing the positions at 31 December 2017 (5.1 per cent) and 31 December 2016 (6.5 per cent). The overall number of share incentives outstanding has decreased by 0.6 million during the year to 10.0 million at 31 December 2017 (2016 10.6 million).

Unaudited information

Total shareholder return performance

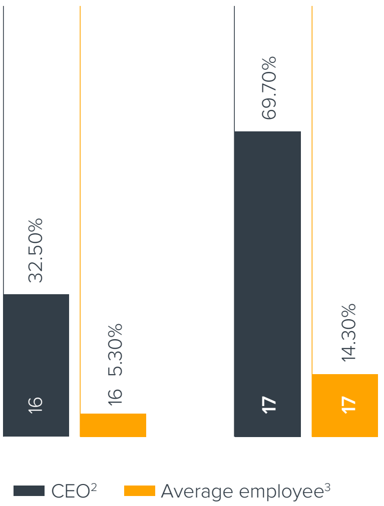
The graph below shows the TSR performance for the last nine financial years of Spirent Communications plc against the FTSE 250 Index and the FTSE TechMARK 100 Index, excluding those companies who were also constituents of the FTSE 100 Index at the commencement of the period.

Nine-year TSR performance – Spirent vs FTSE TechMARK[1] and FTSE 250

Note
1. As of 1 January 2009, excluding FTSE 100 companies.

The middle market price of an Ordinary Share at the close of business on 3 January 2017 and 29 December 2017 (being the first and last days the London Stock Exchange was open for trading in 2017) was 100.75 pence and 102.00 pence respectively, and during that period ranged between a high of 127.50 pence and a low of 90.50 pence.

Percentage change in the remuneration of the director undertaking the role of CEO compared to the percentage change in remuneration of average employee[1]

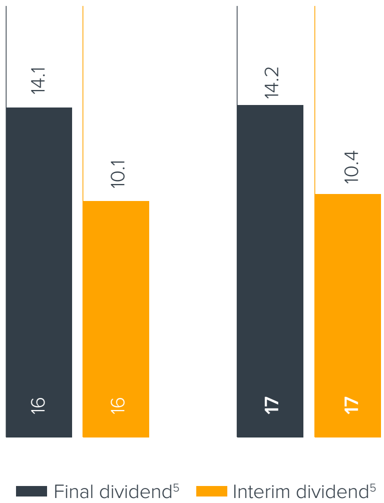


Remuneration paid to all employees

$ million[4]

Returns to shareholders

$ million



Notes
1. The graph shows the change in CEO's annual cash remuneration, defined as base salary, taxable benefits and cash incentive, compared to that of the average employee for 2016 and 2017.
2. As explained on pages 75 and 76, the CEO did not receive a base salary increase in 2016 or in 2017. The increase shown in this graph represents the payout of the CEO's annual cash incentive relating to 2017, compared to the annual cash incentive payout received in 2016.
3. As set out in note 9 to the consolidated financial statements.
4. Total as set out in note 9 to the consolidated financial statements.
5. Total as set out in note 13 to the consolidated financial statements.

Table of CEO remuneration[1]

Year	CEO	CEO single figure of total remuneration £000	Annual bonus payout against maximum opportunity %	Long-term incentive vesting rates against maximum opportunity %
2017	Eric Hutchinson	1,017.8	86.8	–
2016	Eric Hutchinson	632.6	22.6	–
2015	Eric Hutchinson	497.1	–	–
2014	Eric Hutchinson	521.6	–	–
2013	Eric Hutchinson[2]	186.9	12.0	–
2013	Bill Burns[3]	401.3	–	–
2012	Bill Burns	931.8	40.5	34
2011	Bill Burns	1,309.6	93.3	84
2010	Bill Burns	1,279.9	100.0	100
2009	Bill Burns	997.8	93.9	100

Notes
1. Prior year data in this table has been recalculated from US dollars to be presented in sterling at the following average exchange rates: 2014 $1.65:£1; 2013 $1.56:£1; 2012 $1.58:£1; 2011 $1.60:£1; 2010 $1.54:£1; 2009 $1.57:£1.
2. Eric Hutchinson took up the position of Chief Executive Officer on 3 September 2013.
3. Earnings disclosed are to 3 September 2013, when Bill Burns stepped down as Chief Executive Officer.

Statement of shareholder voting

At the 2017 AGM on 3 May 2017 the results of shareholder's voting on remuneration matters were as follows:

Advisory vote regarding the Report on directors' remuneration for the year to 31 December 2016:

Votes For[1]	%	Votes Against	%	Votes Cast	Votes Withheld[2]
317,265,182	79.27	82,964,588	20.73	400,229,770	95,959,142

The most recent binding vote for the Company's Remuneration Policy, approved by shareholders at the 2016 AGM and effective from 5 May 2016:

Votes For[1]	%	Votes Against	%	Votes Cast	Votes Withheld[2]
461,594,887	96.70	15,772,687	3.30	477,367,574	28,531

Notes
1. The "For" vote includes those giving the Company Chairman discretion.
2. A vote withheld is not a vote in law and is not counted in the calculation of the votes "For" and "Against" the resolution.

Votes "For" and "Against" are expressed as a percentage of total votes cast.

At its Annual General Meeting on 3 May 2017, Spirent Communications plc received a significant shareholder vote against the resolution seeking shareholder approval of the Company's 2016 Report on directors' remuneration, equating to 20.73% of the total voting rights in the Company. As required, the Company noted the votes against in its announcement of the Annual General Meeting results released on 3 May 2017.

The 20.73% of votes against largely reflected the views of two investors, representing 11.18% ("Investor A") and 9.42% ("Investor B") of total votes cast respectively.

Investor A (11.18% of total votes cast on the resolution)
The Company's Remuneration Committee (the "Committee") has engaged with Investor A since the Annual General Meeting, and has been given two reasons for their vote against:

(i) Investor A's primary concern is that it does not consider the Company's long-term incentive plan as currently designed to be sufficiently generous to incentivise management.

While the Committee understands Investor A's perspective, it believes it would be difficult to reconcile this with the views of other institutional investors. The use of long-term incentive plans will continue to be reviewed by the Committee on an ongoing basis.

(ii) Investor A considered the buy-out awards and relocation package granted to the CFO on appointment in September 2016 to be unreasonable in magnitude.

As stated in the 2016 Report on directors' remuneration, the Committee sought to reassure shareholders that, even including the buy-out awards granted to the CFO, the maximum level of variable pay awarded was in accordance with the Remuneration Policy and represented only a proportion of the actual value of the awards forfeited by the CFO upon her appointment to Spirent.

We continue an active dialogue with our shareholders on a wide range of issues and seek to strike a balance between the differing views amongst our investor base.

Investor B (9.42% of total votes cast on the resolution)
Investor B has a policy of voting against all remuneration reports where vesting of long-term incentive plans is not based on a minimum period of five years or three years plus a two-year holding period post-vesting.

The Committee will continue to keep under review and consider the views of shareholders on the issue of holding periods post vesting of LTIP awards.

Remuneration Committee

Responsibilities
The Remuneration Committee is responsible to the Board for determining:

- remuneration policy for the executive directors and Chairman taking into account remuneration trends across the Company;
- specific terms and conditions of employment of each individual executive director;
- overall policy for remuneration for the executive directors' direct reports;
- design and monitoring of the operation of any Company share incentive plans;
- setting stretching incentive targets to encourage enhanced performance;
- determining an approach that rewards fairly and responsibly contribution to the Company's long-term success; and
- other provisions of the executive directors' service agreements and ensuring that contractual terms on termination, and payments made, are fair to the individual and the Company and that failure is not rewarded and loss is mitigated.

The Committee's remit is set out in detail in its terms of reference, which are reviewed regularly and were approved in March 2017. They are available on the Company's website at https://corporate.spirent.com.

Composition of the Committee
At the date of this Report, the Remuneration Committee comprises four independent non-executive directors, one of whom acts as Committee Chairman. The Company Secretary serves as Secretary to the Committee. All members are considered independent within the meaning of the 2016 UK Corporate Governance Code (the "Code").

Advisers to the Committee

During the period under review the Committee consulted with the Company's Chairman, Chief Executive Officer, Chief Financial Officer and the Company Secretary & General Counsel but not on matters relating to their own remuneration.

Deloitte LLP was appointed by the Committee in 2015 to undertake a market review of executive remuneration practices and assist with the design and introduction of a new long-term incentive plan. The Committee is satisfied that Deloitte LLP is independent, thoughtful and challenging. Deloitte LLP is also a member of the Remuneration Consultants Group and complies with its voluntary Code of Conduct in respect of the provision of remuneration consulting services, details of which can be found at www.remunerationconsultantsgroup.com. The Committee considers Deloitte LLP to be independent in its approach.

The fees paid to Deloitte LLP to carry out work for the Remuneration Committee during the period under review totalled £25,380 (2016 £65,880) and were based on time and materials.

Kepler Associates Limited, who were acquired in June 2015 by Mercer Limited, were appointed by the Committee some years ago to provide the results of TSR testing to determine the vesting of share incentives. The Committee has retained Mercer Limited in this role because it values the robust data provided and continuity of advice from the consultants involved. The Committee is satisfied that Mercer Limited is independent, thoughtful and challenging. Mercer Limited is a member of the Remuneration Consultants Group and complies with its voluntary Code of Conduct in respect of the provision of remuneration consulting services, details of which can be found at www.remunerationconsultantsgroup.com and has no other connection to the Company. The Committee considers Mercer Limited to be independent in its approach.

The fees paid to Mercer Limited to carry out work for the Remuneration Committee during the period under review totalled £11,325 (2016 £7,260) and were based on time and materials.

Directors' Remuneration Policy (unaudited)

This section sets out the Remuneration Policy for executive and non-executive directors. This Remuneration Policy was subject to a binding vote at the 2016 AGM on 4 May 2016 and, having received 96.7% of all votes cast in favour, became effective on 5 May 2016. The full policy as approved by shareholders has been included below for ease of reference, however the illustration of application of policy has been updated for 2018. The Policy will be put to shareholders again no later than the 2019 AGM.

The most significant change from the policy approved at the Company's 2014 AGM was the introduction of the new Spirent Long-term Incentive Plan (the "LTIP").

The Company's previous Remuneration Policy was approved by shareholders at the Company's 2014 AGM held on 23 April 2014 with 99.02 per cent of all votes cast in favour and it had a binding effect on the Company from 24 April 2014.

Components of executive director remuneration

The Committee's policy is to set remuneration levels which ensure that executive directors are fairly and responsibly rewarded in return for high levels of performance. The remuneration policy set by the Committee aims to promote value creation through transparent alignment with the agreed corporate strategy, supporting performance and encouraging the underlying sustainable financial health of the business while promoting sound risk management for the benefit of all stakeholders. The Committee believes that the aims of the policy are achieved by ensuring that a significant proportion of executive remuneration is tied to the achievement of the agreed corporate strategy and long-term value creation.

Fixed pay	
Purpose and link to strategy	Key features
Base salary	
To provide fixed remuneration for each role which reflects the size and scope of the executive director's responsibilities and their individual skills and experience	Base salaries are normally reviewed annually, with changes effective from 1 January Set at levels to recruit and retain the high calibre talent needed to deliver the Group's strategy without paying more than is considered necessary Salaries are typically set after considering various factors including the salary levels in companies of a similar size and complexity, the responsibilities of each individual role, progression within the role, individual performance and an individual's experience and with regard to market salary levels in the country in which the executive resides. Our overall policy, having had due regard to the factors noted, is normally to target salaries at the median market level
Benefits	
To provide market levels of benefits on a cost-effective basis	May include private health cover for the executive and their family, life insurance cover of up to four times annual base salary, permanent health insurance and a car allowance Executive directors may participate in any all-employee share plans which may be operated by the Company on the same terms as other employees Global relocation support and any associated costs or benefits may also be provided if considered by the Committee to be appropriate and reasonable to meet the requirements of the business Other benefits may be offered from time to time broadly in line with local market practice in the country of residence of the executive director
Retirement benefits	
To provide cost-effective and competitive post-retirement benefits	Defined contribution scheme or cash allowance in lieu of Company pension contributions or a combination of both Other post-retirement benefits may be offered from time to time broadly in line with local market practice in the country of residence of the executive director
Variable pay	
Annual incentive	
To reward and incentivise the achievement of annual financial and strategic goals which are selected to align the strategy of the business and support enhancement of shareholder value	The annual incentive is normally payable in cash and is not pensionable The Remuneration Committee may, in exceptional circumstances, amend the payments should this not, in the view of the Committee, reflect overall business performance or individual contribution. Any such amendment would be reported to shareholders Clawback provisions apply to any annual incentive payments made. Prior to payment of any cash incentive, the Committee could exercise its discretion and make no payment due to a malus event
Long-term incentive	
To incentivise executives to achieve the Company's long-term strategy and enhance sustainable shareholder value	Discretionary awards of conditional awards (or economic equivalent) may be granted to executive directors annually, calculated as a percentage of base salary Malus and clawback provisions will apply to all awards made under the new Spirent Long-term Incentive Plan

Maximum potential value	Performance metrics
While there is no defined maximum salary, any increase in salary will ordinarily be (in percentage terms) in line with those of the wider workforce, having particular regard to the increases in the country in which the individual resides Increases beyond those granted to the wider workforce (in percentage terms) may be awarded in certain circumstances, for example where there is a change in responsibility, progression in the role, experience or a significant increase in the scale of the role and/or size, value and/or complexity of the Group Details of current salary levels are set out in the Annual report on remuneration	None
The overall value of benefits will depend on the individual's circumstances and therefore there is no formal maximum Participation in all-employee share plans will be in line with relevant statutory limits It is intended that the maximum value of benefits offered will remain broadly in line with market practice in the location in which the executive director operates	None
It is intended that the maximum value of retirement benefits offered will remain broadly in line with market practice in the location in which the executive director operates Pension arrangements for current executive directors are set out in the Annual report on remuneration	None
The annual incentive starts accruing from threshold levels of performance CEO: On target opportunity of 100 per cent base salary, subject to cap of 150 per cent base salary CFO: On target opportunity of 70 per cent of base salary, subject to cap of 100 per cent base salary	Annual incentives may be based on a mix of financial and individual and business objectives with the majority of the weighting being given to financial metrics Measures, weightings and targets are determined by the Remuneration Committee each year taking into account the Group's key strategic priorities and the approved budget for the year and are set out in the Annual report on remuneration
Maximum plan limit for awards is 200 per cent of base salary Details of proposed award levels for 2018 are set out in the Annual report on remuneration	Award levels and performance conditions are reviewed before each award cycle to ensure they remain appropriate Vesting is based on performance measured over three years A full description of the performance conditions applicable to long-term incentive awards are set out in the Annual report on remuneration

Notes to the policy table

Performance conditions for awards under the Spirent Long-Term Incentive Plan ("LTIP")

The Committee reviews the appropriateness of performance parameters for each award under the LTIP and sets stretching performance conditions in the light of the Company's current and expected performance over the performance cycle.

2018 Policy on share incentive awards

The Committee expects to approve awards of Performance Shares to the CEO and CFO equivalent to 150 per cent and 100 per cent of annual base salary respectively.

Approach to recruitment remuneration

In the event that the Company recruits a new executive director (either from within the organisation or externally), when determining the appropriate remuneration arrangements, the Committee will take into consideration all relevant factors, (including but not limited to quantum, the type of remuneration being offered and the jurisdiction which the candidate was recruited from) to ensure that arrangements are in the best interests of both shareholders and the Company without paying more than is necessary to recruit an executive of the required calibre.

The Committee would generally seek to align the remuneration package offered with our Remuneration Policy outlined in the table above. However, the Committee retains discretion to make proposals on hiring a new executive director which are outside the standard Policy. In the first year of appointment, the Committee may offer additional remuneration arrangements that it considers appropriate and necessary to recruit and retain the individual. Such remuneration may be in the form of cash or share-based awards which may vest immediately or at a future point in time. Vesting may be subject to performance conditions selected by the Committee.

The Committee may make awards on appointing an executive director to "buy-out" remuneration arrangements forfeited on leaving a previous employer on a like-for-like basis. In doing so the Committee will take account of relevant factors, including any performance conditions attached to those awards, the form in which they were granted and the time over which they would have vested.

In the event of recruitment, the Committee may also grant an award to a new executive under Listing Rule 9.4.2 which allows for the granting of awards, specifically to facilitate, in unusual circumstances, the recruitment or retention of an executive director, without seeking prior shareholder approval.

The maximum level of variable pay which may be awarded to new executive directors would normally be in line with the maximum level of variable pay set out in the policy table above but in any event would be limited to 400 per cent of base salary, excluding any buy-out awards. Any additional cash or share-based awards on recruitment of an executive director which may fall outside the policy statement would be performance-related and would therefore be regarded as variable remuneration and fall within the Company's standard 400 per cent cap.

For an internal appointment, any remuneration terms awarded in respect of the previous role may either continue on its original terms or be adjusted to reflect the new appointment.

When recruiting non-executive directors, the remuneration arrangements offered would normally be in line with those paid to existing non-executive directors, details of which are set out in the Annual report on remuneration.

Service contracts

Executive Directors

In normal circumstances, it is the Company's Policy that service contracts for executive directors have no fixed term and are capable of termination on no more than 12 months' notice from either the Company or the executive director. It is intended that this Policy would also apply to new appointments of executive directors.

Both Eric Hutchinson and Paula Bell currently have a service agreement with Spirent Communications plc, and, being UK residents, both their contracts are in line with UK employment practice and are governed by the laws of England and Wales. Eric Hutchinson's service agreement dated 8 December 2014 may be terminated on 12 months' notice from the Company and six months' notice from Mr Hutchinson. Paula Bell's service agreement, dated 12 April 2016 may be terminated on 12 months' notice from the Company and six months' notice from Ms Bell.

The Company recognises that its executive directors may, from time to time, be invited to become non-executive directors of other companies and that such appointments can broaden their knowledge and experience, to the benefit of the Company. Details of any such appointments are set out in the Annual report on remuneration.

The service agreements of executive directors are available for inspection on request and will be available for inspection at the 2018 AGM.

Non-executive Directors

All non-executive directors have a letter of appointment with the Company for a period of not more than three years, subject to the Company's Articles of Association. However, since 2011 and in accordance with the Code, all directors who are not stepping down from the Board will stand for re-election at each AGM.

The letters of appointment of non-executive directors are available for inspection on request and will be available for inspection at the 2018 AGM. An example of a letter of appointment for a non-executive director is available on the Company's website at https://corporate.spirent.com.

Remuneration policy for Non-executive Directors

The Board aims to recruit high calibre non-executive directors, with broad commercial, international or other relevant experience.

The Company's Remuneration Policy with regard to fees for non-executive directors, including the Chairman, is to pay fees which are in line with market practice for companies of a similar size and complexity. Individual fees reflect responsibility and commitment. Additional fees may be paid for further responsibilities, such as chairmanship of committees.

Non-executive directors are not eligible to participate in cash incentive or share incentive arrangements and their service does not qualify for pension. No element of their fee is performance-related. Travel and other reasonable expenses (including fees incurred in obtaining professional advice in the furtherance of their duties and any associated taxes) incurred in the course of performing their duties may be paid by the Company or reimbursed to non-executive directors.

When recruiting non-executive directors, the remuneration arrangements offered will generally be in line with those set out above.

Exit payment policy

The Committee is committed to ensuring that it does not pay more than is necessary when executives leave Spirent and its policy on exit payments is and will continue to be in line with market practice in the country in which the executive director resides. The current exit payment policy is:

- Service contracts contain provisions for the removal of the director without compensation for not performing their duties to the standard required by the Board or material misconduct
- Payment in lieu of notice may be paid under service contracts if the relevant notice period is not given to the director or if, having received notice from the director, the employer does not wish him/her to serve it
- Unless provided for in the service contract, the Company would seek to apply practical mitigation measures to any payment of compensation on termination, for example by reducing payments to reflect payments received in respect of alternative employment, taking into account all relevant circumstances
- Service contracts do not contain provision for additional compensation on termination following a change of control (as detailed in the Change of Control provisions set out in the Report of the directors on page 95)
- Service contracts do not contain provision for liquidated damages of any kind
- Service contracts contain appropriate provisions to protect the legitimate interests of the Company with respect to preventing any terminated director from working in a business which competes against the Company
- Incentives:
  - Cash incentives: Unless otherwise provided in the service contract to be consistent with market practice in the country in which the executive resides, executives are not entitled to accrued cash incentives payable following termination unless the individual is determined by the Committee to be a good leaver (defined as an individual leaving employment due to redundancy, ill-health, injury or disability, retirement, death, the individual's employing company ceasing to be under the control of the Group, or a transfer of the undertaking in which the individual works ("Good Leaver"));
  - Spirent Long-term Incentive Plan: Leaver provisions were approved by shareholders when they approved the LTIP in 2016. Unvested awards will generally lapse at the time of exit. For individuals determined by the Committee to be a Good Leaver, the Committee has discretion to either (i) assess performance conditions at the point of exit by testing the performance conditions up to the date of exit for TSR performance and to the end of the most recent financial period for EPS performance, or (ii) assess performance conditions at the end of the applicable vesting period or such earlier date as may be appropriate. Any shares which vest would then normally be pro-rated to reflect the proportion of the vesting period actually served by the individual;
  - Employee Incentive Plan (EIP): Leaver provisions were approved by shareholders when they approved the EIP in 2005 and 2015. Unvested awards generally lapse at the time of exit. For individuals determined by the Committee to be a Good Leaver, performance conditions are assessed by the Committee at the point of exit by testing the performance conditions up to the date of exit for TSR performance and to the end of the most recent financial period for EPS performance. Vesting is then pro-rated for the proportion of the performance period actually served and the individual has 12 months following the date of termination of employment in which to exercise them.

Consideration of employee remuneration arrangements elsewhere in the Group

When setting the policy for directors' remuneration, the Committee has regard to the pay and employment conditions elsewhere within the Group, particularly in the jurisdictions in which the executive directors are based. The Committee is kept informed on a regular basis of salary increases for the general employee population and takes these into account when determining salary increases for executive directors. An increase in base salary of three per cent has been awarded for the roles of Chief Executive Officer and Chief Financial Officer for 2018, reflecting the general increase awarded to the larger employee population.

The Committee is aware of the FRC's consultation on changes to the Corporate Governance Code and its proposals for increasing engagement with stakeholders including employees. While the Committee does not currently consult directly with employees as part of the process of reviewing executive pay, the Committee does take into account views expressed through employee surveys and will look to enhance this engagement in line with future Code requirements when finalised.

Consideration of the views of shareholders in setting Remuneration Policy

The Committee is mindful of the views of shareholders in determining appropriate levels of remuneration and in ensuring that shareholder and director interests are aligned. The Committee is committed to an ongoing dialogue with shareholders and seeks shareholder views when any significant changes are proposed to remuneration arrangements. The Committee consulted with major shareholders and shareholder representatives in January 2016 regarding the introduction of the new LTIP and again in December 2017 regarding the Committee's approach to base salary, cash incentives and LTIP awards in 2018.

Legacy matters

For the avoidance of doubt, in approving this Remuneration Policy, authority is given to the Company to make payments and honour any commitments entered into with current or former directors (such as the payment of pension or the unwinding of legacy share schemes) where the terms were agreed either prior to 24 April 2014 (the effective date of the first directors' remuneration policy) or at a time when a previous remuneration policy was in force. Details of any payments will be set out in the Annual Report on Remuneration as they arise.

Illustrations of the application of Remuneration Policy in 2018

The following charts show an illustration of the proportion of total remuneration made up of each component of the Remuneration Policy and the value of each component.

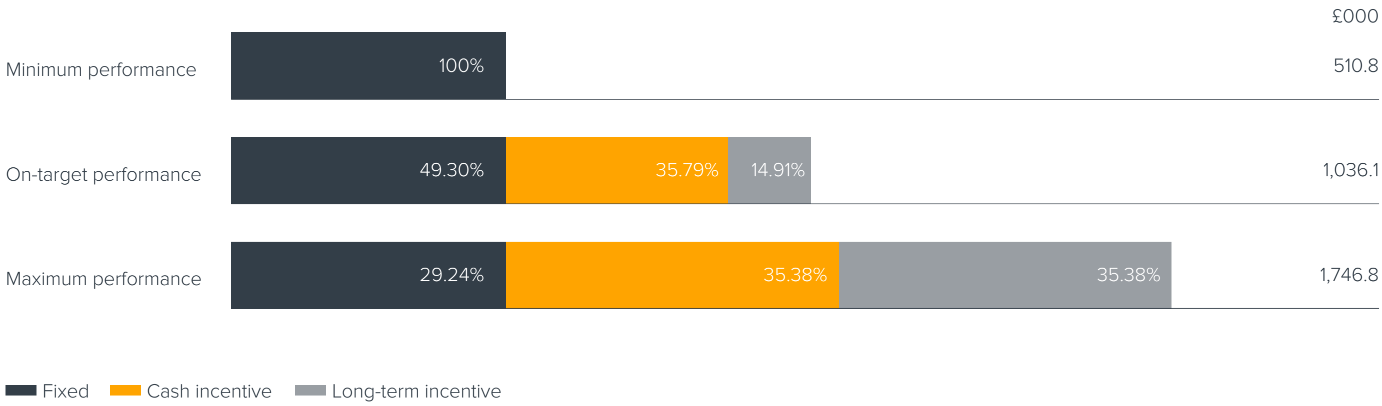
Three scenarios have been illustrated for each executive director:

Minimum performance
- Fixed remuneration (salary, benefits and retirement benefits)
- No payment under the Annual Cash Incentive
- No vesting under the Spirent Long-term Incentive Plan

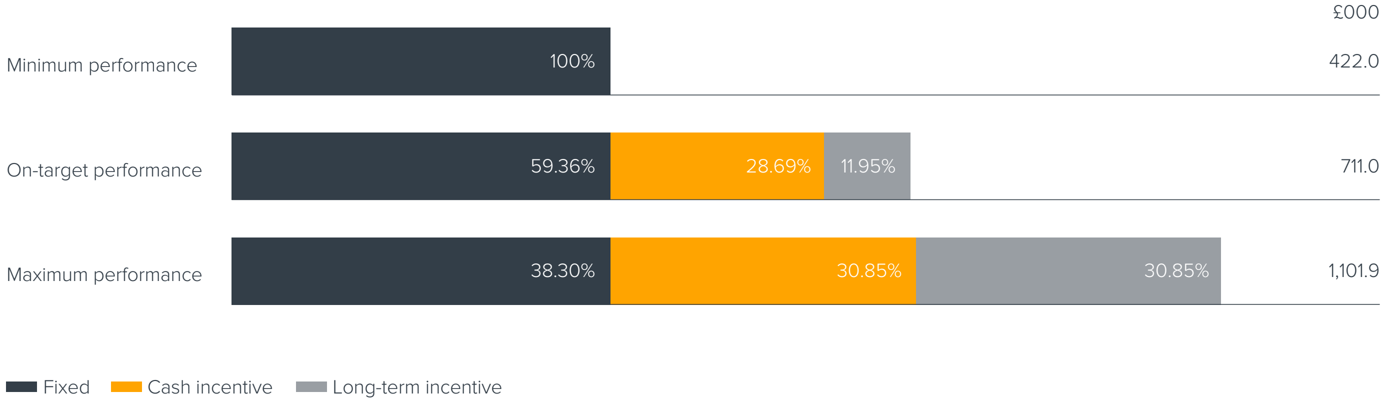
On-target performance
- Fixed remuneration (salary, benefits and retirement benefits)
- On-target payment under the Annual Cash Incentive (two-thirds of maximum)
- 25 per cent vesting under the Spirent Long-term Incentive Plan

Maximum performance
- Fixed remuneration (salary, benefits and retirement benefits)
- Maximum payment under the Annual Cash Incentive
- Full vesting under the Spirent Long-term Incentive Plan

Chief Executive Officer policy for 2018



Chief Financial Officer policy for 2018



Dilution

The Committee is strongly committed to managing shareholder dilution in a responsible manner. Details of the Company's dilution is set out in the Annual report on remuneration on page 83.

