

SPECTRIS PLC

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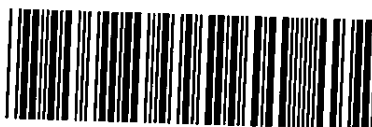
www.spectris.com

Public Technologies Limited

spectris

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**Annual Report
and Accounts
2017**

Spectris is a leading supplier of productivity-enhancing instrumentation and controls. Our businesses are leaders in the markets they serve, with recognised brands and award-winning products.

We provide complete solutions combining hardware, software and related services for some of the most technically-demanding industrial applications. Our innovative solutions are designed to enhance customers' productivity, yielding clear benefits by helping them to work better, faster and more efficiently.

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2017 highlights

Reported sales **+13%**

£1,525.6m

(2016: £1,345.8m)

Dividend per share **+9%**

56.5p

(2016: 52.0p)

Adjusted operating profit¹ **+11%**

£223.5m

(2016: £200.8m)

Reported operating profit **>100%**

£182.4m

(2016: £38.3m)

Adjusted earnings per share¹ **+14%**

145.1p

(2016: 127.5p)

Reported earnings per share **>100%**

197.0p

(2016: 8.6p)

Adjusted operating cash conversion¹ **-38pp**

75%

(2016: 113%)

¹ The adjusted performance measures represent the statutory results excluding certain non-operational items. Like-for-like ('LFL') measures are stated at constant exchange rates and include acquisitions and disposals on a comparable basis. These are deemed alternative performance measures under the European Securities and Markets Authority guidelines. For a definition of the item and a reconciliation to the closest IFRS equivalent, see Note 2 to the Financial Statements, page 103.

ENHANCING our business

Results overview

In my first year as Chairman of Spectris, it is pleasing to see the Group deliver a 6% increase in constant currency, organic (like-for-like, 'LFL') sales, driving an 8% LFL increase in adjusted operating profit. Reported sales increased 13% in 2017 to £1,525.6 million and reported operating profit increased to £182.4 million resulting in operating margins of 12.0% on a reported basis and 14.7% on an adjusted basis. Cash conversion² was 75% of our adjusted operating profit following a material step-up in growth capex in our Test and Measurement division. Adjusted earnings per share ('EPS') increased by 14% to 145.1p with reported basic EPS at 197.0p.

The Group continues to make good progress on the delivery of its strategy and during the year, we made a number of changes to our portfolio, including bolt-on acquisitions and a divestment. Following these transactions, the Group's financial position is robust, with net debt at £50.5 million at the year end.

The Board is proposing to pay a final dividend of 37.5 pence per share which, combined with the interim dividend of 19.0 pence, gives a total of 56.5 pence per share for the year, an increase of 9%. This is consistent with our policy of making progressive dividend payments based upon affordability and sustainability. The dividend will be paid on 29 June 2018 to shareholders on the register at the close of business on 25 May 2018. The ex-dividend date is 24 May 2018.

Following the sale of Microscan in October 2017, post-tax cash proceeds of approximately £91.9 million have been received. The Board has, therefore, approved a share buy-back programme of £100 million to take place during 2018 and into 2019. The Group has considerable financial flexibility and will continue to target acquisitions in support of its strategy.

Clear strategic direction

As a leading supplier of productivity-enhancing instrumentation and controls, we provide a combination of highly-specialised measuring instruments, software and services for some of the most technically-demanding industrial applications. We aim to enhance our profitable growth by providing our customers with key insights alongside our instruments and, to this end, we are progressively adding further software and analytical capabilities and test services to our product offerings. This will be focused on key industries and will provide customers with insights and solutions focused on their specific business needs. These competencies will be added to our operating companies by organic investment, software and services acquisitions and the deployment of data capture and connectivity technology as part of our digital strategy. We will be well placed to offer the information and insights to enhance the productivity and regulatory compliance of our customers.

Our Group has historically focused on the benefits gained from a decentralised operating model, but to better serve our customers, we have started to evolve our operating model to increase the co-ordination between companies across key business functions and to leverage our scale. In support of this transformation, our Project Uplift programme is now in progress to optimise efficiency and effectiveness both within and also across our operating companies. In turn, by increasing efficiency and reducing complexity, we will free up the resources that will accelerate the implementation of our strategic ambition.

Our people

Integral to the success of Spectris are the skills, experience and technical know-how of our employees. As we move forward with the delivery of our strategy, it is inevitable that the way in which we work together will evolve. I thank all our employees for both the contribution during the year and also for their support in driving the business forward.

To ensure the delivery of our strategic objectives, we have made a number of key appointments to lead the more significant Group-wide initiatives. In particular, appointments have been made to deliver a new digital platform, key account management, lean initiatives, human resources management and improved supply chain management. These will all help to develop best practice and, in combination with a talent management programme, will ensure we have both the right skills and capabilities in place across the Group.

In remembrance

Dr John Hughes CBE

In June 2017, Dr John Hughes, the former Group Chairman, sadly passed away. John joined the Board as a Non-executive Director in June 2007 and became

Non-executive Chairman of Spectris in May 2008. During his tenure, John played a pivotal role in the Company's development. He made a significant contribution to the Group's strategic progress, offering great insight, intellect and robust challenge. The Board is deeply grateful for his commitment to the role and to the legacy that his leadership has left in terms of the Company's clear strategic direction.

2017 has been a positive year, both in terms of operational performance and strategic delivery. We will continue our strategic evolution to offer customers increasing insights and solutions alongside our world-class instruments.

Mark Williamson
Chairman

Alongside this, our ethics and values are central to Spectris, guiding our decision-making and ensuring that we always comply with the highest standards. Our Code of Business Ethics is fundamental to the effective and responsible management of the business and for the delivery of shareholder value over the long term and I am pleased to see such a strong commitment to this across the Group.

Board update

I am delighted to have joined your Board as Non-executive Chairman in May 2017. Since joining the Board, I have visited the majority of our operating companies and have seen an open and transparent culture with a strong set of values that are in evidence across the Group. There is a clear sense of 'doing the right thing' and the discussion and debate at all levels of the Group is engaging, constructive and appropriately challenging.

During the year, we made two appointments to the Board. In January 2017, Kjersti Wiklund joined as a Non-executive Director and has brought significant knowledge of the international telecommunications sector to the Board's deliberations. In July, Karim Bitar was appointed as a Non-executive Director. Karim is chief executive of Genus plc, an agricultural biotechnology pioneer, and has extensive experience of leading international, technology-focused organisations, in particular in the pharmaceutical sector. I also express my thanks to Russell King, Senior Independent Director, for assuming the Chair earlier in the year following the illness of my predecessor, Dr John Hughes.

Summary

2017 has been a positive year, both in terms of operational performance and strategic delivery. It was particularly pleasing to record strong organic growth this year. Our aim is to continue to deliver organic growth and further improve the Group's profitability, while maintaining a robust financial position. We will continue our strategic evolution to offer customers increasing insights and solutions alongside our world-class instruments. The strategic initiatives that we have launched have positioned us for delivering value both to our customers and to our shareholders, and this provides the Board with confidence that the Company is well placed for the future.

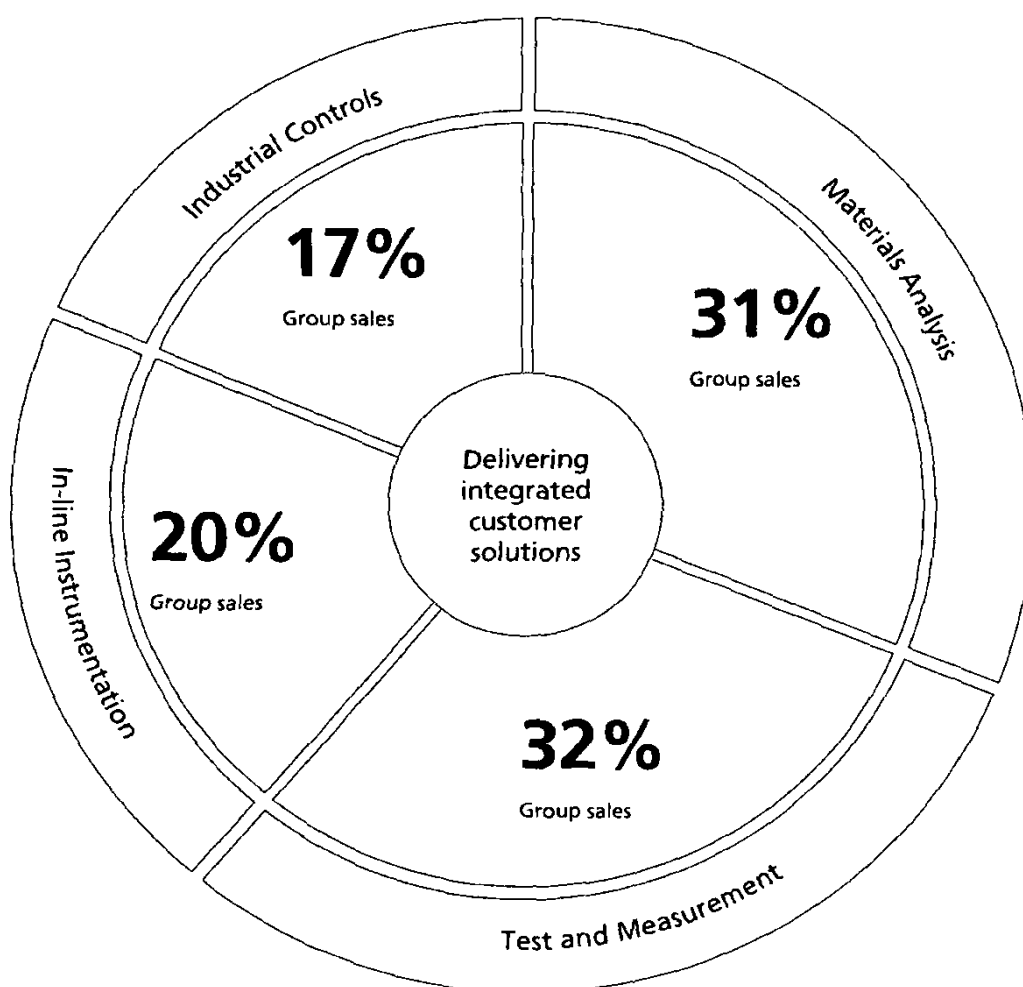
Mark Williamson
Chairman

1 Adjusted performance measures represent the statutory results excluding certain non-operational items. Like-for-like ('LFL') measures are stated at constant exchange rates and include acquisitions and disposals on a comparable basis. For a definition of the item and a reconciliation to the closest IFRS equivalent, see Note 2 to the Financial Statements.

2 See page 107 for definition.

SOLUTIONS DRIVEN

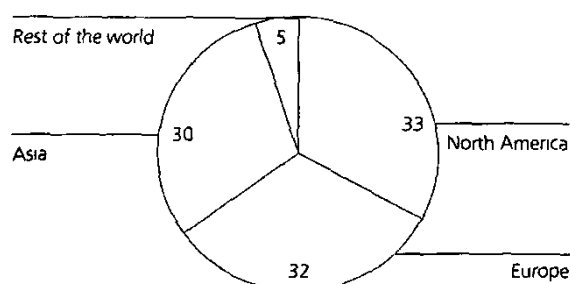
customer focused



Spectris comprises four business segments which reflect the applications and end-user industries we serve. Our businesses are united by the same purpose, values and corporate strategy. They all work according to a strong common framework of controls, management key performance indicators, financial discipline and rigorous operating principles, but each business is focused on its own markets, customers and technologies.

In addition to providing strategic direction, governance, financial and operational input and oversight, the corporate centre provides support in areas such as M&A, HR, legal and tax. The centre also manages a procurement function and other supply chain initiatives which benefit our operating companies and facilitate the sharing of best practice.

Sales by destination (%)



Materials Analysis provides products and services that enable customers to determine structure, composition, quantity and quality of particles and materials during their research and product development processes, when assessing materials before production or during the manufacturing process.

Reported sales	Adjusted operating profit	Reported operating profit
£464.9m	£83.1m	£68.6m
Aftersales ¹	Adjusted operating margin	Reported operating margin
32%	17.9%	14.8%

Operating companies

- › Malvern Panalytical
- › Particle Measuring Systems
- › Concept Life Sciences²

Industries

- › Pharmaceuticals & fine chemicals
- › Metals, minerals & mining
- › Academic research
- › Semiconductors

Test and Measurement supplies test, measurement and analysis equipment, software and services for product design optimisation and validation, manufacturing control, microseismic monitoring and environmental noise monitoring

Reported sales	Adjusted operating profit	Reported operating profit
£487.3m	£68.9m	£55.6m
Aftersales ¹	Adjusted operating margin	Reported operating margin
28%	14.1%	11.4%

Operating companies

- › Brüel & Kjær
- › Sound & Vibration
- › ESG Solutions
- › HBM
- › Millbrook

Industries

- › Automotive
- › Aerospace
- › Electronics
- › Energy
- › Academic research

In-line Instrumentation provides process analytical measurement, asset monitoring and online controls as well as associated consumables and services for both primary processing and the converting industries.

Reported sales	Adjusted operating profit	Reported operating profit
£310.9m	£33.2m	£29.5m
Aftersales ¹	Adjusted operating margin	Reported operating margin
43%	10.7%	9.5%

Operating companies

- › Brüel & Kjær Vibro
- › BTG
- › NDC Technologies
- › Servomex

Industries

- › Process industries
- › Pulp, paper & tissue
- › Energy & utilities
- › Web & converting

Industrial Controls provides products and solutions that measure, monitor, control and connect during the production process.

Reported sales	Adjusted operating profit	Reported operating profit
£262.5m	£38.3m	£28.7m
Aftersales ¹	Adjusted operating margin	Reported operating margin
3%	14.6%	10.9%

Operating companies

- › Microscan³
- › Omega Engineering
- › Red Lion Controls

Industries

- › Manufacturing
- › Process industries
- › Energy
- › Electronics
- › Healthcare

¹ Aftersales comprise service revenues and sales of spare parts and consumables

² Acquired January 2018

³ Divested October 2017

BECOMING

the partner of choice

What sets us apart

High barriers to entry from continuous investment in R&D, intellectual property and strong customer relationships.

Long-term customer relationships bring high levels of repeat business.


Market-leading brands focus on niche markets with strong growth potential.

Broad geographical and end-market exposure limits risk from major changes to the *business environment*.

Around 40% of sales come from customer operating expenditure budgets or aftermarket, providing more resilience to revenues.

Asset-light manufacturing model results in low capital requirements and good cash generation.

Acquisition strategy supplements organic growth and exploits disruptive growth themes.

 Read more about our strategy on pages 8–9

How we are structured

Four business segments

Our business comprises 13 operating companies organised into four business segments which reflect the applications and end-user markets we serve. Each operating company has its own products, brands and customers and is responsible for developing new products and applications. We have started to evolve our operating model to increase the co-ordination between companies across key business functions and to leverage our scale.

Common values


Despite the individual nature of the businesses, they are all united by the same purpose, values and corporate strategy. This shapes our culture across the Group. Increasingly, in certain end markets there is a more collaborative approach across our operating companies to provide the solutions our customers require.

Central oversight

The corporate centre provides strategic direction, governance and oversight in addition to support in areas such as M&A, HR, legal and tax. It also facilitates the sharing of best practice.

Project Uplift

Project Uplift is a Group-wide programme focused on reducing complexity, freeing up resources and stimulating growth with the aim of creating a cost-efficient and scalable platform from which we can grow profitably, whilst preserving the entrepreneurial spirit of our businesses.

 Read more about our businesses on pages 20–27

How we generate value

Understanding our customers

Our model is predominantly based on direct routes to market through a worldwide network of sales, marketing and support offices. This enables us to gain a deep understanding of the challenges our customers are seeking to address. Around 80% of sales come from customers who have purchased from us in the preceding two years.

Enhancing productivity

Our businesses provide value-enhancing solutions for our customers. These include shortening development cycles, improving product quality and consistency, increasing yield and streamlining processes. Our products typically involve low capital expenditure but provide significant and rapid payback.

Resilient revenues


As well as a high level of repeat business, we offer a full range of aftermarket services and support, including training, technical support, spare parts, calibration and maintenance. This accounts for around 30% of sales.

High returns

Our long-term customer relationships along with high-quality innovative products and solutions help sustain high barriers to entry which in turn lead to limited pricing pressure, retention of market share and high gross margins.

Good cash conversion

Our businesses are capital efficient, focusing on the areas where we have market-leading expertise and competitive advantage such as R&D, and out-sourcing component and sub-assembly production. This results in good cash conversion.

 Read more about our strategy on pages 8–9

Resources and relationships

Continuous innovation

Strong intellectual property and continuous innovation are underpinned by sustained investment of around 7% of sales each year in R&D. In addition, we make both bolt-on and platform acquisitions to access new or complementary technology and markets, with a focus on software and services.

Customer relationships


We build long-term relationships with our customers and seek to develop a deep understanding of their business and processes.

Employee expertise








Our people play an essential role in delivering our strategy, particularly in the development of new products, software and services, and building relationships with customers. Many of our employees are highly-qualified engineers and technicians with deep product and application expertise.

Supplier partnerships

Supply chain management is an important tool in enabling us to deliver high quality at a competitive cost, whilst ensuring compliance with international standards and regulations. We believe that suppliers should have the opportunity to benefit from their relationship with us. In practice, this means working together to minimise and manage business risk and improve business practices, through education, training and the sharing of good practice.

 Read more about our sustainable approach to business on pages 40–45

Our solutions STRATEGY

Our strategy	Strategic priorities	Description
<p>Our strategy is evolving from being a supplier of products towards the provision of complete solutions – a combination of hardware, software and/or services to our customers.</p>  <p>Project Uplift supports the delivery of our strategy.</p>  <p>We monitor the potential risks which could impact delivery of our strategy.</p> <p>➔ See pages 33–38 for more information</p>	<p>Focus on innovative customer solutions</p>  <p>Increase presence in key strategic markets</p>  <p>Expand business globally</p>  <p>Accelerate operational excellence</p>  <p>Deploy capital for both platform and bolt-on M&A</p>  <p>Project Uplift</p>	<p>As customer requirements evolve, so too does the offering that Spectris provides to them. Our long-term customer relationships and technical know-how mean we can enhance our offering to them, whether that involves the supply of improved equipment or a packaged solution combining hardware, software and/or services.</p> <p>We build leadership positions in attractive niche markets where we believe there are opportunities for technology-led productivity enhancement. These markets currently include segments within the life sciences and pharmaceuticals, energy, automotive, basic materials and technology sectors, but we also review and actively pursue opportunities in new markets.</p> <p>In response to a customer base that is extending its international operations and becoming increasingly sophisticated, we seek to expand our business globally, with particular emphasis on markets such as China and India.</p> <p>We strive for continuous improvement in all aspects of our business operations, both to enhance customer experience and to generate efficiency and productivity gains. In addition, we seek to improve performance and profitability by driving synergistic opportunities within and between our operating companies, and across the Group as a whole.</p> <p>We acquire businesses which materially strengthen our operating companies through broadening their customer offering, reaching new customer segments or expanding their geographical presence. These are typically bolt-on in nature, i.e. integrated into one of our operating companies. In addition, we invest in new platform or stand-alone businesses in order to establish a presence in strategic markets or complementary capabilities.</p> <p>Project Uplift is our productivity enhancement programme which is seeing increased collaboration and common processes being adopted across the Group to simplify the business, increase efficiency and productivity and drive continuous improvement and growth.</p>

	Progress in 2017	Priorities for 2018	Our KPIs
	<p>Invested £105 million in R&D (7% of sales)</p> <p>Created key account management structure for automotive sector, offering cross-operating company solutions</p> <p>Established partnership with Novatek International to provide an integrated environmental monitoring solution</p>	<p>Continue to invest around 7% of sales in new products, technologies and solutions</p> <p>Focus on innovative differentiated customer solutions</p> <p>Continue to build relationships with customers to offer more value-added services such as consultancy, software, testing, maintenance and training</p>	<p>Our KPIs measure our performance against our strategy</p> <p>LFL sales growth</p> <p>6%</p> <p>Adjusted operating margin</p> <p>14.7%</p> <p>Adjusted earnings per share growth</p> <p>14%</p> <p>Cash conversion</p> <p>75%</p> <p>Economic profit</p> <p>£163.2m</p> <p>Energy efficiency per £m revenue</p> <p>67.2MWh</p> <p>Reportable accidents per 1,000 employees</p> <p>5.3</p> <p>→ See pages 18–19 for more information</p>
	<p>Acquisitions added further condition monitoring capability, reliability design and testing expertise and automotive testing capacity</p> <p>Developed test environment at Millbrook for connected and autonomous vehicles</p> <p>'Beyond Tomorrow' project sound and vibration in future product development</p>	<p>Focus on key strategic growth markets</p> <ul style="list-style-type: none"> › Pharma and life sciences › Automotive › Test services › Cloud-based data analysis and services › Industrial connectivity 	
	<p>Strong LFL sales growth in Asia</p> <p>Internationalisation of Omega sees good sales growth outside the USA, particularly Asia</p> <p>Acquisition of Omnicon expands services and software offering in key end markets in the USA</p> <p>Expanding capacity at Millbrook in both the UK and Finland</p>	<p>Continue to expand our international footprint to be closer to customers</p> <p>Continue to grow Omega internationally</p> <p>Ensure that we have the right talent to grow our business globally.</p>	
	<p>Merger of Malvern Instruments and PANalytical led to cross-selling opportunities</p> <p>Restructuring activities at Omega and NDC to simplify and improve business processes</p> <p>Project Uplift programme initiatives underway</p> <p>Appointed key personnel at Group level as leaders in HR, lean, supply chain, software and digital</p>	<p>Implement Project Uplift programme to ensure benefits of scale are achieved and best practices are shared across the Group</p> <p>Drive greater efficiency through operational excellence, for example, by applying lean initiatives throughout the Group</p> <p>Increase employee training in these techniques and tools to build a continuous improvement culture</p>	
	<p>Acquisition of Omnicon extended range of reliability improvement solutions at HBM Prenscia software business</p> <p>Acquisition of CSA Leyland Technical Centre extended commercial vehicle testing capabilities</p> <p>Acquisition of Setpoint brings conditioning monitoring hardware and software solutions</p>	<p>Fully integrate recent acquisitions</p> <p>Focus on acquisition strategy to expand software and services capability</p> <p>Continue to look for new opportunities in key strategic growth markets through acquisition or licensing of technologies</p>	
	<p>New IT and procurement contracts signed, leveraging Group scale to enhance terms</p> <p>Initiated study on shared service centre project for Phase 2</p>	<p>Continue to implement Phase 1 initiatives in procurement and IT</p> <p>Undertake detailed design and implementation study for shared service centre project</p>	

Executing our STRATEGY

Results overview

Reported sales increased by 13% to £1,525.6 million (2016: £1,345.8 million) which reflected a 6% increase on an organic, constant currency (like-for-like, 'LFL') basis. During the year, we continued to make good strategic progress towards broadening our portfolio, adding further to our software and services offerings. As customers increasingly require an integrated solution, we are strategically positioning Spectris to align with their needs and this is transforming our business.

2017 operational performance

An improving demand backdrop in some of the key industries we serve has been an important factor behind the 6% increase in LFL sales which, combined with 2% net growth from acquisitions and disposals and a beneficial impact of 5% from foreign currency exchange movements, produced a 13% increase in reported sales.

LFL sales increased across all four segments and key regions. In Materials Analysis, a recovery in metals, minerals and mining plus good growth in pharma and semiconductor saw LFL sales increase 7% whilst automotive was the key sector driving the growth in Test and Measurement. Sales to academic research in both these segments were lower year-on-year. For In-line Instrumentation, the recovery of capital spending in energy and utilities and process industries led to higher LFL sales whilst Industrial Controls benefited from an improved performance at Omega as well as an ongoing recovery in North American industrial spending.

On a regional basis, LFL sales to North America increased by 4%, with the second half performance stronger than the first half. In Asia, LFL sales continued to grow strongly (up 9%), helped particularly by China which grew 11%, along with Japan and India. In Europe, LFL sales rose 6%, with a strong second half contribution from the UK while sales to Germany grew strongly in the first half. Sales to the Rest of the world were up 1%.

Adjusted operating profit increased 11% to £223.5 million and reported operating profit was £182.4 million compared to £38.3 million recorded in 2016 which included a non-cash impairment charge of £115.3 million. On a LFL basis, adjusted operating profit increased 8%, primarily reflecting the effect of the higher sales volumes and a turnaround in performance at Omega, partly offset by adverse product mix and overhead cost increases, reflecting increased headcount, wage inflation and the cost to achieve our strategic growth initiatives. LFL overheads will continue to increase in 2018 at a similar rate to that in 2017, reflecting inflationary pressures together with the annualisation of the costs of our strategic initiatives which commenced in 2017.

Adjusted operating profit includes costs of £15.8 million in relation to Project Uplift. Excluding these costs, adjusted operating margins were 15.7%, 0.5pp higher than in 2016 (LFL +1.1pp). Reported operating profit included a number of one-off costs and income during the year resulting in a net overheads year-on-year benefit of £3.5 million.

The Group's adjusted operating cash conversion was in line with our expectations with 75% (2016: 113%) of adjusted operating profit being converted into cash. This was lower than usual due to increased capital expenditure for the capacity expansion programme at Millbrook, resulting in an overall Group capital expenditure of £73.1 million. After allowing for the proceeds from the divestment of Microscan, net debt stood at £50.5 million at the year end, around 0.2 times the full-year adjusted EBITDA.

¹ Adjusted performance measures ('APMs') are used consistently throughout this Report and are referred to as 'adjusted', 'constant exchange rate' or 'like-for-like (LFL)'. These are defined in full and reconciled to the reported statutory measures in Note 2 to the Financial Statements.

Our performance in 2017 was good, with like-for-like increases in both sales and profit as we executed on our strategy, and helped by a recovery in the USA and certain key end markets.

John O'Higgins
Chief Executive

Positioning ourselves to deliver our solutions strategy

Our strategy is evolving towards the provision of complete solutions to our customers, based on our deep application and technical expertise, and we made good progress in broadening our software and services offerings to customers

Corporate development

We completed a number of bolt-on acquisitions in 2017. Setpoint brings conditioning monitoring hardware and software solutions for rotating and reciprocating machinery, allowing online condition monitoring analysis and machinery diagnostics, and has been integrated into Brüel & Kjær Vibro to enhance its product offering. Omnicon provides a range of services and software to help its customers analyse and improve product reliability and safety, particularly in aerospace, automotive, transportation and defence. The combination of Omnicon's expertise in reliability design and testing with HBM Prentiss's software and services will enable us to provide customers with a broader range of reliability-improvement solutions.