Committee discretion

The Committee has powers delegated by the Board under which it operates. In addition, it complies with rules which have either been approved by shareholders (the long-term incentive plans) or previously by the Committee (annual cash incentives). These rules provide the Committee with certain discretions which serve to ensure that the implementation of the Remuneration Policy is fair both to the individual director and to shareholders, taking overall performance and the position of the Company into account. The Committee also has discretions to set components of remuneration within a range from time to time. The extent of such discretions are set out in the relevant rules or in the maximum opportunity and performance metrics sections of the Policy Table.

The Committee may make adjustments to awards to reflect corporate events, such as a change in the Company's capital structure. The Committee may adjust the calibration of performance measures and vesting outcomes, or substitute or amend any vesting condition (eg due to a significant acquisition or disposal) provided that the resulting condition is appropriate.

The Committee may make minor amendments to the Remuneration Policy to aid its operation or implementation without seeking shareholder approvals (eg for regulatory, exchange control, tax or administrative purposes).

In addition, the Committee requires discretion to deal with genuinely exceptional or unforeseen circumstances. This form of discretion will only be applied in the best interests of the Company and when, in the view of the Committee, it would be disproportionate to seek specific approval from shareholders in general meeting. It is intended that this discretion be used only in the event of changed circumstances or strategy that has not been provided for in the Remuneration Policy.

The Remuneration Committee will not exercise discretion to reward failure and will report on any exercise of discretion that changes the amount of remuneration paid in any year.

The Remuneration Committee can confirm that no discretion was used either during the period or to the date of this Report and in particular that it does not envisage any cash payment being offered which could be construed as a "golden hello".

Signed on behalf of the Board

Gary Bullard
Chairman, Remuneration Committee
8 March 2018

This section contains additional information which the Directors are required by law and regulation to include within the Annual Report.

This section along with the information from the Board of directors and the Directors' statement on corporate governance on pages 56 to 65 (which are incorporated herein by reference) constitutes the Directors' Report for the purposes of the Companies Act 2006.

Future developments
The Company has chosen, in accordance with the Companies Act 2006 section 414C(II), to include the disclosure of likely future developments in the Strategic Report on pages 1 to 54.

Research and development
The Company has chosen, in accordance with the Companies Act 2006 section 414C(II), to include the disclosure of research and development in the Strategic Report on pages 1 to 54.

Greenhouse gas emissions and gender diversity
Information on environmental matters and disclosures relating to diversity, gender and human rights are contained in the Sustainability Report on pages 50 to 54.

Results and dividends
The consolidated income statement is on page 108. Profit for the financial year attributable to equity shareholders amounted to $29.0 million.

The directors recommend a final dividend of 2.40 cents per Ordinary share to be paid. In addition, the directors also recommend a special dividend of 5.00 cents per Ordinary share. Subject to approval by shareholders at the 2018 AGM, the final and special dividends will be paid, in aggregate, on 4 May 2018 to shareholders on the Register of Members at close of business on 16 March 2018.

These final and special dividends, together with the interim dividend paid in September 2017, will represent a total dividend of 9.08 cents per Ordinary share for the year ended 31 December 2017 (2016 3.89 cents).

Directors
The names of the persons who were directors of the Company during the period under review and as at 8 March 2018 appear on page 60. All current directors are standing for election or re-election at the 2018 AGM.

Appointment of directors
The Company's Articles of Association (the "Articles") give the directors power to appoint and replace directors. Under the terms of reference of the Nomination Committee, an appointment must be recommended by the Nomination Committee for approval by the Board. The Articles require directors to submit themselves for election at the first AGM following their appointment and all directors who held office at the time of the two preceding AGMs to submit themselves for re-election. The Articles notwithstanding, all directors will stand for election or re-election at the AGM this year in compliance with the UK Corporate Governance Code. Details of unexpired terms of directors' service contracts are set out in the Directors' report on remuneration on page 79.

Powers of directors
The directors are responsible for managing the business of the Company and may exercise all the powers of the Company subject to the provisions of relevant statutes, to any directions given by special resolution and to the Company's Articles. Powers relating to the issuing of shares are included in the Articles and such authorities are renewed by shareholders at the AGM each year.

Directors' share interests
Details regarding the share interests of directors and their connected persons in the share capital of the Company, including any interests under long-term incentive plans, are set out in the Directors' report on remuneration on page 80.

Employees
The average number of Group employees during 2017 was 1,505 worldwide (2016 1,599). The Group strives to maintain the following principles:

Equal opportunities
The Group is committed to offering equal opportunities in recruitment, training, career development and promotion to all people, including those with disabilities, having regard for their particular aptitudes and abilities. As a matter of policy, full and fair consideration is given to applicants with disabilities and every effort is made to give employees who become disabled whilst employed by the Group an opportunity for retraining and continuation in employment. It is Group policy that the training, career development and promotion of disabled persons should, as far as possible, be the same as that of other employees.

Health and safety

Health and safety are considered as equal in importance to that of any other function of the Group and its business objectives and the Group is committed to providing a safe and healthy workplace to protect all employees, visitors and the public from foreseeable work hazards.

Harassment

Sexual, mental or physical harassment in the workplace will not be tolerated. It is expected that incidents of harassment are reported to the appropriate Human Resources director.

Human rights

The Group provides opportunities that promote human rights and dignity every day through the employment created, both directly and indirectly in its global supply chains and through the positive contribution its products make to people's lives. Further details on the Group's approach to human rights can be found in the Sustainability section on pages 50 to 54.

Communication

Employees are briefed on all relevant matters on a regular basis to achieve a common awareness of all the financial and economic factors affecting the performance of the Group. Information relevant to employees will be provided to them.

Employees are provided with information on the performance of their business unit and their involvement is encouraged in a variety of ways, such as through engagement surveys, "town hall" meetings and management presentations.

The Group encourages an open culture in all its dealings between employees and people with whom it comes into contact. The Group's whistleblowing procedure sets out guidelines for individuals who feel they need to raise issues in confidence with the Company or their own business unit or through an independent third party. Every effort is made to protect the confidentiality of those who raise concerns and employees may come forward without fear for their position.

Change of control provisions

The Company does not have agreements with any director or employee that would provide compensation for loss of office or employment resulting from a takeover except that provisions of the Company's share incentive plans may cause outstanding unvested options and awards granted to employees under such plans to vest on a takeover as follows:

Share incentive plan	Change of control	Effect on vesting provisions in the rules	Performance condition
2005 Employee Incentive Plan	Yes	Pro-rated	Still applies
Spirent Long-term Incentive Plan	Yes	Pro-rated	Still applies

The Company is not aware of any significant agreements to which it is party that take effect, alter or terminate upon a change of control of the Company following a takeover.

Substantial shareholdings

In accordance with Listing Rule 9.8.6(2), the Company has been notified of the following significant interests in its Ordinary Shares pursuant to Disclosure Guidance and Transparency Rule 5:

The following notifications have been received during the period 1 January 2017 to 31 December 2017 or earlier as applicable:

	Date of notification	Total holding	% of Company's total voting rights
Ameriprise Financial, Inc	15 March 2017	92,804,839	15.17
Prudential plc	5 April 2017	61,809,617	10.10
AXA Investment Managers SA	18 October 2011	47,515,946	7.77
Standard Life Investments Ltd	27 January 2011	32,370,026	5.29
Neptune Investment Management Ltd	8 August 2017	31,634,171	5.17
PrimeStone Capital LLC	13 November 2015	31,215,569	5.10
Aberforth Partners	17 August 2017	31,012,618	5.07
Brandes Investment Partners LP	3 March 2016	30,537,440	4.99
Artemis Investment Management Ltd	6 November 2017	29,195,146	4.77
Schroders plc	9 October 2014	26,986,598	4.41
Sun Life Assurance Company of Canada (UK) Ltd	5 December 2008	23,382,347	3.82
Kames Capital	6 February 2012	18,507,514	3.03

The following notifications have been received during the period 1 January 2018 to 8 March 2018:

	Date of notification	Total holding	% of Company's total voting rights
Teleios Capital Partners LLC	15 January 2018	30,853,155	5.04

Share capital

The Company has a single class of share which is divided into Ordinary Shares of 3⅓ pence each. Each Ordinary Share carries one vote and all of the Ordinary Shares rank pari passu. There are no special control rights relating to any of the Ordinary Shares. At the date of this Report, 611.7 million Ordinary Shares of 3⅓ pence each had been issued which are fully paid up and are listed on the London Stock Exchange. The Company also operates a Level 1 American Depositary Receipt ("ADR") programme with each ADR representing four Ordinary Shares. The ADRs trade on the US over-the-counter market and BNY Mellon is the authorised depositary bank for the programme. Further details on share capital are set out in note 29 to the consolidated financial statements and note 15 to the parent Company financial statements. The rights, including those relating to voting, obligations and any restrictions on transfer relating to the Company's Ordinary Shares, as well as the powers of the Company's directors, are set out in the Company's Articles of Association, a copy of which can be found on our website at https://corporate.spirent.com/ or can be obtained from Companies House or by writing to the Company Secretary. The Company's Articles of Association may only be amended by a special resolution at a general meeting of shareholders. The most recent changes to the Articles of Association were approved at the 2010 AGM and became effective at the close of that meeting on 5 May 2010.

The Company has established two employee benefit trusts in connection with the operation of the Company's share incentive plans: the Spirent Employee Share Ownership Trust ("ESOT") and the Spirent Sharesave Trust ("SST"). The trustees of both trusts have waived their right to receive dividends on any Ordinary Shares held by them except for a nominal amount of 1 pence other than for those Ordinary Shares held in the ESOT which are the beneficial property of an employee/shareholder. For further details on the employee benefit trusts see "Investment in own Ordinary Shares" in note 29 to the consolidated financial statements and note 15 to the parent Company financial statements. Trustees of both trusts do not vote their Ordinary Shares, except for those Ordinary Shares held in the ESOT that are the beneficial property of an employee/shareholder, which the trustees will vote in accordance with the instructions received from the beneficial owner.

Restrictions on share transfers

There are no restrictions on the transfer of Ordinary Shares in the capital of the Company other than certain restrictions which may from time to time be imposed by law, for example insider trading law. In accordance with the Market Abuse Regulation, certain employees are required to seek the approval of the Company prior to dealing in its securities.

The Company is not aware of any agreements between shareholders that may result in restrictions on the transfer of securities or on voting rights. The Company is also not aware of any contract of significance between itself or any subsidiary undertaking and a controlling shareholder.

Powers for issue of new shares

During the year to 31 December 2017 and to the date of this Report, no new Ordinary Shares have been allotted as a result of the exercise of options and rights pursuant to the Company's share incentive plans.

At each AGM, the directors seek authority to allot shares for cash and to disapply pre-emption rights within prescribed limits. At the 2018 AGM, authority will be sought to allot new Ordinary Shares up to a nominal value of £6,797,132, which is equal to approximately 33.3 per cent of the Company's issued share capital as at 9 March 2018.

Return of capital

The Company was first authorised to repurchase up to 14.99 per cent of its own issued Ordinary Shares, within certain limits and as permitted by the Company's Articles of Association, at the 2006 AGM.

This authority has been renewed at each subsequent AGM, reducing to 9.99 per cent at the 2010 AGM and subsequent AGMs. The authority from the 2017 AGM remains valid until the earlier of the 2018 AGM or 30 June 2018. Since the Company began returning capital to shareholders in May 2006, a total of £270.2 million has been returned, through the repurchase of 397.6 million Ordinary Shares.

No shares were repurchased during 2017 or to the date of this Report.

The Company will seek authority to repurchase up to 9.99 per cent of its own Ordinary Shares at the 2018 AGM to facilitate any further return of capital if the Board concludes that it is in the best interests of shareholders to do so.

Political donations

In accordance with the Group's Ethics Policy, no political donations were made during the year (2016 nil).

Financial risk management

Details of the Group's use of financial instruments, together with information on our risk objectives and policies and our exposure to price, credit, liquidity, cash flow and interest rate risks, can be found in note 27 to the consolidated financial statements.

Going concern

After making appropriate enquiries and taking into account the matters set out in the Principal risks and uncertainties section on pages 28 to 31 of this Annual Report, the directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis when preparing the financial statements.

Viability statement

In accordance with provision C.2.2 of the 2016 Code, the directors have assessed the prospects of the Company over a period significantly longer than 12 months from the date of approval of the financial statements. The Board has concluded that the most appropriate period for this assessment should be three years.

This period was selected for the following reasons:

- the Group's strategic planning cycle covers a three-year period;
- the Board reviews a three-year financial corporate plan; and
- when considering a major investment in product development, three years is considered by the Board to be a reasonable time horizon in which the product should achieve meaningful sales.

The Board's assessment has been made with reference to the Company's current position and prospects, the Group's strategy, the Board's risk appetite and the Group's principal risks and uncertainties as set out on pages 28 to 31 of this Annual Report.

The plans and cash flow projections used as the basis for the assessment were the 2018 budget and the three-year strategic plan. They were drawn up on the basis that the Group maintains a cash balance sufficient to fund normal operations and that there will be no material changes to the business structure over the review period.

The Board has reviewed plausible and severe stress tests based on the occurrence of a mix of the principal risks to which the Company is exposed, considering the potential impact of these risks on the business model, future performance, solvency and liquidity over the period.

Based on this assessment and the expected successful impact of mitigating actions, the directors have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the three year period.

Post balance sheet events

No post balance sheet events are required to be disclosed in the consolidated financial statements.

Disclosure of information to Auditor

Each of the directors of the Company at the date of this Report confirms that:

- so far as the director is aware, there is no information needed by the Company's auditor in connection with preparing their Report of which the Company's auditor is unaware; and
- he (she) has taken all the steps that he (she) ought to have taken as a director in order to make himself (herself) aware of any information needed by the Company's auditor in connection with preparing their Report and to establish that the Company's auditor is aware of that information.

Independent Auditor

As described in more detail on page 73 of the Audit Committee report, the Board will be proposing a resolution to re-appoint EY as auditor at the 2018 AGM.

Annual General Meeting

The 2018 AGM will be held at 10.30am on Wednesday 2 May 2018 at the offices of FTI Consulting, 200 Aldersgate, Aldersgate Street, London EC1A 4HD.

By Order of the Board

Angus Iveson
Company Secretary
8 March 2018

Spirent Communications plc
Company number 470893

Directors' responsibilities statement

The directors are responsible for preparing the Annual Report, the Report on directors' remuneration, the consolidated financial statements of the Group and the financial statements of the parent Company.

Company law requires the directors to prepare financial statements for each financial year. Under that law they are required to prepare the consolidated financial statements of the Group in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) and have elected to prepare the parent Company financial statements in accordance with UK Generally Accepted Accounting Principles (including FRS 101) and applicable law.

The consolidated financial statements of the Group are required by law and IFRS to present fairly for each financial period the financial position and performance of the Group; the Companies Act 2006 provides, in relation to such financial statements, that references in the relevant part of that Act to financial statements giving a true and fair view are references to their achieving a fair presentation.

The parent Company financial statements are required by law to give a true and fair view of the state of affairs of the parent Company.

In preparing each of the consolidated financial statements of the Group and parent Company financial statements, the directors are required to:

- select suitable accounting policies and apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state for the audited consolidated financial statements of the Group whether they have been prepared in accordance with IFRS as adopted by the EU;
- state for the parent Company financial statements whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the parent Company financial statements; and
- prepare the financial statements on a going concern basis unless it is inappropriate to presume the Group and the parent Company will continue in operational business for the foreseeable future.

The directors confirm that they have complied with the above requirements in preparing the financial statements.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and that disclose with reasonable accuracy at any time the financial position of the Group and the parent Company and enable them to ensure that its financial statements comply with the Companies Act 2006 and, for the Group, Article 4 of the International Accounting Standards (IAS) Regulation. They have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the directors are also responsible for preparing a strategic report, a directors' report, a directors' remuneration report and a statement on corporate governance that comply with the law and those regulations. They are also responsible for the maintenance and integrity of the corporate and financial information included on the Company's website.

Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The directors consider that the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary to assess the Company's performance, business model and strategy.

This Annual Report complies with the Disclosure and Transparency Rules (DTR) of the Financial Conduct Authority in respect of the requirement to produce an annual financial report.

The Annual Report and consolidated financial statements are the responsibility of, and have been approved by, the directors.

Each of the directors confirms that, to the best of their knowledge:

- the consolidated financial statements of the Group and parent Company financial statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and the profit or loss of the Company and the undertakings included in the consolidation taken as a whole; and
- the Annual Report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

By Order of the Board

Paula Bell
Chief Financial Officer
8 March 2018

Independent auditor's report to the members of Spirent Communications plc

Opinion

In our opinion:

- Spirent Communications plc's Group financial statements and parent Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the parent Company's affairs as at 31 December 2017 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006, and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements of Spirent Communications plc which comprise:

Group	Parent Company
Consolidated balance sheet as at 31 December 2017	Balance sheet as at 31 December 2017
Consolidated income statement for the year then ended	Statement of changes in equity for the year then ended
Consolidated statement of comprehensive income for the year then ended	Related notes 1 to 17 to the financial statements including a summary of significant accounting policies
Consolidated cash flow statement for the year then ended	
Consolidated statement of changes in equity for the year then ended	
Related notes 1 to 34 to the financial statements, including a summary of significant accounting policies	

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is applicable law and United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the Group and Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Conclusions relating to principal risks, going concern and viability statement

We have nothing to report in respect of the following information in the Annual Report, in relation to which the ISAs(UK) require us to report to you whether we have anything material to add or draw attention to:

- the disclosures in the Annual Report set out on page 28 that describe the principal risks and explain how they are being managed or mitigated;
- the directors' confirmation set out on page 97 in the Annual Report that they have carried out a robust assessment of the principal risks facing the entity, including those that would threaten its business model, future performance, solvency or liquidity;
- the directors' statement set out on page 97 in the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and their identification of any material uncertainties to the entity's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- whether the directors' statement in relation to going concern required under the Listing Rules in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit; or
- the directors' explanation set out on page 97 in the Annual Report as to how they have assessed the prospects of the entity, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the entity will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

Overview of our audit approach

Key audit matters	• Inappropriate revenue recognition • Recoverability of deferred tax assets • Carrying value of goodwill and investments in subsidiary undertakings (parent Company only)
Audit scope	• We performed an audit of the complete financial information of three components and audit procedures on specific balances for a further five components. • The components where we performed full or specific audit procedures accounted for 90 per cent of profit before tax adjusted for non-recurring items, 93 per cent of revenue and 94 per cent of total assets.
Materiality	• Overall Group materiality of $2.5 million which represents 5 per cent of profit before tax adjusted for non-recurring items.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in our opinion thereon, and we do not provide a separate opinion on these matters.

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Inappropriate Revenue Recognition *Refer to the Audit Committee Report (page 68); Accounting policies (page 117); and Note 3 of the Consolidated Financial Statements (page 120).* The Group has reported revenue of $454.8 million (2016 $457.9 million). There is a risk of inappropriate revenue recognition of bundled contracts comprising of software, hardware and post contract support services which can require separate recognition. The complexity of accounting, as well as the potential pressure on management to meet certain targets, may result in inappropriate recognition of revenue and associated balances.	We performed full and specific scope audit procedures over this risk area in four locations, which covered 93 per cent of Group reported revenue. For revenue in each full and specific scope audit location: • We performed walkthroughs of each significant class of revenue transactions and assessed the design effectiveness of key controls. • We performed procedures to identify and audit large or unusual transactions, as well as a sample of regular transactions at each in scope location during the year. • For the transactions selected, we agreed the revenue recognised and associated balance sheet accounts to supporting evidence, focusing on the accounting for the service element of bundled products, where applicable. • We tested that customer acceptance clauses had been met and, where appropriate, revenue had been deferred at year end. • We evaluated the appropriateness of journal entries impacting revenue, as well as other adjustments made in the preparation of the financial statements. We also considered the adequacy of the Group's disclosures in respect of the accounting policies for revenue recognition in notes 2 and 3 respectively.	Based on the procedures performed, we did not identify any evidence of material misstatement in the revenue recognised in the year nor in amounts deferred at 31 December 2017.

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Recoverability of deferred tax assets *Refer to the Audit Committee Report (page 68); Accounting policies (page 119); and Note 24 of the Consolidated Financial Statements (page 139).* The Group has deferred tax assets of $23.2 million (2016 $33.1 million). There is a risk that inappropriate use of brought forward tax losses and volatility in forecast profit may result in incorrect recognition of deferred tax assets.	Procedures on the deferred tax assets were performed centrally by the Group team supported by overseas teams including specialists: • We performed walkthroughs of the tax process and assessed the design effectiveness of key controls. • We reviewed and challenged the future profit forecasts against current period profitability and historic performance and through consideration of the consistency of the projections with other forecasts made by management and approved by the Board. • We considered the appropriateness of the utilisation of unrecognised losses based on our assessment of the impact evolving tax legislation in the jurisdictions in which the Group operates. We also considered the adequacy of the Group's disclosure and offsetting of deferred tax balances in the Group financial statements.	We concluded that management's judgements in relation to the extent of recognition of deferred tax assets is appropriate.
Carrying value of goodwill (Group), and investments in subsidiary undertakings (Parent Company) *Refer to the Audit Committee Report (page 68); Accounting policies (page 118); and Note 14 of the Consolidated Financial Statements (page 132).* The Group has goodwill of $156.8 million (2016 $155.7 million) and investments in subsidiary undertakings of £351.8 million (2016 £338.7 million). Given the continuing uncertain economic environment there remains a risk that goodwill in the Group financial statements and investments in the Parent Company financial statements may be impaired including in the Connected Devices Cash Generating Unit (CGU) where a goodwill impairment charge of $61.4 million was recognised in 2016.	Procedures on the carrying value of goodwill and investments in subsidiary undertakings were performed centrally by the Group team supported by specialists where necessary: • We reviewed the appropriateness of management's methodology for identifying CGUs, the associated goodwill and the carrying value allocation to each CGU. • We assessed the methodology as compared to the requirements of IAS 36, Impairment of Assets, and the mathematical accuracy of management's model. • For the CGU with low headroom, we assessed the key information and assumptions used in determining the valuation including the discount rate, cash flow forecasts and the implicit growth, utilising our specialist support as necessary. We also conducted a sensitivity analysis to understand how much these projections would need to change by for there to be an impairment. We considered the appropriateness of the related disclosures provided in note 14 to the Group financial statements.	We concluded the methodology in testing for impairment is appropriate and the assumptions relating to the impairment models fell within acceptable ranges. We also concluded that management's disclosure is appropriate.

An overview of the scope of our audit

Tailoring the scope

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for each entity within the Group. Taken together, this enables us to form an opinion on the consolidated financial statements. We take into account size, risk profile, the organisation of the Group and effectiveness of group-wide controls, changes in the business environment and other factors such as recent internal audit results when assessing the level of work to be performed at each entity.

In assessing the risk of material misstatement to the Group financial statements, and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, of the reporting components of the Group, we selected components covering entities within the United Kingdom, North America and Asia, which represent the principal business units within the Group.

Of the eight components selected, we performed an audit of the complete financial information of three components ("full scope components") which were selected based on their size or risk characteristics. For the remaining five components ("specific scope components"), we performed audit procedures on specific accounts within that component that we considered had the potential for the greatest impact on the significant accounts in the financial statements either because of the size of these accounts or their risk profile.

	2017					2016			
Reporting Components	**Number**	**% of Group adjusted profit before tax***	**% of Group Revenue**	**% of Group Assets**	**See Note**	Number	% of Group adjusted profit before tax*	% of Group Revenue	% of Group Assets
Full Scope	**3**	**95%**	**84%**	**61%**	**1,2**	4	78%	51%	67%
Specific Scope	**5**	**(5%)**	**9%**	**33%**	**3, 4, 5**	4	22%	32%	22%
Full and Specific scope coverage	**8**	**90%**	**93%**	**94%**		8	100%	83%	89%
Remaining components	**20**	**10%**	**7%**	**6%**	**6**	20	0%	17%	11%
Total Reporting components	**28**	**100%**	**100%**	**100%**		28	100%	100%	100%

* Profit before tax adjusted for non-recurring items as defined in the 'Our application of materiality' section of this report

Note 1
The Group audit risk in relation to the carrying value of goodwill was subject to full scope audit procedures by the primary audit team on the entire balance.

Note 2
The Group audit risk in relation to the recoverability of deferred tax assets was subject to full scope audit procedures by the primary audit team on the entire balance.

Note 3
One of the five specific scope components relates to the corporate division of the parent Company which includes consolidation and elimination adjustments.

Note 4
The specific scope loss before tax adjusted for non-recurring items coverage of 5 per cent represents four specific scope components having a positive contribution of 20 per cent offset by the corporate component having a negative contribution of 25 per cent.

Note 5
The audit scope of these components may not have included testing of all significant accounts of the component but will have contributed to the coverage of the significant account tested for the Group.

Note 6
Of the remaining components that together represent 10 per cent of the Group's profit before tax adjusted for non-recurring items, none are individually greater than 6 per cent of the Group's profit before tax adjusted for non-recurring items. For these components, we performed other procedures, including analytical review procedures and specified procedures to respond to any potential risks of material misstatement to the Group financial statements.

Changes from the prior year

Changes from the prior year include increasing two components from specific scope to full scope due to their relative contribution to revenue and profit and combining two full scope components to reflect how management operates the business. We have also increased the number of specific scope locations due to our risk focused approach which considered relative sizes of certain accounts or other qualitative considerations.

Involvement with component teams

In establishing our overall approach to the Group audit, we determined the type of work that needed to be undertaken at each of the components by us, as the Group audit engagement team, or by component auditors from other EY global network firms operating under our instruction. Of the three full scope components, audit procedures were performed on one of these directly by the primary audit team and two by component audit teams. Of the five specific scope components, audit procedures were performed on two of these directly by the primary audit team and three by component audit teams. Where the work was performed by component auditors, we determined the appropriate level of involvement to enable us to determine that sufficient audit evidence had been obtained as a basis for our opinion on the Group as a whole.

At the start of the audit, a Global Team Planning event was held in the UK with representatives from all full and specific scope component audit teams in attendance. Detailed instructions were sent to all auditors in these locations. These instructions covered the significant areas that should be addressed by the component team auditors (which included the relative risks of material misstatement detailed above) and set out the information to be reported back to the Group audit team. In addition the Group audit team continued to follow a programme of planned visits that has been designed to ensure that the Senior Statutory Auditor visits certain material or high risk locations on a rotational basis. During the current year's audit cycle, visits were undertaken by the Group audit team to the component teams in North America and Asia. These visits involved meeting with our component team to discuss and direct their planned audit approach, holding meetings with local management and reviewing interim procedures performed to date on the Group risk areas.

The primary team interacted regularly with the component teams where appropriate during various stages of the audit, including attendance at all closing meetings by phone, review of key working papers and were responsible for the scope and direction of the audit process. This, together with the additional procedures performed at Group level, gave us appropriate evidence for our opinion on the Group financial statements.

Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

Materiality

The magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Group to be $2.5 million (2016 $1.5 million), which is 5 per cent (2016 5 per cent) of profit before tax adjusted for non-recurring items, of $50.7 million (2016 $30.5 million). We believe that profit before tax adjusted for non-recurring items provides us with a consistent year on year basis for determining materiality and is the most relevant performance measure to the stakeholders of the entity. Detailed audit procedures are performed on material non-recurring items.

We determined materiality for the Parent Company to be £2.8 million (2016 £2.8 million), which is 1 per cent (2016 1 per cent) of net assets. Parent Company materiality is higher than Group materiality as it is calculated on a different basis as it is primarily a head office company rather than the trading group.

Starting basis

- Profit before tax $46.6 million (2016 loss before tax $46.0 million)

Adjustments

Adjusted for non-recurring items:

- Exceptional costs of $6.7 million (2016 $4.8 million)
- Gain on divestments of $2.6 million (2016 $nil)
- Goodwill, intangible asset and investment in share of associate impairment of $nil (2016 $71.7 million)

Materiality

- Profit before tax adjusted for non-recurring items $50.7 million (basis for materiality) (2016 $30.5 million)
- Materiality of $2.5 million (2016 $1.5 million) (5 per cent of materiality basis)

Management make further adjustments to the profit before tax adjusted for non-recurring items (basis for materiality) to arrive at adjusted operating profit, the measure used by the directors to evaluate the overall performance of the Group. These adjustments include intangible asset amortisation of $6.3 million (2016 $12.9 million), share-based payment expense of $2.2 million (2016 $0.8 million), net interest income of $0.3 million (2016 $0.4 million expense) and share in loss of associate of $nil (2016 $1.9 million). Adjusting for these items gives adjusted operating profit of $58.9 million (2016 $46.5 million).

The $1.0 million increase in materiality is in proportion to the $20.2 million increase of profit before tax adjusted for non-recurring items (2017 $50.7 million, 2016 $30.5 million). That increase is a result of the $12.4 million increase in adjusted operating profit (2017 $58.9 million, 2016 $46.5 million), the $6.6 million reduction in intangible asset amortisation (2017 $6.3 million, 2016 $12.9 million), the $1.9 million reduction in share in loss of associate (2017 $nil, 2016 $1.9 million), partially offset by a $0.7 million increase in net finance income.

During the course of our audit, we reassessed initial materiality and the only change in final materiality was to reflect the actual increase in net finance income reported performance of the Group in the year.

Performance materiality

The application of materiality at the individual account or balance level. It is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

On the basis of our risk assessments, together with our assessment of the Group's overall control environment, our judgement was that performance materiality was 75 per cent (2016 75 per cent) of our planning materiality, namely $1.8 million (2016 $1.1 million). We have set performance materiality at this percentage to ensure that total detected and undetected audit differences do not exceed our planning materiality of $2.5 million (2016 $1.1 million) for the financial statements as a whole.

Audit work at component locations for the purpose of obtaining audit coverage over significant financial statement accounts is undertaken based on a percentage of total performance materiality. The performance materiality set for each component is based on the relative scale and risk of the component to the Group as a whole and our assessment of the risk of misstatement at that component. In the current year, the range of performance materiality allocated to components was $0.3 million to $1.1 million (2016 $0.2 million to $0.9 million).

Reporting threshold

An amount below which identified misstatements are considered as being clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of $0.12 million (2016 $0.08 million), which is set at 5 per cent of planning materiality, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds

We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

Other information

The other information comprises the information included in the Annual Report, including the strategic report (set out on pages 1 to 54), corporate governance and directors' report (set out on pages 94 to 97), and other information (set out on pages 170 to 172) other than the financial statements and our auditor's report thereon. The directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

In this context, we also have nothing to report in regard to our responsibility to specifically address the following items in the other information and to report as uncorrected material misstatements of the other information where we conclude that those items meet the following conditions:

- Fair, balanced and understandable set out on page 69 – the statement given by the directors that they consider the Annual Report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or
- Audit committee reporting set out on page 68 – the section describing the work of the audit committee does not appropriately address matters communicated by us to the audit committee or is materially inconsistent with our knowledge obtained in the audit; or
- Directors' statement of compliance with the UK Corporate Governance Code set out on page 58 – the parts of the directors' statement required under the Listing Rules relating to the company's compliance with the UK Corporate Governance Code containing provisions specified for review by the auditor in accordance with Listing Rule 9.8.10R(2) do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.

Opinions on other matters prescribed by the Companies Act 2006
In our opinion, the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception
In the light of the knowledge and understanding of the Group and the Parent Company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of directors
As explained more fully in the directors' responsibilities statement set out on page 98, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Group and Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements
Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud
The objectives of our audit, in respect to fraud, are; to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and to respond appropriately to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and management.

Our approach was as follows:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the Group and determined that the most significant frameworks which are directly relevant to specific assertions in the financial statements are those that relate to the reporting framework (IFRS, FRS 101, the Companies Act 2006 and the UK Corporate Governance Code) and the relevant tax compliance regulations in the jurisdictions in which the Group operates.
- We understood how Spirent Communications plc is complying with those legal and regulatory frameworks by making enquires of management, Internal Audit, those responsible for legal and compliance procedures and the Company Secretary. We corroborated our enquires through our review of Board minutes and papers provided to the Audit Committee.
- We assessed the susceptibility of the Group's financial statements to material misstatement, including how fraud might occur, by meeting with management from various parts of the business to understand where it considered there was susceptibility to fraud. We also considered performance targets and their propensity to influence efforts made by management to manage earnings. We considered the programmes and controls that the Group has established to address risks identified, or that otherwise prevent, deter and detect fraud; and how senior management monitors those programmes and controls.
- Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations identified in the paragraphs above. Our procedures involved: journal entry testing, with a focus on manual consolidation journals and journals indicating large or unusual transactions based on our understanding of the business; enquiries of Legal Counsel, Group management, Internal Audit, and component management. Where the risk was considered to be higher, we performed audit procedures to address the identified fraud risk as referred to in the key audit matters section above. In addition, we completed procedures to conclude on the compliance of the disclosures in the Annual Report and Accounts with the requirements of the relevant accounting standards, UK legislation and the UK Corporate Governance Code 2016.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at https://www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Other matters we are required to address
- We were appointed by the company on 3 August 2017 to audit the financial statements for the year ending 31 December 2017 and subsequent financial periods.
- Following the recommendation of the board we were appointed (as predecessor firm Lindsay, Jamieson & Haldane) by the Group at its annual general meeting on 9 May 1950 to audit the financial statements of the Group for the period ending 31 December 1949 and subsequent financial periods. Our total uninterrupted period of engagement is 68 years, covering periods from our appointment through to the period ending 31 December 2017.
- The non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the Parent Company and we remain independent of the Group and the Parent Company in conducting the audit.
- The audit opinion is consistent with the additional report to the Audit Committee.

Joe Yglesia
(Senior Statutory Auditor)
For and on behalf of Ernst & Young LLP, Statutory Auditor
Reading
8 March 2018

Notes
1. The maintenance and integrity of the Spirent Communications plc website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.
2. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Consolidated income statement
Year to 31 December 2017

	Notes	Year ended 31 December 2017 Adjusted $ million	Year ended 31 December 2017 Adjusting items[1] $ million	Year ended 31 December 2017 Reported $ million	Year ended 31 December 2016 Adjusted $ million	Year ended 31 December 2016 Adjusting items[1] $ million	Year ended 31 December 2016 Reported $ million
Revenue	3, 4	**454.8**	**–**	**454.8**	457.9	–	457.9
Cost of sales		**(129.8)**	**–**	**(129.8)**	(133.6)	–	(133.6)
Gross profit		**325.0**	**–**	**325.0**	324.3	–	324.3
Product development	4	**(103.0)**	**–**	**(103.0)**	(111.7)	–	(111.7)
Selling and marketing		**(116.8)**	**–**	**(116.8)**	(125.4)	–	(125.4)
Administration		**(46.3)**	**–**	**(46.3)**	(40.7)	–	(40.7)
Other items		**–**	**(15.2)**	**(15.2)**	–	(87.6)	(87.6)
Operating profit/(loss)		**58.9**	**(15.2)**	**43.7**	46.5	(87.6)	(41.1)
Other items charged in arriving at operating profit/(loss):							
Exceptional items	6	**–**	**(6.7)**	**(6.7)**	–	(4.8)	(4.8)
Acquired intangible asset amortisation		**–**	**(6.3)**	**(6.3)**	–	(12.9)	(12.9)
Goodwill and acquired intangible asset impairment	14	**–**	**–**	**–**	–	(69.1)	(69.1)
Share-based payment	31	**–**	**(2.2)**	**(2.2)**	–	(0.8)	(0.8)
Finance income	7	**0.6**	**–**	**0.6**	0.3	–	0.3
Finance costs	8	**(0.3)**	**–**	**(0.3)**	(0.7)	–	(0.7)
Share of loss of associate	16	**–**	**–**	**–**	(1.9)	(2.6)	(4.5)
Gain on divestment	33	**–**	**2.6**	**2.6**	–	–	–
Profit/(loss) before tax	4, 5	**59.2**	**(12.6)**	**46.6**	44.2	(90.2)	(46.0)
Tax	11	**(13.1)**	**(4.5)**	**(17.6)**	(11.9)	15.6	3.7
Profit/(loss) for the year attributable to owners of the parent Company		**46.1**	**(17.1)**	**29.0**	32.3	(74.6)	(42.3)
Earnings/(loss) per share (cents)	12						
Basic		**7.55**		**4.75**	5.29		(6.93)
Diluted		**7.48**		**4.71**	5.29		(6.93)

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

The notes on pages 113 to 149 and pages 166 and 167 form part of these financial statements.

Consolidated statement of comprehensive income
Year to 31 December 2017

	Notes	2017 $ million	2016 $ million
Profit/(loss) for the year attributable to owners of the parent Company		**29.0**	(42.3)
Other comprehensive income/(loss)			
Items reclassified to profit or loss:			
Reclassification of foreign exchange on overseas divestments	33	**(3.1)**	–
Items that may subsequently be reclassified to profit or loss:			
Exchange differences on retranslation of foreign operations		**4.1**	(2.9)
		1.0	(2.9)
Items that will not subsequently be reclassified to profit or loss:			
Re-measurement of the net defined benefit pension liability	10	**5.5**	(2.2)
Income tax effect of re-measurement of the net defined benefit pension liability	11	**(1.0)**	0.4
Re-measurement of the deferred compensation liability	10	**(0.9)**	–
Income tax effect of re-measurement of the deferred compensation liability	11	**0.2**	–
		3.8	(1.8)
Other comprehensive income/(loss)		**4.8**	(4.7)
Total comprehensive income/(loss) for the year attributable to owners of the parent Company		**33.8**	(47.0)

The notes on pages 113 to 149 and pages 166 and 167 form part of these financial statements.

Financial Statements
Consolidated balance sheet
At 31 December 2017

	Notes	2017 $ million	2016 $ million
Assets			
Non-current assets			
Intangible assets	14	**163.6**	169.8
Property, plant and equipment	15	**42.3**	47.3
Trade and other receivables	20	**4.1**	4.6
Investment in associate	16	**–**	–
Cash on deposit	21	**–**	0.1
Defined benefit pension plan surplus	10	**1.2**	0.9
Deferred tax asset	24	**23.2**	33.1
		234.4	255.8
Current assets			
Inventories	19	**23.6**	27.4
Trade and other receivables	20	**130.1**	128.9
Other financial assets	20	**0.1**	–
Current tax asset		**1.0**	0.4
Cash and cash equivalents	21	**128.4**	96.1
		283.2	252.8
Total assets		**517.6**	508.6
Liabilities			
Current liabilities			
Trade and other payables	22	**(131.9)**	(127.2)
Other financial liabilities	22	**–**	(0.1)
Current tax liability		**(1.4)**	(1.5)
Provisions	26	**(3.6)**	(4.2)
		(136.9)	(133.0)
Non-current liabilities			
Trade and other payables	25	**(20.1)**	(16.9)
Deferred tax liability	24	**(0.1)**	(0.1)
Defined benefit pension plan deficit	10	**(4.0)**	(14.4)
Provisions	26	**(3.2)**	(2.6)
		(27.4)	(34.0)
Total liabilities		**(164.3)**	(167.0)
Net assets		**353.3**	341.6
Capital and reserves	29		
Share capital		**27.5**	25.3
Share premium account		**27.3**	25.0
Capital redemption reserve		**17.8**	16.3
Other reserves		**13.4**	19.4
Translation reserve		**11.3**	10.3
Retained earnings		**256.0**	245.3
Total equity attributable to owners of the parent Company		**353.3**	341.6

The notes on pages 113 to 149 and pages 166 and 167 form part of these financial statements.

Signed on behalf of the Board

Paula Bell
Director
8 March 2018

Consolidated cash flow statement
Year to 31 December 2017

	Notes	2017 $ million	2016 $ million
Cash flows from operating activities			
Cash flow from operations	32	**77.7**	47.4
Tax paid		**(8.4)**	(4.7)
Net cash inflow from operating activities		**69.3**	42.7
Cash flows from investing activities			
Interest received		**0.6**	0.3
Purchase of intangible assets	14	**(0.4)**	(1.1)
Purchase of property, plant and equipment		**(14.9)**	(17.5)
Proceeds from the sale of property, plant and equipment		**1.8**	1.5
Net expenses of divestments	33	**(0.7)**	–
Loan to divested subsidiaries	33	**(2.0)**	–
Acquisition of subsidiaries and businesses net of cash acquired		**–**	(0.1)
Net cash used in investing activities		**(15.6)**	(16.9)
Cash flows from financing activities			
Dividend paid	13	**(24.6)**	(24.2)
Acquisition of non–controlling interest		**–**	(2.6)
Net cash used in financing activities		**(24.6)**	(26.8)
Net increase/(decrease) in cash and cash equivalents		**29.1**	(1.0)
Cash and cash equivalents at the beginning of the year		**96.1**	102.0
Effect of foreign exchange rate changes		**3.2**	(4.9)
Cash and cash equivalents at the end of the year	21	**128.4**	96.1

The notes on pages 113 to 149 and pages 166 and 167 form part of these financial statements.

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	Non-controlling interest	Total equity
At 1 January 2016		30.2	29.9	19.5	6.4	13.2	312.6	411.8	0.3	412.1
Loss for the year		–	–	–	–	–	(42.3)	(42.3)	–	(42.3)
Other comprehensive loss[1]		–	–	–	–	(2.9)	(1.8)	(4.7)	–	(4.7)
Total comprehensive loss		–	–	–	–	(2.9)	(44.1)	(47.0)	–	(47.0)
Share-based payment	31	–	–	–	–	–	0.8	0.8	–	0.8
Tax charge on share incentives	11	–	–	–	–	–	(0.1)	(0.1)	–	(0.1)
Acquisition of non-controlling interest		–	–	–	–	–	0.3	0.3	(0.3)	–
Equity dividends	13	–	–	–	–	–	(24.2)	(24.2)	–	(24.2)
Exchange adjustment		(4.9)	(4.9)	(3.2)	13.0	–	–	–	–	–
At 1 January 2017		**25.3**	**25.0**	**16.3**	**19.4**	**10.3**	**245.3**	**341.6**	**–**	**341.6**
Profit for the year		**–**	**–**	**–**	**–**	**–**	**29.0**	**29.0**	**–**	**29.0**
Other comprehensive income[2]		**–**	**–**	**–**	**–**	**1.0**	**3.8**	**4.8**	**–**	**4.8**
Total comprehensive income		**–**	**–**	**–**	**–**	**1.0**	**32.8**	**33.8**	**–**	**33.8**
Share-based payment	31	**–**	**–**	**–**	**–**	**–**	**2.2**	**2.2**	**–**	**2.2**
Tax credit on share incentives	11	**–**	**–**	**–**	**–**	**–**	**0.3**	**0.3**	**–**	**0.3**
Equity dividends	13	**–**	**–**	**–**	**–**	**–**	**(24.6)**	**(24.6)**	**–**	**(24.6)**
Exchange adjustment		**2.2**	**2.3**	**1.5**	**(6.0)**	**–**	**–**	**–**	**–**	**–**
At 31 December 2017		**27.5**	**27.3**	**17.8**	**13.4**	**11.3**	**256.0**	**353.3**	**–**	**353.3**

Notes
1. The amount included in other comprehensive loss for 2016 of $1.8 million represents re-measurement losses of the net defined pension liability of $2.2 million net of a tax credit of $0.4 million. The amount included in the translation reserve of $2.9 million represents other comprehensive loss related to the translation of foreign operations.
2. The amount included in other comprehensive income for 2017 of $3.8 million represents re-measurement gains of the net defined pension liability of $5.5 million net of a tax charge of $1.0 million and re-measurement losses of 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.

The notes on pages 113 to 149 and pages 166 and 167 form part of these financial statements.

Notes to the consolidated financial statements

1. CORPORATE INFORMATION

The Group's consolidated financial statements for the year ended 31 December 2017 were authorised for issue by the Board of directors on 8 March 2018. Spirent Communications plc is a public limited company incorporated and domiciled in England and Wales (registration number 00470893). The registered address of the Company is Northwood Park, Gatwick Road, Crawley, West Sussex, RH10 9XN, United Kingdom.

The Company's Ordinary Shares are traded on the London Stock Exchange.

As required by the European Union's (EU) IAS Regulation and the Companies Act 2006, the Group has prepared its consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and issued by the International Accounting Standards Board (IASB).

The Company has elected to prepare the Company financial statements in accordance with UK Accounting Standards. These are presented on pages 150 to 151 and the accounting policies in respect of the Company are set out on pages 152 to 156.

2. SIGNIFICANT ACCOUNTING POLICIES

Accounting convention

The consolidated financial statements are prepared on a historical cost basis apart from certain financial instruments that have been measured at fair value.

Going concern basis of accounting

At 31 December 2017 the Group had cash balances of $128.4 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 2019 and 2020 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.

New accounting standards

No applicable new standards, amendments to standards and interpretations effective from 1 January 2017 have been applied by the Group which have resulted in a significant impact on its consolidated results or financial position.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and its subsidiaries made up to 31 December each year. The financial statements of subsidiaries are prepared for the same reporting year as the parent Company, using consistent accounting policies. A full list of subsidiary undertakings is provided on pages 166 and 167.

Subsidiary undertakings are entities that are directly or indirectly controlled by the Group. The Group controls an entity when it is exposed, or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Results of subsidiaries are consolidated from the date on which control is transferred to the Group and cease to be consolidated from the date on which control is transferred out of the Group.

The separable net assets, including intangible assets of newly acquired subsidiaries, are incorporated into the consolidated financial statements based on their fair values at the effective date of control.

Associates are those entities in which the Group has significant influence, but not control, over the financial and operating policies. Significant influence is presumed to exist when the Group holds between 20 and 50 per cent of the voting power of another entity.

Associates are accounted for using the equity method and are initially recognised at cost. The Group's investment includes goodwill identified on acquisition, net of any accumulated impairment losses. The consolidated financial statements include the Group's share of the total comprehensive income from the date that significant influence commences until the date that significant influence ceases. When the Group's share of losses exceeds its interest in an equity accounted investee, the Group's carrying amount is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of an associate.

2. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Dividends received from associates reduce the carrying value of the associate. Investments in associates are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount.

All intra-Group transactions, balances, income and expenses are eliminated on consolidation.

Business combinations and goodwill

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Business combinations are accounted for using the acquisition method.

At acquisition date, the identifiable assets acquired and liabilities assumed, including intangible assets, are measured at their fair values. The cost of an acquisition is measured as the aggregate of the consideration transferred and the amount of any non-controlling interest in the acquiree. Non-controlling interests are measured at the proportionate share of the acquiree's identifiable net assets.

Contingent consideration resulting from business combinations is valued at fair value at the acquisition date as part of the business combination. When the contingent consideration meets the definition of a financial liability, it is subsequently re-measured to fair value at each reporting date, with changes in fair value recognised in profit or loss. The determination of fair value is based on discounted cash flows. The key assumptions take into consideration the probability of meeting each performance target and the discount rate.

Acquisition costs are expensed and included in administration costs.

Goodwill arising on the acquisition of subsidiaries, representing the excess of cost over the net fair value of the net assets acquired, is capitalised as an intangible asset. Goodwill is carried at cost less any accumulated impairment losses.

Goodwill is subject to an annual review for impairment. For the purpose of impairment testing, goodwill is allocated to the related cash-generating units monitored by management. Where the recoverable amount of the cash-generating unit is less than its carrying amount, including goodwill, an impairment loss is recognised in the income statement.

Intangible assets

Intangible assets are carried at cost less accumulated amortisation and accumulated impairment losses. Separately identifiable intangible assets such as patent fees, licence fees, trademarks and customer lists and relationships are capitalised on the balance sheet only when the value can be measured reliably, or the intangible asset is purchased as part of the acquisition of a business. Such intangible assets are amortised over their useful economic lives on a straight line basis. The carrying value of intangible assets is reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable.

Acquired intangible assets, being customer lists, current technology, database, brand names and a non-compete covenant, are amortised on a straight line basis over their estimated useful lives and the charge is included within other items in the income statement. Licences are amortised over their useful lives or term, and are expensed within cost of sales or selling costs.

The estimated useful lives of intangible assets and the amortisation expiry dates are as follows:

	Useful life	Expiry date
Customer lists	2 to 7 years	2020
Current technology	5 to 7 years	2021
Database	2.5 to 7 years	2016
Brand names	5 years	2020
Non–compete covenant	4 years	2016
Licences	3 to 5 years	2018

Product development

Research expenditure is recognised in the year in which it is incurred. Intangible assets arising on the Group's various product development projects are recognised only if the recognition criteria of IAS 38 'Intangible Assets' are met.

Product development costs are expensed as incurred until the technological feasibility of the product under development has been established. Technological feasibility in Spirent's circumstances occurs when a working model is completed. For software development, technological feasibility is not established until the process of developing the software is complete. After technological feasibility is established, additional costs are capitalised and amortised on a straight line basis over the estimated useful life.

At 31 December 2017 and 31 December 2016, no amounts have met the recognition criteria.

2. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment. Depreciation is not provided on freehold land. Depreciation is provided to write-off the cost, less estimated residual value, of all other assets over their estimated useful lives on a straight line basis at rates which take into account commercial conditions at their location. Usual asset lives are as follows:

Freehold buildings	50 years
Plant and machinery	3 to 8 years
Fixtures, fittings and equipment	
Building installations	20 years or lease period if lower
Fittings and equipment	3 to 8 years
Motor vehicles	3 to 5 years
Business systems software	4 years

The carrying values of property, plant and equipment are reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable.

Impairment of assets

Intangible assets with finite useful lives and property, plant and equipment are tested for impairment at each reporting date where there is an indication that an asset may be impaired. Goodwill and intangible assets with an indefinite useful life are assessed at least annually. When an impairment test is performed, the recoverable amount is assessed by reference to the higher of the net present value of the expected cash flows (value in use) of the relevant cash-generating unit or asset and the fair value less cost of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. Impairment losses are recognised in the income statement in those expense categories consistent with the function of the impaired asset.

Where an impairment loss has been recognised against an asset, it may be reversed in future periods where there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised, but only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, had no impairment loss been recognised in prior years. Such a reversal is recognised in the income statement. This does not apply for goodwill, for which an impairment loss must not be reversed in any circumstances.

Leases

Operating leases are leases where the lessor retains substantially all the risks and rewards of ownership of the asset and are not finance leases. Operating lease rentals are charged to the income statement on a straight line basis over the period of the lease.

Inventories

Inventories are stated at the lower of cost and estimated net realisable value, after provisions for obsolescence. Cost includes all costs incurred in bringing each product to its present location and condition, being the full manufacturing cost on a first-in, first-out basis, including all attributable overheads based on a normal level of activity.

Provisions

Provisions are recorded when the Group has a present, legal or constructive obligation as a result of a past event, for which it is probable that the Group will be required to settle by an outflow of resources and for which a reliable estimate of the amount of the obligation can be made. Provisions are reviewed at each balance sheet date and adjusted to reflect the current best estimate.

Where the effect of the time value of money is material, the amount of the provision shall be the present value of the expenditures expected to be required to settle the obligation.

Contingent liabilities

Contingent liabilities are possible obligations whose existence will be confirmed only on the occurrence or non-occurrence of uncertain future events outside the Group's control, or present obligations that are not recognised because it is not probable that a settlement will be required or the value of such a payment cannot be reliably measured. The Group does not recognise contingent liabilities but discloses them.

Foreign currencies

The consolidated financial statements are presented in US dollars, which is the Group's presentation currency.

Transactions in foreign currencies are initially recorded at the rates ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rates ruling at the balance sheet date. All exchange differences are taken to the consolidated income statement. Non-monetary assets and liabilities denominated in foreign currencies are measured in terms of historical costs using the exchange rate at the date of the initial transaction.

2. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

The functional currencies of the Group's operations are principally US dollar, sterling or euro. On consolidation, the assets and liabilities of the Group's foreign operations are translated into the Group's presentation currency at exchange rates ruling at the balance sheet date. The results of foreign operations are translated into US dollars using average rates for the period. The exchange differences arising on retranslation are classified as a separate component of equity, the translation reserve. Such translation differences are recognised as part of the profit or loss on disposal should an operation be disposed of. The Group has elected to apply the exemption in IFRS 1 'First Time Adoption of International Financial Reporting Standards' which allows the cumulative translation differences for all foreign operations to be deemed to be zero at the date of transition to IFRS, being 1 January 2003.

Financial instruments

Financial assets and liabilities are recognised on the Group's balance sheet when it becomes a party to the contractual provisions of the instrument.

Trade receivables

Trade receivables are non-interest bearing and are stated at original invoiced amount less an appropriate allowance for estimated irrecoverable amounts. Such allowances are based on an assessment of receivable ageing, past experience or known customer exposures.

Cash and cash equivalents

Cash and cash equivalents in the balance sheet comprise cash at bank and in hand and short-term deposits which usually have an original maturity of three months or less. For the purposes of the consolidated cash flow statement, cash and cash equivalents consist of cash and cash equivalents as defined above. There are no bank overdrafts.