We further strengthened the Millbrook business in the UK with the acquisition of the CSA Leyland Technical Centre, an automotive test facility in Lancashire which adds further capacity as well as a complementary customer base and services. In addition, we invested £25.5 million at Millbrook predominantly on new capacity, such as the 4WD climatic emissions chassis dynamometer cell which we commissioned in the year, and additional indoor testing

capacity in Finland, which is due to be commissioned in the third quarter of 2018.

We will also be adding capability through the joint venture agreement we signed with Macquarie Capital in which they have agreed to acquire a 50% interest in our environmental monitoring business, EMS Brüel & Kjær. It is expected to close in the second quarter of 2018, subject to regulatory approvals in China, the European Union and South Korea. This partnership, with a world-leading infrastructure adviser and investor, should benefit the new joint venture in its next stage of development as we jointly invest organically and inorganically to collaborate on our remote monitoring and analytics offering for environmental monitoring. The combination of our expertise in environmental monitoring solutions and Macquarie Capital's significant presence in infrastructure markets will accelerate the growth of the business.

In January 2018, we acquired Concept Life Sciences, which provides integrated drug discovery, development, analytical testing and environmental consultancy services, mainly in the pharmaceutical, biotechnology, agrochemical and environmental sectors. Additionally, it carries out development and analytical services for the food, consumer and environmental industries. Concept Life Sciences is a high-quality services business which further strengthens our portfolio, has strong synergies with the activities of Malvern Panalytical and enhances our ability to provide customers within the pharmaceutical, life sciences and advanced materials sectors with a combined product and service proposition.

Chief Executive's Review continued

Strategic initiatives

In order to drive our strategic initiatives, we have made a number of investments including new central leadership appointments in lean, supply chain, software and digital. Ensuring we have best-in-class processes and capabilities will be key to our continued success and these new roles will be pivotal in developing best practice and driving performance enhancement across the Group. This will be supported by our new central HR function with its talent management and organisational capability programme.

Across the Group, delivery of our strategy has meant more collaboration between our operating companies. Automotive is a key end-market focus and here we have strengthened our key account management approach and provided a more collaborative offering. This is based on our expertise in four key areas – durability, propulsion, safety and refinement – in order to cross-sell our products, software and services from Bruel & Kjaer Sound & Vibration, HBM and Millbrook.

At Malvern Panalytical, which we merged at the start of the year, there is now one management team and a combined sales and marketing team. Their collaboration has led to numerous cross-selling opportunities and, together with a more value-based approach to providing customer solutions, the combined business has made good progress during the year.

We have also been reviewing our digital-led customer applications, with the potential for more cross-group solutions by leveraging existing operating company technologies, competencies and end-market expertise to more broadly serve our customers' needs. New product development and our combination of hardware and software are focused on simplifying the integration of customer-generated data with remote data analytics services and in January 2018, we launched Spectris Advance to showcase this digital offering to customers.

We decided to divest our machine vision technology business, Microscan, as we believe its next stage of development can be better fulfilled under new ownership. The Group completed the sale to Omron Corporation in October, resulting in post-tax cash proceeds of £91.9 million. Our balance sheet remains strong and provides the opportunity for us to redeploy capital to add further software and services capability.

Project Uplift

Project Uplift continues to make progress, with Phase 1 fully underway. The majority of the Phase 1 savings will be derived from leveraging the Group's scale, for instance through securing improved terms for procurement of goods and services, both direct and indirect. We made progress on this on a number of fronts during 2017; for example, we implemented new global freight contracts and are well advanced in the process of transitioning to new suppliers for a number of key product components.

In 2017, the cost of £15.8 million and gross recurring benefit of £2.8 million were both lower than originally expected, and included an additional £1 million of spend on the Phase 2 shared service centre project. As we started to implement the initiatives during 2017, it became evident that the IT implementation is more complex to deliver than we had anticipated and we have therefore

revised the scope of the programme, resulting in a change in the magnitude and phasing of benefits and costs from those originally expected. As a result, for Phase 1, we now expect annualised recurring savings of £25 million and a total cost to achieve these of £35 million by the end of 2019, with more coming from procurement activities and less from IT. This compares to previous expectations of £35 million of savings and £45 million of costs. In 2018, the net benefit for Phase 1 is now expected to be £3 million. Work is again underway to affirm the potential benefits and costs of the shared service centre project in Phase 2 and we will provide further details on this later in 2018. Costs of £3-4 million related to this work will be incurred during 2018.

As well as delivering the projected savings, the programme will further support our customer-focused solutions strategy, freeing up resources to facilitate the delivery of our strategy by identifying and capitalising on cross-group opportunities and making it easier for our customers to do business with us.

Our people deliver the strategy

Ensuring we have the right people in place to deliver the strategy will continue to be a key focus. As our business evolves and there is more co-ordination across operating companies, it is critical that we retain the factors that have driven our success, preserving the entrepreneurial and dynamic nature of the Group, as well as continuing to promote our strong ethical culture and values. In 2017, there has been a notable step forward in our leadership talent management process and this will continue to be a key focus linked to our future strategy and operating model.

Summary and outlook

Our performance in 2017 was good, with LFL increases in both sales and profit as we executed on our strategy, and helped by a recovery in the USA and certain key end markets. In 2018, we expect to see the benefit of organic sales growth, partly offset by the investment in our strategic growth initiatives and foreign currency exchange headwinds.

We remain focused on increasing productivity and reducing complexity through Project Uplift. The magnitude and phasing of the benefits and costs from this programme have varied from those originally envisaged, primarily due to a re-scoping of the IT project. As a result, we now expect Phase 1 to deliver annual savings of £25 million at a total cost of £35 million over the period to the end of 2019.

Our key priority remains the implementation of the strategy to provide a broader offering to our customers. Our balance sheet remains strong and we will continue to make acquisitions to support this strategy as we expand our software and services capability.

Positioning ourselves to deliver our solutions strategy

Our strategy is evolving towards the provision of complete solutions to our customers, based on our deep application and technical expertise, and we made good progress in broadening our software and services offerings to customers.



We completed a number of acquisitions in 2017

Setpoint brings conditioning monitoring hardware and software solutions for rotating and reciprocating machinery, allowing online condition monitoring analysis and machinery diagnostics, and has been integrated into Brüel & Kjær Vibro to enhance its product offering

Omnicon provides a range of services and software to help its customers analyse and improve product reliability and safety, particularly in aerospace, automotive, transportation and defence. The combination of Omnicon's expertise in reliability design and testing with HBM Prentiss's software and services will enable us to provide customers with a broader range of reliability-improvement solutions

We further strengthened the Millbrook business in the UK with the acquisition of the CSA Leyland Technical Centre, an automotive test facility in Lancashire which adds further capacity as well as a complementary customer base and services

In January 2018, we acquired Concept Life Sciences, a high-quality services business which provides integrated drug discovery, development, analytical testing and environmental consultancy services, mainly in the pharmaceutical, biotechnology, agrochemical and environmental sectors. Additionally, it carries out development and analytical services for the food, consumer and environmental industries

UNDERSTANDING our markets

We serve a broad spectrum of blue-chip customers across key manufacturing industries around the world. Whilst our principal aim is to enhance our customers' productivity, we are seeing a number of specific demand drivers and growth themes across these industries, which are summarised below.

Demand drivers

Electric, hybrid and autonomous vehicles

The prevalence of electric ('EV') and hybrid vehicles has increased dramatically in recent years as the cost of the EV powertrain has become more competitive, emissions regulations become more stringent and consumer attitudes undergo rapid change. Growth is set to continue, further helped by government incentives and subsidies and by the automotive OEMs who are looking to extend the range of models they offer. The current hybrid and electric car stock now stands at over 2 million and the International Energy Agency predicts that this will increase to 9–20 million by 2020.

R&D by the automotive OEMs has therefore been critical and spend has increased, focused on continuing technology improvements to further enhance performance and narrow the cost competitiveness gap with petrol and diesel vehicles. Similarly with autonomous cars, although full driverless technology is still at an advanced testing stage, it, too, is attracting notable investment.

Our expertise in propulsion, durability, refinement and safety within the automotive space means we can deploy our hardware, software and services to provide solutions to the automotive OEMs and benefit from this trend – for example, our automotive testing services support new product development, with significantly lower noise emissions, our noise, vibration and harshness solutions can represent a key competitive advantage to vehicle manufacturers and our torque measurement capability can be deployed in determining EV mechanical efficiency and power distribution. We are also involved in the development and testing of autonomous and connected vehicles.

Regulation and compliance

Regulation is increasing in many markets, particularly the pharmaceutical, automotive and energy sectors, with an increasing emphasis on compliance and particular attention given to data integrity. In the automotive industry, stricter emissions testing and safety requirements are resulting in greater testing and validation during product development, both in the laboratory and in real-world driving situations. This leads to new equipment purchases as manufacturers upgrade their capabilities and also greater use of independent testing, validation and assurance services.

Meeting increasing environmental regulations is also required in a number of process industries, such as petrochemicals, where customers need to ensure the safe running of their processes and reduce emissions. We already provide a number of products which help customers to meet regulations and are growing our services business to enable customers to demonstrate compliance.

Biopharmaceuticals

Biopharmaceuticals are the fastest-growing part of the pharma industry as companies invest in new therapies that allow previously untreatable conditions to be addressed, offering higher efficacy and fewer side effects. This growth is expected to continue for the foreseeable future. Many large pharmaceutical companies are shifting their presence to biopharma, whilst endeavouring to maintain competitiveness through affordability, quality and delivery performance. In generics, India and China have seen substantial growth as household disposable income increases and there is now a drive to improve quality and standards in these regions.

Generally, the industry is under increasing pressure to ensure therapies are delivered rapidly yet safely. Regulation is increasing, with manufacturers required to demonstrate compliance with, for example, the US Food and Drug Administration, and show that their production processes and data collection systems meet Good Manufacturing Practice standards.

We see increasing opportunities for our analysis systems for product purity and stability as well as quality control systems to enable manufacturers to meet regulatory requirements and mitigate risks early on in development, accelerating time to market and minimising costs.

Energy

Global commodity markets have seen a wide swing in prices over the past five years which has put pressure on producers to reduce capital investment, focus on productivity and dedicate spend to more cost-effective projects. Energy prices have now stabilised, which has renewed confidence in the market and led to selected upgrades and new-build projects going ahead, after being postponed or cancelled while prices fluctuated.

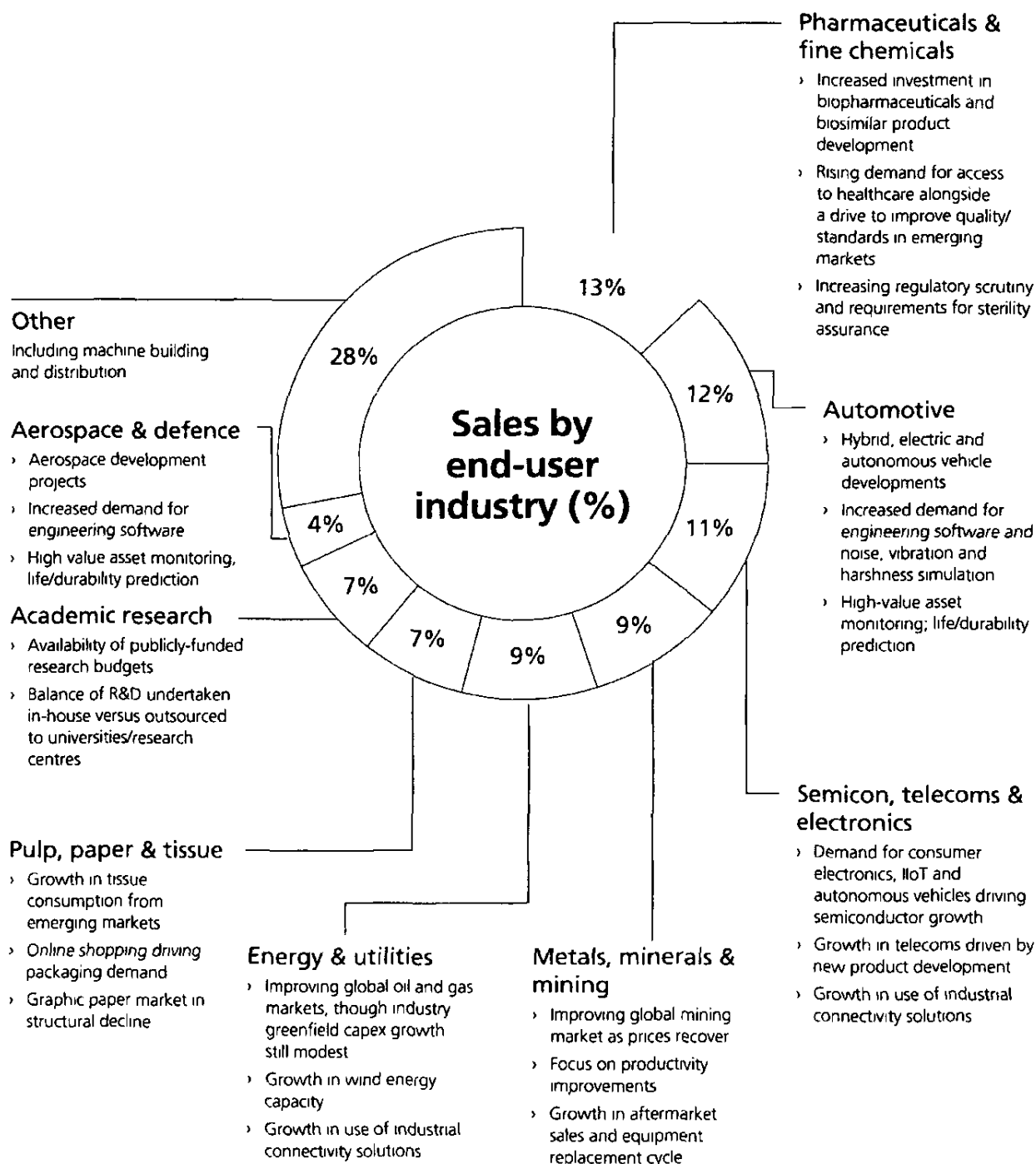
Alongside this, non-fossil fuel energy sources such as wind are seeing major investment. Renewable energy accounted for two-thirds of new power added to the world's grids in 2016, with solar power the fastest-growing source of new energy. Technological advances in materials, cheaper storage and smarter grids are driving this efficiency. An increasing focus on air quality is also resulting in greater investment in electric and hybrid vehicle development, as well as reducing industrial emissions.

We are seeing increasing demand for a number of our solutions in this area: microseismic monitoring; gas analysis products for refining and production of chemicals, petrochemicals, natural gas and fuels; systems for analysis of new materials, wind turbine and hydropower condition monitoring systems, battery testing systems and industrial connectivity solutions.



See pages 20–27 for more detail on the operating companies' customer offerings.

Demand drivers in our end markets



SOLUTIONS selling in action

Providing our customers with solutions which combine our traditional hardware products with software and/or services is becoming increasingly more important in our strategy. Our aim is to further enhance our customer engagement by focusing on certain vertical markets where we have deep knowledge and expertise and can bring insight into their activities as they look to improve productivity and enhance returns.

Demand for a solutions-based approach is being driven by changing market forces and we see a number of key trends behind this.

Amongst our customers there are fewer scientists and engineers as the existing employee population moves closer to retirement and fewer new scientists and engineers are entering the workforce. This is leading to a de-skilling of the workforce and also a requirement for products and outputs to be simpler, despite the fact that technology is becoming more complex. As a result, our customers are having to refocus their available resource and concentrate on core activities and, consequently, they are more willing to outsource some of their activities to trusted partners.

In an attempt also to preserve financial capital, companies are less willing to dedicate capital expenditure to acquiring the instruments themselves. They are more interested in acquiring the knowledge, data and insight provided by the hardware rather than the product itself. Therefore, buying this as a service and funding it as an operating cost rather than on their balance sheet is more attractive.

It is this data that is increasingly being recognised as having value by our customers. The ability to measure and collect data is at the heart of any activity to monitor and improve industrial processes and productivity. This data is translated into a format that enables more effective decision-making and automation optimisation.

There is an increasing reliance on software which can automate the customer's activities, such as replacing some of the physical testing that is undertaken, and this software capability is allowing more sophisticated analysis of the data being collected. This is transforming how customers think about their assets, their facilities and their operations.

Alongside this, there has been huge growth in technology in terms of connectivity, availability and speed have risen and the cost has come down dramatically. This is having an impact on the industrial world, which opens up notable opportunities for the sensing, connectivity and software and service capability that our businesses have.

We are looking to complement and supplement our instruments with software and services such as engineering software, test service capability, process analytics software and diagnostic services. We are positioning ourselves as a group to really benefit from these trends and believe this puts us in an advantageous position to deliver added value to our customers.



Contamination control solutions

In September, Particle Measuring Systems formed a strategic partnership with Novatek International to provide a fully integrated hardware and software solution for cleanroom monitoring in the life sciences industry

Particle Measuring Systems' Facility Pro environmental monitoring system operates by communicating with cleanroom sensors, including particle and microbial monitors, which are placed where product contamination can occur during the manufacturing process. The Novatek software adds the next step to this system, providing customers with the secure data management they need to demonstrate sterility assurance

This integrated solution uses a risk-based environmental monitoring programme to help pharmaceutical manufacturers to visualise possible sources of contamination in their critical production processes and correct potential problems before they occur, thereby maintaining consistent product quality and meeting increasingly stringent regulatory requirements

Data management Transmission testing solutions

The effective use of modern data management systems is giving progressive tissue producers a competitive edge, bringing improved quality, higher productivity and lower raw material costs and wastage.

A tissue paper producer in Spain, a customer for BTG's Duroblade coating blades, is one of the first tissue mills in the world to be equipped with BTG's new Yankee Performance Scorecard. This data aggregation and visualisation tool gives operators real-time decision making support to improve the performance and reliability of this critical part of the tissue machine

The system collects a discrete process data set and processes it according to calculations based on domain expertise and industry best practice to display graphical performance information which helps operators to make the correct process decisions. The customer is seeing benefits in terms of improved productivity and better quality. Savings on plant downtime and plant cost efficiency are already estimated at €95,000 per year

Volkswagen Group uses Brüel & Kjær's Discom noise, vibration and harshness analysis software to test gears at the end of their production lines and also to test the completed transmissions. Its largest gear and transmission production facility at Kassel, Germany, produces around 17,500 transmissions per day

Testing is primarily focused on identifying durability issues and ensuring customer acceptance for ride quality and comfort. Durability issues in gears can lead to a failure in an assembled transmission. The end-of-line transmission test simulates vehicle conditions so that any potential problems are identified early or even predicted and avoided entirely, minimising costs and improving quality

The Discom database and associated tools in the system help develop predictions on tool wear. The system uses a unique USB-based data acquisition front end, developed especially for Volkswagen, and a significant number of features which are now part of the standard Discom system originated from discussions with Volkswagen

Focusing on PROFITABLE GROWTH

We monitor progress against the delivery of our strategic goals using five financial and two non-financial key performance indicators ('KPIs'). Each KPI measures certain elements of the strategy, as indicated by the relevant strategy icons (see page 8). An element of the Executive Directors' remuneration is linked to two KPIs: adjusted earnings per share growth and economic profit.

Our strategy focuses on profitable growth that is sustainable over the medium to long term and therefore we consider how we have performed over a number of years, showing the KPIs for the last five years.

A number of the KPIs are adjusted operating metrics as we believe these are the primary indicator of the performance of the business as they exclude foreign exchange movements and the impact of acquisitions and disposals. See Note 2 to the Financial Statements, page 103, for a reconciliation between adjusted and reported items.

Even in years where like-for-like sales growth has been low, the Group has maintained an operating margin in the mid-teens and delivered good cash conversion of operating profit. The Group has also generated significant economic profit throughout the period.

Financial measures

Like-for-like sales growth



LFL sales growth (%)

LFL sales growth is a measure of how our R&D and other investments help to grow our business organically, i.e. excluding the effects of currency translation and acquisitions or divestments.

Performance

Sales were £1,525.6 million in 2017, a 6% increase on a LFL basis compared with 2016. LFL sales increased across all four segments and all key regions.

Objective

Our aim is to achieve year-on-year growth in LFL sales.

➔ See pages 28–32 for more information

Adjusted operating margin



Adjusted operating margin (%)

Adjusted operating margin is a measure of improving profitability in our business and is defined as adjusted operating profit as a percentage of reported sales. Adjusted operating profit excludes certain items.

Performance

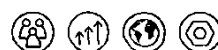
Adjusted operating margin was 14.7%, representing a decrease of 0.2pp over the prior year, primarily reflecting the costs of the Project Uplift programme.

Objective

Our aim is to achieve a mid-teens adjusted operating margin on average throughout the cycle.

➔ See pages 28–32 for more information

Adjusted earnings per share growth



Growth in adjusted EPS (%)

Adjusted earnings per share ('EPS') is the ratio of adjusted earnings for the year to the weighted average number of ordinary shares outstanding during the year, excluding certain items.

Performance

Adjusted EPS was 145.1p, a 14% increase year-on-year, reflecting a 12% increase in adjusted profit before tax, a lower effective tax rate and an increase in the weighted average number of shares.

Objective

Our aim is to achieve year-on-year growth in adjusted EPS.

Link to remuneration

EPS performance is one of the criteria for the Performance Share Plan award. See page 76 for more information.

➔ See pages 28–32 for more information

Strategic priorities:



Innovative solutions



Market presence



Expanding globally



Operational excellence



Capital deployment

Cash conversion



Cash conversion (%)

We focus on cash generation and use cash conversion as a KPI as we believe cash represents an effective measure of the quality of our earnings. Cash conversion is defined as adjusted operating cash flow as a percentage of adjusted operating profit.

Performance

Cash conversion was 75%, a decrease of 38pp over the prior year. This was primarily due to the planned increase in capital expenditure following the first full year of the inclusion of the Millbrook business and higher working capital in line with the improved trading performance.

Objective

Our aim is to deliver high cash conversion of operating profit in each financial year.

➔ See pages 28–32 for more information

Non-financial measures

Energy efficiency



MWh per £m revenue

Energy efficiency makes a significant contribution to environmental sustainability and helps us to reduce our operating costs.

Performance

Energy efficiency, measured in MWh per £m revenue, was 67.2 in 2017. This represents an improvement of 2% compared with the prior year.

Objective

We monitor our use of key sources of energy (electricity, gas, oil and steam) with the aim of reducing our carbon emissions and improving energy efficiency.

➔ See pages 40–45 for more information

Economic profit



Three-year aggregate economic profit (£m)

Economic profit is the annual result derived from deducting a capital charge (applied to average capital employed) from adjusted operating profit, aggregated over a three-year period.

Performance

Three-year aggregated economic profit was £163.2 million, representing an increase on the prior year.

Link to remuneration

Economic profit is one of the criteria for the Performance Share Plan award. See page 76 for more information.

Objective

Our aim is to maintain a positive result over the three-year period.

➔ See page 76 for more information

Accident incidence rate



Reportable accidents per 1,000 employees

We are committed to ensuring the health, safety and well-being of our people and monitor how we are performing by measuring work-related accidents or ill health resulting in lost time in excess of one day (years prior to 2017, three days).

Performance

There were 5.3 reportable accidents per 1,000 employees. This has increased year-on-year due to the Group now reporting all accidents resulting in one day or more absent from work rather than three days.

Objective

Our aim is to reduce accidents and injuries at our sites to as low a level as reasonably practical.

➔ See pages 40–45 for more information

Materials ANALYSIS

Segment performance

Reported sales

£464.9m

(2016: £418.9m)

Adjusted operating profit

£83.1m

(2016: £76.2m)

Reported operating profit

£68.6m

(2016: £66.2m)

Sales by destination (%)

Sales by end-user market (%)

Reported sales increased 11%, reflecting a 7% increase in LFL sales, a 0.2% contribution from acquisitions and a 4% positive impact from foreign currency exchange movements. Sales growth for the year was driven primarily by Asia, particularly in China, South Korea and India. In North America, LFL sales increased, with a notable swing from a first half decline to a very strong second half. On a LFL basis, before Project Uplift costs, adjusted operating profit increased 12% and adjusted operating margins increased by 0.9pp, reflecting the higher LFL sales, slightly reduced gross margin from adverse product mix, and lower net overhead costs, with the rise in merger-related costs being partly mitigated by good cost control and the benefit of an insurance settlement. Reported operating profit increased 4% to £68.6 million.

Malvern Panalytical continued to bring the two teams together as a single operating company. The business has now been organised around key market sectors – Advanced Materials, Pharma and Food, Raw and Bulk Materials – with a focus on value-based selling by the newly cross-trained sales and marketing teams. Numerous opportunities to promote the Malvern product line to customers of the former PANalytical brand and vice versa have translated into incremental orders and revenue, with an increasing list of opportunities being actively pursued. For example, a global cement company which was an existing PANalytical customer bought a Malvern Mastersizer for the first time alongside a PANalytical XRD/XRF system.

New products have been launched during the year, for example, the Epsilon 1 Meso, a version of the Epsilon 1 XRF spectrometer which combines hardware and software to enable small spot elemental analysis. In February, the MicroCal PEAQ-DSC differential scanning calorimeter was launched. This instrument is used to assess the developability and shelf-life of biological products and for comparing biopharmaceuticals and their biosimilar counterparts. This product is the only such DSC system with software compliance for the regulated environment, positioning Malvern Panalytical well with biopharmaceutical customers. Additionally, in this area, Malvern Panalytical is leading an industrial and academic consortium which was awarded an Innovate UK grant. This will fund a project seeking to address the specific analytical challenges associated with biopharmaceutical stability, in order to ensure the delivery of safe and cost-effective drugs in the future. Malvern Panalytical also announced a partnership with TetraScience to develop applications for smart laboratories, which will increase efficiency in the pharma industry, enabling researchers to better manage their equipment and make swift, data-driven decisions.