Trade payables

Trade payables are non-interest bearing and are stated at the original invoiced amount.

Equity instruments

Equity instruments are recorded at the proceeds received, net of direct issue costs. Spirent Communications plc Ordinary Shares held by the Group are classified in equity as treasury shares and are recognised at cost and included as a deduction from retained earnings. Consideration received for the sale of such treasury shares is also recognised in equity.

Derivative financial instruments and hedge accounting

The Group uses forward foreign currency exchange contracts to manage exposures arising on receipts and payments in foreign currencies relating to firm commitments.

Forward foreign currency exchange contracts are initially recognised at fair value on the date on which the contract is entered into, and are subsequently re-measured to fair value at each reported balance sheet date. The fair value of forward foreign currency exchange contracts is calculated by reference to current forward exchange rates for contracts with similar maturity profiles. The Group has not adopted the hedge accounting rules. Consequently all gains and losses arising from changes in fair value are taken to the income statement.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contracts.

Retirement benefits

The Group operates two funded defined benefit pension plans which are in the United Kingdom, all other pension plans are defined contribution in nature. For the defined contribution plans, the amount charged to the income statement is the employers' contributions paid or payable during the year.

For defined benefit pension plans, full actuarial valuations are carried out every three years using the projected unit credit method, and updates are performed at each balance sheet date. Re-measurement, comprising actuarial gains and losses, the effect of changes to the asset ceiling (if relevant) and the return on plan assets (excluding interest), is reflected immediately in the balance sheet liability or asset with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income will not be reclassified to profit or loss. Past service cost is recognised in profit or loss in the period of plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit pension liability or asset, taking account of any changes in the net defined benefit pension liability during the period as a result of contribution and benefit payments. Defined benefit pension costs are categorised as:

- service cost (including current service cost, past service cost and gains and losses on curtailments or settlements);
- net interest expense or income; and
- re-measurement.

2. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

The Group presents the first two components of defined benefit pension costs in profit or loss.

Revenue recognition

Revenue is recognised when it is probable that economic benefits will flow to the Group, the revenue can be reliably measured and when the Group has transferred to the buyer the significant risks and rewards of ownership. In addition, revenue is only recognised when collectability is probable.

For the sale of services, revenue is recognised in accounting periods in which the service is rendered. Revenue from maintenance contracts is recognised over the period of performance on a straight line basis.

Revenue from product sales of hardware and software is recognised at the time of delivery and acceptance and when there are no significant vendor obligations remaining. It is not until acceptance has occurred that the risks and rewards of ownership are transferred to the buyer. Terms of acceptance are dependent upon the specific contractual arrangement agreed with the customer.

Revenue from sales or usage-based royalties is recognised as the subsequent sale or usage occurs.

Contractual arrangements are accounted for as two or more separate transactions only where the commercial substance is that the individual components operate independently of each other, because they are capable of being provided separately from one another and it is possible to attribute reliable fair values to every component. To the extent that a separate component comprises a product sale of hardware or software, revenue is recognised as described above. Revenue is recognised on other components as the Group fulfils its contractual obligations and to the extent that it has earned the right to consideration.

Government grants

A government grant is recognised in the balance sheet initially as deferred income when there is reasonable assurance that it will be received and that the Group will comply with the conditions attached to it. Grants that compensate the Group for expenses incurred are recognised as other operating income on a systematic basis in the same periods in which expenses are incurred. Grants that compensate the Group for the acquisition of an asset are presented by deducting them from the acquisition cost of the related asset in accordance with IAS 20 ‘Accounting for Government Grants and Disclosure of Government Assistance’.

Employee benefits

When an employee has rendered services to the Group during an accounting period, short-term benefits expected to be paid in exchange for those services are recognised in the same accounting period.

Share-based payment

The Group operates various equity-settled share-based compensation plans and accounts for these awards in accordance with IFRS 2 ‘Share-based Payment’.

The fair value of these awards is recognised in the income statement on a straight line basis over the vesting period together with a corresponding change in equity. The fair value is measured using the Hull-White trinomial model by reference to the share price, and taking into account the terms and conditions of the award, excluding non-market vesting conditions, at the date the awards were granted. The charge is reassessed at each balance sheet date to reflect the expected and actual levels of vesting, due to achievement or otherwise of non-market conditions. Awards where vesting is conditional upon satisfying a market condition or non-vesting condition are treated as vesting irrespective of whether the market or non-vesting condition has been satisfied.

The Group has an employee share trust for the granting of certain share incentives to employees. Shares in the Group held by the employee share trust are treated as treasury shares and presented in the balance sheet as a deduction from equity.

2. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Tax

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the income statement except to the extent that it relates to items in other comprehensive income or equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustments to tax payable for previous years.

Deferred tax is recognised on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements, with the following exceptions:

- where the temporary difference arises from the initial recognition of goodwill (taxable temporary differences only) or of an asset or liability in a transaction that is not a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss;
- in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

A deferred tax asset is recognised only to the extent that it is probable that taxable profits will be available against which the deductible temporary differences, carried forward tax credits or tax losses can be utilised.

Deferred tax assets and liabilities are measured on an undiscounted basis at the tax rates that are expected to apply when the related asset is realised or the liability is settled, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Dividends paid

The interim dividend is included in the financial statements in the period in which it is paid, and the final dividend and the special dividend are included in the period in which they are approved by the shareholders at an annual general meeting.

Adjusting items

Adjusting items are disclosed separately in the income statement where it is necessary to do so due to their nature or amount and to provide further understanding of the Group’s financial performance. Adjusting items comprises exceptional items, amortisation of acquired intangible assets, goodwill and acquired intangible asset impairment, share-based payment, impairment of associate, the tax effect of these items, revaluation of deferred tax assets due to US tax reform and prior year tax.

Certain items are classified as exceptional items due to their nature, amount or infrequency. Such presentation is relevant to an understanding of the Group’s financial statements. These items are not part of the Group’s normal ongoing operations.

Critical accounting assumptions and judgements

The preparation of financial statements requires the Group to make estimates and assumptions that affect items reported. Such estimates and assumptions are based on management’s best knowledge of current facts, circumstances and future events. Actual results may differ, possibly significantly, from those estimates. The areas requiring a high degree of judgement or where assumptions and estimates are significant to the consolidated financial statements are discussed below.

Estimates

Business combinations and goodwill

For the purpose of impairment tests, the goodwill arising from each business combination is allocated to cash-generating units (CGUs) that are expected to benefit from the combination and which represent the lowest level within the Group at which management monitors goodwill. There have been no changes to the CGUs in the year.

The Group tests annually by CGU whether goodwill has suffered impairment and more frequently when events or circumstances indicate that the current carrying value may not be recoverable. The recoverable amounts of CGUs have been determined based on value in use calculations which require estimates and assumptions to be made in relation to management’s expectations of growth in adjusted operating profit before depreciation and amortisation; long-term growth rates; and appropriate discount rates to reflect the risks involved.

Changing the assumptions selected by management, in particular the discount rate and growth rate assumptions used in the cash flow projections, could significantly affect the Group’s impairment evaluation and hence reported assets and profits and losses. Further details are included in note 14 to the consolidated financial statements.

2. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Defined benefit pension plans

The pension cost and the defined benefit pension obligation of the Group's defined benefit pension plans are based on a number of selected assumptions; these include the discount rate, inflation rate, salary growth and longevity. Differences arising from actual experience or future changes in assumptions will be reflected in future periods. The effect of changing these assumptions is described in note 10.

Recognition of deferred tax assets

The recognition of deferred tax assets is based upon whether it is more likely than not that there will be sufficient and suitable taxable profits in the relevant legal entity or tax group against which to utilise the assets in the future. The extent to which deferred tax assets can be recognised is based on current forecasts and estimates prepared by management. A change to these forecasts and estimates could result in a different recognition outcome. Judgement is required when determining probable future taxable profits, which are estimated using the latest available profit forecasts. Unrecognised deferred tax assets are disclosed in note 24.

Provisions and contingent liabilities

Provisions are estimates and the actual cost and timing of future cash flows are dependent on future events. The Group exercises judgement in recognising provisions and the exposures to contingent liabilities. Judgement is necessary to assess the likelihood that a liability will arise and to quantify the possible amount of any financial settlement. The inherent uncertainty of such matters means that actual amounts of transactions may differ materially from estimates provided. Any difference between the amounts previously recognised and the actual amount is recognised immediately in the consolidated income statement. Provisions and contingent liabilities are disclosed in notes 26 and 17, respectively.

Judgements

Revenue recognition

For revenue recognition purposes, contractual arrangements are accounted for as two or more separate transactions only where the commercial substance is that the individual components operate independently of each other, because they are capable of being provided separately from one another and it is possible to attribute reliable fair values to every component. Management exercises a degree of judgement in setting the criteria used for determining when revenue which involves several elements should be recognised and the fair values allocated to each element. The fair values determined and allocated to each element may impact the timing of revenue recognition and the determination of fair values can involve complex judgements. The Group generally determines the fair value of individual elements based on prices at which the deliverable is regularly sold on a standalone basis after considering customer discounts, where appropriate.

Applicable new standards and interpretations not applied

The IASB and IFRIC have issued the following standards and interpretations with an effective date for the Group after the date of these financial statements:

International Accounting Standards (IAS/IFRS)		Effective for annual periods beginning on or after
IFRS 2	Amendments to IFRS 2 – Classification and Measurement of Share-based Payment Transactions	1 January 2018
IFRS 9	Financial Instruments	1 January 2018
IFRS 15	Revenue from Contracts with Customers	1 January 2018
IFRS 16	Leases	1 January 2019
IFRIC 22	Foreign Currency Translations and Advanced Considerations	1 January 2018
IFRIC 23	Uncertainty over Income Tax Treatments	1 January 2019
Annual Improvements		
2014-2016 Cycle		1 January 2018
2015-2017 Cycle		1 January 2019

The directors do not anticipate that the adoption of these standards and interpretations 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. The Group has completed its impact assessment of IFRS 15 which is discussed below.

2. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

IFRS 15 Revenue from Contracts with Customers

IFRS 15 'Revenue from Contracts with Customers' was issued in May 2014 and is effective for accounting periods beginning on or after 1 January 2018. It establishes a new five-step model that will apply to revenue arising from contracts with customers. Under IFRS 15, the core principle is that revenue is recognised to depict the transfer of promised goods and services to customers in an amount that reflects the consideration to which the entity is entitled in exchange for those goods or services.

For the Group, transition to IFRS 15 took place on 1 January 2018. The Group has adopted the standard using the fully retrospective approach which means that the cumulative impact of the adoption will be recognised in retained earnings as of 1 January 2017 and comparatives will be restated.

The Group has completed its assessment of the impact of the standard on its financial statements and has identified the following area that will be affected:

Incremental costs incurred to obtain a contract

In 2017, the Group expensed costs in relation to commissions and agency fees incurred as they did not qualify for recognition as an asset under any of the other accounting standards. However, the costs would not have been incurred had the contract not been obtained and, by their nature, are expected to be recovered through the Group's performance of its contractual obligations. Certain of these costs will therefore be eligible for capitalisation under IFRS 15 and recognition as a contract asset with effect from 1 January 2018, and then amortised as the revenue is recognised on the goods and services to which the asset relates.

The Group will apply the practical expedient in paragraph 94 of IFRS 15 and continue to recognise such incremental costs as an expense when incurred if the amortisation period of the asset that the Group would otherwise have recognised is one year or less. The financial impact on the Group's financial statements is therefore limited and primarily applicable to maintenance, service and software subscription contracts that extend beyond 12 months.

Presentation of contract assets and contract liabilities in the balance sheet and related disclosures

IFRS 15 requires separate presentation of contract assets and contract liabilities in the balance sheet. This will result in some reclassifications as of 1 January 2017 in relation to advance payments and deferred revenue which are currently included in other balance sheet line items. Other presentation changes are limited to additional disclosure requirements under IFRS 15 only.

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.

IFRS 16 eliminates the classification of leases as either operating leases or finance leases as per IAS 17, and introduces a single lessee accounting model. Lease agreements will give rise to the recognition of an asset representing the right to use the leased item and a corresponding loan obligation for future lease payables. Lease costs will be recognised in the form of depreciation of the right to use asset and interest on the lease liability. Consequently, there will be a reduction in operating expenses and an increase in finance costs. The accounting for leases that are currently designated as finance leases will be largely unchanged under IFRS 16. The accounting for leases that are currently designated as operating leases will be fundamentally different to the current treatment of expensing the rental charges on a straight line basis. The Group's operating lease commitments are disclosed in note 28.

The Group continues to assess the impact of IFRS 16 on the financial statements, however, the changes are expected to have a material impact on the consolidated balance sheet. The Group is continuing to assess the impact on the consolidated income statement.

When IFRS 16 is adopted, the Group has the choice to apply it on a fully retrospective basis, restating comparative information, or to recognise the cumulative effect of application as an adjustment to opening equity on the date of adoption. The Group intends to adopt the fully retrospective approach.

3. REVENUE

	2017 $ million	2016 $ million
Sale of goods	**320.5**	322.7
Maintenance and support services	**133.1**	132.7
Royalty income	**1.2**	2.5
Total revenue	**454.8**	457.9

4. 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, goodwill and acquired intangible asset impairment and share-based payment. Finance income, finance costs and share of loss of associate 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.

						2017 $ million
	Notes	**Networks & Security**	**Lifecycle Service Assurance**	**Connected Devices**	**Corporate**	**Total**
Revenue						
External revenue		**261.0**	**109.2**	**84.6**	**–**	**454.8**
Inter-segment revenue is eliminated.						
Profit before tax						
Total reportable segment profit/(loss) before exceptional items		**43.9**	**17.9**	**5.2**	**(8.1)**	**58.9**
Exceptional items	6	**(3.9)**	**(0.1)**	**(1.4)**	**(1.3)**	**(6.7)**
Total reportable segment profit/(loss)		**40.0**	**17.8**	**3.8**	**(9.4)**	**52.2**
Unallocated amounts						
Acquired intangible asset amortisation						**(6.3)**
Share-based payment	31					**(2.2)**
Operating profit						**43.7**
Finance income						**0.6**
Finance costs						**(0.3)**
Gain on divestment	33					**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	15	**9.6**	**3.5**	**4.8**	**0.1**	**18.0**

2016 operating segment information has been restated for the following changes to the Group's operating segments which came into effect on 1 January 2017:

The operating segments were reorganised to focus certain product lines and to combine resources and planning efforts in other product lines. The following changes were made to the operating segments:

- The Networks & Applications operating segment was divided into five distinct lines of business; Cloud and IP, Application Security, Automation Platform Technologies, Mobility Infrastructure and Spirent Technologies.
- The Service Assurance Broadband line of business was split by product offering between the core Service Assurance business and Service Experience line of business.

From 1 January 2017, the new operating segments were as follows:

- Networks & Security comprising our Cloud and IP, Application Security and Positioning lines of business with the aim of addressing the needs of the lab test market for Ethernet, Virtual, Data Centre, applications test and timing for critical infrastructure.
- Lifecycle Service Assurance comprising our Mobility Infrastructure, Customer Experience Management, Service Assurance and Automation Platform Technologies lines of business. All businesses in this segment target wireless service providers' production networks aimed at reducing operating costs, increasing service quality and providing real-time analytics to trigger automatic tests and fixes to network degradation.
- Connected Devices comprising our Wireless and Service Experience lines of business together with Device Intelligence and Developer Tools. Device Intelligence and Developer Tools were divested by the Group on 30 June 2017. Further details are disclosed in note 33. The future opportunities for this segment are centred around 5G wireless development, performance and security of connected devices and the challenges to network providers coming from the Internet of Things.

4. OPERATING SEGMENTS CONTINUED

	Notes	Networks & Security[1]	Lifecycle Service Assurance[1]	Connected Devices[1]	Corporate	2016 $ million Total
Revenue						
External revenue		262.2	99.2	96.5	–	457.9

Inter-segment revenue is eliminated.

	Notes	Networks & Security[1]	Lifecycle Service Assurance[1]	Connected Devices[1]	Corporate	Total
Loss before tax						
Total reportable segment profit/(loss) before exceptional items		47.2	11.2	(4.4)	(7.5)	46.5
Exceptional items	6	(0.9)	(1.1)	(2.8)	–	(4.8)
Total reportable segment profit/(loss)		46.3	10.1	(7.2)	(7.5)	41.7
Unallocated amounts						
Acquired intangible asset amortisation						(12.9)
Goodwill and acquired intangible asset impairment	14					(69.1)
Share-based payment	31					(0.8)
Operating loss						(41.1)
Finance income						0.3
Finance costs						(0.7)
Share of loss of associate						(4.5)
Loss before tax						(46.0)
Other information						
Product development		53.0	31.7	27.0	–	111.7
Intangible asset amortisation – other		–	–	0.9	–	0.9
Depreciation	15	9.4	2.9	6.5	0.3	19.1

Note
1. Restated for changes to the Group's operating segments effective 1 January 2017 as set out above.

Geographical information

	2017 $ million	2016 $ million
Revenue by market		
Americas	**248.6**	254.1
Asia Pacific	**160.2**	149.3
Europe, Middle East and Africa	**46.0**	54.5
	454.8	457.9

Europe, Middle East and Africa includes United Kingdom revenue of $8.1 million (2016 $7.9 million).

Americas includes United States revenue of $237.8 million (2016 $244.4 million).

Asia Pacific includes China revenue of $88.3 million (2016 $81.0 million).

Revenues are attributed to countries based on customer location.

No one customer accounted for ten per cent or more of total Group revenue in either 2017 or 2016.

4. OPERATING SEGMENTS CONTINUED

	2017 $ million	2016 $ million
Non-current assets[1]		
Americas	**195.4**	206.9
Asia Pacific	**4.9**	4.4
Europe, Middle East and Africa	**5.6**	5.8
	205.9	217.1

Note
1. Non-current assets excludes trade and other receivables, cash on deposit, defined benefit pension plan surplus and deferred tax asset.

Europe, Middle East and Africa includes United Kingdom non-current assets of $2.9 million (2016 $2.4 million).

Americas includes United States non-current assets of $182.5 million (2016 $194.9 million).

5. PROFIT/(LOSS) BEFORE TAX

The following items have been charged or (credited) in arriving at profit/(loss) before tax:

	Notes	2017 $ million	2016 $ million
Employee benefit costs	9	**207.4**	216.3
Costs of inventories recognised as an expense		**78.4**	83.5
Write-down of inventories to net realisable value	19	**2.3**	0.5
Amortisation of intangible assets	14	**7.1**	13.8
Depreciation of property, plant and equipment – owned assets	15	**18.0**	19.1
Operating leases – minimum lease payments		**9.1**	9.2
Product development costs		**103.0**	111.7
Net foreign exchange loss/(gain)		**1.6**	(3.4)

Services provided to all of the operations of the Group by the auditor, Ernst & Young LLP, and its associates:

	2017 $ million	2016 $ million
Audit services		
Group audit fee	**0.9**	0.9
Other fees to auditors		
Tax advisory services	**–**	0.1
	0.9	1.0

A description of the work of the Audit Committee is set out in the Audit Committee report on pages 68 to 73 and includes an explanation of how auditor objectivity and independence is safeguarded when non-audit services are provided by the auditor.

6. EXCEPTIONAL ITEMS

	2017 $ million	2016 $ million
Portfolio review and sales organisation restructuring	**5.4**	4.8
Strategic review of Connected Devices	**1.3**	–
	6.7	4.8

6. EXCEPTIONAL ITEMS CONTINUED

In 2016, Spirent undertook a fundamental review of the lines of business in order to bring more focus to certain product lines and to combine resources and planning efforts in other product lines. This resulted in a change to the Group's reported operating segments. In addition, Spirent reviewed the sales organisation and compensation structure. The change in product line emphasis and organisational review resulted in exceptional restructuring costs. In 2017, the portfolio and sales organisation reviews were continued and concluded, which resulted in further headcount reductions, an onerous lease provision and other associated costs. The Group 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 $1.9 million (2016 $1.1 million). The total cash outflow in respect of exceptional items charged in 2017 is anticipated to be $6.8 million, with $3.4 million paid in the year (2016 $3.9 million with $1.4 million paid in the year). The cash outflow in 2017 in respect of exceptional items charged in 2016 was $2.5 million (2016 $7.0 million).

The total cash outflow in respect of exceptional items charged in 2017 will be reported within cash flows from operating activities in the consolidated cash flow statement.

7. FINANCE INCOME

	2017 $ million	2016 $ million
Bank interest receivable	**0.6**	0.3

8. FINANCE COSTS

	Note	**2017 $ million**	2016 $ million
Net defined benefit pension plan interest	10	**0.2**	0.7
Unwind of discount on provisions		**0.1**	–
		0.3	0.7

9. EMPLOYEES

The average number of people employed by the Group during the year was:

	2017 Number	2016 Number
Manufacturing	**330**	352
Product development	**531**	587
Selling and marketing	**447**	471
Administration	**197**	189
	1,505	1,599

Employee benefit costs were:

	Note	**2017 $ million**	2016 $ million
Remuneration		**184.4**	192.4
Social security costs		**14.3**	15.7
Pension and other related costs		**6.5**	7.4
Expense of share-based payment	31	**2.2**	0.8
		207.4	216.3

Please refer to the Report on Directors' Remuneration on pages 74 to 93 and note 34 for disclosures relating to the emoluments, share incentives and pensions of the directors.

10. PENSIONS

Defined benefit plans

i) Characteristics and risks associated with the Plans

The Group sponsors two funded defined benefit pension plans in the United Kingdom: the Spirent Communications plc Staff Pension & Life Assurance Plan ("Staff Plan") and the Spirent Communications plc Retirement Cash & Life Assurance Plan ("Cash Plan"). These plans are funded and have full UK HM Revenue & Customs ("HMRC") tax-exempt approval. Both schemes are administered by a trustee board which is comprised of representatives from the employer, member nominated trustees and an independent trustee. The trustee board operates in accordance with the Trust Deed and Rules of each Plan and acts in the interests of all of its members.

- The Staff Plan is the Group's most significant plan, and it provides its members with retirement benefits based on their final salary and length of service. The Staff Plan is closed to new entrants
- The Cash Plan is primarily a defined contribution arrangement, although there are some legacy defined benefits ("Old Section") that have been valued for the purpose of these accounts in accordance with IAS 19 'Employee Benefits'. Members who left service before 1992 are entitled to a cash lump sum on retirement that is based on their salary and length of service. Members of the Old Section are entitled to defined contribution benefits, but with an underpin based on salary and length of service. The Cash Plan is closed to new entrants.

There is also a UK unfunded plan, which consists of a contractual obligation for the Group to top up certain former employees' benefits whose salaries exceeded the statutory earnings cap.

As with the vast majority of similar arrangements in the United Kingdom, the Group ultimately underwrites the risks relating to the defined benefit plans. These risks include investment risks and demographic risks, such as the chance of members living longer than expected.

The plans hold a significant proportion of their assets in equity. Strong future equity returns would be expected to reduce the Group's future cash contributions (and vice versa).

Expected contributions to the defined benefit plans in 2018 are $7.1 million. This includes the contributions agreed with the funded plans' trustees in accordance with UK legislation. Following the triennial valuations as at 1 April 2015, the Group has agreed to pay $7.0 million (£5.0 million) per annum into the Staff Plan from 1 July 2016, over a seven year period, in order to clear the funding deficit as assessed by the trustees' independent actuary.

If the contributions currently agreed are insufficient to pay the benefits due, the Group will need to make further contributions.

ii) Amounts in the financial statements

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

	2017 $ million	2016 $ million
Assets		
UK defined benefit pension plan – Cash Plan	**1.2**	0.9
Liabilities		
UK defined benefit pension plan – Staff Plan	**(3.4)**	(13.7)
UK unfunded plan	**(0.6)**	(0.7)
	(4.0)	(14.4)
Net pension plan deficit on the balance sheet	**(2.8)**	(13.5)

10. PENSIONS CONTINUED

a) The assets and liabilities in each plan

	2017 $ million	2016 $ million
Staff Plan		
Quoted		
Equities	**65.7**	62.4
Government bonds	**5.8**	4.7
Corporate bonds	**5.3**	3.6
Unquoted		
LDI funds	**50.0**	33.3
Cash benchmarked bonds	**102.0**	91.4
Hedge funds	**26.7**	19.1
Insured annuities	**3.4**	3.5
Property	**1.5**	1.2
Cash and other	**10.9**	18.7
Fair value of plan assets	**271.3**	237.9
Present value of defined benefit pension plan obligations	**(274.7)**	(251.6)
Deficit in the plan	**(3.4)**	(13.7)
Cash Plan		
Quoted		
Equities	**4.6**	4.1
Government bonds	**4.3**	3.7
Unquoted		
Insured annuities	**0.1**	0.1
Cash and other	**2.3**	2.3
Fair value of plan assets	**11.3**	10.2
Present value of defined benefit pension plan obligations	**(10.1)**	(9.3)
Surplus in the plan	**1.2**	0.9
Total net deficit recognised	**(2.2)**	(12.8)
Unfunded plan		
Present value of unfunded obligations	**(0.6)**	(0.7)
Net pension plan deficit on the balance sheet	**(2.8)**	(13.5)

Approximately two thirds of the Staff Plan's assets are held in a combination of LDI funds, cash benchmarked bonds and hedge funds. The objective of this allocation is to hedge against the plan's liabilities, provide protection against inflation risk and to provide a level of investment returns in all market scenarios.

These funds have a wide investment remit and as such the investments of the funds may or may not be listed on recognised exchanges and markets and will be without restriction as to geographical, industrial or sectoral exposure. These funds may take both long and short positions and may utilise a broad range of derivatives. The funds' investments may include sub-investment grade securities, corporate debt securities, gilts, sale and repurchase agreements, loans, and emerging markets debt and currencies.

The plans are prohibited from investing in Spirent's own financial instruments.

The fair values of the quoted equity and debt instruments are determined based on quoted market prices in active markets whereas the fair values of the other assets are not.

The Group has determined that it has an unconditional right to refund of surplus assets if the schemes are run off until the last member dies, on which basis IFRIC 14 does not cause any change in the balance sheet disclosures before tax.

For the purposes of the following disclosures the Staff Plan and Cash Plan have been combined as the Cash Plan is immaterial to these financial statements.