Sales to the pharmaceuticals and fine chemicals industries rose on a LFL basis with Asia seeing particularly strong growth, notably in China and Japan. As the middle class in this region expands, the number of people who are able to pay for healthcare increases and they are demanding better government provision. In China in particular, state funding on healthcare is increasing notably. North America saw an increase in LFL sales and Europe was up slightly year-on-year. At Particle Measuring Systems ('PMS'), there has been a continued drive to provide our high-level consulting services to existing hardware customers following the acquisition of CAS Clean Air Service AG in 2016. For example, an American pharmaceutical corporation, which already had our air particle sensors installed at their largest US site, requested consultancy support for particle and microbiological contamination in their filling lines, which then led to a request for further equipment at their site. Demand for these services is motivated by regulatory compliance, which is becoming more stringent. This means demand continues to be strong, particularly in the area of aseptic pharma. PMS is focused on providing complete sterility assurance solutions to the life sciences industry and the customer proposition was further enhanced by a global partnership with Novatek International, a leader in regulatory compliant data management software. This provides a fully integrated software and hardware solution for environmental monitoring in controlled manufacturing processes, helping companies ensure cleanliness in their manufacturing environment.

whilst automatically collecting much of the information necessary for batch release and regulatory compliance

The metals, minerals and mining sector reversed its 2016 sales decline, with a strong performance in all major regions, particularly in the second half of the year. Minerals and mining saw a strong recovery, whilst LFL sales increased more modestly in the metals space, although in North America and Europe, LFL sales were down slightly. There is a cautiously improving investment climate, and as a result, increased market activity as well as demand from a focus on safety and productivity.

Sales (LFL) to academic research were notably weak in 2017, although they improved in the second half after a slow start to the year. The decline was prevalent across all regions with only India and the UK seeing any growth, with the former recovering from a weak 2016 as funding levels improved. In the USA, there has been little change under the new administration, with 2017 spending at most agencies at 2016 levels, which has generally prevented them from starting major new programmes. Similarly, political uncertainty in parts of Europe has meant that expenditure has remained subdued or delayed, with LFL sales into Germany notably weak until the latter part of the year as funds were released late. In Asia, Japanese academic budgets have also been under pressure and although LFL sales were down in China for the year, the government's new 'Double First Class' initiative to develop world-class universities is already impacting positively.

Sales (LFL) to the semiconductor, electronics and telecoms industry continued to grow strongly during 2017, particularly in Asia (China and South Korea, notably) and in North America. This has been driven by a significant increase in semiconductor capital spending as the demand for consumer electronics and IIoT applications rises. Our customers are also driven by yield enhancement, which can be improved by ensuring ultra-clean manufacturing environments and therefore the ability to measure ever smaller particles is a key demand driver for our products, alongside the need to meet regulatory requirements. PMS has had success with its market-leading products that measure 20 nanometre particles in ultra-pure water and ultra-pure chemicals.

Segment outlook

We expect continued growth in R&D expenditure by pharma and biotechnology companies with increasing investment in biopharmaceuticals and innovative drugs in western markets. In Asian markets, we expect continued growth in the development of generics as incomes increase and demand for access to healthcare products rises.

Within pharmaceuticals, we expect a continued increase in the regulatory scrutiny of manufacturing processes, driving demand for our material characterisation and cleanroom products as well as for related services, as customers seek complete solutions for regulatory compliance such as sterility assurance and good manufacturing practices.

We have seen an improving backdrop in the mining sector which has led to improved demand for equipment and services. However, the growth in capital investment budgets for larger-scale greenfield investments may be more modest.

We expect growth in the academic research market to be muted, although demand in China should be better as government initiatives to drive quality across their university system are boosting funding.

Within the semiconductor and telecoms industry, we expect to see continued growth in semiconductor investment, driven by the growing demand for consumer electronics, IIoT applications and autonomous vehicles, albeit at more muted rates than in 2017.

The world's population continues to grow, with the result that food production needs to increase to keep up with demand. In agriculture, as much as 60% of crop yields depends on the fertility of the soil. Obtaining fast, affordable and reliable access to information about soil fertility is therefore key to helping farmers increase their yields.

Dutch company SoilCares provides the world's farming community with data-based precision farming tools in order to increase crop yields. Based on an Epsilon 1 XRF spectrometer from Malvern Panalytical, SoilCares' subscription-based solution, called Lab-in-a-Box, enables individual farmers or farming organisations to have direct access to soil testing services on site, something which has previously only been possible in a laboratory.

The Lab-in-a-Box measures soil parameters such as pH, nutrients and organic matter using SoilCares' unique global soil database. In this way, Malvern Panalytical enables a complete soil fertility report to be delivered back to the farmer's computer in less than two hours, together with customised recommendations for improving the soil.

Malvern Panalytical and SoilCares are working together to develop the self-learning database in which the results are stored so that the system can provide increasing knowledge to farmers anywhere in the world.

Test and MEASUREMENT

Segment performance

Reported sales

£487.3m

(2016: £404.5m)

Adjusted operating profit

£68.9m

(2016: £61.8m)

Reported operating profit

£55.6m

(2016: £26.7m)

Sales by destination (%)

Sales by end-user market (%)

Reported sales increased 20%, including a 9% contribution from acquisitions, predominantly related to Millbrook, and a 5% positive impact from foreign currency exchange movements. LFL sales increased by 6%. By region, North America, Europe and Asia delivered similar levels of LFL sales growth, with a decline in the Rest of the world. Adjusted operating profit before Project Uplift costs increased 8% on a LFL basis and LFL operating margins before Project Uplift costs increased by 0.4pp, primarily reflecting the higher sales volumes and gross margin improvement due to cost-of-sales efficiencies. Reported operating profit increased to £55.6 million from the £26.7 million recorded in 2016 which included a non-cash impairment charge of £20.9 million relating to a write-down of goodwill and other intangibles associated with ESG.

In October, the acquisition of The Omnicon Group, Inc. ('Omnicon') was completed for a final consideration of £23.8 million. Omnicon provides a range of services to help its customers analyse and improve product reliability and safety. Key industries served include aerospace, automotive, transportation and defence and its services strongly complement the existing capability within the reliability and durability software and services portfolio in this segment, enabling us to offer a broader range of reliability-improvement solutions.

Within the automotive sector, LFL sales grew strongly during the year with the UK, Germany, North America and China being the main contributors. In China, we benefited from strong growth in torque sales, driven by investment in electrical drivetrains. At Millbrook, we expanded our testing capacity and capability with the acquisition of a commercial vehicle test facility in Lancashire in the UK and, organically, through further capital investment in the UK and for additional indoor testing capacity in Finland. For example, we expanded our powertrain testing capabilities with the opening of a new engine test cell to test premium and performance engines, commissioned a state-of-the-art climatic emissions chassis dynamometer to help develop lower emission vehicles and completed the first phase of investment in battery test capabilities to support electric vehicle development. We are also supporting the development of autonomous vehicles and were selected by the UK government to develop an innovative controlled urban environment for connected and autonomous vehicle testing and have been working with several companies developing driverless cars. At Brüel & Kjær Sound & Vibration ('BKS'), our noise, vibration and harshness ('NVH') offering into the automotive space was enhanced by the release of the latest version of the Sonoscout, an ultra-portable, multi-channel NVH system used, for example, to record vehicle intake and exhaust noise levels for benchmarking competitor vehicles, and VSound, a vehicle sound-generating system that enables virtual NVH prototype evaluation in the context of a real vehicle, without the need for a PC in the vehicle.

In machine manufacturing, a significant portion of which represents sales into the automotive supply chain, LFL sales were flat year-on-year. LFL sales into the two key regions, Europe and Asia, rose but declined in North America. Germany saw modest growth with a continued increase in exports. China, in particular, saw strong growth in demand, driven by the economic backdrop as well as the general trend from volume to quality.

In the aerospace and defence sector, LFL sales reversed the decline seen in 2016, though this is typically a project business and sales can be lumpy. Overall, we have seen more aerospace opportunities, especially driven by stronger demand and funding of aircraft, helicopter and spacecraft makers in the USA and China, and we were able to maintain our leading position in structural testing, including a number of new customer wins. There was very strong growth in both Europe and North America, and although lower in Asia overall, China saw good growth. A reorganised sales team and key account programme has delivered new sales opportunities with a number of notable contracts signed. For example, an agreement was signed with BAE Systems to deliver a hull vibration monitoring system for the UK Royal Navy and contracts were signed with two major North American aerospace manufacturers.

Sales (LFL) to our consumer electronics and telecoms customers increased in 2017, primarily reflecting the launch of new products.

by our customers. We again saw strong growth in China where we are working with a number of mobile phone manufacturers. During the year, a new high-frequency head and torso simulator was launched – a mannequin with built-in ear and mouth simulators that provide a realistic reproduction of the acoustic properties of an average adult human head and torso. It is designed for in-situ electro-acoustics tests on smartphones, headsets and microphones. We are working closely with Sony on headphone development using this product and have also secured orders with leading acoustics and social media companies.

Sales (LFL) of our environmental noise monitoring services increased during the year, particularly in Asia, where sales are approaching similar levels to Europe. Our strategy to widen our market reach for noise monitoring equipment and services has continued to see an increase of orders for urban monitoring. In December, an agreement was signed with Macquarie Capital to form a joint venture with our environmental monitoring business (now named EMS Brüel & Kjær). Macquarie Capital will acquire 50% of the business for a total cash consideration of AUD76.6 million. It is expected to close in the second quarter of 2018, subject to regulatory approvals in China, the European Union and South Korea. Both parties are committed to an accelerated investment programme to help create additional solutions and services to enable asset owners to monitor and manage their resources more effectively. The venture will benefit from Macquarie Capital's unrivalled expertise as a world-leading infrastructure adviser and investor.

As with the Materials Analysis segment, LFL sales to academic research institutes declined, with weakness in demand seen in all regions.

Improved conditions in the oil and gas and mining markets in 2017 resulted in an increase in LFL sales in these end markets, particularly in North America. Demand for microseismic monitoring solutions increased markedly in North America and we saw a higher level of activity for our downhole hydraulic fracture mapping and monitoring activities as both the US rig count and production rose throughout the year. We continue to target opportunities in other markets and are making progress in this regard in Latin America and the Middle East. As markets recover, ESG is looking to work more closely with its customers for productivity-enhancing solutions – for example, it has developed a microseismic analysis approach that helps operators better diagnose and improve fracturing effectiveness.

Segment outlook

We expect the automotive and aerospace sectors to benefit from further growth in demand for engineering software applications. The growth in hybrid and electric vehicles is expected to drive demand for our market-leading torque and eDrive solutions and test services. We are also seeing growth in sound and vibration applications in automotive.

In aerospace, as well as improved reliability and availability of engines, driven by safety and maintenance cost requirements, quieter engines and airframes (exterior noise) are also an area of focus. However, overall demand will be driven by new development programmes.

The underlying trends in the consumer electronics market remain healthy in our view, with strong consumer demand for smartphones, audio quality and innovative features, particularly in China and India.

The improving market conditions in the oil and gas industry are expected to create increased demand for our microseismic solutions with expectations for both production and capex in the industry to be higher in 2018.

Millbrook is supporting the development of the vehicles of the future in the area of advanced driver-assistance systems and connected and autonomous vehicles.

One project, backed by the UK government, involves collaboration with the Atomic Energy Authority's centre for Remote Applications for Challenging Environments to develop a unique, controlled test bed representative of an urban environment for the development of connected and autonomous vehicle ('CAV') technologies. Millbrook's 70 kilometres of test tracks offer a diverse topography to replicate the complexity of urban environments. The test bed will enable both automotive OEMs and developers of software, sensors, roadside units and cyber security systems to access a comprehensive suite of virtual and physical tools for test and validation. The aim is to speed up development of CAV technologies by bridging the gap between track testing and deployment on public roads, enabling advanced connectivity testing, while being safe and secure for all users.

Another initiative is the creation of a virtual model of Millbrook's proving ground which will enable vehicle manufacturers to significantly improve the development of CAV systems using digital experiments which precisely mirror the real-world tests conducted on the physical site. Test drivers can interact with this virtual replica of Millbrook in full-scale driving simulators or at desktop workstations with steering and pedal controls. This allows drivers to test cars with autonomous systems or use the virtual world to either subjectively assess the behaviour of autonomous vehicles or to provoke emergency scenarios and evaluate the response.

In-line INSTRUMENTATION

Segment performance

Reported sales

£310.9m

(2016: £275.6m)

Adjusted operating profit

£33.2m

(2016: £41.2m)

Reported operating profit

£29.5m

(2016: £37.6m)

Sales by destination (%)

Sales by end-user market (%)

Reported sales increased 13%, reflecting a LFL sales increase of 6%, a 5% positive impact from foreign currency exchange movements and a 2% contribution from acquisitions. On a regional basis, LFL sales were up in all regions, with a good performance in Europe and Asia, particularly in the first half of the year. This reflected good growth in industrial production and a recovery in capital expenditure across many process industries globally. Excluding Project Uplift costs, LFL adjusted operating profit declined 12% and LFL adjusted operating margins were 2.6pp lower year-on-year. This resulted from adverse mix and an increase in overheads driven by higher employee costs, plus costs of £4.3 million relating to restructuring and costs following the closure of a business centre in Europe. This also led to reported operating profit decreasing, from £37.6 million to £29.5 million.

In the pulp and paper markets, LFL sales increased modestly compared with 2016, with growth in pulping and tissue offsetting the continued structural decline in the coating segment. We continue to diversify towards the tissue, pulp and packaging markets, including digital solutions to meet 'mill-of-the-future' needs. Solutions tailored to drive gains in business performance at our customer sites continue to be the theme of many of the projects that the pulp and paper industry is looking for, including a more widespread use of automation and real-time monitoring of site-wide operating conditions. To address this, we have formed a new Process Solutions business unit. For example, a global pulp and paper producer deployed BTG's instruments and Capstone MACS process control software in combination to automate their bleaching unit operation. Several pulp and paper producers implemented BTG's dataPARC decision support and analysis software in order to access and visualise real-time data from multiple sources, enabling them to have a more comprehensive and intuitive means of leveraging their operational data. The data analytics offering also continues to be deployed in several other industries, including power generation, chemical, wastewater and ethanol.

In the energy and utilities market, LFL sales rose, reflecting the improved global oil and gas markets. Both the industrial gases business and the hydrocarbon processing sector continue to recover globally and along with the strengthened sales and marketing organisation at Servomex, we have been able to capitalise on this. Growth was also helped by the launch of a number of new flagship products: for example, the Servopro MultiExact 4100, a high-performance multi-gas analyser offering up to four simultaneous digital gas stream measurements and configurable to a wide range of industrial applications. Gases measured include oxygen, nitrogen, methane, carbon monoxide, carbon dioxide, argon and helium, delivering a new level of performance that further optimises processes, improves product yields, ensures high product quality for our customers and helps meet regulatory and safety requirements.

During the year, we acquired Setpoint, a leading provider of vibration and condition monitoring solutions to process industries. It has become an integrated product line of Brüel & Kjær Vibro, growing our presence in the condition monitoring market. Setpoint is primarily focused on the oil and gas and power generation sectors and its technology enables customers to improve machinery availability, productivity and reliability by delivering accurate condition information. In August, the first shipments of Setpoint systems from Brüel & Kjær Vibro were delivered for the thermal power generation market in the Philippines. Since acquisition, we have also delivered new orders to two major South American oil and gas companies and a US power generation company, amongst others, and in December, we received the largest-ever order for Setpoint systems for a large petrochemical complex being built in Russia.

In the wind energy sector, we are continuing to see growth and have further expanded the number of wind farm owners and operators to whom we provide turbine monitoring services. In total, we have now sold more than 18,000 systems into the wind power industry. Brüel & Kjær Vibro has supplied for the first time condition monitoring systems to a US utility company under a five-year 'systems-as-a-service' contract. Simultaneously,

Brüel & Kjær Vibro's systems are now considered fleet-wide standard for wind turbines used by three utility companies – one each in Canada, the USA and Central America

In our other end markets, sales (LFL) to the cable and tube ('C&T') and food and bulk ('F&B') markets increased during 2017 with strong performances in North America, Europe and Japan. C&T sales were up strongly on improved sales coverage, particularly in Europe and China. F&B sales were up strongly as a result of targeting key growth markets in this segment, including savoury snacks. Film extrusion and converting sales were especially strong in North America. NDC Technologies ('NDC') continues to develop its technology partnerships and products. It has worked closely with RAM GmbH, a web inspection business, since a business co-operation agreement was signed in March. Customers will benefit from simplified service support with one organisation handling both gauging and inspection. During the year, NDC delivered several new products to the market, including the new BenchMike Pro offline diameter and ovality metrology instrument which offers the highest accuracy in the industry. The instrument also offers faster communications processing and easy integration into production networks to support customers' IIoT programmes. Restructuring activities at NDC continued during the year and transfer and consolidation of the manufacturing and administrative functions from California into the Ohio facility is on track for completion in 2018. The California facility has become the new film extrusion and converting solutions technical centre of excellence.

Segment outlook

The mix in our pulp and paper business is expected to continue to improve during 2018 with our new focus on complete solutions, including digital capabilities, aimed at the growing tissue, pulp and packaging markets. We also expect to continue to benefit from the combination of Capstone's software tools with BTG's instruments to capture new opportunities with the Process Solutions business unit.

With an improved environment in global oil and gas markets and with a partial revival of activity in greenfield projects as well as brownfield expansions, we expect growth from the energy and utilities sector to continue into 2018. The addition of Setpoint offers the potential to further grow the machine protection/condition monitoring solution business in this segment. The wind energy sector remains healthy and offers the potential for additional capabilities beyond vibration to encompass other condition monitoring in order to provide more predictive analysis and offer a full-service wind farm optimisation programme.

Opportunities in the film extrusion, web converting and food and bulk materials markets are expected to increase as customers develop new products which require advanced inline measurement solutions. Quality requirements, particularly in the food segment and food packaging, continue to be more stringent globally and therefore drive demand for inline solutions.

Drax Power is the UK's largest power station and is Europe's biggest decarbonisation project. 70% of its electricity is generated from sustainable biomass. Drax uses Servomex's analysers to optimise boiler combustion efficiency control, resulting in direct fuel savings, reduced maintenance and a reduction in direct carbon monoxide emissions.

The Fluegas Exact 2700 analyser measures both oxygen and carbon monoxide and is therefore suitable for continuous flow monitoring of combustion processes. It is designed for high temperature processes up to 1,750°C, so is ideal for use in extreme heated environments such as hydrocarbon processing and power generation applications. Over the past nine years, Servomex has supplied 48 of these analysers to monitor the boilers.

Drax estimate that improved control of the combustion process has saved them millions of pounds over the years in both direct fuel savings and lower operational costs.

Industrial CONTROLS

Segment performance

Reported sales

£262.5m

(2016 £246.8m)

Adjusted operating profit

£38.3m

(2016 £21.6m)

Reported operating profit

£28.7m

(2016 loss of £92.2m)

Sales by destination (%)

Sales by end-user market (%)

Reported sales rose 6%. After adjusting for Microscan, LFL sales increased by 6% and there was a favourable impact of 6% from foreign currency exchange movements. With the segment's high exposure to North America (c 70%), it was encouraging to see an increase in LFL sales in this region for the first time since 2014. Asia recorded strong growth in LFL sales, particularly at Omega. In Europe, overall segment sales were higher on a LFL basis, with growth in both our industrial networking business and in process measurement and control products. Reported operating profit increased to £28.7 million from the loss of £92.2 million recorded in 2016 which included a non-cash impairment charge of £94.4 million relating to a write-down of the balance sheet goodwill and other intangibles associated with Omega.

Adjusted operating profit (LFL) before Project Uplift costs increased by 96% and LFL operating margins before Project Uplift costs improved by 7.4pp, following the significant improvement in gross margin at Omega as well as the effects of operating leverage. This reflected improved product mix and pricing and lower overheads. There was a restructuring charge of £2.1 million as we continue to improve the performance of Omega.

The operational improvements at Omega were reflected in a good sales performance and higher gross margins. Omega derives the majority of sales from the USA and the improving industrial environment saw an increase in demand for its products. The internationalisation programme continued to deliver good sales growth in all major markets outside the USA, with particular strength in Asia, notably in China. A focus on lean operations, tighter inventory management and the consolidation of distribution centres globally have all contributed to this performance. Other performance improvement initiatives have focused on marketing, including a shift from higher cost print marketing to precisely-targeted digital marketing campaigns. These campaigns highlight new products and real-life use applications – for example, for the Omega Enterprise Gateway, a software tool in Omega's portfolio designed to link sensor data and monitor a variety of products from a single platform. Rapid adoption resulted from the targeted digital marketing promotion and expansion of Omega's easily configured pressure transducer product line in aerospace, military and transportation markets. Examples of these applications include temperature sensors for pre-flight applications and automated data collection systems for robust asset monitoring.

The increasing trend towards IIoT, driven by the need for smarter, more interconnected operations, is benefiting our industrial automation and networking business as organisations seek easy-to-use solutions to connect and expand the capabilities of legacy equipment within existing facilities. To better service this need, Red Lion reorganised its sales teams to focus on opportunities in certain key vertical markets. For example, in Asia, a targeted focus in energy and water resulted in sales to a large wind turbine manufacturer and a number of water projects in China. In India, Red Lion won a project to enable Azure Power to efficiently analyse previously installed solar power systems for energy consumption.

During the year, Red Lion launched a new generation of human machine interface products ('HMI's') which provide enhanced functionality for remote monitoring and control. These HMIs allow customers to interconnect devices from a variety of leading manufacturers more easily. New additions of Red Lion's industrial Ethernet switches were also launched. The new models are designed for industrial, transportation and intelligent traffic applications requiring high reliability and the ability to function in extreme environmental conditions to help maximise network uptime and prevent lost production, downtime or a safety risk.

In October, the Group completed the sale of the Microscan Systems, Inc. business ('Microscan') to Omron Corporation, resulting in post-tax cash proceeds of £91.9 million. Microscan is a global provider of world-class machine vision technology and solutions for critical identification, inspection and verification applications. However, in light of the Group's more focused strategic direction, we believed that its next stage of development could be better fulfilled elsewhere.



Segment outlook

The performance of this segment will continue to depend on US industrial markets. The growth recorded in 2017 is expected to continue into 2018, although order visibility is very low

At Omega, the restructuring activities, organisational changes and enhanced marketing approach are producing better results and we expect this improvement to continue in 2018

In the medium term, the demand for industrial companies to drive productivity and operational efficiencies by enabling effortless and secure access to their manufacturing information is expected to increase. Industrial customers who are implementing cloud-based analytics applications will drive further demand for best-in-class networking and connectivity solutions for stranded assets and disparate plant systems. Spectris has focused efforts to be well positioned to take full advantage of these opportunities

Azure Power, a solar power generation company in India, use a weather station tool for their solar power sites to analyse energy consumption based on the ambient conditions. To do this, they need to accurately monitor and log weather data from a number of different remotely-located field devices and send all of the data to their head office.

The previous process involved two devices and a long run of cable from the field, which often required site visits to repair. Now, using Red Lion's solution of a modular controller with built-in web server and Ethernet switch, combined with third-party sensors for the field devices, Azure Power can monitor data remotely and store it in the cloud. This remote monitoring and control eliminates the need for multiple devices and data cabling, reducing the number of site visits required and lowering operating costs.

Temperatures in northern India's solar panel fields can reach extreme highs, so the rugged, reliable design of Red Lion's equipment, with an operating temperature range of 0° to 50°C, means that service will continue even in the most extreme of environments.

Robust financial PERFORMANCE

We delivered like-for-like increases in both sales and operating profit. Cash conversion met expectations and our balance sheet remains robust.

Clive Watson
Group Finance Director

Operating performance

	2017	2016	Change	Like-for-like change ¹
Adjusted				
Sales (£m)	1,525.6	1,345.8	13%	6%
Operating profit before Project Uplift costs of £15.8m (2016: £3.2m) (£m)	239.3	204.0	17%	14%
Operating margin before Project Uplift costs (%)	15.7%	15.2%	0.5pp	1.1pp
Operating profit (£m)	223.5	200.8	11%	8%
Operating margin (%)	14.7%	14.9%	(0.2pp)	
Reported				
Sales (£m)	1,525.6	1,345.8	13%	
Operating profit (£m)	182.4	38.3	>100%	
Operating margin (%)	12.0%	2.8%	9.2pp	

¹ At constant exchange rates, and including the impact of acquisitions and disposals on a comparable basis

Spectris uses alternative performance measures in addition to those reported under IFRS, as management believe these measures enable them to assess the underlying trading performance of the businesses. Alternative performance measures exclude certain non-operational items which management has defined in Note 2 to the Financial Statements. A reconciliation of reported and adjusted measures is provided in Note 2 to the Financial Statements.

Reported sales increased by 13.4% to £1,525.6 million (2016: £1,345.8 million). After adjusting 2016 sales for the disposal of Microscan by £11.3 million (-0.8%), the increase in sales compared to 2016 comprised a contribution from acquisitions of £44.2 million (+3.3%), favourable foreign exchange movements of £64.2 million (+4.8%) and a LFL sales increase of £82.7 million (+6.2%).

Reported sales bridge

In 2017, reported operating profit increased from £38.3 million in 2016 to £182.4 million, with operating profit in 2016 principally impacted by an impairment charge of £115.3 million related to goodwill and other acquisition-related intangibles of which £94.4 million related to Omega and £20.9 million to ESG. Reported operating profit included a number of one-off costs and income during the year resulting in a net overheads year-on-year benefit of £3.5 million. Reported operating margins of 12.0% were 9.2pp higher than the prior year, mainly arising from the impairment charge of £115.3 million in 2016 which reduced the operating margin in 2016 by 8.6pp.

Adjusted operating profit increased by £22.7 million (+11.3%) to £223.5 million in 2017. After reducing the 2016 operating profit by £1.7 million to reflect the sale of Microscan, LFL adjusted operating profit before Project Uplift costs increased by £29.1 million (+14.4%). Acquisitions and foreign exchange contributed £2.0 million and £5.9 million, respectively, to the growth in adjusted operating profit, whilst the net increase in Project Uplift costs amounted to £12.6 million.

Adjusted operating margins declined by 0.2pp, whilst LFL operating margins increased by 1.1pp, with the difference being explained mainly by the year-on-year increase in Project Uplift costs and the dilutive effects of acquisitions and foreign exchange. The improvement in the LFL operating margin consists of a 0.8pp LFL gross margin increase to 57.3% in 2017 (2016: 56.5%) combined with a 0.3pp decrease in LFL overhead costs as a percentage of sales. The improvement in gross margin was substantially driven by Industrial Controls which benefited from a turnaround in performance from Omega and the non-recurrence of the £9 million inventory charge recorded in 2016, partly offset by a weaker gross margin in the In-line Instrumentation segment, reflecting adverse product mix. LFL overheads were up 5.2%, reflecting increased headcount and inflation combined with the costs of implementation of strategic initiatives.

Adjusted operating profit bridge

We continued to invest in our R&D programmes, with a reported R&D expense of £105.1 million or 6.9% of sales (2016: £98.6 million or 7.3% of sales). The R&D expense was in line with 2016 on a LFL basis.

Net finance costs decreased by £1.9 million to £4.5 million (2016: £6.4 million), with adjusted net finance costs for the year slightly higher at £5.1 million (2016: £5.0 million). Reported profit before tax increased from £31.9 million in 2016 to £278.4 million in 2017. Reported profit before tax in 2016 was impacted by the £115.3 million impairment charge relating to goodwill and other acquisition-related intangibles, whilst 2017 benefited from the £100.5 million profit on disposal of Microscan. Adjusted profit before tax increased by 11.5% to £218.4 million.

The reconciliation of reported and adjusted measures is shown in the table below.

	2017			2016		
	Reported £m	Adjustments £m	Adjusted £m	Reported £m	Adjustments £m	Adjusted £m
Sales	1,525.6	-	1,525.6	1,345.8	-	1,345.8
Gross profit	867.5	-	867.5	760.5	-	760.5
Adjusted operating profit before acquisition-related items	223.5	-	223.5	200.8	-	200.8
Impairment of goodwill and other acquisition-related intangible assets	-	-	-	(115.3)	115.3	-
Bargain purchase on acquisition	1.9	(1.9)	-	-	-	-
Amortisation and impairment of acquisition-related intangibles	(41.9)	41.9	-	(36.9)	36.9	-
Depreciation of acquisition-related fair value adjustments to tangible assets	(0.7)	0.7	-	(0.2)	0.2	-
Net acquisition-related costs and fair value adjustments	(0.4)	0.4	-	(10.1)	10.1	-
Operating profit	182.4	41.1	223.5	38.3	162.5	200.8
Profit on disposal of business	100.5	(100.5)	-	-	-	-
Net gain/(loss) on retranslation of short-term inter-company loan balances	1.3	(1.3)	-	(0.8)	0.8	-
Net bank interest costs	(4.3)	-	(4.3)	(4.6)	-	(4.6)
Unwinding of discount factor on deferred and contingent consideration	(0.7)	0.7	-	(0.6)	0.6	-
Net interest cost on pension plan obligations	(0.7)	-	(0.7)	(0.3)	-	(0.3)
Other finance costs	(0.1)	-	(0.1)	(0.1)	-	(0.1)
Profit before tax	278.4	(60.0)	218.4	31.9	163.9	195.8

Acquisitions

The Group completed four acquisitions during the year. The total cost of acquisitions was £34.6 million (2016: £174.2 million), including £0.8 million (2016: £6.9 million) for cash acquired and £1.4 million (2016: £7.6 million) attributable to the fair value of deferred and contingent consideration which is expected to be paid in future years. A net £4.1 million (2016: £1.2 million) was paid in respect of prior year acquisitions, making the net cash outflow in the year £36.5 million (2016: £160.9 million). Furthermore, an amount of £2.8 million (2016: £5.4 million) was spent on acquisition-related legal and professional fees, which makes the total acquisition-related cash outflow for the year £39.3 million (2016: £166.3 million). Acquisitions contributed £44.2 million of incremental sales and £2.0 million of incremental operating profit during the year.

Disposals

In October 2017, the Group completed the disposal of Microscan for net cash proceeds of £110.9 million which, after paying cash taxes of £19.0 million, resulted in a net cash inflow of £91.9 million. The post-tax profit on disposal was £81.5 million. Sales of £32.9 million and operating profit of £4.5 million relating to Microscan were included in the reported and adjusted results for the nine-month period of ownership prior to its disposal on 2 October 2017.

Project Uplift

One-off costs incurred in 2017 of £15.8 million principally related to Phase 1 of the programme (which is focused on IT, procurement and footprint), resulting in cumulative costs to date of £19.0 million. Gross recurring savings of £2.8 million were realised during 2017. The net impact on operating profit relating to Project Uplift in 2017 amounted to £13.0 million which, although in line with expectations at a net level, was as a result of reductions in both expected benefits and costs. This was as a consequence of slowing down Phase 1 of the programme and putting Phase 2 on pause for approximately four months. Annualised recurring savings of £25 million and a total cost to achieve these of £35 million by the end of 2019 are now expected, with more coming from procurement activities and less from IT. This compares to previous expectations of £35 million of savings and £45 million of costs.

Taxation

The effective tax rate on adjusted profit before tax was 20.8% (2016: 22.4%), a decrease of 1.6pp primarily due to the favourable settlement of certain tax audits. On a statutory basis, the weighted average expected tax rate was 28.6% (2016: 13.8%), an increase of 42.4pp largely due to disposal gains arising in the USA (a higher tax jurisdiction) compared to a decrease in the USA in 2016 arising from the impairment of goodwill. In 2018, the Group expects a reduction in its effective tax rate of around 2pp as a result of US tax reform.

This year, the Audit and Risk Committee approved the Group tax strategy for publication, which sets out the Group's approach to tax matters. In compliance with the Finance Act 2016, this has been made available on our website, www.spectris.com/sustainability/tax-strategy.

Earnings per share

Adjusted earnings per share increased by 13.8% from 127.5p to 145.1p, reflecting the net impact of the 11.5% increase in adjusted profit before tax, the reduction in the effective tax rate and the increase in the weighted average number of shares from 119.1 million in 2016 to 119.2 million in 2017.

Reported basic earnings per share increased from 8.6p to 197.0p, with the difference between the two measures shown in the table below.

	2017 pence	2016 pence
Reported basic earnings per share	197.0	8.6
Impairment of goodwill and other acquisition-related intangible assets	–	96.8
Amortisation and impairment of acquisition-related intangible assets	35.1	31.0
Net acquisition-related costs and fair value adjustments	0.3	8.5
Depreciation of acquisition-related fair value adjustments to tangible assets	0.6	0.2
Profit on disposal of business	(84.3)	–
Net (gain)/loss on retranslation of short-term inter-company loan balances	(1.1)	0.7
Bargain purchase on acquisition	(1.6)	–
Unwinding of discount factor on deferred and contingent consideration	0.6	0.5
Tax effect of the above and other non-recurring items	(1.5)	(18.8)
Adjusted earnings per share	145.1	127.5

Cash flow

Adjusted operating cash flow

	2017 £m	2016 £m
Adjusted operating profit	223.5	200.8
Adjusted depreciation and software amortisation ¹	30.5	28.3
Working capital and other non-cash movements	(13.1)	27.4
Capital expenditure, net of grants	(73.1)	(28.7)
Adjusted operating cash flow	167.8	227.8
Adjusted operating cash flow conversion	75%	113%

1 Adjusted depreciation and software amortisation represents depreciation of property, plant and equipment and software amortisation, adjusted for depreciation of acquisition-related fair value adjustments to property, plant and equipment

Adjusted operating cash flow generation of £167.8 million during the year was in line with expectations and impacted by increased capital expenditure following the first full year of the inclusion of the Millbrook business. The adjusted operating cash flow conversion rate was 75% compared with 113% in 2016, primarily due to the increased capital expenditure and higher working capital.

Average trade working capital (the monthly average of the sum of inventory, trade receivables, trade payables and other current trading net assets), expressed as a percentage of sales, decreased by 2.3pp to 11.9% (2016: 14.2%). Excluding acquisitions, disposals and foreign exchange, the LFL reduction in average trade working capital was 2.1pp, with improvements across all segments. Most notably in the Industrial Controls segment, Omega showed strong progress in inventory management and supplier payments following operational issues in 2016, in the Materials Analysis segment there was improved inventory management, and in In-line Instrumentation, Servomex improved both inventory levels and cash collections for receivables during the year. The year-end trade working capital to sales ratio decreased from 15.9% in 2016 to 14.0% in 2017, a 1.9pp decrease.

Capital expenditure (net of grants) on property, plant and equipment during the year of £73.1 million (2016: £28.7 million) equated to 4.8% of sales (2016: 2.1%) and was 240% of adjusted depreciation and software amortisation (2016: 101%), partly due to the inclusion of the first full year of the recently-acquired Millbrook business with an incremental spend of £21.2 million as well as continued investments in property and infrastructure at Malvern Panalytical, HBM and Omega. Planned capital expenditure on a cash basis in 2018 is anticipated to be at around £80 million, primarily related to expansion opportunities at Millbrook, as well as a continuation of a number of projects at Malvern Panalytical and Omega.

Non-operating cash flow

	2017 £m	2016 £m
Tax paid	(47.0)	(29.8)
Net interest paid	(4.1)	(4.1)
Dividends paid	(63.2)	(59.8)
Acquisition of businesses, net of cash acquired	(36.5)	(160.9)
Acquisition-related costs paid	(2.8)	(5.4)
Proceeds from disposal of business, net of tax paid of £19.0 million	91.9	–
Exercise of share options	0.5	0.2
Foreign exchange	(6.2)	(20.3)
Total non-operating cash flow	(67.4)	(280.1)
Adjusted operating cash flow	167.8	227.8
Decrease/(increase) in net debt	100.4	(52.3)

Financing and treasury

The Group finances its operations from both retained earnings and third-party borrowings, with the majority of the year-end gross debt balance being at fixed rates of interest.

As at 31 December 2017, the Group had £593.7 million of committed facilities denominated in different currencies, consisting of a five-year \$550 million (£406.5 million) revolving credit facility maturing in October 2019, a seven-year €94.8 million (£84.1 million) term loan maturing in October 2020, and a seven-year €116.2 million (£103.1 million) term loan maturing in September 2022. The revolving credit facility was undrawn at the year end. In addition, the Group had a year-end cash balance of £138.0 million, bank overdrafts of £1.3 million and various uncommitted facilities available.

At the year end, the Group's borrowings amounted to £188.5 million, 99% of which was at fixed interest rates (2016: 77%). The ageing profile at the year end showed that 1% (2016: 5%) of year-end borrowings is due to mature within one year, 99% between two and five years (2016: 52%) and nil in more than five years (2016: 43%).

Overall, net debt decreased by £100.4 million (2016: increase of £52.3 million) from £150.9 million to £50.5 million. Net bank interest costs were covered by adjusted operating profit 52.0 times (2016: 43.7 times).

Financial Review continued

Currency

The Group has both translational and transactional currency exposures. Translational exposures arise on the consolidation of overseas company results into Sterling. Transactional exposures arise where the currency of sale or purchase invoices differs from the functional currency in which each company prepares its local accounts. The transactional exposures include situations where foreign currency denominated trade receivables, trade payables and cash balances are held.

After matching the currency of revenue with the currency of costs wherever practical, forward exchange contracts are used to hedge

a proportion of the remaining forecast net transaction flows where there is reasonable certainty of an exposure. At 31 December 2017, approximately 61% of the estimated net Euro, US Dollar and Japanese Yen exposures for 2018 were hedged using forward exchange contracts, mainly against the Swiss Franc, Sterling, the Euro and the Danish Krone.

The largest translational exposures are to the US Dollar, Euro, Danish Krone, Japanese Yen and Swiss Franc. Translational exposures are not hedged. The table below shows the average and closing key exchange rates compared to Sterling

	2017 (average)	2016 (average)	Change	2017 (closing)	2016 (closing)	Change
US Dollar (USD)	1.29	1.35	(4%)	1.35	1.23	10%
Euro (EUR)	1.14	1.22	(7%)	1.13	1.16	(3%)
Japanese Yen (JPY)	145	147	(1%)	152	144	6%
Swiss Franc (CHF)	1.27	1.33	(5%)	1.32	1.25	6%

During the year, the translational foreign exchange gain on operating profit of £5.9 million (2016: £22.6 million gain), arising from the weakness of Sterling, was partly offset by a transactional foreign exchange loss of £1.1 million (2016: £7.8 million loss).

Dividends

The Board is proposing to pay a final dividend of 37.5 pence per share which, combined with the interim dividend of 19.0 pence per share, gives a total dividend of 56.5 pence per share for the year, an increase of 9%. The dividend is covered 2.6 times by adjusted earnings and is consistent with our policy of making progressive dividend payments, based upon affordability and sustainability.

In determining the level of dividend in any year, the Board considers a number of factors that influence the proposed dividend, including the level of distributable reserves in the Parent Company, future cash commitments and investment needs to sustain the long-term growth prospects of the Group and the level of dividend cover.

Events after the balance sheet date

On 26 January 2018, the Group acquired 100% of the share capital of Concept Life Sciences (Holdings) Limited, for a consideration of £163 million, on a debt and cash-free basis. This acquisition adds to the Group's capabilities in test services in the Materials Analysis segment.

Risk MANAGEMENT

We recognise that effective management of risk is essential for delivering our strategic objectives. As such, risk management is built into our day-to-day activities and forms an integral part of how we operate.

Committed to managing risk effectively

The Group has a well-established process which delivers visibility and accountability for risk management across our businesses. This process forms part of the Group's overall internal control framework, as described on page 61.

Risk management process

Our approach to risk management incorporates both bottom-up and top-down elements to the identification, evaluation and management of risks and all risks are evaluated with reference to the Group's achievement of its strategic objectives, as outlined on pages 8 and 9.

Our business units are required to undertake formal risk management reviews at least twice a year. This involves the use of a consistent framework for the assessment of significant risks with respect to impact, likelihood and the time frame in which the risk could materialise. Risks are assessed both before and after the effect of controls and mitigating actions have been taken into account.

Overall ownership for each risk, together with responsibility for mitigating actions, is clearly assigned and communicated. The resulting risk registers are then subject to review on an ongoing basis as part of regular operational reviews. This ensures that risk management is embedded in day-to-day management processes and decision-making as well as in the annual strategic planning cycle.

Oversight

In addition, the Executive Committee and key functional personnel in the Group consider those risks to the Group's strategic objectives which are not addressed within the business units and develop appropriate approaches to managing and mitigating these. These key Group risks are analysed against a 'lines of defence' framework which involves mapping the principal Group risks to:

- › a first line of defence comprising the key controls and sources of risk mitigation implemented by our business units;
- › a second line of defence consisting of various Group functions which, together with the Executive Directors, shapes the policy framework within which the first line of defence operates and provides oversight and monitoring of the same; and
- › a third line of defence identifying sources of assurance over the effectiveness of risk management activity.

The overall effectiveness of the Group's risk management and mitigation processes is reviewed regularly by the Executive Directors and twice yearly by the Audit and Risk Committee. A formal evaluation of the Group's risk appetite has also been completed in respect of each of the Group's principal risks.

During the year, people-related risk was identified as an additional Group-level risk. This concerns risk relating to the Group's ability to recruit, develop and retain the talent required to deliver upon our strategy as the Group implements changes to the operating model and seeks to deliver an increasing proportion of revenues from solutions and services.

The key potential risks and uncertainties facing the Group's ability to deliver its strategy, together with mitigating actions, are described on the following pages.

Overall responsibility: Audit and Risk Committee and Group Board

- › Determining the Group's risk appetite
- › Oversight of the Group's internal control and risk management framework

First line of defence: Business units

- › Day-to-day ownership of risk management

Second line of defence:

Key Group functions/programmes and Executive Directors

- › Shaping policy and control framework
- › Evaluation of risks impacting the Group as a whole
- › Monitoring and oversight of risk management by business units

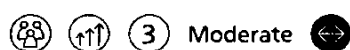
Third line of defence: Independent assurance

- › Assurance over the effectiveness of the internal control and risk management framework

Managing our PRINCIPAL RISKS

The effective management of risk is essential for delivering our strategic objectives. As such, risk management is built into our day-to-day activities and forms an integral part of how we operate.

Fluctuations in exchange rates



We have operations which sell and purchase goods in foreign currencies and whose results we record in a variety of different currencies. We are therefore exposed to any significant changes in exchange rates.

Impact

- › Unexpected variations in the Company's results
- › Reduced profitability and cash flow.

Mitigation

- › Forward foreign exchange contracts cover up to 75% of forecast transactional exposures up to 18 months ahead
- › Natural hedging strategy, matching invoicing and purchasing currencies where practical.
- › Foreign currency investments hedged with borrowings in the same currency wherever possible.
- › Regular monitoring, including sensitivity analyses to understand the impact of exchange rate movements on the Group's reporting.

2017 update

- › On average, Sterling weakened relative to most other currencies over the year, which had a positive impact on our reported results from a translational perspective, albeit to a lesser extent than in 2016.
- › Our hedging policy continued to provide certainty and reduce volatility to the Group's cash flows

Compliance with laws and regulations



We operate in a large number of jurisdictions and, consequently, are subject to wide-ranging laws and regulations

Any failure by the Group or its representatives to comply with relevant laws and regulations could result in civil or criminal liabilities, leading to significant fines and penalties or the disqualification of the Group from participation in government-related contracts for a period of time. In the event of a failure to comply with export control regulations, the Group could also be exposed to restrictions being placed upon its ability to trade

Impact

- › Reduced sales, profitability and cash flow
- › Reputational damage
- › Diversion of management resources resulting in lost opportunities
- › Penalties arising from breach of laws and regulations.
- › Inability to attract and retain talent.

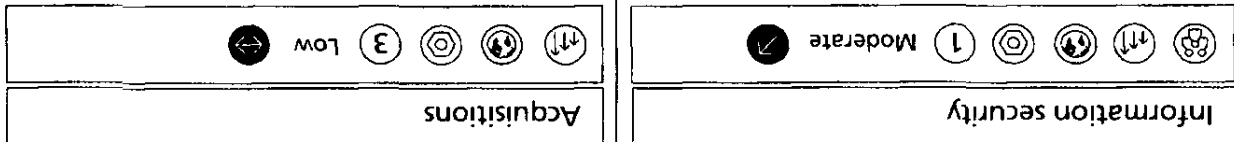
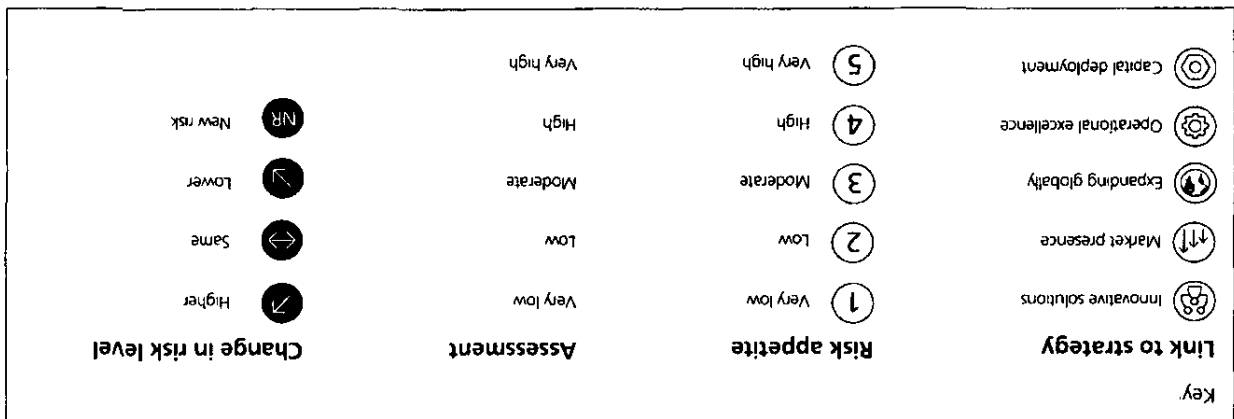
Mitigation

- › Strong culture, internal control framework and policies
- › Ethics training provided to all employees
- › Formal export controls compliance procedures in place, including strict product classification and transaction screening protocols
- › Comprehensive insurance covers all standard categories of insurable risk. Contract review and approval processes mitigate exposure to contractual liability.

2017 update

The Group continued to take a number of actions aimed at further mitigating this risk. These included formalisation and enhancement of the sales control framework in China, roll-out of conflicts of interest training and voluntary disclosure programme in China, Taiwan and South Korea, repeat anti-bribery and corruption reviews, deployment of anti-bribery and corruption as well as fair competition face-to-face workshops and introduction of alignment of values and incentives.

We continue to ensure that we are responsive to issues raised through the Group's ethics hotline. For more details of our ethics programme see pages 46 to 47.



As with most organisations of a similar size and complexity, our businesses face both internal and external information security risks, the nature and complexity of which are constantly changing. becoming more sophisticated and unpredictable. In addition, regulatory responsibilities in relation to data protection are becoming increasingly stringent, including the implementation of the General Data Protection Regulation ("GDPR") from May 2018

Impact

- › Delay or impact on decision making through lack of available reliable data or disruption of service.
- › Loss of commercially sensitive or personal information
- › Reduced service to customers due to poor information handling or interruption of business

Mitigation

- › Our businesses employ a number of physical and logical control measures designed to reduce the risk of a breach in information security arising.
- › Our systems are monitored against unauthorised access.
- › A programme of continuous improvement focusing on information security risks evaluates whether the Group's existing controls in this area would benefit from additional strengthening
- › Employees receive online and face-to-face awareness training of information security risks and controls
- › Cyber risk and security is reviewed regularly by the Board to address the evolving landscape

2017 update

The Group has appointed a Group Head of Information Risk Governance and a GDPR training programme is being rolled out to employees throughout the organisation.

Integration of the operations and personnel of acquired businesses can be a complex process. Potential risks therefore exist that the planned benefits from the acquisition may not be achieved as a result of problems encountered during integration of the acquired business, incorrect assumptions made in the business case, changing market conditions, or issues which were not identified during the due diligence process. Further, the Company could be exposed to past acts or omissions of the acquired business.

Impact

- › Failure to attract sufficient numbers of high quality businesses to meet our growth targets
- › Failure to achieve the benefits outlined in the business case
- › Failure to identify new markets
- › Reduced profitability and cash flow.
- › Unforeseen liabilities.

Mitigation

- › Rigorous financial, commercial and legal assessment of target businesses involving external consultants as appropriate.
- › Strict authority levels which, subject to size, involve review by the Board for such transactions.
- › Comprehensive representations and warranties in purchase agreements.
- › Integration planning
- › Regular review of the acquired businesses against the business case
- › Post-acquisition control reviews

2017 update

There continued to be a healthy level of acquisition activity in our marketplaces. We participated in this activity, making four bolt-on acquisitions, and we continue to look for additional opportunities. We have been careful to maintain our rigorous financial, commercial and legal due diligence and disciplines, which has meant that we have also excluded ourselves from a number of potential deals.

Principal Risks and Uncertainties continued

Strategy execution



The Group's strategic priorities are set out on pages 8 and 9

The Group considers that, as with any undertaking of this kind, there is necessarily inherent risk associated with the successful execution and delivery of the Group's strategic priorities

The risks associated with some of the Group's strategic priorities are addressed in their own right – for example, how we develop new products and how we acquire other businesses.

Other relevant components of the Group's strategy concern:

- › the Group's desire to transition the business to achieving a larger proportion of sales through the provision of services, software and solutions to customers, rather than products alone; and
- › during the year, the Group launched a comprehensive Group-wide productivity improvement programme, Project Uplift. Over the medium term, this programme will deliver improvements in productivity, both within and across our operating companies, reducing complexity where appropriate whilst preserving the entrepreneurial culture of our businesses. We will also evaluate potential structural improvements that can leverage Spectris' scale and optimise both efficiency and effectiveness.

Impact

- › Failure to realise the Group's plans for enhanced efficiency and profitability
- › Failure to realise the Group's growth plans.
- › Reduced profitability and cash flow

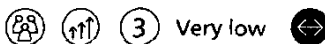
Mitigation

- › Programme management disciplines, including a dedicated programme management office
- › Independent assurance
- › Talent management programme
- › Dashboard reporting against key growth initiatives
- › A measured approach over time is being targeted, rather than a radical change
- › Enhanced risk management and reporting

2017 update

During 2017, we continued to make good strategic progress in transitioning our customer offering towards the provision of solutions encompassing hardware, software and services. Four small acquisitions were completed, adding further software, service and testing capability. The acquisition of Omnicon provides complementary software and service capability to our existing software business within HBM, and we were pleased to complete the first bolt-on for Millbrook. During the year, we completed the sale of Microscan to Omron, recognising that this business is not consistent with the Group strategy. In terms of the development of the data analytics strategy, we have entered into an agreement to put EMS into a joint venture with Macquarie Capital which will give this business access to the Macquarie Capital network with its market-leading environmental monitoring market offering. Similarly, progress has been made in respect of Project Uplift where a dedicated programme management office has been established, a detailed diagnostic and planning phase completed and a series of actionable plans created, with implementation of these beginning in 2017.

Competitive activity



The nature of the markets in which we operate means that all of our businesses are exposed to risk from competitor activity.

Impact

- › Loss of market share
- › Reduced financial performance arising from competitive threats both from third parties and customers bringing production in-house

Mitigation

- › Ongoing monitoring of competitor activity and trends in the markets in which we compete
- › Maintain market-leading positions through strong customer relationships and significant investment in R&D
- › Diversified portfolio of products and markets limits the overall risk from any single competitor.
- › Develop operational excellence initiatives that enable our businesses to react quickly to changes in customer and market demand.

2017 update

We maintained high levels of investment in R&D, investing £105 million (6.9% of sales), with our operating businesses bringing new products and solutions to market during the year to sustain and strengthen our strong customer relationships and competitive advantages.

People



The Group needs to attract, develop, motivate and retain the right people to achieve our operational and strategic targets. Effective talent management is essential to deliver our current and future business requirements. Therefore, the Board has agreed to introduce people as a new principal risk. This is not reflective of deterioration in this risk but in recognition of the ongoing change programmes underway within the Group.

Impact

- › Failure to recruit and retain key staff leading to reduced innovation and progress against the Group's strategic aims

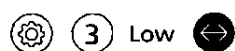
Mitigation

- › During the first half of 2017, the Group appointed a Director of Human Resources and a number of initiatives designed to mitigate this risk have now taken place or are under development, including:
 - › developing a cohesive recruitment brand centred around the use of LinkedIn, and
 - › a detailed review of Board and Executive succession plans was undertaken by the Nomination Committee in December 2017.

2017 update

During 2017, we began a number of initiatives to mitigate this risk. These initiatives will be built on during 2018.

Supply chain dependencies and disruption



We are exposed to the risk that some of the components we source, particularly for custom-built items or ageing products, are provided by a single supplier and are therefore vulnerable to interruption of supply

Our businesses also manufacture components using proprietary technologies at a number of locations

Our ability to supply products to customers could be adversely impacted by a disaster or other disruptive event at any of these sites

Impact

- › Inability to fulfil customer orders, resulting in lost sales and reputational damage
- › Increased costs reduce profitability
- › Loss of market share

Mitigation

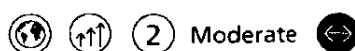
- › Strategic sourcing teams source cost-effective suppliers across a range of markets whilst validating suppliers' business processes, quality and standards
- › Alternative sources of supply actively sought to reduce dependency upon single-source suppliers
- › Safety stock levels established for critical components.
- › Business continuity plans and disaster prevention measures in place for all material manufacturing locations
- › Business interruption insurance
- › Strong contract review process.