10. PENSIONS CONTINUED

b) Analysis of the amounts charged to the income statement

	2017 $ million	2016 $ million
Plan administration expenses	0.4	0.7
Current service cost	0.1	0.1
Amount charged to operating costs	0.5	0.8
Net interest on the net defined benefit pension liability	0.2	0.7
Net charge to the income statement	0.7	1.5

c) Analysis of amount recognised directly in the statement of comprehensive income

	2017 $ million	2016 $ million
Re-measurement gain on plans' assets	10.5	32.0
Actuarial (loss)/gain arising from experience	(0.8)	4.3
Actuarial gain arising from the demographic assumptions	5.5	8.0
Actuarial loss arising from changes in financial assumptions	(9.7)	(46.5)
Re-measurement of the net defined benefit pension liability	5.5	(2.2)

d) Movements in the present value of funded defined benefit obligations

	2017 $ million	2016 $ million
At 1 January	260.9	275.6
Current service cost	0.1	0.1
Interest cost	7.3	9.5
Benefit payments	(11.7)	(10.9)
Actuarial loss/(gain) arising from experience	0.8	(4.3)
Actuarial gain arising from the demographic assumptions	(5.5)	(8.0)
Actuarial loss arising from changes in financial assumptions	9.7	46.5
Exchange adjustment	23.2	(47.6)
Present value of funded defined benefit pension plans' obligations	284.8	260.9

e) Movements in the fair value of plans' assets

	2017 $ million	2016 $ million
At 1 January	248.1	256.5
Interest income on plans' assets	7.1	8.8
Employer contributions	6.6	7.0
Benefit payments	(11.7)	(10.9)
Plan administration expenses	(0.4)	(0.7)
Re-measurement gain on plans' assets	10.5	32.0
Exchange adjustment	22.4	(44.6)
Fair value of plans' assets	282.6	248.1

10. PENSIONS CONTINUED

f) The key financial assumptions

The assumptions used for both plans using a weighted average were as follows:

	2017 %	2016 %
Inflation – RPI	**3.1**	3.2
Inflation – CPI	**2.0**	2.1
Rate of increase in pensionable salaries	**2.0**	2.1
Rate of increase for pensions in payment pre 2001 service	**3.6**	3.7
Rate of increase for pensions in payment 2001 to 5 April 2005 service	**3.0**	3.1
Rate of increase for pensions post 5 April 2005 service	**2.1**	2.1
Rate of increase in deferred pensions	**2.0**	2.1
Rate used to discount plan liabilities	**2.5**	2.8

The mortality assumptions are based on standard mortality tables which allow for future mortality improvements. The assumptions are such that a member currently aged 65 (2016 aged 65) will live on average for a further 22.7 years (2016 23.1 years) if they are male and for a further 24.6 years (2016 25.2 years) if they are female. For a member who retires in 2037 (2016 in 2036) at age 65 (2016 age 65), the assumptions are that they will live on average for a further 24.1 years (2016 24.8 years) after retirement if they are male and for a further 26.1 years (2016 27.1 years) after retirement if they are female.

iii) Amount, timing and uncertainty of future cash flows

The approximate impact to the past service liabilities of changing these main assumptions is as follows:

- Reducing the discount rate by 0.1 per cent per annum would increase past service liabilities by $4.2 million (2016 $3.8 million).
- Increasing RPI inflation by 0.1 per cent would increase the plans' liabilities by $1.5 million (2016 $1.5 million).
- Increasing the life expectancy of a member by one year (by modifying the standard mortality tables using an appropriate scaling factor) would increase past service liabilities by $13.9 million (2016 $11.7 million).

There will also be an impact on the future service cost but given the small active population in these plans this is likely to be insignificant. The sensitivity analysis may not be representative of the actual change as the changes in assumptions may not occur in isolation.

The weighted average duration of the defined benefit obligation is 15 years (2016 15 years).

Deferred compensation plan

The Group operates a deferred compensation plan for employees in the United States. The plan enables participating employees to defer a portion of their salary and invest it in deemed investments, that are used to measure the gains or losses that are attributed to the deferral account over time. 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 2017, the deferred compensation plan deficit amounted to $3.7 million (2016 $2.3 million) and is included within non-current trade and other payables (note 25). During the year, $0.3 million was charged to the income statement (2016 $0.1 million) and a re-measurement loss of $0.9 million (2016 nil) was recognised directly in the statement of other comprehensive income. The key financial assumptions include a discount rate used to discount plan liabilities of 3.4% and an expected investment yield of 7.5%. In the prior year, no net investment yield growth was assumed for the plan. There is no material impact of changing each of the key assumptions by 0.1 per cent, in isolation.

Defined contribution plans

United Kingdom

The Group contributes towards defined contribution pension plans for employees in the United Kingdom. Employer contributions into these plans for 2017 were $0.8 million (2016 $0.8 million).

United States

The Group maintains a defined contribution pension plan for employees of its United States subsidiaries. This plan, also known as a 401(k) Plan, allows employees to defer a percentage of their salary for retirement. The investment choices offered by the plan are a selection of diversified mutual funds offering a broad mix of investment return potential with varying levels of risk. In aggregate, the Group's contributions to the US plan totalled $4.0 million for 2017 (2016 $4.1 million). There were no defined benefit plans in the United States in 2017 or 2016.

Other jurisdictions

Outside the United Kingdom and the United States, employees are provided with pension arrangements determined in accordance with approved local practice and regulations. These arrangements are defined contribution plans. Total employer contributions for 2017 in respect of these plans amounted to $1.1 million (2016 $1.1 million).

Total employer contributions to defined contribution plans were $5.9 million (2016 $6.0 million).

10. PENSIONS CONTINUED

Directors' pension arrangements

The pension arrangements of the executive directors are described in detail in the Report on Directors' Remuneration on pages 74 to 93.

11. TAX

	2017 $ million	2016 $ million
Tax charge/(credit) in the income statement		
Current income tax		
UK tax	**0.1**	0.1
Foreign tax	**7.4**	5.3
Amounts underprovided/(overprovided) in previous years	**0.1**	(0.2)
Total current income tax charge	**7.6**	5.2
Deferred tax		
Recognition of deferred tax assets – US Research and Experimental tax credit	**(1.5)**	(3.0)
Recognition of deferred tax assets – other	**(0.8)**	(0.2)
Write-off of previously recognised tax assets including rate changes	**8.0**	0.1
Reversal of temporary differences	**3.0**	(5.0)
Adjustments in respect of prior years	**1.3**	(0.8)
Total deferred tax charge/(credit)	**10.0**	(8.9)
Tax charge/(credit) in the income statement	**17.6**	(3.7)

The tax charge for the year ended 31 December 2017 was $17.6 million (2016 $3.7 million credit). This was after a prior year tax charge of $1.4 million and a tax charge on the adjusting items of $3.1 million (2016 prior year credit of $1.0 million and tax credit on adjusting items of $14.6 million). Excluding the prior year and tax charge on adjusting items, the effective tax rate was 22.1 per cent (2016 26.9 per cent).

Tax relating to items charged/(credited) to other comprehensive income or equity:

	2017 $ million	2016 $ million
Tax (credit)/charge on share incentives	**(0.3)**	0.1
Deferred tax charge/(credit) on defined benefit pension plan	**1.0**	(0.4)
Deferred tax credit on deferred compensation plan	**(0.2)**	–

Reconciliation of the total tax charge/(credit)

The tax charge in the income statement for the year is lower than the standard rate of corporation tax in the UK of 19.25 per cent (2016 20.0 per cent). The differences are reconciled below:

	Year ended 31 December 2017		
	Adjusted $ million	Adjusting $ million	Reported $ million
Accounting profit/(loss) before tax	**59.2**	**(12.6)**	**46.6**
Accounting profit/(loss) multiplied by the UK standard rate of corporation tax of 19.25 per cent	**11.4**	**(2.4)**	**9.0**
Differences in overseas rates	**5.5**	**(1.6)**	**3.9**
US tax rate change	**–**	**7.9**	**7.9**
Non-taxable income	**(1.0)**	**(0.3)**	**(1.3)**
Recognition of deferred tax assets	**(0.3)**	**(0.5)**	**(0.8)**
Current year losses upon which no deferred tax recognised	**0.2**	**–**	**0.2**
Utilisation of tax assets not previously recognised	**(0.6)**	**–**	**(0.6)**
UK & US Research and Experimental tax credit	**(2.5)**	**–**	**(2.5)**
Withholding tax	**0.8**	**–**	**0.8**
Permanent differences	**(0.4)**	**–**	**(0.4)**
Tax underprovided in prior years	**–**	**1.4**	**1.4**
Total tax charge reported in the income statement	**13.1**	**4.5**	**17.6**

11. TAX CONTINUED

	Year ended 31 December 2016		
	Adjusted $ million	Adjusting $ million	Reported $ million
Accounting profit/(loss) before tax	44.2	(90.2)	(46.0)
Accounting profit multiplied by the UK standard rate of corporation tax of 20.0 per cent (2015 20.25 per cent)	8.8	(18.0)	(9.2)
Differences in overseas rates	4.8	(6.4)	(1.6)
Non-taxable income	(1.5)	–	(1.5)
Recognition of deferred tax assets	(0.2)	–	(0.2)
Write-off of previously recognised tax assets including rate changes	0.1	–	0.1
Current year losses upon which no deferred tax recognised	0.9	–	0.9
UK & US Research and Experimental tax credit	(3.2)	–	(3.2)
Withholding tax	1.3	–	1.3
Permanent differences	0.9	9.8	10.7
Tax overprovided in prior years	–	(1.0)	(1.0)
Total tax charge/(credit) reported in the income statement	11.9	(15.6)	(3.7)

Included in the above reconciliation are the following items: US tax rate change of $7.9 million which relates to the re-measurement of the Group's US deferred tax assets due to the decrease in the tax rate from 35 per cent to 21 per cent; non-taxable income of $1.3 million which relates to offshore income in the rest of the world of $0.9 million and non-taxable gains on disposals in the United Kingdom of $0.4 million; permanent differences of $0.4 million largely relate to the UK patent box deduction; tax underprovided in prior years of $1.4 million which relates to corrections to US deferred tax assets of $0.7 million and the France tax assessment received for prior years of $0.7 million.

The Group's tax rate is sensitive to the geographic mix of products and reflects a combination of higher tax in certain jurisdictions, such as the United States, with a statutory rate of 35 per cent and other regions' significantly lower tax rates, such as the United Kingdom at 19.25 per cent, China at 15 per cent and other rates that fall in between. Research and Experimental credits of $2.5 million (2016 $3.2 million) bring down the rate but items such as state taxes and withholding tax increase the tax rate.

12. EARNINGS PER SHARE

Basic

Earnings per share is calculated by dividing the profit/(loss) 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/(loss) 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.

	2017 $ million	2016 $ million
Profit/(loss) for the year attributable to owners of the parent Company	**29.0**	(42.3)
	Number million	Number million
Weighted average number of Ordinary Shares in issue – basic	**610.6**	610.6
Dilutive potential of employee share incentives[1]	**5.5**	–
Weighted average number of Ordinary Shares in issue – diluted	**616.1**	610.6

Note
1. The effect of dilutive employee share incentives was anti-dilutive in 2016 and was therefore ignored in calculating diluted EPS. The dilutive potential of employee share incentives was 2.4 million in 2016.

	Cents	Cents
Earnings/(loss) per share		
Basic	**4.75**	(6.93)
Diluted	**4.71**	(6.93)

12. EARNINGS PER SHARE CONTINUED

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

A reconciliation is provided below:

		2017		2016	
	Notes	$ million	EPS cents	$ million	EPS cents
Profit/(loss) for the year attributable to owners of the parent Company		**29.0**	**4.75**	(42.3)	(6.93)
Exceptional items	6	**6.7**		4.8	
Acquired intangible asset amortisation		**6.3**		12.9	
Goodwill and acquired intangible asset impairment	14	**–**		69.1	
Share-based payment	31	**2.2**		0.8	
Impairment of investment in associate	16	**–**		2.6	
Gain on divestment	33	**(2.6)**		–	
Tax effect on the above items	11	**(4.8)**		(14.6)	
Revaluation of deferred tax assets due to US tax reform	11	**7.9**		–	
Prior year tax charge/(credit)	11	**1.4**		(1.0)	
Adjusted basic		**46.1**	**7.55**	32.3	5.29
Adjusted diluted			**7.48**		5.29

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.

13. DIVIDENDS PAID AND PROPOSED

	2017 $ million	2016 $ million
Declared and paid in the year		
Equity dividend on Ordinary Shares		
Final dividend 2016 of 2.21 cents (1.80 pence) per Ordinary Share (2015 2.21 cents (1.59 pence))	**14.2**	14.1
Interim dividend 2017 of 1.68 cents (1.27 pence) per Ordinary Share (2016 1.68 cents (1.27 pence))	**10.4**	10.1
	24.6	24.2
Proposed for approval at AGM (not recognised as a liability at 31 December)		
Equity dividend on Ordinary Shares		
Final dividend 2017 of 2.40 cents (1.73 pence) per Ordinary Share (2016 2.21 cents (1.80 pence))	**14.7**	13.5
Special dividend 2017 of 5.00 cents (3.60 pence) per Ordinary Share	**30.5**	–
	45.2	13.5

The directors are proposing a final dividend in respect of the financial year ended 31 December 2017 of 2.40 cents per Ordinary Share (1.73 pence) (2016 2.21 cents (1.80 pence)), which will absorb an estimated $14.7 million of shareholders' funds (2016 $13.5 million). The directors are also proposing a special dividend of 5.00 cents per Ordinary Share (3.60 pence), which will absorb an estimated $30.5 million of shareholders' funds. The final dividend and special dividend will be paid on 4 May 2018 to Ordinary shareholders who are on the Register of Members at close of business on 16 March 2018. Payment will be made to ADR holders on 11 May 2018. 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 and special dividends to be paid for 2017 was $1.39: £1 (2016 $1.23: £1).

14. INTANGIBLE ASSETS

	Goodwill	Customer list	Current technology	Brand names	Other	Licences	Total
							$ million
Cost, net of accumulated amortisation and impairment losses							
At 1 January 2016	216.9	8.8	20.0	1.2	2.7	2.0	251.6
Additions	–	–	–	–	–	1.1	1.1
Adjustments	(0.2)	–	–	–	–	–	(0.2)
Impairment	(61.4)	(0.9)	(4.7)	(0.2)	(1.9)	–	(69.1)
Amortisation for the year	–	(3.9)	(7.7)	(0.5)	(0.8)	(0.9)	(13.8)
Exchange adjustment	0.4	–	(0.2)	–	–	–	0.2
At 1 January 2017	**155.7**	**4.0**	**7.4**	**0.5**	**–**	**2.2**	**169.8**
Additions	**–**	**–**	**–**	**–**	**–**	**0.4**	**0.4**
Disposals	**–**	**(0.1)**	**(0.3)**	**–**	**–**	**–**	**(0.4)**
Amortisation for the year	**–**	**(1.8)**	**(4.2)**	**(0.3)**	**–**	**(0.8)**	**(7.1)**
Exchange adjustment	**1.1**	**–**	**–**	**–**	**–**	**(0.2)**	**0.9**
At 31 December 2017	**156.8**	**2.1**	**2.9**	**0.2**	**–**	**1.6**	**163.6**
At 31 December 2016							
Cost (gross carrying amount)	621.9	21.1	43.9	2.7	7.1	11.8	708.5
Amortisation and accumulated impairment losses	(466.2)	(17.1)	(36.5)	(2.2)	(7.1)	(9.6)	(538.7)
Net carrying amount	155.7	4.0	7.4	0.5	–	2.2	169.8
At 31 December 2017							
Cost (gross carrying amount)	**595.4**	**16.9**	**36.2**	**2.3**	**3.6**	**12.1**	**666.5**
Amortisation and accumulated impairment losses	**(438.6)**	**(14.8)**	**(33.3)**	**(2.1)**	**(3.6)**	**(10.5)**	**(502.9)**
Net carrying amount	**156.8**	**2.1**	**2.9**	**0.2**	**–**	**1.6**	**163.6**

Goodwill is allocated at acquisition to the cash generating units (CGUs) that are expected to benefit from that business combination.

The Group identifies CGUs at the lowest level at which cash flows are largely independent of other cash flows.

Goodwill has been allocated to three CGUs as follows:

	2017 $ million	2016 $ million
Networks & Security, an operating segment from 1 January 2017	**73.1**	72.0
Lifecycle Service Assurance, an operating segment from 1 January 2017	**37.6**	37.6
Connected Devices, an operating segment from 1 January 2017	**46.1**	46.1
	156.8	155.7

14. INTANGIBLE ASSETS CONTINUED

Annual impairment test

The Group has an annual impairment testing date of 30 November. The key assumptions used in the value in use calculations were:

- revenue growth rates;
- gross margin;
- operating expenses;
- discount rate; and
- growth rate used to extrapolate cash flows beyond the five-year period covered by management's projections.

The cash flows are derived from the most recent financial budgets for the next financial year, as approved by the Board, and the Group's three-year strategic plan. Cash flows in years four and five are extrapolated based on long range plans. Cash flows in subsequent years have been extrapolated using a steady 2.5 per cent for all CGUs (2016 2.5 per cent for all CGUs), which management estimates to be the approximate average long-term growth rate for the industries in which these units operate. Fundamentally this long-term growth is based on a proxy for global long-term inflation taking into consideration more developed and developing markets. The growth rates used in the value in use calculations are set at the same level for each CGU as all the CGUs operate within similar markets which share the same growth drivers and characteristics. The discount rates incorporate the specific risks relating to each CGU.

The discount rate applied to the cash flows is based on the weighted average cost of capital of comparable companies by taking the risk free rate for 30-year government bonds and making an adjustment to reflect the increased risk of investing in equities. In making this adjustment, the inputs required are the equity market risk premium, beta, and the risk adjustment applied to reflect the systematic risk of Spirent and the specific CGUs, taking into account factors such as size and the territories in which each CGU operates.

The cash flows have been discounted using the following pre-tax discount rates:

	2017 %	2016 %
Networks & Security	**16.0**	16.0
Lifecycle Service Assurance	**17.4**	17.4
Connected Devices	**14.3**	15.6

For Spirent the key factor in relation to the cash flow forecasts is the ability to forecast revenue. All CGUs operate in the data technology market and generate a high gross profit (gross margin); consequently changes in revenue can have a significant impact on the operating profit and cash flows. Revenue growth rates used in the projections are based on management's estimate of growth in the markets served and take into account historical levels of growth, expected future developments in products and technology, industry forecasts and macro-economic conditions in the territories in which the CGUs operate. Gross margin and operating expenses are based on historical values adjusted for the effect of revenue growth and cost reduction actions committed prior to the impairment testing date.

The Networks & Security three-year plan delivers growth from Cloud and IP into core emerging markets such as Automotive, Wi-Fi and TSN. Cloud and IP growth in high speed ethernet is expected to continue, supported by ongoing product development. Further growth in Networks & Security is expected in the Positioning business from launches of new tailored solutions. Management expects that the Application Security product line will deliver growth in market share within network equipment manufacturers and service providers with new hardware and synergies with Positioning and continued expansion in complementary solutions with Cloud and IP.

14. INTANGIBLE ASSETS CONTINUED

The continuing drive in lab sales and enhancements to the feature set at the Mobility Infrastructure business unit is expected to grow revenue in Lifecycle Service Assurance on a relatively flat cost base in the near term. Management expects revenue increases at the Customer Experience Management business unit driven by the VisionWorks sales strategy and a relatively flat gross margin over the three-year forecast period. The Lumos legacy business in Lifecycle Service Assurance is expected to drop in the near term to be replaced by growth in new Ethernet products supported by investment in product development, particularly in virtualisation. The individual business units in Lifecycle Service Assurance are expected to work together to deliver the three-year plan to meet changes in customer needs and the competitive landscape.

Revenue is expected to grow at Connected Devices as the smartphone market recovers, driven by network emulator partnerships with growth in 5G. Management expects gross margin improvement as a result of product mix shifting to more software solutions and cost reduction initiatives, including a new channel emulator platform and a new network emulator platform. Operating expenses are expected to remain relatively flat as business unit integration synergies are leveraged following recent organisational change and research and development flexibility is gained from outsourcing programmes and shifting investment to new growth areas.

The recoverable amount of each CGU was calculated on a value in use basis and was in excess of its carrying value for every CGU. As the Networks & Security and Lifecycle Service Assurance CGUs satisfied the carry forward criteria as per IAS 36 'Impairment of Assets', no detailed value in use calculations were undertaken for these CGUs.

Sensitivity to changes in key assumptions

The directors believe that no reasonable possible change in any of the key assumptions used, in isolation, would cause the value in use of the Networks & Security and Lifecycle Service Assurance CGUs to fall below the carrying value.

The headroom on the Connected Devices CGU was $27.3 million. Sensitivity analysis around the key assumptions has indicated that for the Connected Devices CGU, a 33.6 per cent decrease in forecast revenue in year 1 and continuing to apply the forecast growth rates to subsequent years, in isolation, would cause the value in use to fall below the carrying value. There is no reasonable possible change in the discount rate and the long term growth rate, in isolation, that would cause the value in use of the Connected Devices CGU to fall below the carrying value.

Intangible asset impairment

Year ended 31 December 2017

There was no impairment charge in respect of the other intangible assets.

Year ended 31 December 2016

An intangible asset impairment charge of $7.7 million was incurred in respect of the customer list, current technology, database, brand names and non-compete covenant intangible assets arising on the acquisitions of the Radvision Technology Business Unit and Mobilethink in 2014. At acquisition, the acquired intangibles were expected to be amortised over useful lives of between 2.5 and 7 years, however, lower than anticipated projected cash flows within these businesses resulted in a reassessment of expected future business performance in light of current trading and planned future investment. The cash flows from these businesses, which formed the recently divested Developer Tools and Device Intelligence lines of business, were not expected to support the acquired intangible assets identified at acquisition and, therefore, they were fully impaired.

15. PROPERTY, PLANT AND EQUIPMENT

	Land and buildings	Plant and machinery	Fixtures, fittings and equipment	Total
				$ million
Cost, net of accumulated depreciation and accumulated impairment				
At 1 January 2016	15.9	25.7	9.5	51.1
Additions – owned assets	1.7	11.9	3.7	17.3
Disposals	(0.1)	(1.5)	(0.1)	(1.7)
Inter-class transfers	0.4	(4.2)	3.8	–
Depreciation charge for the year	(2.5)	(11.9)	(4.7)	(19.1)
Exchange adjustment	(0.1)	(0.1)	(0.1)	(0.3)
At 1 January 2017	**15.3**	**19.9**	**12.1**	**47.3**
Additions – owned assets	**1.7**	**10.1**	**3.1**	**14.9**
Disposals	**(0.2)**	**(1.9)**	**(0.2)**	**(2.3)**
Inter-class transfers	**–**	**(0.5)**	**0.5**	**–**
Depreciation charge for the year	**(2.6)**	**(10.7)**	**(4.7)**	**(18.0)**
Exchange adjustment	**0.1**	**0.2**	**0.1**	**0.4**
At 31 December 2017	**14.3**	**17.1**	**10.9**	**42.3**
At 31 December 2016				
Cost	25.8	82.1	55.1	163.0
Accumulated depreciation and accumulated impairment	(10.5)	(62.2)	(43.0)	(115.7)
Net carrying amount	15.3	19.9	12.1	47.3
At 31 December 2017				
Cost	**26.4**	**82.1**	**57.3**	**165.8**
Accumulated depreciation and accumulated impairment	**(12.1)**	**(65.0)**	**(46.4)**	**(123.5)**
Net carrying amount	**14.3**	**17.1**	**10.9**	**42.3**

None of the property, plant and equipment is held under finance lease arrangements.

16. INVESTMENT IN ASSOCIATE

The carrying amount for Jolata is nil in 2017 (2016 nil)

Jolata, Inc. (“Jolata”) is a company incorporated in the United States and its principal activity is the provision of network testing.

Jolata is considered an associate as the Group controls 26 per cent (2016 26 per cent) of the voting power and therefore has significant influence over the entity.

During the prior year, the investment in Jolata was impaired in full by $2.6 million . Following the impairment, the recoverable amount in Jolata was nil.

The Group has $1.0 million cumulative unrecognised share of losses in Jolata (2016 nil).

17. CAPITAL COMMITMENTS AND CONTINGENT LIABILITIES

The Group had capital commitments of $0.8 million at 31 December 2017 (31 December 2016 $1.8 million).

The Group has provided indemnities of $0.1 million (2016 $0.1 million) for certain ongoing business obligations under letters of credit for subsidiary companies.

The Group has received enquiries from the Direction Générale des Douanes et Droits Indirects (French Customs) in relation to the valuation and classification of imports into France but has not received a formal demand for unpaid duty and it is unclear whether a formal demand will be received. Spirent has adopted a duty tariff based on World Customs Organisation guidelines that potentially conflicts with European Union import regulations, resulting in a possible liability to the French authorities.

There is uncertainty with regard to not only the legitimacy of any potential claim, but also the appropriate tariff classification, the period in question and both the population and valuation of goods potentially subject to duty. The determination of the amount of any liability in respect of unpaid duty and associated penalties and interest is therefore dependent on a number of significant inter-related uncertainties and therefore the Group cannot reasonably make an assessment of the quantum of that contingent liability at the date of the signing of these financial statements. It is not practicable to state the timing of the payment due, if any, since no formal demand for unpaid duty has been made.

Due to the aforementioned uncertainties, the Group considers it possible, but not probable, that a settlement will be required.

18. SUBSIDIARIES

A list of subsidiaries, including the name, country of incorporation and proportion of ownership interest is given on pages 166 and 167 of these financial statements.

19. INVENTORIES

	2017 $ million	2016 $ million
Raw materials	**4.3**	8.7
Work in progress	**0.8**	0.7
Finished goods	**18.5**	18.0
	23.6	27.4

An expense of $2.3 million (2016 $0.5 million) has been recognised in the year for inventory write-downs. There were no reversals of prior period inventory write-downs (2016 nil).

No inventories are carried at fair value less costs to sell (2016 nil).

20. TRADE AND OTHER RECEIVABLES

	2017 $ million	2016 $ million
Non-current assets		
Other receivables	**4.1**	4.1
Prepayments	**–**	0.5
	4.1	4.6
Current assets		
Trade receivables	**113.8**	112.2
Other receivables	**4.8**	3.2
Prepayments	**9.2**	11.5
Deferred costs	**2.3**	2.0
	130.1	128.9
	134.2	133.5

The trade receivables are stated net of provisions for doubtful debts. The movement in the provision was as follows:

	2017 $ million	2016 $ million
At 1 January	**2.3**	1.4
Charge for the year	**0.3**	1.7
Released in the year	**(1.4)**	(0.8)
At 31 December	**1.2**	2.3

The directors consider that the carrying amount of trade and other receivables approximates their fair value.

The Group has no significant concentration of credit risk attributable to its trade receivables as the exposure is spread over a large number of customers.

Other financial assets – current

	2017 $ million	2016 $ million
Other financial assets	**0.1**	–

Other financial assets comprises forward foreign currency exchange contracts.

21. CASH AND CASH EQUIVALENTS

	2017 $ million	2016 $ million
Cash at bank and in hand	**83.3**	91.1
Short-term bank deposits	**45.1**	5.0
	128.4	96.1

Cash at bank and in hand earns interest at floating interest rates. Of this balance, $45.1 million (2016 $5.0 million) is callable at notice of three-months.

Short-term bank deposits are made for varying periods of between one day and three months depending on the cash requirements of the Group and earn interest at the short-term deposit rates appropriate for the term of the deposit and currency.