2017 update

We continued to identify and qualify secondary sources of supply where key dependencies have been identified. During the year, a Group Vice President Supply Chain was appointed to support and drive the following:

- › Continued focus on the Group's critical suppliers based on specialist independent spend analysis
- › Underpinning of indirect spend that has been afforded by Project Uplift
- › Ongoing identification and delivery of cross-operating company savings potential

Political and economic risks



We operate in a range of end-user markets around the world and may be affected by political, economic or regulatory developments in any of these countries. Material adverse changes in the political and economic environments in the countries in which we operate have the potential to put at risk our ability to execute our strategy

Impact

- › Reduced profitability and cash flow











Mitigation

- › Maintain a broad spread of markets, products and customers to limit risks associated with any given territory.
- › Monitor market intelligence so that we can respond quickly to changing trading conditions
- › Ensure we remain structured in a way that enables us to take prompt action in the event of a material change in the trading environment.
- › Ensure we maintain a strong balance sheet and financial position

2017 update

The Group's balanced geographical mix, with similar exposure to North America, Europe and Asia/Rest of the world, enabled it to benefit from an improvement in trading conditions in each region

- › The Group continues to monitor and control its exposure to those countries where continuing economic uncertainties exist and, in particular, we are evaluating carefully the implications for the Group arising from the result of the UK's decision to leave the European Union ('Brexit')
- › As far as potential trading exposures are concerned, exports from the UK into the European Union represent less than 3% of Group sales, whilst imports into the UK from the European Union represent less than 1% of Group sales. The acquisition of Concept Life Sciences in January 2018 will not materially impact trading flows to and from the UK. Our cost base in the UK is largely Sterling denominated
- › As a consequence, we believe that Brexit presents only limited short-term direct impact for the Group. The main near-term risk for the Group arising from Brexit stems from broader uncertainty which could inhibit investment and increase market volatility, ultimately hindering growth in the UK and beyond. A Brexit Risk Committee has been established and an evaluation of the potential costs of moving to World Trade Organisation rules has been performed. The impact on the Group is not expected to be significant and there are a number of mitigating actions which can be undertaken. The Group will continue to monitor carefully any additional exposure arising as the full implications of Brexit become clearer

Intellectual property	     2 Very low
<p>In support of the Group's business model to provide technologically-advanced solutions to its customers, the Group has continued to take a holistic approach towards intellectual property protection and management. The Group owns and registers patents and trademarks and maintains trade secrets, confidential information and copyright as well as exploring intellectual property through licensing.</p> <p>The key risks are that the Group may inadvertently infringe third-party rights and that the Group may not hold sufficient rights to prevent competitors independently developing similar products. There are also risks that intellectual property may be lost through failure to implement controls to safeguard confidential information or actively manage registered intellectual property rights.</p>	<p>Impact</p> <ul style="list-style-type: none"> Reduced profitability and cash flow Loss of market share. Failure to recoup investment in innovation <p>Mitigation</p> <ul style="list-style-type: none"> Policies and procedures in place requiring all of our businesses to: maintain a watching brief on new third-party patent applications and competitor activity; ensure adequate protection for key intellectual property, including registration where appropriate; undertake specific freedom-to-operate technical reviews prior to commencing new product development, acquisitions or licences; and register intellectual property where appropriate
New product development	     2 Moderate
<p>The development of new technologies and products necessarily involves risk, including:</p> <ul style="list-style-type: none"> the product being more expensive or taking longer to develop than originally planned; the product failing to reach the commercialisation phase; and the market for the product being smaller than originally envisaged. <p>Impact</p> <ul style="list-style-type: none"> Reduced profitability and cash flow. Loss of market share Failure to recoup investment in innovation <p>Mitigation</p> <ul style="list-style-type: none"> Regular strategic evaluations of product portfolios and the markets in which we compete, ensuring that our investment in new products is targeted so as to maximise the opportunity of success. Project management disciplines are in place across our product development programmes and audits provide assurance that these disciplines are applied consistently. Work closely with customers to ensure that we develop solutions tailored to their specific needs. Maintain customer involvement throughout the life-cycle of product development to product launch through, for example, beta evaluations. New product developments are based on standard platforms, customised through high added-value applications engineering 	<p>2017 update</p> <ul style="list-style-type: none"> Formal strategy reviews are conducted annually and are supplemented with regular updates with each operating company. These reviews often result in targeted investment in new product platforms, upgrades to existing products and services and bolt-on acquisitions. In 2017, several important new products were launched and further software, service and testing capability was added through our acquisition programme. <p>2017 update</p> <ul style="list-style-type: none"> During the year, we continued a programme of intellectual property audits and also reviewed the management and safeguarding of confidential information. A programme of guidance and training in good information protection processes was implemented with an initial focus on higher risk jurisdictions.

Viability STATEMENT

In accordance with provision C 2.2 of the 2016 UK Corporate Governance Code, the Directors have assessed the viability of the Company over a three-year period, taking into account the Group's current position and the assessment of the principal risks and uncertainties as set out on pages 34 to 38

The Directors have determined that a three-year period to 31 December 2020 constitutes an appropriate period over which to provide its Viability Statement. The selection of this period for the assessment is supported by the Group's strategic planning cycle together with other relevant considerations such as the maturity of the Group's credit facilities. In addition, the Group is exposed to a number of different industry cycles of varying and ill-defined length and duration which may or may not overlap, and this has also been taken into account in considering the relevant period. The Group operates a detailed financial forecasting process over a rolling 18-month period, supplemented by monthly analysis of risks and opportunities against the forecast presented. Each of the Group's businesses has established growth targets through to 2020. The Directors believe that this supports the selection of a three-year period over which the Viability Statement is made.

Whilst the Directors have no reason to believe that the Group will not be viable over a longer period, it is recognised that such future assessments carry a level of inherent uncertainty which increases with the length of the period. As such, we believe a three-year period presents users of the Annual Report with a reasonable degree of confidence while still providing a longer-term perspective.

The Directors carried out a robust assessment of the principal risks facing the Group, including those that could threaten its business model, future performance, solvency or liquidity. This assessment was made with reference to the Group's current position and prospects, the Group's strategy and the Group's principal risks, including how these are managed, as detailed on pages 33 to 38.

In considering the Group's prospects, the Directors also noted the broad spread of markets, products and customers maintained by the Group. This natural diversification provides mitigation against the risk of a serious economic downturn in a particular market or the risks associated with dependence on a specific sector or customer. Our largest customer constitutes less than 2% of Group sales. At the same time, the Directors noted the Group's strong financial position coupled with its ability to react promptly in adjusting our cost base in the event of a material change in the trading environment.

Similarly, in making the assessment, the Directors also considered the ability of the Group to raise finance and deploy capital in the context of the principal sources of facility for credit, the maturity of those facilities, the Group's ability to re-finance debt as it falls due and the overall level of headroom available.

While the review encompassed all of the principal risks identified by the Group, the following were focused on for enhanced analysis including stress testing: political and economic, laws and regulations, and fluctuations in exchange rates. The following severe but plausible potential scenarios were analysed:

- › The translational foreign exchange impact of major movements and volatility in key Group currencies (Sterling vs the Euro and the Dollar).
- › A significant downturn in the trading environment faced by the Group triggered by each of the following:
 - › Brexit;
 - › a marked economic slowdown or downturn in the Chinese economy; and
 - › a general increase in trade barriers between Europe and the USA.
- › Legal/regulatory breaches – modelling a fall in sales volumes arising from a theoretical debarment from operating in certain key markets.

Mitigations considered as part of the stress testing included cost reduction, a reduction in the Group's dividend, a reduction in capital expenditure and re-financing of the Group's credit facilities.

The results of the above stress testing demonstrated that the Group would be able to withstand the impact of each of these scenarios materialising over the course of the assessment period. This is in part due to the Group's operating model and organisation structure which gives it the ability to respond rapidly in the event of heightened risk in the external environment, and also partly due to the Group's financial position and access to additional funds.

Based on this assessment, the Directors confirm that they have a reasonable expectation that the Group will continue in operation and meet its liabilities as they fall due over the period to December 2020.

Committed to SUSTAINABLE GROWTH

Our approach

Our strategic objective is to deliver sustainable profitable growth for our shareholders by enhancing the productivity of our customers. Our products are designed to help our customers to reduce waste and save time, money and resources, contributing to a lower carbon world, and driving our own economic success and future growth

Sustainable growth means building a well-governed and profitable business which delivers shareholder value and provides customers with the products and services they need. To achieve this, we need to understand our impact on the environment, our people, customers and suppliers, and the communities in which we work, embedding sustainability in our strategy, management systems and day-to-day activities. We focus on the issues most important to our stakeholders and our business and this report outlines how our relationships and interactions support our sustainability objectives

We are committed to managing our business according to the highest ethical standards. Our core values support this by guiding our decision-making and shaping our culture. Further information can be found in the Ethics Report on pages 46 to 47

Accountability

Eoghan O'Lionaird, Business Group Director for Materials Analysis and Test and Measurement, has overall executive responsibility for sustainability matters

The operating company Presidents are responsible for taking actions within their operations in support of the Company's sustainability aims. Developments, including risks and opportunities, are reviewed annually by the Board within the context of the overall Group strategy

Management systems and certification

Our global policies are applicable across all our sites and are supplemented by local policies to reflect different legal frameworks and requirements. We encourage our businesses to gain certification to international standards and these are explained below. Certification involves independent processes to verify data to demonstrate conformance and that a company is fulfilling policy commitments and making continual improvement.

Certification standards

ISO 14001

This international standard ('ISO') sets out criteria for the formulation and maintenance of an environmental management system. Certification to ISO 14001 requires an organisation to effectively manage its environmental impacts through commitments to pollution prevention, legal compliance and continual improvement. Approximately 60% of Spectris' key manufacturing operations by turnover are certified to ISO 14001

OHSAS 18001

This standard is intended to help an organisation control occupational health and safety risks. It is currently UK-specific but will shortly become an ISO. Several Spectris offices have obtained certification to OHSAS 18001

SA 8000

SA 8000 Social Accountability is the most widely-recognised global standard for managing human rights in the workplace. It encourages an organisation to achieve best practice in ethical

employment, trading and operations and includes much of the anti-slavery legislation recently introduced. At Spectris, we use this standard to assess leading suppliers in high-risk areas against criteria such as workers' rights, workplace conditions (including child labour, forced labour, working hours, freedom of association, compensation and discrimination) and health, safety and the environment

ISO 9001

This standard addresses various aspects of quality management and provides guidance and tools for companies to ensure that their products and services consistently meet customer requirements, and that quality is consistently improved. Recently updated, the new version of the standard requires that key quality management principles are embedded in the organisation. All key Spectris global manufacturing operations are certified to ISO 9001, with all key manufacturing operations certified to the new standard, or working towards certification by October 2018

FTSE4Good

We have been a constituent of the FTSE4Good Index Series since it was founded in 2001. FTSE4Good is an equity index series designed to measure the performance of companies demonstrating strong environmental, social and governance practices and facilitates investment in companies that meet globally recognised corporate responsibility standards.

Environmental impact

We have world-leading expertise in providing solutions for customers involved in renewable energy generation. For example, wind turbines have to be able to withstand extreme conditions such as gale-force winds and lightning strikes. Our measurement technology is used in the research and development of new materials, helping to identify mechanical stress on wind turbine components at an early stage in order to extend their life span and improve safety. We also provide systems to monitor turbine performance remotely, ensuring that they are set up correctly for optimum performance and that preventive maintenance can be scheduled where required. This minimises wear and tear, prevents damage and optimises efficiency, saving both time and money.

Compared to manufacturers in other sectors, the impact of our operations on the environment is relatively low. However, we take seriously our responsibility to minimise our impact and recognise the opportunities and risks to the business of climate-related issues. Energy efficiency has been identified as a key performance indicator and further details can be found on page 19. No environmental risks have currently been assessed as being material to the business. A number of our operations have achieved ISO 14001 certification for environmental management.

As well as helping our customers to reduce their impact on the environment, this is also the focus for our own efforts and we monitor the use of key sources of energy (electricity, gas, oil and steam) in our efforts to reduce consumption and save costs. The following table summarises our performance.

Performance summary

Indicator	2017	2016	Change
Energy consumption (absolute) (MWh)	100,041	90,132	11%
Energy efficiency (MWh per £m revenue)	67.2	68.3	(2%)
Greenhouse gas emissions (tonnes CO ₂ e)	81,604	75,144	9%
Total carbon emissions (tonnes CO ₂ e per £m revenue)	54.79	56.97	(4%)

Energy consumption

Unit of measurement – MWh	2017	2016	Change
Electricity	71,406	64,110	11%
Gas	10,591	11,618	(9%)
Oil	3,165	217	>100%
Steam	14,168	14,187	(0.13%)
Other fuels	711	N/A	

Greenhouse gas emissions (tonnes CO₂e)

Unit of measurement – tonnes CO ₂ equivalent	2017	2016
Scope 1	14,112	10,714
Scope 2	35,947	35,291
Scope 3	31,545	29,139
Total gross emissions	81,604	75,144
Total carbon emissions per £m revenue	54.79	56.97

The energy consumption table records large increases in consumption in two areas: electricity and oil. These increases reflect the acquisition of Millbrook in September 2016, 2017 being the first sustainability reporting year for this business. However, if Millbrook is excluded, the underlying Group figure demonstrates a reduction in consumption of 3%, despite an increase in revenue of 9%.

The increase in Scope 1 emissions shown in the table is a result of the Millbrook acquisition and additional business-related vehicle miles. Scope 3 emissions increased primarily as a result of increased air travel, which related mainly to Project Uplift. However, if the impact of the acquisition of Millbrook is excluded, the underlying trend is down, with the Group's total emissions decreasing by 3% against a revenue increase of 9%. For the Group as a whole, the result of this decrease brings emissions per £m of revenue down by 4% and if Millbrook is again excluded, this decrease extends to 11%.

Energy reduction initiatives at key operational sites in Europe have been identified through the implementation of Article 8 of the EU Energy Efficiency Directive, which was enacted in the UK by the mandatory energy assessment scheme, the Energy Savings Opportunity Scheme ('ESOS'). Independent third-party energy reduction opportunity audits have taken place and identified areas for improvement. Our operating companies will use these audits as the basis for energy reduction programmes. ESOS Phase 2 has now been launched and we are considering how to make the best use of the regulations to continue the reduction programmes already in place.

Lloyd's Register Quality Assurance ('LRQA') has independently verified the data associated with energy consumption, greenhouse gas ('GHG') emissions, company vehicle and air miles and the accident incidence rate. The LRQA Assurance Statement confirming terms of engagement, approach, opinion and observations can be found on page 42.

We are confident that the systems we have in place for measuring and monitoring energy use underline our commitment to environmental accountability and enable us to provide independently verified public disclosure of our emissions on an annual basis. We therefore ceased to participate in the Carbon Disclosure Project in 2016.

In support of the Group's commitment to reduce GHG emissions, focus is being placed on recognising and capturing all GHG emissions. As part of Project Uplift activity during 2017, the Group implemented new global freight contracts with Geodis and UPS across over 60 sites. For the first time, this will allow the Group to monitor and capture GHG emissions relating to freight forwarding.

Following the launch of these contracts, the Group has begun to monitor related GHG emissions data. Approximately three months of data has been collated to date and is currently being reviewed to agree an acceptable emissions conversion methodology. Freight forwarding emissions data captured under these contracts will be used to inform future analysis of the Group's Scope 3 emissions. The Group will also look at the potential for the collation and provision of enhanced data that arises due to Project Uplift activity.

LRQA Independent Assurance Statement Summary

Relating to Spectris plc's Annual Report and Accounts for the calendar year 2017

This is the summary version of the LRQA Assurance Statement. The full version of the LRQA Assurance Statement confirming terms of engagement, approach, opinion and observations is available on the Spectris website at <http://www.spectris.com/sustainability/overview>

Terms of engagement

Lloyd's Register Quality Assurance (LRQA) was commissioned by Spectris plc (Spectris) to provide independent assurance on the data disclosed in the Sustainability Report section of the Annual Report and Accounts for the calendar year 2017 ('the report') against the assurance criteria below to a limited level of assurance using LRQA's verification procedure. LRQA's verification procedure is based on *current best practice, is in accordance with ISAE 3000 and ISAE 3410 and uses the principles of AA1000AS (2008) – inclusivity, materiality, responsiveness and reliability of performance data*

Our assurance engagement covered Spectris' global operations and specifically verified conformance with the following requirements:

- › Spectris' sustainability reporting methodologies for the selected datasets
 - › energy consumption (electricity, gas, oil, steam and other fuels)
 - › greenhouse gas ('GHG') emissions scope 1, 2 and 3 including emissions from energy consumption, company vehicle travel, company air travel and refrigerant gas loss
 - › accident incident rate.
- › 2017 UK Government GHG Conversion Factors for Company Reporting and 2017 IEA CO₂ Emissions from Fuel Combustion for *converting source energy data into carbon emissions tonnes CO₂e using the greenhouse gas conversion factors*

Our assurance engagement excluded the data and information accessed through links which take the reader out of the Report and also revenue performance data in energy consumption, which was taken directly from the audited financial accounts

LRQA's responsibility is only to Spectris. LRQA disclaims any liability or responsibility to others as explained in the end footnote. Spectris' responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of, Spectris.

LRQA's opinion

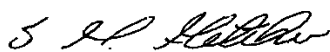
Based on LRQA's approach nothing has come to our attention that would cause us to believe that Spectris has not, in all material respects

- › Met the requirements above.
- › Disclosed accurate and reliable performance data and information as no errors or omissions were detected

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier

Note: The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data reviewed rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Signed



Steve Fletcher
LRQA Lead Verifier
16 February 2018

On behalf of Lloyd's Register Quality Assurance
1 Trinity Park, Bickenhill Lane, Birmingham, B37 7ES, UK

LRQA reference LRQ4007346

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Social impact

Spectris is a specialised and technical business, and we rely on the skills and expertise of our people, many of whom are highly-qualified engineers and technicians. We have built our success on a combination of operational excellence and intelligent innovation, and we know that such innovation requires a way of working which is open, positive and respectful, and supports the development of new ideas, and the taking of reasonable and measured risks. You can read more about the key role our people play in our strategy and our business model on pages 6 to 9

Diversity, equality and inclusion

We recruit, develop and promote our people based on their talent, commitment and achievement; everyone is treated equally and fairly whatever their race, colour, religion, national origin, gender, sexual orientation, age or background. Our people are key to the success of our business

Our business is diverse, with operations at more than 190 locations throughout the world, with over 8,700 employees in over 30 different countries and cultures. As such, we need a workforce based on a diverse group of talent able to provide solutions to a wide range of customers around the world and which reflects the cultures and perspectives of our local markets. We are aware that our current employee base is not fully representative of the geographies we operate in and that the gender balance does not reflect the population as a whole, as the table below demonstrates

Employees by gender and role as at 31 December 2017

	Male	Female	Total
Directors	7	2	9
Senior management ¹	127	29	156
Other employees	5,410	3,199	8,609
Total	5,544	3,230	8,774
% of total	63	37	100

Excludes contractors

¹ Presidents or Managing Directors and their immediate reports who are Directors or Vice-Presidents

In the UK, our two largest operating companies, Malvern Panalytical and Millbrook, have processes in place to collect and publish data under the new Gender Pay Gap Reporting regulation. Millbrook has published its gender pay information and Malvern Panalytical will publish its data ahead of the April 2018 deadline. This legislation applies to employers with 250 or more employees who ordinarily work in Great Britain and whose contracts of employment are governed by UK legislation, and details the difference in mean and median pay between men and women at the company. As well as meeting the new disclosure requirements, the information will help us to focus on the underlying causes of any gender pay gap and take action to ensure equality and fairness in the workplace.

A challenge facing engineering companies is how to encourage more young people to pursue careers in manufacturing and engineering. Our businesses participate in various initiatives including student internships, apprenticeships, industrial placements, school careers days and other events designed to raise awareness amongst school children of the opportunities to work in manufacturing and engineering

We do not tolerate discrimination or harassment in any form. Disabled people are recruited, trained and promoted on the basis of aptitude and ability. If employees become disabled, every effort is made to retain them and, when necessary, re-train them for appropriate posts. Our full employment policy is published at www.spectris.com

We comply with the UK Modern Slavery Act 2015 and our anti-slavery training has been extended to all employees worldwide

The Board has renewed its commitment to diversity and inclusion during the year through the adoption of a new policy. During 2018, the Group will continue to focus on talent management and succession planning. Further information about the Board diversity policy and its implementation can be found in the Corporate Governance Statement on page 54

Training, development and compensation

We work hard to build a creative working environment for our people with scope for individual responsibility and personal achievement. Our training programmes help our employees to develop both personally and professionally and reach their full potential. We carry out annual performance reviews to determine each individual's training needs and assess their performance against the previous year's targets. Employees at our operating companies and Spectris plc all have access to the Spectris Talent and Learning Management system. The system is also being used by a number of operating companies for objective setting and performance reviews

Malvern Panalytical, one of our UK businesses, has received the Investors in People accreditation for their training, appraisal, employee development and skills programmes.

We encourage our employees to maintain a healthy balance between their working and personal lives, and offer flexible part-time and job-share opportunities to employees with family commitments, wherever possible.

We seek to attract and retain the best talent and our compensation and benefits schemes are in line with other leading companies in our sector, with rewards dependent on the achievement of individual and corporate objectives.

We conduct employee satisfaction surveys within our operating companies as part of an evaluation and measurement process, which also includes monitoring the rate of voluntary staff turnover in our key regions. This is compared against local data for our industry sector in order that our management teams can identify any unusual patterns and take the appropriate steps to improve employee retention. Voluntary turnover rates are higher in Asia than in other regions as finding and retaining staff is a challenge for all companies due to the increasing opportunities in this region. We monitor the situation closely and make every effort to retain our employees in this highly-competitive environment

Sustainability Report continued

Staff turnover

% of staff leaving the Company voluntarily

	2017	2016	2015	2014	2013
Europe	5.1	5.0	5.0	3.1	3.2
Americas	9.4	8.1	7.7	5.8	6.1
Asia	11.2	10.1	10.8	12.2	12.2
Total	7.6	7.2	7.1	5.9	6.0

Women in engineering scholarship

Omega Engineering is sponsoring a scholarship for a senior student member of the Society of Women Engineers ('SWE') in the USA in the name of Omega's founder, Betty Ruth Hollander. SWE's mission is to encourage women to achieve their full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, and demonstrate the value of diversity. The scholarship programme is one of SWE's most visible and successful initiatives, inspiring young women to enter and complete undergraduate and graduate engineering programmes.

Scholarship recipients are chosen in late spring, awarded in the summer, and then publicly announced. Eligible areas of study include: aeronautical/aerospace engineering, automotive engineering, chemical engineering, electrical engineering, engineering technology, industrial engineering, mechanical engineering, and manufacturing engineering. Geographical location of potential recipients is also a selection consideration to encourage an internship at one of Omega's US facilities – an ideal opportunity to connect with students while providing them with an invaluable hands-on experience.

A study by the Commission on the Advancement of Women and Minorities in Science, Engineering, and Technology indicates lack of financial resources and low self-confidence contribute to the weak retention of women in engineering programmes. Through a scholarship, supporters can make a difference for a woman beginning or continuing her engineering studies. Recognition, an integral component of every scholarship awarded, can improve the recipient's self-confidence. Omega is proud to help provide a deserving woman with the opportunity to complete their education and meet their full potential.

Employee engagement

Employee communication is largely undertaken at a local level by individual operating company management teams. As the Group's strategy evolves it is likely that there will be further focus placed upon co-ordinated communications at a Group level.

Health and safety

As a responsible employer, we take the health and safety of our employees seriously. We are proud to have an excellent record of safety in our workplaces, but we remain vigilant and track our accident incidence rate as a key performance indicator. Local health and safety managers and officers carry out regular audits and employee training and suggest improvements in working practices, where appropriate, in order to create a safer workplace. Potential product-related health and safety issues are considered as part of the product design process and continuous improvement programmes focused on health and safety aim to reduce accidents and injuries at our sites to as low a level as reasonably practical.

In 2017, we measured the total number of work-related accidents or ill health resulting in time lost in excess of one day. In previous years, the unit of measure was time lost in excess of three days. The number of reportable accidents has increased year-on-year due to this change.

Accident incidence rate

Number of reportable accidents per 1,000 employees

Each of our operating companies is responsible for implementing the Group-wide health and safety policy, and for complying with any additional local regulations. Our Group policy covers our own employees, sub-contractors and, where appropriate, our suppliers. You can read the full policy on our website at www.spectris.com. All our major locations are regularly inspected by independent assessors for their compliance with health and safety policy and procedures.

Any recommendations for improvements are put into practice. A number of our UK offices have achieved certification to OHSAS 18001.

Human rights

Our human rights policy is consistent with the Core Conventions of the International Labour Organization, and we comply with internationally-recognised human rights standards at all our sites. The policy includes our position on non-discrimination, harassment, pay and forced labour. Human rights considerations are also included in the due diligence process we undertake before any potential acquisition. This ensures that before we acquire a business, we are fully informed of its approach in areas such as non-discrimination, equal opportunities and freedom of association. Our full human rights policy is available on our website at www.spectris.com.

Community

Our social responsibilities also extend to the communities in which we operate. We seek to play a positive role in our local communities and participate in a range of activities and educational initiatives. Community involvement and decisions on charitable donations and sponsorship are undertaken by local management teams and vary from one company to another, depending on business and regional priorities. Many of the activities we undertake are aimed at supporting schools and universities to promote science, technology and engineering. We also run a number of awards and programmes aimed at encouraging and providing support for young scientists who are at the beginning of their careers. We do not give either cash or support in kind to political parties or campaigns.

Customers and suppliers

We serve a broad spectrum of blue-chip customers across all key manufacturing industries. We work closely with them to understand their business, which gives us a unique ability to anticipate and respond to their changing needs and fosters strong long-term relationships.

Our business continues to evolve as we seek greater competitive advantage through efficiency gains and innovation, both in our products and how we work, whilst addressing new regulatory requirements and expectations from commercial and social stakeholders and shareholders. Focusing on supply chain management is an important tool in achieving this. Our supply chain management policy can be found at www.spectris.com.

With operations spread around the globe, our supplier base is fragmented. Responsibility for vetting and managing suppliers is therefore devolved to local management but must meet the Group's ethical standards. We carry out regular inspections at our supplier sites and use the SA 8000 Social Accountability Standard to audit our key suppliers against specific criteria. Although the Group had intended to extend this to cover key suppliers worldwide during 2017, the introduction of the anti-slavery and conflict minerals legislation necessarily resulted in a change of focus to the introduction of anti-slavery and conflict minerals sections into the SA 8000 Asia Pacific supplier audit process. This is now complete.

We will continue to review our supply chain management policies and processes to ensure that we are compliant with upcoming legislation and that appropriate monitoring systems are in place.

Driven by values FOCUSED ON INTEGRITY

Culture, ethics and leadership

At Spectris, we believe that maintaining a strong and consistent corporate culture supports long-term performance and is particularly important in the context of the Group's operating model and entrepreneurial nature.

The Board acknowledges its role in shaping, monitoring and overseeing culture, as well as ensuring alignment between our values, strategy and business model. Culture and ethics were a regular discussion focus for the Board, its Committees and the Executive Committee throughout the year. During 2017, discussions focused on a range of topics including managing compliance risk in China, particularly conflicts of interest, our whistleblowing policy and process, and the evolution of the ethics programme and its future strategy.

In 2017, there has also been a focus on reinforcing ethical leadership responsibility at operating company level, with a series of engagement sessions focused on the role of leaders in embedding ethical culture within our organisation.

In addition, in order to further drive operating company leadership responsibility for ethical leadership and outcomes, changes were made to our variable compensation structures to align incentive pay-out and ethics outcomes. In order to further drive leadership responsibility in these areas, finance, legal and HR functions will work closely together to further align values and incentives across the Group. Senior managers' bonuses across the Group are now subject to a malus where there is evidence of insufficient commitment to ethical leadership.

As part of their leadership commitment, all senior managers (including the Executive team, operating company Presidents and Finance Directors, as well as other Sales and General Managers) have certified that they have fostered an open ethical culture during the year, including having dealt with or reported any suspected violation of our Code of Business Ethics.

The Company undertakes due diligence on the third-party sales advisers and distributors that it engages and the proposing operating company is required to mitigate or remove any red flags that are raised during the due diligence process. Terms of reference

for all internal audits include a review of the implementation of the Company's Code of Business Ethics. In addition to regular internal audits, the Company's Head of Business Ethics undertakes an annual programme of Compliance Verification Reviews which includes visits to operating companies to assess their compliance with the Company's anti-bribery and corruption ('ABC') policies and the Code of Business Ethics; recommendations are made to management following the reviews and their completion is monitored by the Board's Audit and Risk Committee.

Embedding our values

2017 saw the deployment of training modules focused on the following areas of compliance:

- › A suite of 13 refresher anti-bribery and corruption modules for delivery by local managers during quarterly team meetings
- › A bespoke anti-bribery and corruption training course was developed and deployed for use by sales teams engaging with third parties which underlines that such third parties must at all times adopt our explicit standards of ethical behaviour expected when working on our behalf.
- › Conflicts of interest engagement in China, Taiwan and Korea to clarify our understanding and expectations regarding what a conflict of interest is, and the requisite need for transparency and mitigating controls. This roll-out will continue into 2018 for the rest of the world.

In addition, the roll-out of our Value of Integrity online training module continued across operating companies to deliver our key ethics and integrity values to every employee throughout the Group. At the date of publishing, 92% of employees across the Group had completed the online module.

In October 2017, Mark Serfözü joined Spectris as General Counsel and Company Secretary. Mark formerly served as director of risk at Rolls-Royce plc and before that as chief counsel compliance and regulation at BAE Systems plc, playing a major role in resolving criminal investigations by the US and UK authorities into alleged bribery and corruption and in effecting necessary changes in corporate culture and behaviours. Mark, in conjunction with the other members of the Executive team, will continue to drive our focus on ethical leadership, strong governance and compliance and pragmatic risk mitigation.

Culture of openness and support

We actively encourage a culture of openness, engagement and communication by integrating messaging on ethics and integrity into our business meetings at all levels, so employees feel they can discuss any issues that arise in the course of their work and raise any concerns with their managers.

Importantly, we make a commitment to protect the careers and reputations of employees who report wrongdoing, as long as they do so in good faith and in the best interests of the Spectris Group.

To facilitate openness, three tools are available to our employees:

- › Our Decisions Guide mobile app is available for all employees to help them tackle challenging decision-making situations and provides contact details for all our Ethics Officers so employees can raise concerns or seek guidance 24/7.

- › Our independent hotline (*spectris@hotline.com*) gives our colleagues, business partners and other third parties the ability to report concerns anonymously if they wish
- › A voluntary disclosure programme was launched for a three-month period in 2017 in China, Taiwan and South Korea to encourage employees who have not, in line with our policies, previously disclosed a potential or actual conflict to come forward and report.

Reports received from all sources, including our voluntary disclosure programme, are fully investigated and the results are communicated to the Audit and Risk Committee every six months. During 2017, 24 ethics and compliance reports were received via a number of sources and the charts below show the number of reports received from each region and the methods used to report the allegations. Each allegation was investigated and resolved and additional guidance, training and monitoring made available or disciplinary action taken, in some circumstances including employment termination, as appropriate

Absolute Integrity Award 2017

We are very proud to have received seven nominations from across the Group in 2017. These are individuals who have displayed outstanding commitment to our value of Absolute Integrity. The 2017 winner is Jason Chen, a sales manager based in Taiwan with Particle Measuring Systems, who was chosen by our judging panel as representing a shining example of Absolute Integrity and ethical leadership in everyday work.

Number of whistleblowing reports received each year¹

Even though we are pleased that employees in Asia feel able to report ethical and compliance concerns, further work will be done in 2018 to better understand the small number of reports the Group receives in the rest of the world and the steps we need to take to deal with any imbalance.

Addressing ongoing challenges

One area of focus in 2017 was a review of compliance resourcing, capability and capacity across the Group to ensure we have appropriate resources in place to support our business, strengthening our second line of defence. Additional Compliance Officers were recruited in 2017 to provide independent scrutiny and oversight of operations in Korea, Brazil and Mexico, and to provide subject matter expertise and advisory support to the operating companies in relation to anti-bribery, fraud and anti-trust risks

2018 and beyond

A review of our ethics and compliance programme was conducted in 2017 and the following areas of focus will be prioritised:

- › Refresh Group-wide ABC policies and processes
- › Refresh anti-bribery and corruption risk assessment for the Group.
- › Increase oversight and monitoring activity.
- › Further review of resourcing requirements

Percentage of reports received where wrongdoing established

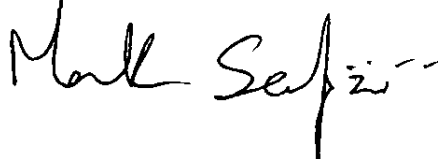
Origin of 2017 reports by region

Source of cases reported in 2017

The Strategic Report was approved by the Board of Directors on 19 February 2018

By order of the Board

Mark Serfözö
Company Secretary



Focused on STRATEGY

**In my first months as Chairman,
I have found the culture
of Spectris to be open and
transparent.**

Mark Williamson
Chairman

On behalf of the Board, I am pleased to present my first Corporate Governance Report as Chairman of Spectris. This report aims to provide shareholders and other stakeholders with an appreciation of how our Group is managed and the governance and control framework in which we operate.

The Board and I are committed to maintaining the highest standards of corporate governance and this report sets out how we have applied the principles and provisions of the UK Corporate Governance Code 2016. Culture is key to strong governance and in my first months as Chairman I have found the culture of Spectris to be open and transparent, with the Board and Executive sharing a common approach of constructive challenge and support.

The Board and I take very seriously our responsibility to have a robust governance structure in place to ensure that we properly discharge our responsibilities in setting our strategy, as well as monitoring and reviewing progress as it is implemented, and in ensuring that we manage our risks and carry out business responsibly. In support of this responsibility, the Board held an in-depth strategy review with the Executive team in December 2017 to thoroughly consider and challenge the five-year strategic plan and the proposed organisational model to support that plan. A review of the implementation of the strategy agreed at that meeting will be included on the agenda of all scheduled Board meetings for 2018.

As a Board we have taken note of the reports from both the Hampton-Alexander and the Parker reviews. We have considered our approach to diversity in light of the issues raised in both reports. This report details the Board's renewed commitment to promoting

diversity at a Board, executive leadership and at every level of the Company. I was pleased to hear about some of the initiatives already underway within the operating companies to support future talent and diversity and you can read further details in the Sustainability Report on pages 43 and 44.

As a Board, we are conscious that we are accountable to our shareholders and must have regard to other stakeholders such as employees, customers, suppliers and the environment. We maintain an active dialogue with shareholders throughout the year and listen to views of representatives of investors and financial institutions. We welcome the opportunity at our Annual General Meeting to meet and answer shareholders' questions.

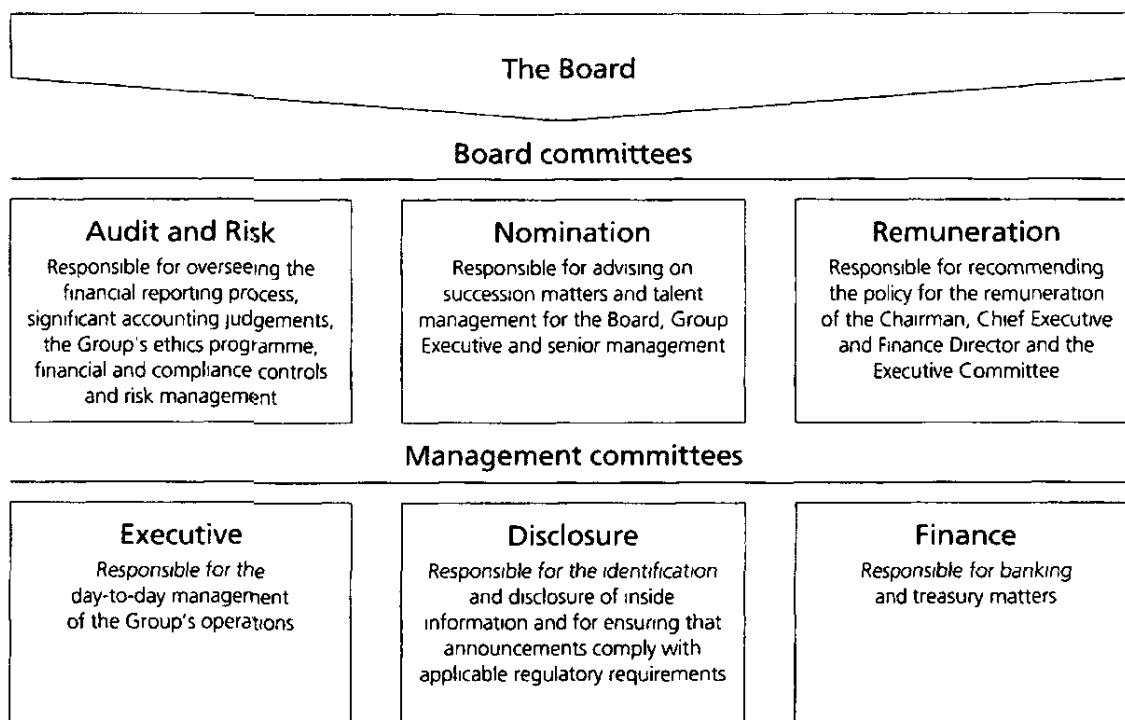
Mark Williamson
Chairman
19 February 2018

Corporate Governance Code Statement of compliance

As a UK premium listed company, Spectris plc is expected to comply, or explain any non-compliance, with the 2016 UK Corporate Governance Code ('the Code'). The Board considers that the Company complied with the Code throughout the year ended 31 December 2017 and a full summary of compliance is set out on pages 62 to 63.

Board and Executive Committee structure

The governance of the Group is structured through the Board and a series of committees that approve, review, challenge and monitor the strategies and policies under which the Group operates. The structure and responsibilities of these Board and management committees, and a summary of their responsibilities, are illustrated in the diagram below:



Board and committee attendance

	Board (scheduled)	Board (ad hoc) ¹	Audit and Risk Committee	Remuneration Committee	Nomination Committee ¹	AGM
Mark Williamson (appointed 26 May 2017)	4/4	n/a	n/a	n/a	1/1	n/a
John O'Higgins	9/9	2/2	n/a	n/a	5/5	Y
Clive Watson	9/9	2/2	n/a	n/a	n/a	Y
Russell King²	8/9	2/2	n/a	6/6	5/5	Y
Karim Bitar (appointed 1 July 2017)	4/4	n/a	2/2	3/3	n/a	n/a
Ulf Quellmann³	8/9	1/2	3/4	5/6	n/a	Y
Bill Seeger	9/9	2/2	4/4	n/a	n/a	Y
Kjersti Wiklund (appointed 19 January 2017)⁴	8/9	1/2	n/a	5/6	4/5	Y
Martha Wyrsh	9/9	2/2	4/4	n/a	4/5	Y
Dr John Hughes (retired 26 May 2017)⁵	2/5	1/2	n/a	n/a	2/4	N

1. In addition to scheduled meetings, the Board also held two ad hoc meetings during the year and the Nomination Committee held two ad hoc meetings during the year. Given the inherent short notice of these meetings, some Directors were unable to attend but all were fully briefed on the matters discussed.

2. Russell King was unable to attend the telephone Board meeting on 16 May 2017 due to a travel delay and instead provided input ahead of the meeting.

3. Ulf Quellmann was unable to attend the Board meeting, Remuneration Committee and the Audit and Risk Committee meeting held during the visit to Malvern Panalytical on 16 and 17 October 2017 due to a competing engagement with Rio Tinto. Mr Quellmann provided his detailed comments on the matters to be discussed at the meetings to the Chairman and the Committee Chairmen ahead of the meetings.

4. Kjersti Wiklund was unable to attend the scheduled telephone Board meeting on 16 May 2017 due to a commitment made prior to her appointment.

5. Dr John Hughes took a medical leave of absence from the Company from 28 April 2017 until his retirement from the Board.

Leading OUR BUSINESS

Mark Williamson
Chairman (appointed May 2017)

(N)

Mark Williamson is a qualified accountant with a strong financial background combined with considerable managerial experience. He was chief financial officer of International Power plc until 2012 and is experienced in managing relationships with the investor and financial communities. Prior to joining International Power plc, Mark was group financial controller and group chief accountant of Simon Group. He is also a former senior independent non-executive director and chairman of the audit committee of Alent plc.

Mark is chairman of Imperial Brands plc and senior independent non-executive director and chairman of the audit committee of National Grid plc.

John O'Higgins
Chief Executive (appointed January 2006)

(E) (F) (D)

John O'Higgins has a wealth of experience in the global instrumentation and controls industry, having previously worked for Honeywell in a number of management roles, including as president of automation and control solutions, Asia Pacific. His career began as a design engineer at Daimler Benz in Stuttgart. He has engineering degrees from University College Dublin and Purdue University and an MBA from INSEAD, and has been a non-executive director of Exide.

John is a non-executive director of Johnson Matthey plc.

Clive Watson
Group Finance Director (appointed October 2006)

(E) (F) (D)

Clive Watson has considerable finance experience, having previously been chief financial officer and executive vice president for business support at Borealis. Prior to this, he was group finance director at Thorn Lighting Group and group finance director Europe at Black & Decker. Clive is a member of the Institute of Chartered Accountants in England and Wales and the Chartered Institute of Taxation.

Clive is a non-executive director and chairman of the audit committee of Spirax-Sarco Engineering plc.

Russell King
Senior Independent Director (appointed October 2010)

(R) (N)

Russell King has considerable international experience acquired across a number of sectors, including mining and chemicals, together with strong experience in strategy and human resources. He was previously chief strategy officer of Anglo American PLC and a non-executive director of Anglo Platinum Ltd. Prior to that, he spent over 20 years in senior roles at ICI.

Russell is chairman of Hummingbird Resources plc, senior independent non-executive director of Aggreko plc and senior independent non-executive director of Interserve plc and an independent non-executive at BDO LLP.

Committee membership key

- | | |
|-------------------------|----------------|
| (A) Audit and Risk | (D) Disclosure |
| (N) Nomination | (E) Executive |
| (R) Remuneration | (F) Finance |
| ● Chairman of Committee | |

Membership as at 1 January 2018

Karim Bitar

Non-executive Director (appointed July 2017)

(A) (R) (N)

Karim Bitar has extensive experience of leading international, technology-focused organisations. He is currently chief executive of Genus plc. Prior to joining Genus, Karim worked for more than 15 years for Eli Lilly and Company, where he was president of Lilly Europe, Canada and Australia. An ex-McKinsey and Company consultant, he also held management roles at Johnson and Johnson and the Dow Chemical Company.

Karim is a member of the University of Michigan Ross School of Business Advisory Board.

Ulf Quellmann

Non-executive Director (appointed January 2015)

(A) (R) (N)

Ulf Quellmann has broad general management experience and considerable knowledge of the metals, minerals and mining industry, having worked in the sector for over 12 years. He is currently vice president, strategic projects, copper and diamonds, at Rio Tinto plc. Previously, he was chief financial officer, copper and diamonds and before that group treasurer of Rio Tinto plc and held senior positions at Alcan Inc. including vice president, investor relations and media relations, and chief pension investment officer and assistant treasurer. Prior to that he held senior management positions at General Motors, including as senior manager, capital planning, and managing director of Vauxhall Master Hire.

Ulf is a non-executive director of Turquoise Hill Resources Limited (a company listed on the Toronto Stock Exchange).

Bill Seeger

Non-executive Director (appointed January 2015)

(A) (N)

Bill Seeger has significant corporate finance and accounting experience, having formerly been group finance director of GKN plc and, prior to that, president and CEO of the propulsion systems and special products division and CFO in the aerospace division of GKN. He spent most of his career at TRW, latterly in senior finance roles, including as vice-president, financial planning and analysis, and vice-president, finance of TRW Automotive.

Bill is a non-executive director of Smiths Group plc and visiting professor at UCLA Anderson School of Management.

Kjersti Wiklund

Non-executive Director (appointed January 2017)

(R) (N)

Kjersti Wiklund brings significant knowledge of the international telecommunications sector. Kjersti has held a series of senior global roles including director, group technology operations at Vodafone, chief operating officer of VimpelCom Russia; deputy chief executive officer and chief technology officer of Kynstar in Ukraine, executive vice-president and chief technology officer of Digi Telecommunications in Malaysia, and executive vice-president and chief information officer at Telenor in Norway. Kjersti was previously a non-executive director of both Cxense ASA and Fast Search & Transfer ASA in Norway and Telescience Inc in the USA.

Kjersti is a non-executive director of Laird plc.

Martha Wyrsh

Non-executive Director (appointed June 2012)

(A) (N)

Martha Wyrsh has held a number of senior executive positions in the energy industry and has significant experience in the North American markets. She currently holds the position of executive vice-president and general counsel of Sempra Energy, a company quoted on the New York Stock Exchange. Previously, she was president of Vestas Americas, a subsidiary of Vestas Wind Systems A/S and prior to that she was president and CEO of Spectra Energy Transmission. She was previously a non-executive director of SPX Corporation.

Martha is a director of the Cristo Rey Network (a US educational foundation), George Washington University Board of Trustees (a non-profit US university), San Diego Gas and Electric Company (a wholly-owned subsidiary of Sempra Energy), Southern California Gas Company (a US subsidiary of Sempra Energy with publicly-traded shares), and Ienova, S A B (a Mexican subsidiary of Sempra Energy).

Executive Committee

Jo Hallas

Business Group Director (appointed May 2014)

Jo has responsibility for the In-line Instrumentation and Industrial Controls segments. She has extensive international management experience, most recently as general manager residential controls at Invensys plc. Prior to this, she was at the Bosch Group where she held management positions in both the UK and Germany. She started her career at Procter & Gamble where she served in a number of management roles in Germany, the USA and Asia. She has an engineering degree from the University of Cambridge and an MBA from INSEAD. She is currently a non-executive director of Norcros plc.

Andrew Harvey

Group Human Resources Director (appointed January 2017)

Andrew has considerable human resources experience gained in areas including change management, talent and development, employee engagement, acquisitions and disposals. Andrew joined Spectris from GKN where he served as senior VP human resources in the aerospace division and subsequently as senior VP human resources in the automotive division. Prior to GKN, he was VP human resources with Sequana Private Equity which followed a series of senior human resource leadership roles with industrial companies in the UK and Europe.

Eoghan O'Lionaird

Business Group Director (appointed February 2014)

Eoghan has responsibility for the Materials Analysis and Test and Measurement segments. He has wide-ranging engineering and commercial expertise, having previously been president of the Leica Microsystems division of Danaher Corporation in Germany. Prior to this, he spent 11 years in Philips in a number of management roles, latterly as CEO of the respiration sleep business unit based in the USA. He started his career with Mitsui Mining & Smelting where he held a number of engineering and commercial positions.

Mark Serfoző

General Counsel and Company Secretary (appointed October 2017)

Mark joined Spectris from Rolls-Royce plc where he served as director of risk for four years and before that he spent 18 years at BAE Systems plc where he held a number of senior legal positions including, latterly, the role of group chief counsel compliance and regulation. Mark qualified as a solicitor in 1990 and is a member of the University College London Centre for Ethics and Law Advisory Board.

Ken Smith

President, Asia Pacific (appointed July 2012)

Ken has over 30 years' engineering and industrial business experience, 23 of which have been spent in Asia. Having started his career in Switzerland, with various management positions in R&D and product portfolio management, he moved to Asia where he had a number of operational roles, including president of Schindler Japan and president Asia and global materials division for Deloro Stellite.

Robin Stopford

Group Head of Corporate Development (appointed November 2013)

Robin has extensive experience in leading corporate growth, from the development of the strategy through to its implementation, within diverse industrial groups such as Doncasters and Low & Bonar PLC. Robin also spent several years at Bain & Company, the leading strategy consultants. Robin began his career at Rolls-Royce plc where he served in a variety of engineering and management roles. He has an engineering degree from Durham University and an MBA from Wharton where he was a Palmer Scholar.

Key Areas of Board Activity During the Year

The Board is collectively responsible for the long-term success of the Company. This is achieved through the appropriate consideration of strategic, operational, financial and risk matters. This page details the focus of the Board during 2017 in support of that responsibility.

Strategy

- › Held a detailed annual strategy off-site meeting for the Board and Executive
- › Reviewed the Group's operating model in light of the agreed strategic direction of the Group
- › Deep-dive presentation on the Group's strategy in the Asia Pacific region.
- › Received a detailed synopsis of the Industrial Internet of Things Solutions opportunity

Acquisitions, disposals and JVs

- › Approved the acquisition of both The Omnicon Group, Inc and Setpoint
- › Approved the divestment of Microscan
- › Undertook 24-month post-acquisition reviews of ESG and Reliasoft and a five-year post-acquisition review of Omega.
- › Reviewed the Group's acquisition pipeline
- › Approved the formation of a joint venture with Macquarie Capital through the divestment of 50% of the Group's EMS business

Operations and risk

- › Regular operational updates from the Business Group Directors
- › Site visits to Malvern Panalytical and Omega facilities
- › Presentations from the Presidents of Malvern Panalytical, Particle Measuring Systems, Omega, Red Lion and NDC Technologies

- › Reviewed the Group's principal risks and systems for identification, management and mitigation.

Leadership and people

- › Discussed the composition of the Board and its Committees, including succession planning
- › Attended an organisational capability review led by the newly-appointed Group Human Resources Director
- › Reviewed the development of people and the potential talent within the senior management community, including succession planning for senior leaders
- › Appointed a new General Counsel and Company Secretary

Finance

- › Monitored progress against the 2017 financial plan and consideration and approval of the 2018 financial plan
- › Reviewed the potential impact and progress of Project Uplift
- › Approved the Annual Report, interim results and full/half year results presentations to analysts
- › Considered and approved the Group's going concern and viability statements
- › Reviewed and recommended the final and interim dividend
- › Reviewed material capital expenditure requests from operating companies

Governance and ethics

- › Appointment and induction of the new Chairman
- › Reviewed and agreed an updated schedule of matters reserved to the Board
- › Discussed the outcome of the 2016 external Board evaluation and agreed opportunities for improvement.
- › Completion of an internal evaluation of the Board, Remuneration Committee and Audit and Risk Committee, led respectively by the Chairman and the Chairmen of the Board Committees.
- › Reviewed feedback from institutional shareholders
- › Reviewed and approved the terms of reference for the Board Committees.
- › Received regular reports from Audit and Risk, Nomination and Remuneration Committee Chairmen
- › Reviewed developments in corporate governance and received key legal and regulatory updates
- › Conducted regular meetings of the Non-executive Directors without management being present
- › Undertook an annual detailed review of the Group's ethics programme and interim updates on reports taken at the Audit and Risk Committee.

Board Activity

Board diversity policy

The Board reviewed its approach to the promotion of diversity in January 2018. Following this review and mindful of the findings of the Hampton-Alexander Review and the Parker Review, the Board has approved the following policy on diversity

The Board is committed to further promoting diversity and inclusiveness of all kinds throughout the Group, regardless of geography or position. The Board agrees that diversity, which should be construed in its broadest sense and includes gender and ethnic diversity, is an important factor in Board effectiveness and the Group is a supportive participant of the Hampton-Alexander Review which sets a target for the percentage of women on FTSE boards and leadership teams to reach one third by 2020

In support of this policy, the Nomination Committee will conduct an annual review of progress towards achieving a more diverse workforce at all levels within the organisation. In particular, the Committee will:

- › aspire to long lists of potential non-executive directors including 50% female candidates;
- › only engage executive search firms who have signed up to the Voluntary Code of Conduct for Executive Search Firms on gender diversity and best practice,
- › work closely with the Group Human Resources Director during 2018 to review the Group's approach to talent management and succession planning. In particular, ensuring that initiatives are in place to develop the talent pipeline and to promote diversity in senior leadership appointments with consideration being given to the nature, variety and frequency of interaction between the Board and aspiring candidates at all levels, and
- › ensure that high-performing employees from within the business and from a variety of backgrounds, who have the requisite skills, are given greater exposure to the nomination committees of other FTSE 350 companies.

The Board will report annually on progress.

Induction of Non-executive Directors

Kjersti Wiklund and Karim Bitar joined the Board during the year and followed a tailored induction programme, which included dedicated time with the Group Executive and visits to operating companies within each of the four business sectors

- › They met with the Chairman, Chief Executive and Group Finance Director on a one-to-one basis on appointment and subsequently met the other members of the Board and Executive Committee along with senior managers from head office functions and the sectors.
- › The Company Secretary provided a comprehensive overview of the Group and the legal and organisational structure, the governance framework; the role of Non-executive Directors; key business contacts at Group, sector and operating company level, and details of the external advisers
- › Karim Bitar spent a day with the Project Uplift working group to gain an insight into their work

Information regarding the induction process for the new Chairman during the year can be found on page 57

Ongoing Board training and development

Board meetings are held regularly at our operating company sites, giving the Board the opportunity to tour the sites, meet local management and employees and gain an in-depth knowledge of our operations. During 2017, the Board visited Omega in the USA for its April meeting and Malvern Panalytical in the Netherlands for its October meetings

In October 2017, the Board visited the offices of Malvern Panalytical in Almelo, the Netherlands, to review the progress made to merge the businesses during 2017. Paolo Carmassi, the President of Malvern Panalytical, toured the facility with the Board and provided an overview of how the newly combined company was working to leverage its joint resources in order to deliver a more complete range of products, solutions and services to a broader set of markets and customers and to grow its service offering. Outside of the formal meeting, the Board met with the executive team and other key employees to better understand the development of the joint business proposition.