At the end of 2017, the currency split of cash and cash equivalents was US dollar 85 per cent (2016 70 per cent), sterling 11 per cent (2016 22 per cent) and other currencies 4 per cent (2016 8 per cent).

For the purposes of the cash flow statement, cash and cash equivalents comprise the above amounts.

At 31 December 2017, there were no amounts of non-current cash held as a property deposit (2016 $0.1 million).

22. TRADE AND OTHER PAYABLES – CURRENT

	2017 $ million	2016 $ million
Trade payables	**16.3**	21.0
Payments received on account	**3.8**	2.7
Other taxes and social security costs	**3.5**	3.0
Accruals	**46.6**	41.1
Deferred income	**61.7**	59.4
	131.9	127.2

Trade payables are non-interest bearing and are normally settled on 30 to 60 day terms. Other payables are non-interest bearing.

The directors consider that the carrying amount of trade payables approximates their fair value.

Other financial liabilities – current

	2017 $ million	2016 $ million
Other financial liabilities	**–**	0.1

Other financial liabilities comprises forward foreign currency exchange contracts.

23. GOVERNMENT GRANTS

The following government grants are included within deferred income:

	2017 $ million	2016 $ million
At 1 January	**2.4**	1.2
Received during the year	**0.5**	1.4
Released to the income statement	**(0.3)**	(0.2)
At 31 December	**2.6**	2.4

	2017 $ million	2016 $ million
Current	**1.2**	2.4
Non-current	**1.4**	–
	2.6	2.4

Government grants have been received to accelerate and support research and development in the vulnerability of Global Navigation Satellite Systems and other high technology projects.

24. DEFERRED TAX

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

	Notes	Temporary differences	Tax losses	Tax credits	UK pension plans	Total
						$ million
At 1 January 2016		6.0	13.0	2.0	4.0	25.0
Charged/(credited) in the year	11	12.7	(4.5)	1.9	(1.2)	8.9
Deferred tax on defined benefit pension plan	11	–	–	–	0.4	0.4
Deferred tax on share incentives recognised in equity	11	(0.1)	–	–	–	(0.1)
Exchange adjustment		(0.3)	(0.3)	–	(0.6)	(1.2)
At 1 January 2017		**18.3**	**8.2**	**3.9**	**2.6**	**33.0**
Credited in the year	11	**(5.3)**	**(1.3)**	**(2.3)**	**(1.1)**	**(10.0)**
Deferred tax on defined benefit pension plan	11	**–**	**–**	**–**	**(1.0)**	**(1.0)**
Deferred tax on deferred compensation plan	11	**0.2**	**–**	**–**	**–**	**0.2**
Deferred tax on share incentives recognised in equity	11	**0.3**	**–**	**–**	**–**	**0.3**
Exchange adjustment		**0.1**	**0.5**	**–**	**–**	**0.6**
At 31 December 2017		**13.6**	**7.4**	**1.6**	**0.5**	**23.1**
Amounts on the balance sheet:						
At 31 December 2016						
Deferred tax asset		18.5	8.1	3.9	2.6	33.1
Deferred tax liability		(0.2)	0.1	–	–	(0.1)
		18.3	8.2	3.9	2.6	33.0
At 31 December 2017						
Deferred tax asset		**13.7**	**7.4**	**1.6**	**0.5**	**23.2**
Deferred tax liability		**(0.1)**	**–**	**–**	**–**	**(0.1)**
		13.6	**7.4**	**1.6**	**0.5**	**23.1**

A deferred tax asset of $23.2 million has been recognised at 31 December 2017 (2016 $33.1 million). $3.5 million is in the United Kingdom (2016 $3.7 million), $18.9 million is in the United States (2016 $28.2 million) and $0.8 million is in the rest of the world (2016 $1.2 million).

The deferred tax asset includes $1.1 million (2016 $0.5 million) in respect of the tax deduction which may be available on the future exercise of share incentives.

The Group has tax losses arising in the United Kingdom of $40.0 million (2016 $37.1 million), at the State level in the United States of $22.4 million (2016 $31.1 million), and the rest of the world of $0.4 million (2016 $0.4 million) that are available for offset against suitable future taxable profits. The significant increase in the United Kingdom is mostly due to favourable foreign exchange movements. The US tax losses can be carried forward until 2022 through to 2036. Additionally, there are short-term timing differences in the rest of the world of $3.5 million (2016 $3.8 million), tax credits in the United States (State level) and the rest of the world of $7.1 million and $2.2 million, respectively (2016 $7.1 million and $2.1 million). A deferred tax asset has not been recognised in respect of these items as their future recovery is uncertain.

The Group has capital losses carried forward of $1,103.2 million (2016 $1,020.9 million) for which no deferred tax asset has been recognised on the balance sheet. This increase is due to favourable foreign exchange movements. These capital losses have no expiry date.

24. DEFERRED TAX CONTINUED

US tax reform and other future changes in tax rates

On 22 December 2017, the US government enacted 'The Tax Cuts and Jobs Act' (the Act). The Act has significant tax implications for the Group. The most significant change made is the reduction in the statutory corporate tax rate from 35 per cent to 21 per cent with effect from 1 January 2018. Other changes that will 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. It is estimated that the impact of the US tax rate reduction together with the repeal of the DPAD and the addition of the FDII deduction will decrease the Group's 2018 effective tax rate. The precise impact is still to be determined as we are awaiting further guidance from the US government. We also expect to see cash savings resulting from the Act's changes.

The enactment of the lower tax rate prior to the balance sheet date results in our re-measurement of the Group's US deferred tax assets. As a result, the Group's US deferred tax assets were written-down by $7.9 million with a corresponding deferred tax charge to the income statement. This charge is reflected in the tax on adjusting items.

The Finance Bill 2016 was enacted 15 September 2016 and reduced the United Kingdom 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. No further United Kingdom corporation tax rate reductions have been announced. As such, the United Kingdom temporary differences have been recognised at the rate at which the temporary differences are expected to unwind.

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.

25. TRADE AND OTHER PAYABLES – NON-CURRENT

	2017 $ million	2016 $ million
Other payables	**5.4**	2.6
Accruals	**–**	0.8
Deferred income	**11.0**	11.2
Deferred compensation	**3.7**	2.3
	20.1	16.9

Further details on deferred compensation are disclosed in note 10.

26. PROVISIONS

$ million

	Lease provisions	Restructuring provisions	Other provisions	Total
At 1 January 2016	2.8	7.0	1.5	11.3
Charged in the year	0.5	3.2	–	3.7
Asset retirement obligation	0.1	–	–	0.1
Released in the year	(0.1)	(0.1)	–	(0.2)
Utilised in the year	(0.2)	(7.8)	–	(8.0)
Exchange difference	–	–	(0.1)	(0.1)
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 31 December 2017	**3.5**	**1.4**	**1.9**	**6.8**

26. PROVISIONS CONTINUED

	2017 $ million	2016 $ million
Current	**3.6**	4.2
Non-current	**3.2**	2.6
	6.8	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 seven years.

Restructuring provisions relate to severance costs which are expected to be utilised within one year.

Other provisions comprises environmental provisions related to property disposed of and provisions relating to legal claims. The Group expects these provisions to be utilised in less than one year.

27. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

The main purpose of the Group's financial instruments, other than trade receivables, trade payables and provisions, is to fund the Group's liquidity requirements.

All of the Group's financial assets and liabilities are categorised as loans and receivables stated at amortised cost, except for forward foreign currency exchange contracts, included within current other financial assets and liabilities, that are designated at fair value through profit and loss and corporate owned life insurance, amounting to $2.5 million (2016 $2.2 million), included within non-current trade and other receivables, that is designated as available-for-sale through profit or loss. These are shown in the below table:

	Notes	2017 $ million	2016 $ million
Non-current cash on deposit	21	**–**	0.1
Non-current trade and other receivables	20	**4.1**	4.1
Cash and cash equivalents	21	**128.4**	96.1
Current trade and other receivables	20	**118.6**	115.4
Current other financial assets	20	**0.1**	–
Financial assets		**251.2**	215.7
Non-current other payables and accruals	25	**9.1**	5.7
Current trade payables and accruals	22	**62.9**	62.1
Current other financial liabilities	22	**–**	0.1
Contractual provisions	26	**3.5**	6.8
Financial liabilities		**75.5**	74.7

The Group enters into derivative transactions, forward foreign currency exchange contracts, for the management of the Group's foreign currency exposures when deemed appropriate.

The key objective of the Group's treasury department is to manage the financial risks of the business and to ensure that sufficient liquidity is available to the Group. All treasury activity operates within a formal control framework. The Board has approved treasury policies and guidelines and periodically reviews treasury activities. Additionally, it is the Group's policy that speculative treasury transactions are expressly forbidden.

27. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

a) Market risk

The main types of market risk that affect the Group are interest rate risk and exchange rate risk.

Interest rate risk

The Group has no external debt and has limited exposure to interest rate risk. The Group's excess funds are principally held in the United Kingdom and the United States and invested in on-demand or short-term bank deposits. It therefore has some exposure to interest rate risk arising on changes in sterling and US dollar interest rates.

Cash and cash equivalents, long-term cash on deposit and forward foreign currency exchange contracts are the Group's financial instruments which are exposed to interest rate risk.

Short-term bank deposits and forward foreign currency exchange contracts mature within three months. The financial instruments bear the following interest rates:

	2017		2016	
	Effective interest rate %	**$ million**	Effective interest rate %	$ million
Fixed rate				
Fixed deposits	**1.46**	**45.1**	0.98	5.0
Floating rate				
Cash at bank and in hand		**83.3**		91.1

Interest rates on financial instruments classified as fixed rate are fixed until the maturity of the instrument. All fixed rate deposits mature within three months after which date they will be exposed to floating rates of interest.

Interest receivable for the year (note 7) was $0.6 million (2016 $0.3 million) and is under the effective interest method.

The other financial instruments of the Group that are not included in the above table are non-interest bearing and are therefore not subject to interest rate risk.

A movement of 25 basis points in interest rates based on levels of investment at 31 December 2017 would increase or reduce interest income and equity by $0.2 million (2016 $0.1 million).

Exchange rate risk

Currency exposures arise from trading transactions undertaken by the Group in foreign currencies and on the translation of the operating results and net assets of overseas subsidiaries.

The Group has the majority of its operations in the United States and presents its consolidated financial statements in US dollars. The Company's functional currency is sterling and its share capital is denominated in pounds sterling; the Group also has operations in Europe and Asia and therefore its results and assets and liabilities are affected on translation by movements in exchange rates in relation to the US dollar. The Group does not enter into instruments to hedge the translation exposure of the operating results or net assets of its overseas subsidiaries since these are considered accounting and not cash exposures.

The Group undertakes transactions denominated in foreign currencies; consequently exposures to exchange rate fluctuations arise. Exchange rate exposures are managed within approved policy parameters using forward foreign currency exchange contracts.

The main exposures arise in relation to US dollar receivables and cash balances held by non-US operations. Group treasury, by means of forward foreign currency exchange contracts, carries out transaction hedging. A ten per cent appreciation or depreciation of sterling and euro against the US dollar would increase or reduce profit before tax by $1.9 million (2016 $1.5 million) based on the balances at the reporting date.

27. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

b) Credit risk

Investment counterparties are subject to pre-approval by the Board with pre-approved limits set for each bank to avoid any concentrations of credit risk.

The maximum credit exposure at the balance sheet date under financial instruments in relation to cash and bank deposits is equal to the carrying value of $128.4 million (2016 $96.1 million).

Trade receivables, which generally have 30 to 90 day terms, are carried at original invoice amount less an allowance for uncollectable amounts where appropriate. Trade receivable exposures are managed in the business units where they arise. Allowance is made for bad and doubtful debts based on management's assessment of the risk-taking into account ageing profile, experience and circumstance.

The Group has no significant concentration of credit risk attributable to its trade receivables as the exposure is spread over a large number of customers with no one customer accounting for more than 10 per cent of total Group revenue. The maximum credit exposure at the balance sheet date in relation to trade receivables is equal to the carrying value of $113.8 million (2016 $112.2 million).

The composition of trade receivables at 31 December is as follows:

	2017 $ million	2016 $ million
Neither impaired nor past due	**86.0**	69.1
Past due but not impaired:		
Less than 30 days overdue	**15.1**	18.5
30 to 60 days	**6.7**	12.5
Over 60 days	**6.0**	12.1
Trade receivables	**113.8**	112.2

The Group closely monitors amounts due from customers and performs activities such as credit checks and reviews of payment history and has put in place appropriate credit approval limits. Based on these procedures, management assessed the quality of those receivables that are past due but not impaired as low risk.

The movement on the receivables' provision during the year is given in note 20. The value of impaired trade receivables is $1.2 million (2016 $2.3 million). For all other financial assets, the maximum exposure to credit risk is represented by the carrying amount.

c) Liquidity risk

The Group's objective is to ensure that there are sufficient sources of funding to meet projected requirements. Its operations are financed through cash and cash equivalents held centrally and cash generated from operations.

At 31 December 2017, the Group had cash and cash equivalents of $128.4 million (2016 $96.1 million) of which $83.3 million (2016 $91.1 million) is available on demand and $45.1 million matures within three months (2016 $5.0 million matures within three months).

During 2017, the Group generated $69.3 million of cash from operating activities (2016 $42.7 million) and considers that, with current cash resources, no debt and positive cash flow from its operating activities, it has adequate resources available to it to remain in operational existence for the foreseeable future.

The Group has entered into forward foreign currency exchange contracts all of which mature within three months. The gross settlement amounts of these contracts are as follows:

	2017 $ million	2016 $ million
Sale of US dollars against sterling	**8.0**	5.0

The Group is debt free and does not have loans payable. Financial liabilities are trade and other payables, the majority of which are due to be settled within one year, and provisions (note 26).

The Group does not have any other material financial contractual commitments.

27. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

d) Fair value of financial instruments

The carrying value of all financial assets and liabilities is a reasonable approximation of fair value.

Derivative financial instruments are stated at fair value although the amounts at 31 December 2017 and 2016 were immaterial.

e) Capital management

The primary objective of the Group's capital management is to support its business and maximise shareholder value. The Group's capital is its total shareholders' funds.

The Group manages its capital structure and makes adjustments to it in the light of changes in economic conditions.

Spirent's policy on the payment of dividends to shareholders is to maintain a sustainable dividend.

28. OPERATING LEASE COMMITMENTS

At 31 December, the Group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2017 $ million	2016 $ million
Within one year	**9.2**	9.1
In the second to fifth years	**30.2**	29.0
Over five years	**6.9**	12.6
	46.3	50.7

The Group leases certain land and buildings under non-cancellable operating lease agreements with a variety of terms. The Group also leases certain plant and equipment under non-cancellable operating lease agreements.

29. EQUITY

a) Issued share capital

Issued and fully paid Ordinary Shares of 3⅓ pence each:

	Number of Ordinary Shares million	$ million
At 1 January 2016	611.7	30.2
Exchange adjustment		(4.9)
At 1 January 2017	611.7	25.3
Exchange adjustment		2.2
At 31 December 2017	611.7	27.5

b) Equity and reserves

The nature and purpose of each reserve within equity is as follows:

- Share premium account: this reserve records the consideration premium for shares issued at a value that exceeds their nominal value;
- Capital redemption reserve: this reserve arises in relation to share capital cancellation;
- Other reserves: share capital, share premium account and capital redemption reserve are translated into US dollars at the rates of exchange at the balance sheet date and the resultant exchange differences are included in other reserves; and
- Translation reserve: this reserve is used to record exchange differences arising from the translation of the financial statements of foreign subsidiaries.

Investment in own Ordinary Shares

At 31 December 2017, the Employee Share Ownership Trust held 0.6 million Ordinary Shares (2016 0.6 million Ordinary Shares) to satisfy awards under various share incentive plans. At 31 December 2017, the Spirent Sharesave Trust held 0.5 million Ordinary Shares (2016 0.5 million Ordinary Shares) to satisfy awards made to United Kingdom based employees under an all employee share scheme. The market value of own Ordinary Shares held in trust, being in total 1.1 million Ordinary Shares (2016 1.1 million Ordinary Shares), at 31 December 2017 was $1.5 million (2016 $1.3 million).

30. EMPLOYEE SHARE PLANS

Movements in share incentives over a two-year period ending on 31 December 2017 are shown below:

	2005 Employee Incentive Plan[1]		Spirent Long-Term Incentive Plan[2]	
	Number of share incentives million	Weighted average exercise price pence	Number of share incentives million	Weighted average exercise price pence
Incentives outstanding at 31 December 2015	9.7	56	–	–
Exercised	(0.1)	48	–	–
Granted	–	–	4.1	–
Forfeited	(2.9)	62	(0.2)	–
Incentives outstanding at 31 December 2016	**6.7**	**53**	**3.9**	**–**
Exercised	**–**	**–**	**–**	**–**
Granted	**–**	**–**	**2.9**	**–**
Forfeited	**(3.2)**	**50**	**(0.3)**	**–**
Incentives outstanding at 31 December 2017	**3.5**	**55**	**6.5**	**–**
Incentives exercisable				
At 31 December 2016	–	–	–	–
At 31 December 2017	**–**	**–**	**–**	**–**

Notes
1. Figures for the 2005 Employee Incentive Plan include share options, stock appreciation rights and Performance Shares in aggregate.
2. Figures for the Spirent Long-term Incentive Plan include restricted stock and Performance Shares in aggregate.

The weighted average share price at exercise date was 103.0 pence (2016 83.0 pence).

The following information relates to outstanding share incentives at 31 December 2017:

	2017					2016		
Share plan	**Exercise period (as at 31 December)**	**Range of exercise prices pence**	**Weighted average exercise price pence**	**Number of share incentives outstanding million**	**Weighted average remaining contractual life years**	Weighted average exercise price pence	Number of share incentives outstanding million	Weighted average remaining contractual life years
2005 Employee Incentive Plan	**28.04.14-17.05.25**	**–**	**–**	**1.3**	**7.3**	1	2.9	7.9
	28.04.14-10.08.25	**87-89**	**89**	**2.2**	**7.2**	93	3.8	7.9
Spirent Long-Term Incentive Plan	**16.06.16-17.05.27**	**–**	**–**	**6.5**	**9.9**	–	3.9	9.5
				10.0			10.6	

Discretionary plans

Spirent Long-Term Incentive Plan ("LTIP")

The LTIP, which was approved by shareholders at the 2016 AGM, is available for selected employees, including executive directors, on a discretionary basis.

Under the LTIP, the Company is able to grant share options, including HMRC-approved options, share settled stock appreciation rights ("SARs"), Performance Shares and Restricted Stock. No price is payable on the grant of an award.

In normal circumstances, LTIP awards vest three years following the date of grant provided the relevant performance conditions have been met. For Performance Share awards, performance conditions related to Total Shareholder Return ("TSR") and the Company's earnings per share ("EPS"). For Restricted Stock, the performance conditions relate to the recipient's continued employment with the Company.

Further information on the performance conditions for LTIP share incentives is set out in the Report on directors' remuneration.

30. EMPLOYEE SHARE PLANS CONTINUED

2005 Employee Incentive Plan ("EIP")

The EIP closed for new awards following the 2016 AGM and was replaced by the Spirent Long-term Incentive Plan.

The EIP, which was approved by shareholders and introduced in 2005, was available for selected employees, including executive directors, on a discretionary basis.

Under the EIP, the Company was able to grant share options, including HMRC-approved options, share settled stock appreciation rights ("SARs") and Performance Shares. No price was payable on the grant of an award.

In normal circumstances, EIP awards vest three years following the date of grant provided the relevant performance conditions have been met. For share options and SARs, the performance conditions relate to the Company's earnings per share ("EPS"). For Performance Share awards made prior to 2011, performance conditions related to Total Shareholder Return ("TSR"). For awards made since 2011, performance conditions relate to the Company's EPS and TSR.

Further information on the performance conditions for EIP share incentives is set out in the Report on directors' remuneration.

Options and SARs granted under the EIP expire on the tenth anniversary of their grant unless they have previously lapsed or been exercised.

All employee plans

UK Employee Share Purchase Plan ("UK ESPP")

The UK ESPP, which is an HMRC-approved share incentive plan, was approved by shareholders in 2005 and 2015 and is available to all UK employees. The UK ESPP offers four ways to provide Ordinary Shares to employees: free shares, partnership shares, matching shares and dividend shares. The UK ESPP operates in conjunction with a trust, which holds the shares on behalf of participants.

In November 2010, the Company commenced making invitations to all UK employees to acquire partnership shares on market using deductions from payroll.

US Employee Stock Purchase Plan ("US ESPP")

The US ESPP was initially approved by shareholders in 2000, with amendments being approved by shareholders in 2005 and 2011.

The US ESPP enables the Company to invite all US employees to acquire Ordinary Shares in the Company on market using deductions from payroll. In November 2010, the Company commenced making six-monthly invitations to employees.

The US ESPP also enables the Company to grant eligible US employees the right to acquire Ordinary Shares in the Company using the proceeds of a savings contract. If such a grant were made, when joining the US ESPP, participants would enter into a 12 month contract to save up to 15 per cent of base salary subject to an individual limit of $1,000 per month. No grants of this nature have been made since 2003.

Global All Employee Share Purchase Plan ("GAESPP")

The GAESPP was initially approved by shareholders in 2001 with amendments being approved by shareholders in 2005 and 2011. The GAESPP enables the Company to invite employees in countries other than the United States or United Kingdom to acquire Ordinary Shares in the Company on market using deductions from payroll. In September 2011, the first such invitation was made to all employees in Canada, Hong Kong, France and Germany and subsequent invitations have been made on a six-monthly basis since 2012.

The GAESPP can also be operated on similar terms to the US ESPP above, with participants entering into a 12 month contract to save up to 15 per cent of base salary subject to an individual limit. No grants of this nature have been made since 2003.

31. SHARE-BASED PAYMENT

	2017 $ million	2016 $ million
2005 Employee Incentive Plan	**0.5**	0.2
Spirent Long-Term Incentive Plan	**1.7**	0.6
	2.2	0.8

All schemes are equity-settled.

2.9 million share incentives were granted during 2017 (2016 4.1 million). The fair value of share incentives has been estimated as at the date of grant using the Hull-White trinomial model. The following table gives the assumptions made in arriving at the share-based payment charge and the fair value:

	2017	2016
Weighted average share price (pence)	**118.1**	76.5
Weighted average exercise price (pence)	**–**	–
Weighted average fair value (pence)	**92.8**	68.6
Expected volatility (%)	**31.0**	34–40
Option life (years)		
Performance Shares	**3.0**	3.0
Options and SARs	**NA**	10.0
Sub-optimal exercise factor	**1.5**	1.5
Risk free rate (%)	**1.1–1.2**	0.8–1.5
Dividend yield (%)	**3.5**	3.2

The expected volatility was determined by calculating the historical volatility of the Company's share price over the previous two years which management considers to be the period which is likely to be most representative of future volatility. The risk free rate is calculated by reference to UK government bonds.

32. RECONCILIATION OF PROFIT/(LOSS) BEFORE TAX TO CASH GENERATED FROM OPERATIONS

	2017 $ million	2016 $ million
Profit/(loss) before tax	**46.6**	(46.0)
Adjustments for:		
Finance income	**(0.6)**	(0.3)
Finance costs	**0.3**	0.7
Share of loss of associate	**–**	4.5
Intangible asset amortisation	**7.1**	13.8
Goodwill and acquired intangible asset impairment	**–**	69.1
Depreciation of property, plant and equipment	**18.0**	19.1
Loss on the disposal of property, plant and equipment	**0.2**	0.2
Gain on divestment	**(2.6)**	–
Share-based payment	**2.2**	0.8
Changes in working capital		
Deferred income received/(released)	**4.1**	(2.6)
Increase in receivables	**(2.3)**	(1.7)
Decrease/(increase) in inventories	**3.7**	(4.5)
Increase in payables	**7.0**	4.9
Increase/(decrease) in provisions	**0.1**	(4.5)
Defined benefit pension plan	**(6.1)**	(6.1)
Cash flow from operations	**77.7**	47.4

33. DIVESTMENTS

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 2016, DI and DT reported combined revenue of $12.9 million, made an adjusted operating loss of $2.1 million and a loss before tax of $6.8 million (after exceptional items of $1.1 million and acquired intangible asset amortisation of $3.6 million). 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 do not constitute discontinued operations under IFRS 5 'Non-current Assets Held for Sale and Discontinued Operations'.

The gain on divestments during the year was as follows:

	DI/DT $ million	Epitiro $ million	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.

As part of the sale of DI and DT, Spirent made a $2.0 million interest bearing loan to the divested subsidiaries to fund working capital requirements. This loan has been fully provided for by the Group and expensed in the calculation of the gain on divestments.

The net cash impact of divestments in the year was as follows:

	DI/DT $ million	Epitiro $ million	2017 Total
Cash consideration	–	0.4	0.4
Loan to divested subsidiaries	(2.0)	–	(2.0)
Expenses of sale	(0.7)	(0.4)	(1.1)
Net cash impact from divestments in the year	**(2.7)**	**–**	**(2.7)**

33. DIVESTMENTS CONTINUED

The net (liabilities)/assets divested during the year were as follows:

	DI/DT $ million	Epitiro $ million	2017 Total
At date of divestment			
Intangible assets	–	0.4	0.4
Property, plant and equipment	0.3	–	0.3
Cash on deposit	0.1	–	0.1
Inventories	–	0.1	0.1
Trade and other receivables	3.0	–	3.0
Trade and other payables	(6.0)	–	(6.0)
Provisions	(0.3)	–	(0.3)
Net (liabilities)/assets	(2.9)	0.5	(2.4)

34. RELATED PARTY TRANSACTIONS

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

Remuneration of key management personnel

The remuneration of the directors, who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24 ‘Related Party Disclosures’:

	2017 $000	2016 $000
Short-term employee benefits	2,629.4	2,206.3
Share-based payment	493.3	218.2
	3,122.7	2,424.5

No director received compensation for loss of office (2016 $nil).

There were no gains (2016 $29,000) on the exercise of options by key management personnel in 2017.

For further details refer to the Report on Directors’ Remuneration on pages 74 to 93.

Parent Company balance sheet
At 31 December 2017

	Notes	2017 £ million	2016 £ million
Fixed assets			
Intangible assets	4	**2.4**	2.4
Tangible assets	5	**1.6**	1.6
Investments	6	**351.8**	338.7
		355.8	342.7
Current assets			
Stocks	7	**1.6**	1.4
Debtors	8	**23.0**	22.1
Cash at bank and in hand		**13.4**	20.2
		38.0	43.7
Creditors: amounts falling due within one year	9	**(98.3)**	(92.0)
Net current liabilities		**(60.3)**	(48.3)
Total assets less current liabilities		**295.5**	294.4
Creditors: amounts falling due after more than one year	10	**(1.0)**	–
Defined benefit pension plan surplus	3	**0.9**	0.7
Defined benefit pension plan deficit	3	**(3.0)**	(11.6)
Net assets		**292.4**	283.5
Capital and reserves	15		
Called up share capital		**20.4**	20.4
Share premium account		**20.2**	20.2
Capital redemption reserve		**13.1**	13.1
Profit and loss account		**238.7**	229.8
Shareholders' funds – equity		**292.4**	283.5

The Company has taken advantage of the exemption under Section 408 of the Companies Act 2006 from presenting its own profit and loss account. In 2017, the profit for the year amounted to £22.5 million (2016 £11.6 million).