Board evaluation

In accordance with current best practice and the Code, the Board undertakes an annual formal evaluation of its performance and effectiveness and that of each Director and its Committees. It is the Board's policy to invite external evaluation every three years.

As disclosed in the 2016 Annual Report, the 2016 Board and Committee evaluation was facilitated externally by Dr Tracy Long CBE of Boardroom Review. Dr Long is independent, her only connection with Spectris is her work on the Board evaluation.

The Board continued to consider Dr Long's recommendations during 2017 and, on appointment, the Chairman revisited the recommendations when considering his priorities for the year.

The 2017 Board evaluation was facilitated by the Chairman with the support of the Company Secretary and was undertaken in December 2017. This was supplemented by individual evaluation exercises for each Board Committee which were managed by the relevant Committee chairman. The final evaluation report and suggested priorities were discussed by the Board at its meeting in February 2018.

The Chairman and the Company Secretary will assess progress against the priorities agreed during the evaluation process at regular intervals during 2018.

Actions taken following the 2016 external Board evaluation	Priorities for 2018 following the 2017 Board evaluation
<p>Strategic ambition</p> <p>The Board met during the year to undertake an in-depth review of the Group's strategy. This meeting was the culmination of a detailed workstream undertaken by the Executive Committee to map the Group's strategy out to 2020. In their review, the Board gave particular attention to the review of the Group's principal risks and also the proposed organisation model that would support the Group's strategy.</p>	<p>Strategic implementation</p> <p>The Board will focus on monitoring and supporting the implementation of the agreed strategy and considering the risks related to that implementation. The Board will also undertake a series of deep-dive reviews into the current risk appetite and mitigation plans in place regarding the Group's principal risks.</p>
<p>Stakeholder management</p> <p>The Executive Directors met regularly with shareholders throughout the year. On his appointment, the Chairman also met with key investors. Members of the Board also met with analysts at a Capital Markets Day held at the Millbrook Proving Ground in May 2017.</p>	<p>Developing stakeholder communication</p> <p>The Board will focus on the continued development of a clear narrative for communicating progress against the Group's strategy to the investor community. The Board will also spend time considering communication of the Group's strategy with employees and considering an appropriate method for gathering the views of the Group's employee base.</p>
<p>Pattern of meetings and information flow</p> <p>The pattern of Board and Committee meetings was altered to include regular Board dinners and formal scheduled private meetings for the Non-executive Directors. The introduction of a forward agenda for Board and Committee meetings, together with the adoption of a consistent form of Board papers and monthly update reports between scheduled Board meetings, has improved both information flow, agenda planning and the quality of Board discussion.</p>	<p>Enhanced Board interaction</p> <p>In planning the Board's agenda for the year, continued focus will be placed on dedicating more time to open dialogue, debate and discussion outside of the formal meeting agenda. The Chairman will also work with the Company Secretary to introduce external speakers at certain Board dinners.</p>
<p>Succession planning</p> <p>During the year, the Nomination Committee undertook a detailed review of the Group's Board and Executive succession planning processes with the support of the newly-appointed Group Human Resources Director. As part of this review, the Committee considered immediate succession plans and the talent pipeline to support long-term succession.</p>	<p>Succession planning</p> <p>Building on work initiated in 2017, the Nomination Committee will meet at regular intervals during the year to assess the progress made in developing the Group's organisation model to support the Group's agreed strategy. The Committee will also focus on the development of the Group's talent pipeline and the enactment of the Board's diversity policy within the business.</p>
<p>Chairman and Non-executive Director induction programmes</p> <p>Considerable time was spent during 2017 on the induction of two new Non-executive Directors and the new Chairman.</p>	<p>Board continuing education</p> <p>The Board will introduce a Non-executive Director training and development programme which will bring together a variety of informal briefings, technical updates and further direct interaction with the operating companies.</p>

Nomination Committee Report

During the year the Committee focused heavily on the search for a new Chairman and I would like to thank Russell King for leading this process on behalf of the Board.

Mark Williamson
Chairman

The Committee has taken note of the Financial Reporting Council's discussion paper on UK Board Succession Planning and, in particular, the recommendation that the Committee should regularly evaluate the senior management team and maintain a broad oversight of talent management processes within the Company.

In consideration of this recommendation and in support of the Group's developing strategy, the Committee has focused during the year on reviewing and challenging talent management and succession planning at a Group Executive and at an operating company management level. This focus culminated in December 2017 in the Committee holding a deep-dive discussion, led by the Group Human Resources Director, to review immediate and long-term executive succession plans and to ensure that initiatives were in place to develop the talent pipeline and to promote diversity of thinking within the organisation. The Committee will revisit these discussions during 2018.

Mark Williamson
Chairman of the Nomination Committee
19 February 2018

Role of the Committee

The Committee leads the process for Board appointments and makes recommendations to the Board in this regard. In fulfilling this role, the Committee evaluates the balance of skills, experience, independence and knowledge on the Board and, in the light of this evaluation, prepares a description of the role and capabilities required for every appointment. The Board values diversity and when recruiting new Board members it addresses the issue of diversity, with particular regard to the percentage of women on the Board.

The key responsibilities of the Committee are:

- › reviewing the size, structure and composition of the Board;
- › recommending membership of Board Committees;
- › undertaking succession planning for the Chairman, Chief Executive and other Directors and senior management;
- › searching for candidates for the Board, and recommending Directors for appointment;
- › determining the independence of Directors;

- › assessing whether Directors are able to commit enough time to discharge their responsibilities;
- › reviewing induction and training needs of Directors; and
- › recommending the process and criteria for assessing the effectiveness of the Board and Board Committees and the contribution of the Chairman and individual Directors to the effectiveness of the Board and helping to implement these assessments

Detailed terms of reference for the Committee can be found at www.spectris.com

Membership and attendees

As at 31 December 2017, the members of the Committee were Mark Williamson, Russell King, Martha Wyrsh, Kjersti Wiklund and John O'Higgins. Meetings of the Committee are normally attended by the Group HR Director. From January 2018, all Non-executive Directors became members of the Committee and, in support of best governance practice, John O'Higgins ceased to be a formal member of the Committee and became a standing attendee.

Activities of the Committee during 2017

During the year, the Committee's key activities included:

- › the appointment of a new Chairman;
- › overseeing a search and selection process for an additional Non-executive Director with life sciences experience. This process was supported by Egon Zehnder and resulted in the recommendation of the appointment of Karim Bitar to the Board in March 2017;
- › considering the independence of each Non-executive Director and whether each Director continued to be able to allocate sufficient time to discharge their responsibilities effectively; and
- › providing continued oversight of a Group-wide organisational capability review that included both Board and Executive succession planning

The Committee's performance was assessed as part of the Board's annual effectiveness review. It was concluded that the Committee had operated effectively.

During 2018, the Committee will continue to focus on succession planning and supporting the diverse composition of the Board, Executive and senior management in support of the Board's diversity policy as set out on page 54

In December 2016, the Group announced that Dr John Hughes had advised the Board that he would stand down as Chairman and Director on the appointment of a successor, after serving as Chairman for nearly nine years and as a Non-executive Director for nearly ten years.

Given that the announcement of John's retirement had been made to the market in December and interested parties were able to contact either myself or other Committee members, it was not considered necessary to publicly advertise the role

From a detailed understanding of our requirements and the specification of the role, Egon Zehnder put together an extensive range of potential candidates for the Committee's consideration. After considered debate, this was narrowed down to a shortlist for interview by members of the Committee. John O'Higgins also spent significant time with the final candidates.

Mark was a strong match to our requirements with considerable business and financial expertise combined with broad governance experience. The Committee believes that Mark is well placed to further strengthen the Spectris Board and to support John and the team as they continue to develop and deliver the Group's strategy.

Chairman's induction process

Key shareholders were invited to meet with Mark and to provide him with their feedback on the Group. Mark also met separately with all members of the Executive Committee and other key executives within the business.

Gender diversity

Non-executive Director tenure

Competencies

Experience of end-user markets

Academic research	● ● ● ● ● ● ● ● ● ●
Automotive and aerospace	● ● ● ● ● ● ● ● ● ●
Energy and utilities	● ● ● ● ● ● ● ● ● ●
Metals, minerals and mining	● ● ● ● ● ● ● ● ● ●
Pulp, paper and tissue	● ● ● ● ● ● ● ● ● ●
Semicon, telecoms and electronics	● ● ● ● ● ● ● ● ● ●
Pharmaceuticals and fine chemicals	● ● ● ● ● ● ● ● ● ●

Audit and Risk Committee Report

The Committee has welcomed the new challenge and fresh perspective of the change in external auditor.

Bill Seeger
Chairman of the Audit and Risk Committee

I am pleased to report to shareholders on the activities of the Audit and Risk Committee during the year and provide insight into our deliberations

The external governance landscape continues to evolve and place further focus on the role of the Audit and Risk Committee. The Committee continues to pay close regard to the changes in external requirements and I would like to thank the members of the Committee, together with management and Deloitte, for their support, guidance and challenge during the year as we respond to those changes

The Committee met four times during the year. The meetings are aligned to the Group's financial reporting timetable, to allow sufficient time for full discussion of key topics and enable early identification and resolution of risks and issues. As Chairman, I met regularly with management, internal audit and the external auditor between Committee meetings. In July, I was pleased to welcome Karim Bitar to the Committee following his appointment to the Board

Following the competitive tender of the Company's external audit services in 2016 and the Board's decision to recommend the appointment of Deloitte LLP to shareholders at the Company's 2017 AGM, the Committee has closely monitored the transition process and worked with Deloitte to agree the audit approach and scope of work to be undertaken. Deloitte undertook their first half year review on behalf of the Group in July 2017.

The Committee is satisfied that Deloitte have been effective throughout the year and we have welcomed the new challenge and fresh perspective that the change in auditor has brought to the Committee's considerations to date

The Committee considers it important to interact with members of management beyond the Executive Committee. The Committee held its meeting in October at the offices of Malvern Panalytical in the Netherlands and spent time with senior leaders from both Malvern Panalytical and Particle Measuring Systems to discuss the opportunities and risks faced by the operating companies.

The UK Corporate Governance Code invites the Committee to report on the significant matters considered during the year. I am satisfied that our activities have provided the Committee with a good understanding of the key matters impacting the Group during the year and full details are contained on the opposite page. From my perspective the most important matters were

- › the review of the Group's ethics programme and, in particular, the monitoring of the mitigating actions put in place by management to address the risk of sales diversion,
- › the review of the impact of IFRS 15, a new accounting standard applying to revenue for contracts with customers, effective for accounting periods on or after 1 January 2018,
- › the review of the Omega acquisition and lessons learned following the 2016 goodwill impairment, and
- › the evolution of our risk management processes and internal controls

As a Committee, we will continue to focus on risk management and, in particular, the Group's ongoing enhancements to systems of governance and internal control during 2018

I hope that you find this review, and the report that follows, useful in understanding the work of the Committee during the year. The Committee and I encourage shareholder feedback and I look forward to meeting with shareholders at our Annual General Meeting in May

Bill Seeger
Chairman of the Audit and Risk Committee
19 February 2018

Key areas of focus

Issue and significance	The role of the Committee	Comments and conclusion
Impact of IFRS 15 Under the new Standard, an entity is required to recognise revenue when it transfers goods/services to the customer in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods and services. This will require the use of more judgement and estimation than the current standard and, in certain situations, will result in the revenue being deferred and recognised over a period of time rather than at a point in time which is likely to affect the measurement and timing of the recognition of revenue	The Committee considered the main changes to revenue recognition required under IFRS 15 for the Group, the actions undertaken by management to prepare for both implementation for the year ending 31 December 2018 and to support the disclosure required in the 2017 Annual Report and the expected impact on the Group's revenue	The Committee supported the judgements made by management regarding the likely impact of IFRS 15 for the year ending 31 December 2018 and agreed with management that, due to the year-on-year impact for the Group being relatively small, the opening balance sheet for 1 January 2018 should be adjusted to reflect the cumulative impact of the change, rather than the Group undertaking a full restatement of comparatives.
Provisions for taxation Provisions held in respect of tax risks are included within current and deferred tax liabilities depending on the underlying circumstances of the provision. Management judgement is exercised in arriving at the amounts to be provided. Management confirmed to the Committee that the provisions recorded at 31 December 2017 represent their best estimate of the likely financial exposure faced by the Group.	The Committee reviewed and challenged the approach taken by management and Deloitte explained to the Committee the work conducted during the year, including how their audit procedures were focused on those provisions with the highest level of judgement on recognition criteria and/or measurement.	Following discussion with both management and Deloitte regarding the key judgements which had been made, the Committee was satisfied that they were reasonable and that, accordingly, the provision amounts recorded were appropriate. Further details of the Group's taxation provision are set out on page 30.
Use of alternative performance measures (APMs) The Company's performance measures continue to include some measures which are not defined or specified under IFRS. Further detail is set out in the Financial Review on page 28.	The Committee noted the guidance issued by the European Securities and Markets Authority and by the Financial Reporting Council ('FRC') in relation to the use of APMs and, supported by the challenge of Deloitte, considered whether the performance measures used by management provided a meaningful insight into the results of the Company for its shareholders.	The Committee concluded that, in relation to the half and full year 2017 results and the 2017 Annual Report, clear and meaningful descriptions had been provided for the APMs used. It was also concluded that the relationship between these measures and the statutory IFRS measures was clearly explained and supported the considered understanding of the Financial Statements.
Estimation, uncertainty and judgement During the year, the Committee received reports and recommendations from management and the external auditor to consider the significant accounting issues, estimates and judgements applicable to the Group's Financial Statements and disclosures. The key risks of estimation disclosed in the Group's 2017 Financial Statements are: <ul style="list-style-type: none"> the assumptions applied in the calculation of retirement benefit plan liabilities, and provisions for uncertain exposures and tax positions. Further details are set out in Note 1, Note 9 and Note 20 to the Financial Statements.	Management confirmed to the Committee that they were not aware of any material or immaterial misstatements made intentionally to achieve a particular presentation. The Committee reviewed presentations made to the Committee by management and questioned Deloitte to understand whether the external auditor had, to the Committee's satisfaction, fulfilled its responsibilities with diligence and professional scepticism and in a sufficiently robust manner. The Committee noted the inclusion of the Group's 2016 Annual Report in the FRC's thematic review of significant accounting judgements and sources of estimation uncertainty and the subsequent feedback received.	After reviewing the presentations and reports from management and consulting, where necessary, with the external auditor, the Committee is satisfied that the Financial Statements appropriately address critical judgements and key estimates (both in respect of the amounts reported and the disclosures). The Committee is also satisfied that the significant assumptions used for determining the value of assets and liabilities have been appropriately scrutinised and challenged and are sufficiently robust. In relation to the FRC's review of the significant accounting judgements and sources of estimation uncertainty set out in the 2016 Annual Report, the Committee noted that the feedback contained no substantive issues and supported management's consideration of the inclusion of additional information recommended by the FRC.

Audit and Risk Committee Report continued

Role of the Committee

The Committee supports the Board in fulfilling its responsibilities in respect of: overseeing the Company's financial reporting processes; reviewing, challenging and approving significant accounting judgements proposed by management, the way in which management ensures and monitors the adequacy of financial and compliance controls; the appointment, remuneration, independence and performance of the Group's external auditor; and the independence and performance of internal audit.

Details of the work carried out by the Committee in accordance with its terms of reference and in addressing significant issues are reported to the Board as a matter of course by the Chairman of the Committee and are described in this report. The terms of reference for the Committee can be found at www.spectris.com

Membership and attendance

The Committee is comprised solely of independent Non-executive Directors. Bill Seeger, Martha Wyrsh and Ulf Quellmann were members of the Committee throughout 2017. Karim Bitar became a member of the Committee on joining the Board in July 2017. Bill Seeger is determined by the Committee to have 'recent and relevant financial experience' as required by the Code. All members of the Committee are considered to have competencies that the Board deems relevant to the sectors in which the Company operates.

Meetings are normally attended by the Chairman, the Chief Executive, the Finance Director, the Head of Internal Audit, the General Counsel and Company Secretary and representatives of the external auditor. The Committee retains time at the end of each meeting to meet separately without management present and invites the Head of Internal Audit and the external auditor to attend for part of this session.

Performance review

The Committee's performance was assessed during the year under the stewardship of the Committee Chairman and this review was fed into the wider Board evaluation process which was led by the Chairman. It was concluded that the Committee operated effectively.

Activities of the Committee during 2017

The Committee has an annual forward agenda developed from its terms of reference with standing items considered at each meeting in addition to any specific matters arising and topical business or financial items on which the Committee has chosen to focus. The work of the Committee in 2017 principally fell into three main areas:

1. Accounting, tax and financial reporting

- › reviewing the integrity of the half year and Annual Financial Statements and the associated significant financial reporting judgements, estimates and disclosures,
- › considering the liquidity risk and the basis for preparing the half year and Annual Financial Statements on a going concern basis, and reviewing the related disclosures in the Annual Report and Accounts,
- › considering the provisions of the Code regarding going concern and viability statements and reviewing emerging practice and investor comment as well as the Group's Viability Statement,
- › reviewing updates on accounting matters including the new accounting standards on revenue (IFRS 15) and financial instruments (IFRS 9);

- › reviewing the Group's tax policy and agreeing the Group's tax strategy ahead of its publication on the Group's external website, and
- › reviewing the processes to assure the integrity of the Annual Report and Accounts as well as reviewing
 - › the management representation letter to the external auditor;
 - › the findings and opinions of the external auditor,
 - › the disclosures in relation to internal controls and the work of the Committee;
 - › that the information presented in the Annual Report and Accounts, when taken as a whole, is fair, balanced and understandable and contains the information necessary for shareholders to assess the Company's performance, business model and strategy,
 - › the effectiveness of the disclosure controls and procedures designed to ensure that the Annual Report and Accounts complies with all relevant legal and regulatory requirements;
 - › the process designed to ensure the external auditor is aware of all 'relevant audit information', as required by Sections 418 and 419 of the Companies Act 2006; and
 - › the Directors' Report

2. Risk management and internal controls

- › assessing the effectiveness of the Group's risk management and internal control environment and making recommendations to the Board;
- › considering reports from internal audit,
- › considering the level of alignment between the Company's principal risks and internal audit programme;
- › reviewing the adequacy of resources of the internal audit function and considering and approving the scope of the internal audit programme;
- › considering the effectiveness of internal audit,
- › reviewing the Group's ongoing litigation matters,
- › reviewing the control procedures in place to comply with the Group's policies on business ethics, anti-bribery, compliance and fraud;
- › reviewing matters reported to the external whistleblowing hotline and the status of associated investigations, and
- › considering reports from the external auditor on their assessment of the control environment.

Further details of the Group's whistleblowing policy and approach to the management of ethical conduct are set out in the Ethics Report on pages 46 and 47.

3. External auditor

- › overseeing the on-boarding of the new external auditor,
- › considering and approving the audit approach and scope of the audit undertaken by Deloitte as external auditor and the fees for the same,
- › agreeing reporting materiality thresholds,
- › reviewing reports on audit findings,
- › considering and approving letters of representation issued to Deloitte, and
- › considering the independence of Deloitte and their effectiveness, taking into account
 - › non-audit work undertaken by the external auditor;
 - › feedback from a survey targeted at various stakeholders, and
 - › the Committee's own assessment

Internal control and risk management systems

The Board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its particular objectives and is ultimately responsible for the effectiveness of the risk management and internal control systems that safeguard shareholders' investments and the Company's assets. To ensure the effectiveness of these systems, at the Board's request, a robust assessment of the principal risks facing the Group is undertaken by the Committee.

Before reporting its findings and recommendations to the Board, the Committee:

- › evaluates the results and recommendations of audits undertaken by the internal audit team and the external auditor;
- › reviews reports received on significant control issues to the Group and considers and challenges as necessary the adequacy of management's response to any matters raised;
- › appraises the Group's response to information security and data protection risks;
- › considers the Group's ethics programme and the anti-bribery and corruption audit programme;
- › considers common control themes identified throughout the business, and where themes are identified, ensures that subsequent action has been taken to minimise the risk;
- › assesses the Group's responsibilities relating to regulated exposures of the Group;
- › reviews the annual Audit and Risk Committee agenda; and
- › has oversight of the governance and risk management framework, including a definition of risk appetite by risk category and principal risk, put in place throughout the Group.

The effectiveness of risk management and mitigation is reviewed regularly by the Executive Committee and twice yearly by the Audit and Risk Committee. The Board notes that, as with all such systems, the Group's risk management and internal control framework is designed to manage rather than eliminate risk of failure to achieve business objectives, and can provide only reasonable and not absolute assurance against material misstatement or loss.

Viability Statement

The Committee reviewed the 2016 Viability Statement and the draft 2017 Viability Statement in light of comments made by the FRC and the Investment Association regarding the first viability statements published by companies and remains of the view that the statement made regarding the Company's viability period continues to be an accurate assessment of the Company's viability as at the date of the report.

The Viability Statement is set out on page 39.

Independent assurance

Internal audit

The Committee has oversight responsibilities for the internal audit function which is led by the Head of Internal Audit.

The purpose of the Internal Audit function is to provide independent, objective assurance to add value and improve the Group's operations. Its responsibilities include assessing the key risks of the organisation and examining, evaluating and reporting on the adequacy and effectiveness of the systems of internal control and risk management in place, and the governance processes in operation throughout the Group.

During the year, the Committee considered the internal audit programme for the forthcoming year and reviewed the proposed audit approach, coverage and allocation of resources.

The Committee also reviewed the progress updates against the 2017 activity of internal audit, received reports on issues of significance to the Group and reported to the Board on its evaluation of these findings.

External auditor

The Committee is responsible for managing the relationship with the Group's external auditor on behalf of the Board.

The Company last undertook a tender for external audit services during 2016 which led to the appointment of Deloitte LLP at the May 2017 Annual General Meeting ('AGM').

During the year, the Committee carried out a preliminary assessment of the auditors which focused on their performance during the half year review and their on-boarding process and reported these findings to the Board. To support this assessment, the Committee invited members of the Group and operating company finance teams to provide their feedback. In addition, the Committee reviewed the Audit Quality Inspection public report for 2016/17 for Deloitte. After taking these reports into consideration, together with the auditor's report on their approach to audit quality and transparency and having given consideration to the Financial Reporting Council's Revised Ethical Standard 2016, the Committee concluded that the auditors demonstrated appropriate qualifications and expertise and remained independent of the Group and that the audit process was effective.

Following the tender process and the appointment of Deloitte, the Committee reviewed the proposed engagement letter and determined the proposed remuneration of Deloitte in accordance with the authority given to it by shareholders at the 2017 AGM. The Committee considered the proposed auditor's remuneration to be appropriate.

It is proposed that Deloitte be re-appointed as auditors of the Company at the next AGM in May 2018 and, if so re-appointed, that they will hold office until the conclusion of the next general meeting of the Company at which accounts are laid. Further details are set out in the Notice of Meeting which is available at www.spectris.com.

The Group will continue the practice of the rotation of the audit engagement partner at least every five years, with all other partners and senior management required to rotate at least every seven years.

The independent external auditor's report to shareholders is set out on pages 84 to 91.

Non-audit fees

The Committee believes that non-audit work may only be undertaken by the external auditor in limited circumstances. A cumulative annual cap is imposed for non-audit services provided by our external auditor (save for acquisition due diligence and limited taxation services), above which all engagements are subject to the Committee's prior approval.

Non-audit fees for services provided by Deloitte for the year amounted to £0.1 million (6% of the audit fee). Further details are included in Note 5 to the Financial Statements. The Committee's non-audit services policy is available at www.spectris.com.

Compliance with the UK Corporate Governance Code

The UK Listing Rules stipulate that listed companies must include in their annual report a statement of whether they have complied with all the relevant provisions of the UK Corporate Governance Code 2016 ('the Code'), which can be found at www.frc.org.uk.

During 2017, Spectris has complied fully with the Code. The notes below are intended to assist with the evaluation of Spectris' compliance during 2017 and the processes put in place to support the continuation of best governance principles

A. Leadership

A.1 The role of the Board

The Board is collectively responsible for promoting the success of Spectris and the operation of effective governance arrangements with a view to the creation of strong, sustainable financial performance and long-term shareholder value. The steps the Board takes to facilitate this are outlined in the Governance report set out on pages 48 to 82.

The Board met seven times in 2017 in order to review the Company's performance and strategy against set objectives. Details of Board and Board Committee attendance for 2017 are set out on page 49.

The Board has adopted a clear schedule of matters reserved for its specific approval, including a framework for those decisions which can be delegated to committees or otherwise. A full list of matters reserved to the Board is available at www.spectris.com.

All Directors are covered by a directors' and officers' insurance policy.

A.2 Division of responsibilities

The roles of Chairman and Chief Executive are separate, with both having distinct and clearly defined responsibilities which are established in written terms of reference that have been agreed by the Board and which are available at www.spectris.com. The Chairman is responsible for the leadership and effectiveness of the Board, and the Chief Executive is responsible for leading the day-to-day management of the Company within the strategy set by the Board.

A.3 The Chairman

The Chairman sets the agenda for meetings, manages the meeting timetable and facilitates open and constructive dialogue during the meetings.

The Chairman was independent on appointment.

A.4 Non-executive Directors

The Chairman promotes an open and constructive environment in the boardroom and actively invites the Non-executive Directors' views to help develop proposals on strategy and scrutinise the performance of management against set goals and objectives. They should satisfy themselves on the integrity of financial information and that financial controls and systems of risk management are robust and defensible.

Russell King is the Senior Independent Non-executive Director and is available to meet with shareholders if required. The Chairman meets with Non-executive Directors in the absence of the Executive Directors at regular intervals during the year, and the Senior Independent Non-executive Director leads a meeting with the Non-executive Directors without the Chairman present at least once a year.

During the year, the Directors had no unresolved concerns about the running of the Company or any proposed action.

B. Effectiveness continued

The Board determines, through the Nomination Committee, the independence of its members. The Board considers all of its Non-executive Directors to be independent and free of any business relationships that could compromise the exercise of independent and objective judgement. Conflicts of interest are regularly monitored.