The notes on pages 152 to 165 form part of these financial statements.

Signed on behalf of the Board

Paula Bell
Director
8 March 2018

Parent Company statement of changes in equity

	Notes	Attributable to the equity holders of the parent Company				£ million
		Called up share capital	Share premium account	Capital redemption reserve	Profit and loss account	Total equity
At 1 January 2016		20.4	20.2	13.1	236.3	290.0
Profit for the year		–	–	–	11.6	11.6
Other comprehensive loss[1]		–	–	–	(1.2)	(1.2)
Total comprehensive income		–	–	–	10.4	10.4
Share-based payment		–	–	–	0.6	0.6
Equity dividends	14	–	–	–	(17.5)	(17.5)
At 1 January 2017		**20.4**	**20.2**	**13.1**	**229.8**	**283.5**
Profit for the year		**–**	**–**	**–**	**22.5**	**22.5**
Other comprehensive income[2]		**–**	**–**	**–**	**3.5**	**3.5**
Total comprehensive income		**–**	**–**	**–**	**26.0**	**26.0**
Share-based payment		**–**	**–**	**–**	**1.7**	**1.7**
Equity dividends	14	**–**	**–**	**–**	**(18.8)**	**(18.8)**
At 31 December 2017		**20.4**	**20.2**	**13.1**	**238.7**	**292.4**

1. The amount included in other comprehensive income for 2016 of £1.2 million represents re-measurement losses of the net defined benefit pension liability of £1.6 million net of a tax credit of £0.4 million.
2. The amount included in other comprehensive income for 2017 of £3.5 million represents re-measurement gains of the net defined benefit pension liability of £4.3 million net of a tax charge of £0.8 million.

The notes on pages 152 to 165 form part of these financial statements.

1. SIGNIFICANT ACCOUNTING POLICIES

Corporate information

Spirent Communications plc (the Company) is a public limited company incorporated and domiciled in England and Wales (registration number 00470893). The registered address of the Company is Northwood Park, Gatwick Road, Crawley, West Sussex, RH10 9XN, United Kingdom.

Basis of accounting

The financial statements have been prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework (FRS 101).

In preparing these financial statements, the Company applies the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU (Adopted IFRS), but makes amendments where necessary in order to comply with Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions have been taken.

- A Cash Flow Statement and related notes;
- Comparative period reconciliations for share capital, tangible fixed assets and intangible assets;
- Disclosures in respect of transactions with wholly owned subsidiaries;
- Disclosures in respect of capital management;
- The effects of new but not yet effective IFRS; and
- Disclosures in respect of the compensation of key management personnel.

As the consolidated financial statements include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of the following disclosures:

- IFRS 2 'Share-based payment' in respect of Group-settled share-based payments;
- Certain disclosures required by IAS 36 'Impairment of Assets' in respect of the impairment of goodwill and indefinite life intangible assets; and
- The disclosures required by IFRS 7 'Financial Instruments Disclosures' and IFRS 13 'Fair Value Measurement' regarding financial instrument disclosures have not been provided apart from those which are relevant for the financial instruments which are held at fair value.

The following exemptions have been taken in these financial statements, as granted by IFRS 1 'First-time adoption of IFRS':

- Business combinations – business combinations that took place prior to 1 January 2014 have not been restated.
- Use of previous GAAP carrying amounts as at date of transition as a deemed cost for investment in subsidiaries.

As the Company is included in the consolidated financial statements, made up to 31 December each year, it is not required to present a separate profit and loss account as provided by Section 408 of the Companies Act 2006. Information on fees for non-audit services in respect of the parent Company accounts have not been disclosed as the Company prepares Group accounts which disclose information on fees for non-audit services on a consolidated basis.

Accounting convention

The financial statements are prepared on a historical cost basis apart from certain financial instruments that have been measured at fair value.

Going concern basis of accounting

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 2019 and 2020 financial years. They have also considered the principal risks and uncertainties that the Company faces and its current financial position and are satisfied that the Company 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.

1. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Business combinations and goodwill

Goodwill arising on the acquisition of a business, representing the excess of cost over the net fair value of the net assets acquired, is capitalised as an intangible asset. Goodwill is carried at cost less any accumulated impairment losses.

For the purpose of impairment testing, goodwill is allocated to the related cash-generating units monitored by management. Where the recoverable amount of the cash-generating unit is less than its carrying amount, including goodwill, an impairment loss is recognised in the profit and loss account.

The UK Companies Act requires goodwill to be reduced by provisions for depreciation on a systematic basis over a period chosen by the directors, it's useful economic life. However, under IFRS 3 'Business Combinations' goodwill is not amortised. Consequently the Company does not amortise goodwill, but reviews it for impairment on an annual basis or whenever there are indicators of impairment. The Company is therefore invoking a 'true and fair view override' to overcome the prohibition on the non-amortisation of goodwill in the Companies Act.

Had the Company amortised goodwill a period of 20 years would have been chosen as the useful life for goodwill. The profit for the year would have been £0.6 million lower had goodwill been amortised in the year.

Tangible assets

Tangible assets are stated at cost less accumulated depreciation and accumulated impairment. Depreciation is not provided on freehold land. Depreciation is provided to write-off the cost of all other assets, less residual value, on a straight line basis over their estimated useful lives at rates which take into account commercial conditions at their location. Usual asset lives are as follows:

Freehold buildings	50 years
Plant and machinery	3 to 8 years
Fixtures, fittings and equipment	
Building installations	20 years or lease period if lower
Fittings and equipment	3 to 8 years
Motor vehicles	3 to 5 years
Business systems software	4 years

The carrying values of tangible fixed assets are reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable.

Impairment of assets

Tangible assets with finite useful lives are tested for impairment at each reporting date where there is an indication that an asset may be impaired. Goodwill with an indefinite useful life is assessed at least annually. When an impairment test is performed, the recoverable amount is assessed by reference to the higher of the net present value of the expected cash flows (value in use) of the relevant cash-generating unit or asset and the fair value less cost of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. Impairment losses are recognised in the profit and loss account in those expense categories consistent with the function of the impaired asset.

Where an impairment loss has been recognised against an asset, it may be reversed in future periods where there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised, but only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, had no impairment loss been recognised in prior years. Such a reversal is recognised in the profit and loss account. This does not apply for goodwill, for which an impairment loss must not be reversed in any circumstances.

Investments

Investments in subsidiaries are stated at cost and reviewed for impairment if there are indications that the carrying value may not be recoverable.

1. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Leases

Operating leases are leases where the lessor retains substantially all the risks and rewards of ownership of the asset and are not finance leases. Operating lease rentals are charged to the profit and loss account on a straight line basis over the period of the lease.

Stocks

Stocks are valued at the lower of cost and estimated net realisable value, after provisions for obsolescence. Cost includes all costs in bringing each product to its present location and condition, being the full manufacturing cost on a first-in, first-out basis, including all attributable overheads based on a normal level of activity.

Provisions

Provisions are recorded when the Company has a present, legal or constructive obligation as a result of a past event, for which it is probable that it will be required to settle by an outflow of resources and for which a reliable estimate of the amount of the obligation can be made. Provisions are reviewed at each balance sheet date and adjusted to reflect the current best estimate.

Where the effect of the time value of money is material, the amount of the provision shall be the present value of the expenditures expected to be required to settle the obligation.

Contingent liabilities

Contingent liabilities are possible obligations whose existence will be confirmed only on the occurrence or non-occurence of uncertain future events outside the Company's control, or present obligations that are not recognised because it is not probable that a settlement will be required or the value of such a payment cannot be reliably measured. The Company does not recognise contingent liabilities but discloses them.

Foreign currencies

Transactions in foreign currencies are initially recorded at the rates ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rates ruling at the balance sheet date. All exchange gains and losses are taken to the profit and loss account.

Financial instruments

Financial assets and liabilities are recognised on the Company's balance sheet when it becomes a party to the contractual provisions of the instrument.

Trade debtors

Trade debtors are non-interest bearing and are stated at original invoiced amount less an appropriate allowance for estimated irrecoverable amounts. Such allowances are based on an assessment of debtor ageing, past experience or known customer exposures.

Trade creditors

Trade creditors are non-interest bearing and are stated at the original invoiced amount.

Loans and borrowings

Loans and borrowings are recognised initally at fair value less attributable transaction costs. Subsequent to initial recognition, loans and borrowings are stated at amortised cost using the effective interest method, and in respect of financial assets, less any impairment losses.

Equity instruments

Equity instruments are recorded at the proceeds received, net of direct issue costs. Spirent Communications plc Ordinary Shares held by the Company are classified in equity as treasury shares and are recognised at cost and included as a deduction from retained earnings. Consideration received for the sale of such treasury shares is also recognised in equity.

Derivative financial instruments and hedge accounting

The Company uses forward foreign currency exchange contracts to manage exposures arising on receipts and payments in foreign currencies relating to firm commitments.

Forward foreign currency exchange contracts are initially recognised at fair value on the date on which the contract is entered into, and are subsequently re-measured to fair value at each reported balance sheet date. The fair value of forward foreign currency exchange contracts is calculated by reference to current forward exchange rates for contracts with similar maturity profiles. The Company has not adopted the hedge accounting rules. Consequently all gains and losses arising from changes in fair value are taken to the profit and loss account.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contracts.

1. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Pensions

The Company operates two funded defined benefit pension plans. All other pension plans are defined contribution in nature where the amount charged to the profit and loss account is the employer's contributions paid or payable during the year.

For defined benefit pension plans, full actuarial valuations are carried out every three-years using the projected unit credit method, and updates are performed at each balance sheet date. Re-measurement, comprising actuarial gains and losses, the effect of changes to the asset ceiling (if relevant) and the return on plan assets (excluding interest), is reflected immediately in the balance sheet liability or asset with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income will not be reclassified to profit or loss. Past service cost is recognised in profit or loss in the period of plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit pension liability or asset, taking account of any changes in the net defined benefit pension liability during the period as a result of contribution and benefit payments. Defined benefit pension costs are categorised as:

- Service cost (including current service cost, past service cost and gains and losses on curtailments or settlements);
- Net interest expense or income; and
- Re-measurement.

The Company presents the first two components of defined benefit pension costs in profit or loss.

Revenue recognition

Revenue is recognised when it is probable that economic benefits will flow to the Company, the revenue can be reliably measured and when the Company has transferred to the buyer the significant risks and rewards of ownership. In addition, revenue is only recognised when collectability is probable.

For the sale of services, revenue is recognised in accounting periods in which the service is rendered. Revenue from maintenance contracts is recognised over the period of performance on a straight line basis.

Revenue from product sales of hardware and software is recognised at the time of delivery and acceptance and when there are no significant vendor obligations remaining. It is not until acceptance has occurred that the risks and rewards of ownership are transferred to the buyer. Terms of acceptance are dependent upon the specific contractual arrangement agreed with the customer.

Revenue from sales or usage-based royalties is recognised as the subsequent sale or usage occurs.

Contractual arrangements are accounted for as two or more separate transactions only where the commercial substance is that the individual components operate independently of each other, because they are capable of being provided separately from one another and it is possible to attribute reliable fair values to every component. To the extent that a separate component comprises a product sale of hardware or software, revenue is recognised as described above. Revenue is recognised on other components as the Company fulfils its contractual obligations and to the extent that it has earned the right to consideration.

Government grants

A government grant is recognised in the balance sheet initially as deferred income when there is reasonable assurance that it will be received and that the Company will comply with the conditions attached to it. Grants that compensate the Company for expenses incurred are recognised as other operating income on a systematic basis in the same periods in which expenses are incurred. Grants that compensate the Company for the acquisition of an asset are presented by deducting them from the acquisition cost of the related asset in accordance with IAS 20 'Accounting for Government Grants and Disclosure of Government Assistance'.

Product development

Research expenditure is recognised in the year in which it is incurred. Intangible assets arising on the Company's various product development projects are recognised only if the recognition criteria of IAS 38 'Intangible Assets' are met.

Product development costs are expensed as incurred until the technological feasibility of the product under development has been established. Technological feasibility in Spirent's circumstances occurs when a working model is completed. For software development, technological feasibility is not established until the process of developing the software is complete. After technological feasibility is established, additional costs are capitalised and amortised on a straight line basis over the estimated useful life.

At 31 December 2017 and 31 December 2016 no amounts have met the recognition criteria.

Employee benefits

When an employee has rendered service to the Company during an accounting period, short-term benefits expected to be paid in exchange for that service are recognised in the same accounting period.

1. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

Share-based payment

The cost of equity-settled transactions with employees is measured by reference to the fair value at the date at which they are granted. The fair value is determined using the Hull-White trinomial model.

The cost of equity-settled transactions is recognised as a cost to the Company or as an addition to the cost of investment in the subsidiary in which the relevant employees work, over the vesting period of the equity-settled transactions with a corresponding adjustment to reserves. Any payments received from the Company's subsidiaries in respect of these share-based payments result in a reduction in the cost of investment.

No expense is recognised for awards that do not ultimately vest, except for awards where vesting is conditional upon a market condition, which are treated as vesting irrespective of whether or not the market condition is satisfied, provided that all other vesting conditions are satisfied.

Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation and any expense not yet recognised for the award is recognised immediately.

The Company has an employee share trust for the granting of certain share incentives to employees. Shares are held by the employee share trust, treated as treasury shares and presented in the balance sheet as a deduction from equity.

Tax

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the profit and loss account except to the extent that it relates to items in other comprehensive income or equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustments to tax payable for previous years.

Deferred tax is recognised on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements, with the following exceptions:

- where the temporary difference arises from the initial recognition of goodwill (taxable temporary differences only) or of an asset or liability in a transaction that is not a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss;
- in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

A deferred tax asset is recognised only to the extent that it is probable that taxable profits will be available against which the deductible temporary differences, carried forward tax credits or tax losses can be utilised.

Deferred tax assets and liabilities are measured on an undiscounted basis at the tax rates that are expected to apply when the related asset is realised or the liability is settled, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Dividends paid

The interim dividend is included in the financial statements in the period in which it is paid, and the final dividend and the special dividend in the period in which they are approved by the shareholders at an annual general meeting.

Critical accounting assumptions and estimates

The preparation of financial statements requires the Company to make estimates and assumptions that affect items reported. Such estimates and assumptions are based on management's best knowledge of current facts, circumstances and future events. Actual results may differ, possibly significantly, from those estimates. The areas requiring high degree of judgement or where assumptions and estimates are significant to the parent Company financial statements are revenue recognition, defined benefit pension plans (note 3), recognition of deferred tax assets (note 12) and contingent liabilities (note 17). Please refer to note 2 of Notes to the consolidated financial statements on page 118 for detailed disclosures.

2. EMPLOYEES

Please refer to the Report on Directors' Remuneration on pages 74 to 93 and note 34 of Notes to the consolidated financial statements on page 149 for disclosures relating to the emoluments, share incentives and long-term incentive interests and pensions of the directors.

The average number of people employed by the Company during the year was:

	2017 Number	2016 Number
Manufacturing	**37**	32
Product development	**44**	43
Selling and marketing	**41**	41
Administration	**30**	22
	152	138

Employee benefit costs were:

	2017 £ million	2016 £ million
Remuneration	**12.2**	10.1
Social security costs	**1.3**	1.1
Pension and other related costs	**1.4**	1.6
Expense of share-based payment	**0.5**	0.1
	15.4	12.9

3. PENSIONS

Defined benefit plans

i) Characteristics and risks associated with the Plans

The Company sponsors two funded defined benefit pension plans in the United Kingdom: the Spirent Communications plc Staff Pension & Life Assurance Plan ("Staff Plan") and the Spirent Communications plc Retirement Cash & Life Assurance Plan ("Cash Plan"). These plans are funded and have full UK HM Revenue & Customs ("HMRC") tax-exempt approval. Both schemes are administered by a trustee board which is comprised of representatives from the employer, member nominated trustees and an independent trustee. The trustee board operates in accordance with the Trust Deed and Rules of each Plan and acts in the interests of all of its members.

- The Staff Plan is the Company's most significant plan. It provides its members with retirement benefits based on their final salary and length of service. The Staff Plan was closed to new entrants on 1 October 2002.
- The Cash Plan is primarily a defined contribution arrangement, although there are some legacy defined benefits (Old Section) that have been valued for the purpose of these accounts in accordance with IAS 19 'Employee Benefits'. Members who left service before 1992 are entitled to a cash lump sum on retirement that is based on their salary and length of service. Members of the Old Section are entitled to defined contribution benefits, but with an underpin based on salary and length of service. The cash plan was closed to new entrants on 31 May 2016.

There is also a United Kingdom unfunded plan, which consists of a contractual obligation for the Company to top up certain former employees' benefits whose salaries exceeded the statutory earnings cap.

As with the vast majority of similar arrangements in the United Kingdom, the Company ultimately underwrites the risks relating to the defined benefit plans. These risks include investment risks and demographic risks, such as the chance of members living longer than expected.

The plans hold a significant proportion of their assets in equity. Strong future equity returns would be expected to reduce the Company's future cash contributions (and vice versa).

Expected contributions to the defined benefit plans in 2018 are £5.1 million. This includes the contributions agreed with the funded plans' trustees in accordance with UK legislation. Following the triennial valuations as at 1 April 2015, the Group has agreed to pay £5.0 million per annum into the Staff Plan from 1 July 2016, over a seven-year period, in order to clear the funding deficit as assessed by the trustees' independent actuary.

If the contributions currently agreed are insufficient to pay the benefits due, the Company will need to make further contributions.

3. PENSIONS CONTINUED

ii) Amounts in the financial statements

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

	2017 £ million	2016 £ million
Assets		
UK defined benefit pension plan – Cash Plan	**0.9**	0.7
Liabilities		
UK defined benefit pension plan – Staff Plan	**(2.5)**	(11.0)
UK unfunded plan	**(0.5)**	(0.6)
	(3.0)	(11.6)
Net pension plan deficit on the balance sheet	**(2.1)**	(10.9)

a) The assets and liabilities in each plan

	2017 £ million	2016 £ million
Staff Plan		
Quoted		
Equities	**48.6**	50.3
Government bonds	**4.3**	3.8
Corporate bonds	**4.0**	2.9
Unquoted		
LDI funds	**36.8**	26.9
Cash benchmarked bonds	**75.8**	73.7
Hedge funds	**19.8**	15.4
Insured annuities	**2.5**	2.8
Property	**1.1**	1.0
Cash and other	**8.1**	15.1
Fair value of plan assets	**201.0**	191.9
Present value of defined benefit pension plan obligations	**(203.5)**	(202.9)
Deficit in the plan	**(2.5)**	(11.0)
Cash Plan		
Quoted		
Equities	**3.4**	3.3
Government bonds	**3.2**	3.0
Unquoted		
Insured annuities	**0.1**	0.1
Cash and other	**1.7**	1.8
Fair value of plan assets	**8.4**	8.2
Present value of defined benefit pension plan obligations	**(7.5)**	(7.5)
Surplus in the plan	**0.9**	0.7
Total net deficit recognised	**(1.6)**	(10.3)
Unfunded plan		
Present value of unfunded obligations	**(0.5)**	(0.6)
Net pension plan deficit on the balance sheet	**(2.1)**	(10.9)

Approximately two thirds of the Staff Plan's assets are held in a combination of LDI funds, cash benchmarked bonds and hedge funds. The objective of this allocation is to hedge against the plan's liabilities, provide protection against inflation risk and to provide a level of investment returns in all market scenarios.

These funds have a wide investment remit and as such the investments of the funds may or may not be listed on recognised exchanges and markets and will be without restriction as to geographical, industrial or sectoral exposure. These funds may take both long and short positions and may utilise a broad range of derivatives. The funds' investments may include sub-investment grade securities, corporate debt securities, gilts, sale and repurchase agreements, loans, and emerging markets debt and currencies.

The plans are prohibited from investing in Spirent's own financial instruments.

3. PENSIONS CONTINUED

The fair values of the quoted equity and debt instruments are determined based on quoted market prices in active markets whereas the fair values of the other assets are not.

The Company has determined that it has an unconditional right to refund of surplus assets if the schemes are run off until the last member dies, on which basis IFRIC 14 does not cause any change in the balance sheet disclosures before tax.

For the purposes of the following disclosures, the Staff Plan and Cash Plan have been combined as the Cash Plan is immaterial to these financial statements.

b) Analysis of the amounts charged to the profit and loss account

	2017 £ million	2016 £ million
Plan administration expenses	0.3	0.5
Current service cost	0.1	0.1
Amount charged to operating costs	0.4	0.6
Net interest on the net defined benefit pension liability	0.2	0.5
Net charge to the profit and loss account	0.6	1.1

c) Analysis of amount recognised directly in the statement of comprehensive income

	2017 £ million	2016 £ million
Re-measurement gain on plans' assets	8.1	23.7
Actuarial (loss)/gain arising from experience	(0.6)	3.2
Actuarial gain arising from the demographic assumptions	4.3	6.0
Actuarial loss arising from changes in financial assumptions	(7.5)	(34.5)
Re-measurement of the net defined benefit pension liability	4.3	(1.6)

d) Movements in the present value of funded defined benefit obligations

	2017 £ million	2016 £ million
At 1 January	210.4	186.2
Current service cost	0.1	0.1
Interest cost	5.8	6.9
Benefit payments	(9.1)	(8.1)
Actuarial loss/(gain) arising from experience	0.6	(3.2)
Actuarial gain arising from the demographic assumptions	(4.3)	(6.0)
Actuarial loss arising from changes in financial assumptions	7.5	34.5
Present value of funded defined benefit pension plans' obligations	211.0	210.4

e) Movements in the fair value of plans' assets

	2017 £ million	2016 £ million
At 1 January	200.1	173.3
Interest income on plans' assets	5.5	6.5
Employer contributions	5.1	5.2
Benefit payments	(9.1)	(8.1)
Plan administration expenses	(0.3)	(0.5)
Re-measurement gain on plans' assets	8.1	23.7
Fair value of plans' assets	209.4	200.1

3. PENSIONS CONTINUED

f) The key financial assumptions

The assumptions used for both plans using a weighted average were as follows:

	2017 %	2016 %
Inflation – RPI	**3.1**	3.2
Inflation – CPI	**2.0**	2.1
Rate of increase in pensionable salaries	**2.0**	2.1
Rate of increase for pensions in payment pre 2001 service	**3.6**	3.7
Rate of increase for pensions in payment 2001 to 5 April 2005 service	**3.0**	3.1
Rate of increase for pensions post 5 April 2005 service	**2.1**	2.1
Rate of increase in deferred pensions	**2.0**	2.1
Rate used to discount plan liabilities	**2.5**	2.8

The mortality assumptions are based on standard mortality tables which allow for future mortality improvements. The assumptions are such that a member currently aged 65 (2016 aged 65) will live on average for a further 22.7 years (2016 23.1 years) if they are male and for a further 24.6 years (2016 25.2 years) if they are a female. For a member who retires in 2037 (2016 in 2036) at age 65 (2016 age 65), the assumptions are that they will live on average for a further 24.1 years (2016 24.8 years) after retirement if they are male and for a further 26.1 years (2016 27.1 years) after retirement if they are female.

iii) Amount, timing and uncertainty of future cash flows

The approximate impact to the past service liabilities of changing these main assumptions is as follows:

- Reducing the discount rate by 0.1 per cent per annum would increase past service liabilities by £3.1 million (2016 £3.1 million)
- Increasing RPI inflation by 0.1 per cent would increase the plans' liabilities by £1.1 million (2016 £1.2 million)
- Increasing the life expectancy of a member by one year (by modifying the standard mortality tables using an appropriate scaling factor) would increase past service liabilities by £10.3 million (2016 £9.4 million)

There will also be an impact on the future service cost but given the small active population in these plans this is likely to be insignificant. The sensitity analysis may not be representative of the actual change as the changes in assumptions may not occur in isolation.

The weighted average duration of the defined benefit obligation is 15 years (2016 15 years).

Defined contribution plans

The Company contributes to defined contribution pension plans for employees. Employer contributions for 2017 were £0.6 million (2016 £0.6 million).

4. INTANGIBLE ASSETS

	Goodwill £ million
Cost	
At 1 January 2017 and 31 December 2017	**6.8**
Accumulated amortisation and impairment losses	
At 1 January 2017 and 31 December 2017	**4.4**
Net book value at 31 December 2016 and 31 December 2017	**2.4**

The carrying value of goodwill has been tested by reference to the value in use of the Networks & Security CGU. No impairment of goodwill was required.

5. TANGIBLE FIXED ASSETS

	Freehold land and buildings	Plant and machinery	Fixtures, fittings and equipment	Total
				£ million
Cost				
At 1 January 2017	**0.7**	**3.7**	**1.9**	**6.3**
Additions	**–**	**0.4**	**0.2**	**0.6**
Disposals	**–**	**(0.1)**	**–**	**(0.1)**
At 31 December 2017	**0.7**	**4.0**	**2.1**	**6.8**
Accumulated depreciation and impairment				
At 1 January 2017	**0.3**	**3.0**	**1.4**	**4.7**
Depreciation charge for the year	**–**	**0.4**	**0.2**	**0.6**
Disposals	**–**	**(0.1)**	**–**	**(0.1)**
At 31 December 2017	**0.3**	**3.3**	**1.6**	**5.2**
Net book value at 31 December 2016	0.4	0.7	0.5	1.6
Net book value at 31 December 2017	**0.4**	**0.7**	**0.5**	**1.6**

6. INVESTMENTS

	Shares in subsidiaries	Loans to subsidiaries	Total
			£ million
Cost			
At 1 January 2017	**1,081.0**	**4.9**	**1,085.9**
Additions	**15.3**	**–**	**15.3**
Repayments	**(2.2)**	**(1.2)**	**(3.4)**
Share-based payment	**1.2**	**–**	**1.2**
At 31 December 2017	**1,095.3**	**3.7**	**1,099.0**
Amounts provided			
At 1 January 2017 and 31 December 2017	**743.7**	**3.5**	**747.2**
Net book value at 31 December 2016	337.3	1.4	338.7
Net book value at 31 December 2017	**351.6**	**0.2**	**351.8**

The recoverability of the carrying value of investments in subsidiaries has been assessed by reference to value in use.

Additions represent capital contributions made to subsidiaries during the year. Repayments of £2.2 million represent a capital reduction of part of the investment held in Spirent Communications Technology (Beijing) Limited during the year.

7. STOCKS

	2017 £ million	2016 £ million
Work in progress	**0.3**	0.2
Finished goods	**1.3**	1.2
	1.6	1.4

There were no stock write-downs recognised in the period (2016 nil) and there were no reversals of prior period stock write-downs (2016 nil).

No stock is carried at fair value less costs to sell (2016 nil).

8. DEBTORS

	2017 £ million	2016 £ million
Due within one year		
Trade debtors	**7.7**	7.5
Owed by subsidiaries	**9.1**	8.7
Other debtors	**0.8**	0.8
Prepayments and accrued income	**2.6**	2.2
Current tax asset	**0.4**	–
Deferred tax (note 12)	**2.4**	2.9
	23.0	22.1

The directors consider that the carrying amount of trade and other debtors approximates their fair value.

The Company has no significant concentration of credit risk attributable to its trade debtors as the exposure is spread over a large number of customers.

9. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2017 £ million	2016 £ million
Trade creditors	**1.6**	2.2
Owed to subsidiaries	**82.1**	78.8
Accruals and deferred income	**13.9**	10.4
Other taxes and social security costs	**0.7**	0.6
	98.3	92.0

Trade creditors are non-interest bearing and are normally settled on 30 to 60 day terms. Other creditors are non-interest bearing.

The directors consider that the carrying amount of trade creditors approximates their fair value.

10. CREDITORS: AMOUNTS FALLING DUE AFTER MORE THAN ONE YEAR

	2017 £ million	2016 £ million
Deferred income	**1.0**	–

11. GOVERNMENT GRANTS

The following government grants are included within deferred income:

	2017 £ million	2016 £ million
At 1 January	**1.2**	0.3
Received during the year	**0.3**	1.0
Released to the profit and loss account	**(0.2)**	(0.1)
At 31 December	**1.3**	1.2

	2017 £ million	2016 £ million
Current	**0.3**	1.2
Non-current	**1.0**	–
	1.3	1.2

A government grant has been received to accelerate and support research and development in the vulnerability of Global Navigation Satellite Systems.

12. DEFERRED TAX

The movements in the deferred tax asset is as follows:

					£ million
	Temporary differences	Tax losses	UK pension plans	Credits	Total
At 1 January 2016	0.2	1.0	2.7	–	3.9
Credited in the year	–	(0.8)	–	–	(0.8)
Deferred tax on defined benefit pension plan	–	–	(0.6)	–	(0.6)
Transferred in the year	–	0.4	–	–	0.4
At 1 January 2017	**0.2**	**0.6**	**2.1**	**–**	**2.9**
Charged in the year	**–**	**1.1**	**–**	**0.1**	**1.2**
Deferred tax on defined benefit pension plan	**–**	**–**	**(1.7)**	**–**	**(1.7)**
At 31 December 2017	**0.2**	**1.7**	**0.4**	**0.1**	**2.4**

The Company has tax losses of £23.9 million (2016 £23.6 million) that are available for offset against suitable future taxable profits.

A deferred tax asset has not been recognised in respect of these losses as their future recovery is uncertain. These losses can be carried forward indefinitely.

The Company also has capital losses carried forward of £823.3 million (2016 £823.3 million) for which no deferred tax asset has been recognised on the balance sheet. These capital losses have no expiry date.

£0.4 million (2016 £1.4 million) of the deferred tax asset is due after one year.

13. OPERATING LEASE COMMITMENTS

At the balance sheet date, the Company had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2017 £ million	2016 £ million
Within one year	**0.1**	0.1
In the second to fifth years	**0.5**	–
	0.6	0.1

14. DIVIDENDS

	2017 £ million	2016 £ million
Declared and paid in the year		
Equity dividend on Ordinary Shares		
Final dividend 2016 of 1.80 pence per Ordinary Share (2015 1.59 pence)	**11.0**	9.7
Interim dividend 2017 of 1.27 pence per Ordinary Share (2016 1.27 pence)	**7.8**	7.8
	18.8	17.5
Proposed for approval at AGM (not recognised as a liability at 31 December)		
Equity dividend on Ordinary Shares		
Final dividend 2017 of 1.73 pence per Ordinary Share (2016 1.80 pence)	**10.6**	11.0
Special dividend 2017 of 3.60 pence per Ordinary Share	**22.0**	–
	32.6	11.0

The directors are proposing a final dividend in respect of the financial year ended 31 December 2017 of 1.73 pence per Ordinary Share (2016 1.80 pence), which will absorb an estimated £10.6 million of shareholders' funds (2016 £11.0 million). The directors are also proposing a special dividend of 3.60 pence per Ordinary Share, which will absorb an estimated £22.0 million of shareholders' funds. The final dividend and special dividend will be paid on 4 May 2018 to Ordinary shareholders who are on the Register of Members at close of business on 16 March 2018. Payment will be made to ADR holders on 11 May 2018. 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 and special dividends to be paid for 2017 was $1.39: £1 (2016 $1.23: £1).

15. CAPITAL AND RESERVES

Changes during the year in the issued Ordinary Share capital were as follows:

	Number of Ordinary shares million
Issued and fully paid Ordinary Shares of 3 1/3 pence each at 1 January 2017 and 31 December 2017	**611.7**

In 2017, no Ordinary Shares were transferred from the Spirent Employee Share Ownership Trust ("ESOT") to satisfy options exercised under the 2005 Employee Incentive Plan (2016 nil).

There has been no material increase in the issued Ordinary Share capital, whether by exercise of share incentives or otherwise, between 31 December 2017 and 8 March 2018, the date on which these financial statements have been signed.

Please refer to note 29 of the Notes to the consolidated financial statements on page 144 for disclosures relating to the nature and purpose of each reserve within equity.

Investment in own Ordinary Shares

At 31 December 2017, the ESOT held 0.6 million Ordinary Shares (2016 0.6 million Ordinary Shares) to satisfy awards under various share incentive plans. At 31 December 2017, the Spirent Sharesave Trust held 0.5 million Ordinary Shares (2016 0.5 million Ordinary Shares) to satisfy awards made to United Kingdom-based employees under an all-employee share scheme. The market value of own Ordinary Shares held in trust, being in total 1.1 million Ordinary Shares (2016 1.1 million Ordinary Shares), at 31 December 2017 was £1.1 million (2016 £1.0 million).

Capital redemption reserve

During 2017, the Company did not cancel any Ordinary Shares (2016 nil) and did not make any transfers to the capital redemption reserve (2016 nil).

Employee share plans

The Company operates a number of employee share incentive plans which are described in note 30 of Notes to the consolidated financial statements. The following share incentives over Ordinary Shares under these plans have been granted and remain outstanding, held by employees of the parent Company.

The following information relates to outstanding share incentives at 31 December 2017:

	2017					2016		
Share plan	**Exercise period (as at 31 December)**	**Range of exercise prices pence**	**Weighted average exercise price pence**	**Number of share incentives outstanding million**	**Weighted average remaining contractual life years**	Weighted average exercise price pence	Number of share incentives outstanding million	Weighted average remaining contractual life years
2005 Employee Incentive Plan[1]	**23.03.15-17.05.25**	**0–89**	**16.6**	**0.8**	**8.4**	3.0	1.4	7.9
Spirent Long-Term Incentive Plan[2]	**16.06.16-16.05.20**	**–**	**–**	**2.6**	**9.9**	–	1.5	9.6
				3.4			2.9	

Notes

1. Figures for the 2005 Employee Incentive Plan include share options, stock appreciation rights and Performance Shares in aggregate. No exercise price is payable on the vesting of a Performance Share.
2. Figures for the Spirent Long-Term Incentive Plan include share options, stock appreciation rights and Performance Shares in aggregate. No exercise price is payable on the vesting of a Performance Share.

16. SUBSIDIARIES

A list of subsidiaries, including the name, country of incorporation, registered office address and proportion of ownership interest is given on pages 166 and 167 of this Annual Report.

17. CAPITAL COMMITMENTS AND CONTINGENT LIABILITIES

There were no capital commitments at 31 December 2017 or 31 December 2016.

Spirent Communications plc has provided indemnities of nil (2016 nil) for certain ongoing business obligations under letters of credit for subsidiary companies.

The Company has received enquiries from the Direction Générale des Douanes et Droits Indirects (French Customs) in relation to the valuation and classification of imports into France but has not received a formal demand for unpaid duty and it is unclear whether a formal demand will be received. Spirent has adopted a duty tariff based on World Customs Organisation guidelines that potentially conflicts with European Union import regulations, resulting in a possible liability to the French authorities.

There is uncertainty with regard to not only the legitimacy of any potential claim, but also the appropriate tariff classification, the period in question, and both the population and valuation of goods potentially subject to duty. The determination of the amount of any liability in respect of unpaid duty and associated penalties and interest is therefore dependent on a number of significant inter-related uncertainties and therefore the Company cannot reasonably make an assessment of the quantum of that contingent liability at the date of the signing of these financial statements. It is not practicable to state the timing of the payment due, if any, since no formal demand for unpaid duty has been made.

Due to the aforementioned uncertainties, the Company considers it possible, but not probable, that a settlement will be required.

Full list of subsidiary undertakings

A full list of subsidiaries and companies in which Spirent Communications plc has an interest of more than 20% at 31 December 2017. The country of incorporation and the effective percentage of equity owned (if less than 100%) is also detailed below. Unless otherwise noted, the share capital comprises ordinary shares which are indirectly held by Spirent Communications plc.

Company Name	Registered in	Registered office address	Notes
Spirent Communications of Ottawa Limited	Canada	100 King Street West, 41st Floor, 1 First Canadian Place, Toronto, Ontario, M5X 1B2	
Spirent Communications Technology (Beijing) Limited	China	Suite 1302, Shining Tower, No 35 Xue Yuan Road, Haidian District, Beijing 100191	Held directly
Bowthorpe Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Cambridge Analytical Group Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Earlynow Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Epitiro Group Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Metrico Wireless Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
PG International Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Shipbrick Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	54.55% held directly, 45.45% held indirectly
Spirent Capital Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Communications (International) Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Communications (Scotland) Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Communications (SW) Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Financial Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Financing Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	
Spirent Holdings Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Investment Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly
Spirent Sharesave Trust Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	Held directly

Company Name	Registered in	Registered office address	Notes
Spirent Systems Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	100% 'A' shares held indirectly, 100% 'B' shares held directly
Spirent Systems No 2 Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	
TFDC Limited	England	Northwood Park, Gatwick Road, Crawley, West Sussex RH10 9XN	
Spirent Communications SAS	France	Gaia, 9 Parc Ariane, Boulevard des Chenes, 78280 Guyancourt	Held directly
Spirent Communications GmbH	Germany	Leopoldstrasse 252a, 80807 Munich	
Spirent Technologies GmbH	Germany	Michaelkirchstr 17/18, 10179 Berlin	
Spirent (Overseas) Limited	Guernsey	Suite 6, Provident House, Havilland Street, St Peter Port GY1 2QE	
Spirent Communications (Asia) Limited	Hong Kong	Suites 1905-07, 19th Floor, Olympia Plaza, 243-255 King's Road, North Point	
Spirent Communications (India) Pvt Limited	India	9th Flr Umiya Business Bay Tower, 1 Cessna Business Park, Marathahalli-Sarjapur Ring Road, Kadubeesanahalli, Bangalore 560037 Karnataka	
Spirent Communications Japan KK	Japan	4th Floor Kyodotsushin Kaikan, 2-2-5, Toranomon, Minato-ku, Tokyo 105-0001	
Spirent Communications Singapore Pte Limited	Singapore	101 Thomson Road, #30-01 United Square, Singapore 307591	
Spirent Communciations Korea Inc	South Korea	2F, 16 Gangnam-daero 95-gil, Seocho-gu, Seoul 06526	
Spirent Communications Taiwan Limited	Taiwan	8F-1, No 10, Ln 360, Sec 1 Neihu Road, Neihu District, Taipei City 11493	
Jolata, Inc	US (Delaware)	3500 South Dupont Highway, Dover, Delaware 19901	26% held indirectly*
Netcom Systems Holding Corporation	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Communications Inc	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Federal Systems Inc	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Holdings Corporation	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Communications Hawaii LLC	US (Hawaii)	1209 Orange Street, Wilmington, Delaware 19801	

Note

* Spirent Communications plc holds 26 per cent of the issued share capital in Jolata, Inc through one of its subsidiaries; this has been treated as an associate company in these financial statements.

Financial history

	2017	2016	2015	2014	2013
					$ million
Summary income statement					
Continuing operations					
Revenue	**454.8**	457.9	477.1	457.2	413.5
Cost of sales	**(129.8)**	(133.6)	(145.3)	(140.9)	(126.7)
Gross profit	**325.0**	324.3	331.8	316.3	286.8
Product development	**(103.0)**	(111.7)	(118.3)	(115.4)	(100.5)
Selling and marketing	**(116.8)**	(125.4)	(127.2)	(113.5)	(96.6)
Administration	**(46.3)**	(40.7)	(44.2)	(41.4)	(39.6)
Other items	**(15.2)**	(87.6)	(32.0)	(22.3)	(11.0)
Operating profit/(loss)	**43.7**	(41.1)	10.1	23.7	39.1
Share of loss of associate	**–**	(4.5)	(0.4)	–	–
Net finance income/(costs)	**0.3**	(0.4)	(0.1)	0.4	–
Gain on divestment	**2.6**	–	–	–	–
Profit/(loss) before tax	**46.6**	(46.0)	9.6	24.1	39.1
Tax	**(17.6)**	3.7	3.9	(3.5)	(6.4)
Profit/(loss) from continuing operations after tax	**29.0**	(42.3)	13.5	20.6	32.7
Discontinued operations	**–**	–	–	–	–
Profit/(loss) for the year	**29.0**	(42.3)	13.5	20.6	32.7
Summary balance sheet					
Intangible assets	**163.6**	169.8	251.6	273.3	198.8
Property, plant and equipment	**42.3**	47.3	51.1	52.2	39.6
Working capital (excluding cash and deferred tax)	**5.5**	15.6	8.8	13.9	(10.8)
Operating assets	**211.4**	232.7	311.5	339.4	227.6
Investment in associate	**–**	–	4.6	–	–
Net funds including long-term cash	**128.4**	96.2	102.1	99.8	216.3
Provisions and other liabilities	**(6.8)**	(6.8)	(11.3)	(8.3)	(6.5)
Deferred tax	**23.1**	33.0	25.0	18.0	18.3
Defined benefit pension plan deficit	**(2.8)**	(13.5)	(19.8)	(14.5)	(3.3)
Net assets	**353.3**	341.6	412.1	434.4	452.4
Total equity	**353.3**	341.6	412.1	434.4	452.4
Summary cash flows					
Cash flow from operating activities	**69.3**	42.7	60.4	41.7	67.4
Net interest received	**0.6**	0.3	0.4	0.6	0.8
Net capital expenditure	**(13.5)**	(17.1)	(25.5)	(31.6)	(24.3)
Free cash flow	**56.4**	25.9	35.3	10.7	43.9
Acquisitions and disposals and investment in associate	**(2.7)**	(2.7)	(6.7)	(85.9)	–
Share capital and share repurchase	**–**	–	0.1	(16.4)	(54.5)
Dividends paid	**(24.6)**	(24.2)	(23.5)	(22.2)	(22.2)
Transfer from long-term deposit and loan repayment	**–**	–	(0.1)	–	0.3
Net increase/(decrease) in cash and cash equivalents	**29.1**	(1.0)	5.1	(113.8)	(32.5)

					$ million
	2017	2016	2015	2014	2013
Other information – continuing operations					
Expenditure on property, plant and equipment	**14.9**	17.3	26.5	33.8	22.9
Depreciation	**18.0**	19.1	25.0	19.7	16.5
Product development	**103.0**	111.7	118.3	115.4	100.5
Share information					
Earnings/(loss) per share from continuing operations (cents)					
Basic	**4.75**	(6.93)	2.18	3.35	5.10
Diluted	**4.71**	(6.93)	2.17	3.35	5.09
Adjusted basic[1,2]	**7.55**	5.29	5.00	5.82	5.71
Dividend per Ordinary Share (cents)	**4.08**	3.89	3.89	3.89	3.54
Special dividend per Ordinary Share (cents)	**5.00**	–	–	–	–
Fully paid Ordinary Shares in issue at year end (number, million)	**611.7**	611.7	611.7	611.7	621.4
Segmental analysis – continuing operations					
Revenue[3]					
Networks & Security	**261.0**	262.2	239.2		
Lifecycle Service Assurance	**109.2**	99.2	112.2		
Connected Devices	**84.6**	96.5	125.7		
	454.8	457.9	477.1	457.2	413.5
Adjusted operating profit[3]					
Networks & Security	**43.9**	47.2	34.6		
Lifecycle Service Assurance	**17.9**	11.2	17.7		
Connected Devices	**5.2**	(4.4)	(4.4)		
Corporate – non-segmental	**(8.1)**	(7.5)	(5.8)	(6.3)	(5.9)
Adjusted operating profit[1]	**58.9**	46.5	42.1	46.0	50.1
Exceptional items	**(6.7)**	(4.8)	(12.5)	(4.1)	(3.8)
Acquisition related costs	**–**	–	(0.1)	(3.8)	–
Acquired intangible asset amortisation	**(6.3)**	(12.9)	(14.8)	(12.7)	(8.4)
Goodwill and acquired intangible asset impairment	**–**	(69.1)	(3.8)	(1.0)	–
Share-based payment	**(2.2)**	(0.8)	(0.8)	(0.7)	1.2
Operating profit/(loss)	**43.7**	(41.1)	10.1	23.7	39.1
Geographical information – continuing operations					
Revenue by market					
Americas	**248.6**	254.1	268.1	245.0	228.2
Asia Pacific	**160.2**	149.3	148.2	142.5	132.2
Europe, Middle East and Africa	**46.0**	54.5	60.8	69.7	53.1
	454.8	457.9	477.1	457.2	413.5

Notes
1. Before exceptional items, acquisition related costs, acquired intangible asset amortisation, goodwill and acquired intangible asset impairment and share-based payment.
2. Before impairment of investment in associate, items in note 1, tax effect of items in note 1, revaluation of deferred tax assets due to US tax reform and prior year tax.
3. Restated operating segment information is not available for corresponding amounts prior to 2015.

Shareholder information

Financial calendar 2018

8 March	2017 Full Year results and final dividend announcement
15 March	Final and special dividends – ex-dividend date
16 March	Final and special dividends – record date
2 May	Annual General Meeting
4 May	Final and special dividends – payment date (Ordinary shareholders)
11 May	Final and special dividends – payment date (ADR holders)
30 June	Half-year end
August	Half-year results and interim dividend announcement
August	Interim dividend – ex-dividend date
August	Interim dividend – record date
September	Interim dividend – payment date (Ordinary shareholders)
September	Interim dividend – payment date (ADR holders)
31 December 2018	Financial year end
February/March 2019	2018 Full Year results and final dividend announcement

Ordinary Shares and American Depositary Receipts

The Company's Ordinary Shares are traded on the London Stock Exchange (ticker: SPT). The Company operates a Level 1 American Depositary Receipt ("ADR") programme with each ADR representing four Ordinary Shares. The ADRs trade on the US over-the-counter market (symbol: SPMYY; CUSIP: 84856M209). BNY Mellon is the authorised depositary bank for the Company's ADR programme. The ADRs are quoted on the OTC Pink electronic quotation service which can be found at www.otcmarkets.com/otc-pink/home.

Annual General Meeting

The Company's 2018 Annual General Meeting ("2018 AGM") will be held at 10.30am on 2 May 2018 at the offices of FTI Consulting, 200 Aldersgate, Aldersgate Street, London EC1A 4HD.

Company's registrar

Enquiries concerning shareholdings, change of address or other particulars should be directed in the first instance to the Company's registrar, Equiniti, on 0371 384 2126. Equiniti also provide a range of online shareholder information services at www.shareview.co.uk, where shareholders can check their holdings and find practical help on transferring shares or updating their details.

Dividends

Shareholders are able to choose to receive their dividends direct to their bank account, reinvested in Ordinary Shares through the Company's Dividend Reinvestment Plan (see below), paid by cheque or paid in foreign currencies. To change how you receive your dividends please contact the Company's registrar, Equiniti, on 0371 384 2268 or log on to www.shareview.co.uk.

Dividend reinvestment plan

The Company has a Dividend Reinvestment Plan ("DRIP") delivered by Equiniti Financial Services Limited. The DRIP allows eligible shareholders to use their cash dividend to buy additional shares in the Company, so increasing their shareholding. If you would like additional information, please contact the Company's registrar, Equiniti, on 0371 384 2268 or log on to www.shareview.co.uk.

Shareholder security

Shareholders are advised to be wary of any unsolicited advice, offers to buy shares at a discount or offers of free reports about the Company.

Details of any share dealing facilities that the Company endorses will be included in the Company's mailings or on our website. More detailed information can be found at www.fsa.gov.uk/consumerinformation.

Glossary

4G (Fourth Generation)	Fourth generation of mobile communications that delivers data rates of tens to hundreds of megabits per second.
5G (Fifth Generation)	The next major phase of mobile telecommunications standards beyond the current 4G/IMT-Advanced standards.
5G New Radio (5G NR)	5G NR is a new air interface being developed for 5G. An air interface is the radio frequency portion of the circuit between the mobile device and the active base station. The active base station can change as the user is on the move, with each changeover known as a handoff.
Code Division Multiple Access (CDMA)	A digital cellular technology standard which allows numerous signals to occupy a single transmission channel, thus increasing network capacity; used in 2G and 3G radio communications.
Cloud	A variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the internet. Often used in reference to network-based services served up by virtual hardware, simulated by software running on one or more physical machines.
Data Center	A centralised location where computing resources critical to an organisation are maintained in a highly controlled environment.
Distributed Denial of Service (DDoS)	A type of attack where multiple compromised systems, which are often infected with a Trojan, are used to target a single system causing a Denial of Service (DoS) attack. Victims of a DDoS attack consist of both the end targeted system and all systems maliciously used and controlled by the hacker in the distributed attack.
Enhanced Multimedia Broadcast Multicast Service (eMBMS)	eMBMS offers LTE service providers an effective way to lower cost per bit when delivering the same content simultaneously to multiple end users.
Enhanced Voice Services (EVS)	A superwideband speech audio coding standard. It offers up to 20 kHz audio bandwidth and is claimed to have high robustness to delay jitter and packet losses. It has been developed in 3GPP and is described in 3GPP TS 26.441. The application areas of EVS consist of improved telephony and teleconferencing, audiovisual conferencing services and streaming audio.
Ethernet	A family of networking technologies originally developed for local area networks, which migrated to metro area networks and eventually became the dominant standard in wireline networks worldwide.
Evolution-Data Optimised (EV-DO or EVDO)	A telecommunications standard for the wireless transmission of data through radio signals, typically for broadband internet access. EV-DO is an evolution of the CDMA2000 (IS-2000) standard that supports high data rates and can be deployed alongside a wireless carrier's voice services.
Evolved Packet Core (EPC)	A framework for providing converged voice and data on a 4G Long-Term Evolution (LTE) network to support user mobility, wireless data connections, routing and authentication.
Frequency division duplex (FDD)	A technique where separate frequency bands are used at the transmitter and receiver side.
Fuzzing	A software testing technique commonly used to uncover security vulnerabilities in software, operating systems or networks by inputting large amounts of invalid, unexpected or random data to the system in an attempt to make it crash.
Global Navigation Satellite Systems (GNSS)	The standard generic term for satellite navigation systems that provide autonomous geo-spatial positioning with global coverage. GNSS allows users' receivers to determine their location to within a few metres by employing a triangulation technique that uses information from multiple satellites.
Global Positioning System (GPS)	A global navigation satellite system operated by the United States government for determining a user's location and height at any point on the earth's surface. A receiver uses minute differences in measured time signals from clocks on satellites to calculate these positions and altitudes.
Internet of Things (IoT)	A network of physical objects or "things" embedded with electronics, software, sensors and connectivity to enable data exchange with the manufacturer, operator and/or other connected devices. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within existing internet infrastructure.

Internet Protocol (IP)	The primary network protocol used on the internet and on other network devices to facilitate and control the flow of data.
Internet Protocol Multimedia Subsystem (IMS)	A standardised next-generation architecture for telecoms operators who want to provide mobile and fixed multimedia services.
Jamming	The intentional emission of radio frequency signals to interfere with the operation of a GNSS receiver by saturating it with noise or false information.
Lab-as-a-Service (LaaS)	A cloud-based build and deploy environment to manage lab resources required by developers, testers, pre and post-sales support teams and others on an on-demand basis. LaaS is proven to reduce CapEx and increase lab user efficiency.
Long-Term Evolution (LTE)	An advanced wireless data communications technology standard (sometimes called "4G") which is an evolution of 3G UMTS standards. In addition to its wireless interface specification, LTE uses a simplified flat IP-based network architecture.
Multiple-Input Multiple-Output (MIMO)	A wireless technology that employs multiple radio antennas on both the transmitter and receiver to improve the data transmission speeds and capacity of wireless networks.
Network Functions Virtualisation (NFV)	An initiative to provide a network production environment which lowers cost, raises efficiency and increases agility by hosting network functions previously carried out by proprietary, dedicated hardware on virtual machines running on industry-standard commodity hardware.
Radio Frequency (RF)	A technology used for wireless broadcasting and/or communications that uses radio waves within the range over which they may be transmitted, from about 3 kilohertz to about 300,000 megahertz.
Software-as-a-Service (SaaS)	A way of delivering applications over the internet as a service instead of installing and maintaining software.
Software-Defined Network (SDN)	An approach to networking in which control is decoupled from hardware and given to a software application called a controller.
Spoofing	An attempt to deceive a GNSS receiver's estimate of its position or time by broadcasting counterfeit GNSS signals, structured to resemble a set of normal GNSS signals, or by rebroadcasting genuine signals captured elsewhere or at a different time.
Time Division Duplex (TDD)	TDD refers to duplex communication links where uplink is separated from downlink by the allocation of different time slots in the same frequency band.
Universal Mobile Telecommunications System (UMTS)	The most common 3G wireless technology globally, which uses wideband code division multiple access on its underlying air interface and offers support for data transfer rates from hundreds of kilobits per second to tens of megabits per second.
Virtualisation	Technologies designed to provide a layer of abstraction from the physical characteristics of computing resources to simplify the way in which other systems, applications or end users interact with those resources.
Virtual Evolved Packet Core (vEPC)	A framework for virtualising the functions required to converge voice and data on 4G Long-Term Evolution (LTE) networks. vEPC moves the core network's individual components from dedicated hardware to software that operates on low-cost commercial off-the-shelf servers.
Virtual Network Functions (VNF)	The implementation of a network function using software that is decoupled from the underlying hardware leading to more agile networks with potential Opex and Capex savings.
Voice over LTE (VoLTE)	A standards-based scheme adopted by the GSMA, the cellular industry's association, to provide voice service over data-only LTE networks. VoLTE's use of an IP Media Subsystem enables voice to be offered as part of a rich communications solution, integrated with services such as messaging, live video sharing and file transfer.
Voice over Wi-Fi (VoWi-Fi)	Transmission of IP-based voice communication (VoIP) over a Wi-Fi network.
Wireless Local Area Network (WLAN)	A wireless distribution method for two or more devices that use high-frequency radio waves and often include an access point to the internet. A WLAN allows users to move around the coverage area, often a home or small office, while maintaining a network connection.

Contact details

Registered office
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