B.2 Appointments to the Board

The Nomination Committee leads all appointments of new Directors to the Board, applying a rigorous and transparent process mindful of merit, objectivity and diversity. Details of its activities undertaken during the year, including the search and selection process that led to the appointment of the new Chairman, succession planning and talent management, can be found in the Nomination Committee report on pages 56 and 57.

A full description of the Company's diversity policy is set out on page 54.

The terms of reference for the Nomination Committee are available at www.spectris.com.

B.3 Commitment

The Nomination Committee considers on appointment and annually the time needed to fulfil the roles of Chairman, Senior Independent Director and Non-executive Director and ensures that the Non-executive Directors will have sufficient time to fulfil their duties.

On appointment, and as at the date of this report, the Chairman's significant listed company interests are as chairman of Imperial Brands plc and senior independent non-executive director of National Grid plc. The Board has formally reviewed the Chairman's other commitments and confirms that it believes that the Chairman's obligations to the Company are properly fulfilled notwithstanding these directorships. Indeed, the Board is appreciative of the additional skills and experience the Chairman brings to the Board arising from these directorships.

In November 2017, John O'Higgins joined the Board of Johnson Matthey plc as a non-executive director. Clive Watson has been a non-executive director of Spirax-Sarco Engineering plc since 2009.

B.4 Development

New Directors receive a full, formal and tailored induction on joining and the Chairman reviews and agrees subsequent training and development needs with the Board on at least an annual basis. Details of the induction programmes provided to Mark Williamson, Kjersti Wiklund and Karim Bitar are set out on pages 57 and 54.

In April 2017, the Board visited Omega in the USA and in October 2017, the Board visited our Malvern Analytical facility in the Netherlands to support its familiarity with the Group's operations. Further details are set out on page 54.

B.5 Information and support

The Chairman is responsible for the delivery of accurate, timely and clear information to the Directors, with support from the Company Secretary.

Directors are able to solicit independent professional advice at the Company's expense where specific expertise is required in the course of discharging their duties. All Directors have access to the General Counsel and Company Secretary, who is responsible for ensuring compliance with appropriate statutes and regulations.

B.6 Evaluation

The Board and the Board Committees undertook an internal evaluation in 2017 which was led by the Chairman and the Committee Chairmen and included a review of Committee membership, a review of Non-executive Directors whose length of service was more than six years, the external commitments of all Directors and a review of the skills of each of the Directors. Further details are set out on page 55. A summary of the relevant skills, knowledge and experience of Directors is shown on page 57.

B. Effectiveness

B.1 The composition of the Board

There are currently six Non-executive Directors in addition to the Chairman and two Executive Directors on the Board.

The composition of the Board is reviewed regularly by the Nomination Committee to ensure that there is an appropriate mix of skills, experience, diversity (including gender), independence and knowledge on the Board. Board members' biographies are provided on pages 50 and 51, which identify the experience each Director brings to the Board. Diagrams identifying the skills and experience of Board members can be found on page 57. The 2017 Board evaluation determined that the Board continued to be effective and that the current Directors' backgrounds provided a good mix to meet current and future needs.

B. Effectiveness continued

B.7 Election/re-election

Each Director is subject to election at the first AGM following their appointment, and re-election at each subsequent AGM. In determining whether a Director should be proposed for re-election at the 2018 AGM, the Board took into account the Nomination Committee's advice based on the results of a peer group review of each Director's contribution to the Board's effectiveness, which formed part of the internal Board evaluation. This review confirmed that all Directors continue to be effective and demonstrate commitment to their roles and the Committee accordingly recommended their re-appointment.

C. Accountability

C.1 Financial and business reporting

A statement of the Directors' responsibilities regarding the Financial Statements, including the status of the Group as a going concern, is set out on page 83, with an explanation of the Group's strategy and business model, together with relevant risks and performance metrics, which are set out on pages 1 to 38.

A further statement is provided on page 83, confirming that the Board considers that the 2017 Annual Report and Accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position, performance, business model and strategy.

The external auditor has provided a report to the shareholders on their reporting responsibilities at pages 84 to 91.

C.2 Risk management and internal control

The Company maintains its system of risk management and internal control with a view to safeguarding shareholders' investment and the Company's assets. The Board has carried out a robust assessment of the principal risks facing the Company, including an assessment of the prospects of the Group. Further details can be found on pages 34 to 38.

The Directors have assessed that the appropriate period of longer-term viability for the Group is three years, as disclosed in the Viability Statement on page 39. The Viability Statement includes an explanation of how the Directors have assessed the prospects of the Company, over what period they have done so and why they consider that period to be appropriate. It also includes a statement that the Directors have a reasonable expectation that the Group can continue in operation over the three-year longer-term viability period.

The Board determines the Company's risk appetite and has established risk management and internal control systems. At least annually, the Board undertakes a review of their effectiveness. Further details are set out on pages 33 and 61.

The Company operates a robust internal control framework which is routinely monitored through a combination of certification, self-assessment and internal audit reviews, complemented by a sound risk management process. This process is overseen by the Audit and Risk Committee.

C.3 Audit committee and auditor

The Audit and Risk Committee Report on pages 58 to 61 sets out details of the composition of the Committee, including the expertise of members, and outlines how the Committee has discharged its responsibilities during 2017.

The Board has delegated a number of responsibilities to the Audit and Risk Committee, including financial and narrative reporting, management of the external and internal audit processes, internal controls, and risk management systems. Full details are set out in the terms of reference for the Committee, published at www.spectris.com.

D. Remuneration

D.1 The level and components of remuneration

The Remuneration Report on pages 64 to 79 outlines the implementation of remuneration during 2017, including salary, bonus and share awards.

Details of John O'Higgins' remuneration relating to his non-executive director role at Johnson Matthey and Clive Watson's remuneration relating to his non-executive director role at Spirax-Sarco are set out on page 78.

The Board believes that the current remuneration policy, as approved by shareholders at the 2017 AGM, remains appropriate and fit for purpose. The Board considers that Executive Director remuneration is an appropriate balance between fixed and performance-related, immediate and deferred remuneration, with the latter being subject to demanding performance conditions aligned with the Group's strategic objectives, including appropriate circumstances for Spectris to recover sums paid or to withhold payment of sums.

D.2 Procedure

During 2017, the Remuneration Committee comprised three Non-executive Directors and has delegated authority for setting the remuneration of the Executive Directors and the Chairman. The fees payable to the Non-executive Directors are determined by the Board. Full details of responsibilities are set out in the terms of reference for the Committee available at www.spectris.com.

In October 2017, the Remuneration Committee appointed PwC as its remuneration consultant from January 2018. Further details regarding this tender process are set out on page 65.

During 2017, no individual was present when their own remuneration was being discussed.

E. Relations with shareholders

E.1 Dialogue with shareholders

The Board recognises that meaningful engagement with institutional and retail shareholders is integral to the continuing success of the Company. Throughout the year, the Board has sought to actively engage with shareholders on a number of occasions through meetings, roadshows and a Capital Markets Day in May 2017.

Shareholders representing in excess of 2.5% of the Company's issued share capital receive a standing invitation to meet with the Chairman, the Senior Independent Director or Non-executive Directors. Such meetings supplement but do not replace the regular meetings with the Chief Executive and the Group Finance Director. The Board is kept informed of the views, needs, expectations, major issues and concerns of shareholders through periodic reports including, but not limited to, market feedback on investor relations, shareholding analysis and consensus.

E.2 Constructive use of general meetings

The next AGM will be held on 25 May 2018 and is an opportunity for shareholders to vote on certain aspects of Group business, in person, and have the opportunity to meet and question the Chairman and Board members.

The results of proxy votes are available at the AGM. These are then published on the Company's website.

At the AGM in 2017, there were no significant votes against any of the resolutions put before shareholders.

Directors' Remuneration Report

Index to key elements of the report

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We have sought to provide in this report a clear and suitably detailed understanding of our remuneration structure.

Annual statement from the Chairman of the Remuneration Committee

On behalf of the Board, I am pleased to present the Group's 2017 Remuneration Report

We have sought to improve our disclosures further this year to provide shareholders and stakeholders with a clear and suitably detailed understanding of our remuneration structure. We have summarised the Remuneration Policy approved by shareholders at the 2017 AGM rather than reproduce the policy in full. The tables on pages 66 to 69 provide an overview of the Directors' annual remuneration framework and clearly detail the links between the Group's strategy and KPIs and our approach to remuneration.

Full details of the policy are set out on pages 76 to 82 of the Company's Annual Report and Accounts 2016, a copy of which is available on the Company's website www.spectris.com or, upon request, from the Company Secretary at the Company's registered office address.

At the 2017 AGM we received over 98% support for both our Remuneration Policy and our annual Directors' Remuneration Report. We are grateful to shareholders, shareholder representative bodies, regulatory bodies and remuneration advisers for their engagement, feedback, challenge and support on our remuneration during the past year.

During the year, the Committee agreed that it would be appropriate to undertake a tender process for remuneration advisory services in light of the significant length of the existing relationship with the Committee's remuneration advisers. Following a detailed and rigorous process, PricewaterhouseCoopers LLP were appointed as adviser to the Committee. I would like to thank FIT Remuneration Consultants LLP for their strong and steady support during my time as Chairman of the Committee. The Committee and I look forward to working with PwC on the implementation of our current Remuneration Policy and in reviewing our response as a Group to the evolving external remuneration landscape.

The Directors' Remuneration Report will be subject to an advisory vote at the 2018 AGM on 25 May 2018 and we look forward to receiving your support for the vote. Together with the rest of the Board, I look forward to hearing your views on our remuneration arrangements and we will be available to answer any questions you may have at the AGM.

2017 remuneration summary

In line with the Remuneration Policy, Executive Directors' salaries increased at a level consistent with average UK wage inflation.

Russell King
Chairman of the Remuneration Committee

	2016 Salary	2017 Salary	Percentage increase
John O'Higgins	£578,000	£597,000	3.3%
Clive Watson	£367,000	£378,500	3.0%

The target range for adjusted profit before tax for the purpose of the Executive Directors' annual bonus was established at the outset of the year as follows:

0%	50%	100/125%
£184.8m	£203.3m	£225.0m

The Group's performance in 2017 was robust with increases in both like-for-like sales and profit. The Group achieved a 11% increase in adjusted profit before tax and a 14% increase in adjusted earnings per share. This contributed to bonus outcomes for 2017 of 80.1% and 75.8% of maximum bonus opportunity for John O'Higgins and Clive Watson respectively. Details of their personal objectives, maximum bonus opportunity and on-target percentage for 2017 are set out on pages 70 and 71. The PSP awards granted in 2014 were measured over a three-year period against TSR, EPS and EP targets and vested in March 2017. None of the threshold targets were achieved and the awards lapsed in full. Further details are set out on page 72.

2018 remuneration outlook

The Executive Directors' salaries were reviewed by the Committee in December 2017 with a 2% increase agreed with effect from 1 January 2018 in line with the approach taken with the wider population.

PSP awards granted in 2015 and due to mature in March 2018 did not meet the threshold target for EPS and EP conditions for the three-year performance period to 31 December 2017 which accounted for two-thirds of the total award. Based on the interim TSR performance results provided by Aon Hewitt Limited as at 31 December 2017, part of the remaining one-third of this award which is based on the performance of TSR for the three-year performance period ending on 5 March 2018, may vest. Details of the interim performance outcomes are set out on page 72.

The fee structure for the Chairman and Non-Executive Directors was last reviewed in 2016 and the next review will take place during 2018.

Russell King
Chairman of the Remuneration Committee
19 February 2018

This Directors' Remuneration Report for the year ended 31 December 2017 complies with the requirements of the Listing Rules of the UK Listing Authority, Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations (Amendment) Regulations 2013 and the provisions of the 2016 UK Corporate Governance Code.

Remuneration Committee

The Committee is responsible for recommending to the Board the policy for the remuneration of the Chairman, the Chief Executive, the Group Finance Director and other members of the Executive Committee and for the practical operation of the policy. It regularly reviews the balance between fixed and variable pay and the performance conditions that attach to both short-term and long-term incentives. It also monitors the level and structure of remuneration for operating company Presidents and Managing Directors. The remuneration of Non-executive Directors is a matter reserved to the Board. The full terms of reference for the Remuneration Committee are reviewed annually and are available at www.spectris.com.

Committee members

All members of the Committee are independent Non-executive Directors. During 2017, the members were

- › Russell King (Chairman)
- › Karim Bitar (appointed on 1 July 2017)
- › Ulf Quellmann
- › Kjersti Wiklund (appointed on 19 January 2017)

Committee meetings

The Committee met six times during 2017 and details of each member's attendance are disclosed on page 49. Only members of the Committee have the right to attend meetings but other individuals and external advisers may attend by invitation. The Chairman is invited to attend all meetings of the Committee. During the year, the Committee also invited the Chief Executive and Group Human Resources Director to attend meetings to provide advice to the Committee to allow it to make informed decisions. The Deputy Company Secretary attends all meetings as Secretary to the Committee.

No individual was present when their own remuneration was being discussed.

The Committee also meets without management present and received independent remuneration advice during the year from FIT Remuneration Consultants LLP ('FIT') and independent information from Aon Hewitt Limited ('Aon').

Advisers to the Committee

FIT has advised the Committee on Directors' remuneration matters since 2011 and provided advisory support on Directors' remuneration to the Committee in 2017. FIT does not provide any other services to the Company.

Aon separately supports the Company in compiling IFRS 2 share-based payment reporting on the Company's share plans and TSR performance calculations in relation to the Company's PSP. Aon does not provide any other services to the Company. Total fees paid during the financial year to these advisers were FIT £23,581 (2016: £47,469) and Aon £35,352 (2016: £46,450). These fees were charged on the basis of each firm's standard terms of business.

Both FIT and Aon are members of the Remuneration Consultants Group and adhere to its Code of Conduct.

The Committee is satisfied that the advice it received from these firms during 2017 was objective and independent.

Following a rigorous and competitive tender process, the Committee appointed PricewaterhouseCooper LLP ('PwC') as its independent remuneration adviser from 1 January 2018 to advise the Committee on various aspects of the Directors' remuneration and to provide fee benchmarking information for the Non-executive Directors. PwC is a founding member of the Remuneration Consultants Group and adheres to its Code of Conduct. During 2017, PwC provided certain project advisory services to the Company.

Activities in 2017

The key issues considered by the Committee during the year included

- › 2017 Directors' Remuneration Report,
- › consideration of the introduction of an All-Employee Share Incentive Plan to replace the existing All-Employee Save As You Earn provision;
- › Executive Directors' 2017 bonus arrangements, target performance measures and personal objectives,
- › review and approval of 2017 PSP grant levels and target range for performance measures;
- › the alignment of management incentive awards with ethical behaviours,
- › the process for the competitive tender for advisers to the Committee and the subsequent appointment of PwC as independent remuneration advisers to the Committee with effect from 1 January 2018, and
- › the change in the Group-wide annual salary review dates from 1 January to 1 April from 2018 to support alignment with the Group's new approach to performance management.

Use of Committee discretion

No discretion was exercised by the Committee in respect of remuneration during 2017.

Annual performance evaluation

The Chairman of the Committee led the annual evaluation of the performance of the Committee for 2017, with the results being discussed by the Committee and forming part of the wider Board and Committee evaluation discussion led by the Chairman. The Committee was considered to have operated effectively during the year.

Committee focus for 2018

The planned focus for the Committee during 2018 will be

- › reviewing the Group's remuneration strategy and structure in light of the evolving external governance landscape,
- › ensuring the continued strategic alignment of the Directors' incentive arrangements,
- › debating and agreeing the appropriateness of the senior management remuneration framework in the context of the Group's evolving strategy and external governance; and
- › undertaking a formal annual review of the wider workforce reward framework.

Directors' Remuneration Report continued

Summary of 2017 Remuneration Policy and 2018 implementation

Our Remuneration Policy was approved by shareholders at the AGM on 26 May 2017 and took effect from that date. In line with current regulations, this policy may operate for the next three years at which point it will be reviewed and shareholder approval of a new remuneration policy will be sought at the 2020 AGM at the latest. A summary of the key features of the Remuneration Policy along with its implementation for 2018 are detailed in the tables below

2017 Remuneration Policy summary

Element	Base salary/fees	Annual bonus	Performance Share Plan ('PSP')
Purpose and link to strategy	<ul style="list-style-type: none"> Competitive fixed remuneration that enables Spectris to attract and retain key executives 	<ul style="list-style-type: none"> Drives short-term profit performance. Incentivises Executives to achieve specific pre-determined stretching objectives relating to Spectris and the individual's personal responsibilities 	<ul style="list-style-type: none"> Drives the delivery of sustained compound annual growth in earnings per share ('EPS'), relative out-performance in total shareholder return ('TSR') and increase in economic profit ('EP')
Operation	<ul style="list-style-type: none"> Normally reviewed annually Benchmarked triennially against relevant comparators 	<ul style="list-style-type: none"> Bonus potential set at a market-competitive rate Payable in cash Bonus based on annual performance targets Bonus payments in excess of 60% of salary must be used to acquire shares in Spectris until the minimum required shareholding (300% of base salary) is achieved No further bonus deferral arrangements are currently in operation Clawback provisions enable variable remuneration to be reclaimed under exceptional circumstances in the event of any miscalculation of entitlement, misstatement of accounts or incidence of fraud 	<ul style="list-style-type: none"> Awards made annually with performance conditions based over a three-year period Two-year holding period for all new awards. Post-tax benefit of any vested PSP awards must be applied to the acquisition of shares until the required level of shareholding is achieved Clawback provisions enable the Committee to recoup the value of previously vested awards from an individual within three years of the end of the relevant performance period if it considers it appropriate in the event of a material correction of financial results previously used to assess a performance condition or if performance was otherwise shown to be materially worse than was believed when a performance condition was assessed
Maximum opportunity	<ul style="list-style-type: none"> Increases limited to the average increase for general UK wage inflation The Committee retains the discretion to award increases/reductions in excess of/below this if, and where, it deems appropriate 	<p>Maximum opportunity is based on base salary</p> <ul style="list-style-type: none"> 150% – Chief Executive 125% – Group Finance Director Bonus starts accruing from threshold levels of performance 	<ul style="list-style-type: none"> 200% of base salary
Performance metric	<ul style="list-style-type: none"> Reflects the role and the Director's skills, performance and experience, referenced to a level at or moderately below the comparator group's median 	<ul style="list-style-type: none"> The Committee may determine appropriate performance measures which are assessed annually A minimum (threshold) level of performance will result in a bonus of 1% of base salary. At target, the bonus level for each Executive Director is 60% of base salary 	<ul style="list-style-type: none"> The Committee may determine appropriate performance measures and vesting levels for awards. 20% of award shares vest on achievement of minimum performance and 100% for maximum performance

	Benefits in kind	Pension and other benefits in kind	All-employee share plans	Shareholding ownership guidelines
	<ul style="list-style-type: none"> › Market-competitive benefits in kind enabling Spectris to attract and retain key executives 	<ul style="list-style-type: none"> › Market-competitive defined contribution pension, enabling Spectris to attract and retain key executives 	<ul style="list-style-type: none"> › The Spectris Savings Related Share Option Scheme is operated to encourage share ownership by employees allowing them to share in the long-term success of the Group and align their interests with those of shareholders. 	<ul style="list-style-type: none"> › To encourage share ownership by the Executive Directors and ensure that their interests are aligned with those of shareholders.
	<ul style="list-style-type: none"> › Benefits in kind include company cars or allowances, private fuel, medical insurance and life and disability insurance and are benchmarked periodically 	<ul style="list-style-type: none"> › Pensions are benchmarked periodically 	<ul style="list-style-type: none"> › Executive Directors are able to participate in the Group's all-employee share plans operated by Spectris, on the same terms as other Group employees. › Currently, the Group operates the Spectris Savings Related Share Option Scheme ('SAYE Scheme') whereby an individual may save up to a maximum of the level allowed by HMRC (currently £500) per month for a fixed period of three years and use the balance of savings at the end of the period to purchase shares in Spectris at an exercise price set at the beginning of the savings contract. › The SAYE Scheme rules permit the exercise price to be discounted up to a maximum of 20% on the market price referenced at the launch of each new savings contract. Spectris does not currently apply such a discount 	<ul style="list-style-type: none"> › Each Executive Director is required to build a retained shareholding in Spectris of at least three times base salary in value within five years of being appointed to the Board › Post-tax benefit of any vested PSP awards or any bonus payment exceeding 60% of base salary must be applied to the acquisition of shares until the required level of shareholding is achieved
	<ul style="list-style-type: none"> › Total benefits limited to £30,000 p a › A departing gift may be provided up to a value of £2,500 per Director (applies to both Executive and Non-executive Directors) 	<ul style="list-style-type: none"> › 25% of salary Company pension contribution and/or taxable cash allowance in lieu 	<ul style="list-style-type: none"> › £500 savings per month (HMRC limit) for a fixed period of three years 	None applicable
	None applicable	None applicable	None applicable	None applicable

Directors' Remuneration Report continued

Implementation of the Remuneration Policy for 2018

Element	Base salary/fees	Annual bonus	Performance Share Plan ('PSP')
Executive Directors	<ul style="list-style-type: none"> › Salary increase of 2% for Chief Executive and 2% for the Group Finance Director on 1 April 2018, and backdated to 1 January 2018 › Chief Executive – £608,940 › Group Finance Director – £386,070 	<ul style="list-style-type: none"> › 2018 maximum bonus. <ul style="list-style-type: none"> › Chief Executive – 150% › Group Finance Director – 125% › Performance measures for the 2018 annual maximum bonus weighted: <ul style="list-style-type: none"> › Chief Executive <ul style="list-style-type: none"> › 125% based on adjusted PBT › 25% based on personal objectives › Group Finance Director <ul style="list-style-type: none"> › 100% based on adjusted PBT › 25% based on personal objectives › The performance thresholds and corresponding percentage of maximum bonus payable for 2018 are determined by the Committee › A minimum (threshold) level of performance will result in a bonus of 1% of base salary. At target, the bonus level is 60% of base salary comprising 50% based on PBT and 10% based on personal objectives. › Clawback provisions enable variable remuneration to be reclaimed under exceptional circumstances in the event of any miscalculation of entitlement, misstatement of accounts or incidence of fraud 	<ul style="list-style-type: none"> › Award level 200% of base salary › Three-year performance period › Two-year holding period after initial three-year performance period › Performance measures remain unchanged with one-third weightings to each of growth in adjusted EPS, TSR and EP. › Performance metric will be the same as those stated for the 2017 awards as detailed on page 76
Non-executive Directors	<ul style="list-style-type: none"> › Level of base fees and additional fees to remain unchanged as detailed on page 74 	Not applicable	Not applicable

Executive Directors' remuneration illustrations

The following charts illustrate the actual remuneration outturns versus target in respect of each Executive Director for 2017. The fixed pay element includes basic salary, pension, benefits in kind, taxable expenses and all-employee share plan participation. Annual bonus is based on a percentage of base salary. At target level this is 60% of base salary, at maximum level this is 125% in respect of the Group Finance Director and 150% in respect of the Chief Executive. PSP is based on a percentage of the award (awarded at 200% of base salary) likely to vest based on performance: 20% at target and 100% at maximum. This equates to 40% of base salary at target and 200% of base salary at maximum. No awards vested during 2017. Each bar shows the percentage of the total comprised by each element.

	Benefits in kind	Pension and other benefits in kind	All-employee share plans	Shareholding ownership guidelines
	› No change to benefits in kind provided	› 25% of base salary as taxable cash allowance in lieu of pension contributions	› Subject to shareholder approval at the 2018 AGM, a new All-Employee Share Incentive Plan ('SIP') is to be introduced. The Executive Directors will have the opportunity to participate in the new SIP on the same terms as other Group UK employees. › No further grants will be made under the SAYE scheme	› 300% of base salary.
	Not applicable	Not applicable	Not applicable	Not applicable

Consideration of remuneration conditions elsewhere in the Group

The Committee considers the remuneration and employment conditions elsewhere in the Group together with current market practice when determining remuneration for the Executive Directors. In addition to the UK comparator group set out on page 73, the levels of remuneration, annual bonus and PSP awarded to the Presidents of each of the Group's operating companies are taken into consideration, notwithstanding that these reflect such businesses' particular trading positions and the geographical and technical employment markets in which they operate. However, the Committee does not consult specifically with employees on the Executive Remuneration Policy.

Consideration of shareholders' views

The Committee takes into account the views of the Company's shareholders and best practice guidelines set by shareholder representative bodies when determining Executive remuneration. The proposals for the 2017 Remuneration Policy were the subject of consultation with the Company's significant institutional shareholders and their representative bodies and their feedback was incorporated into the final policy approved by shareholders at the 2017 AGM.

Details of the votes received on the 2017 Remuneration Policy and annual Directors' Remuneration Report at the 2017 AGM are provided on page 78.

Directors' Remuneration Report continued

This section of the report sets out the details of the implementation of the Remuneration Policy during the 2017 financial year and also provides details of how the Committee intends to implement the policy during 2018. This part of the report, together with the Committee Chairman's Statement and the information on the Remuneration Committee, form the Annual Report on Remuneration which is subject to an advisory shareholder vote at the 2018 Annual General Meeting and contains both unaudited and audited information. The audited sections of this report are clearly identified.

Executive Directors' remuneration

Single total figure of remuneration (audited)

The single figure of remuneration of each Executive Director who served during the year is as follows:

£'000		A Base salary	B Taxable benefits	C Bonus	D PSP ¹	E Pension-related benefits	F All-employee share plans	Total
John O'Higgins	2017	597	19	718	119	149	9	1,611
	2016	578	18	647	–	145	–	1,388
Clive Watson	2017	378	16	359	76	95	–	924
	2016	367	15	416	–	92	–	890

1 Estimated vesting, see page 72 for further details

Notes to single total figure of remuneration:

A. Salary (audited)

John O'Higgins received a salary increase of 3.3% and Clive Watson received an increase of 3.0% with effect from 1 January 2017, in line with the current Remuneration Policy and consistent with average UK wage inflation.

B. Taxable benefits

Taxable benefits included in the above single figure remuneration for each Executive Director are company cars, private fuel, allowances paid in lieu of company cars and private fuel, medical expenses insurance (including family cover) and life and disability cover. Details of the total value for 2017 are set out in the table below:

Executive Director	Car and fuel allowances £	Medical/healthcare cover £	Total £
John O'Higgins	17,038	1,819	18,857
Clive Watson	14,661	1,455	16,116
Total	31,699	3,274	34,973

C. 2017 Annual bonus outcome (audited)

The maximum bonus opportunity for the Chief Executive was increased from 125% to 150% of base salary, of which 125% is based on adjusted profit before tax and 25% is based on personal objective performance measures. The maximum bonus opportunity for the Group Finance Director remained unchanged at 125% of base salary, of which 100% is based on adjusted profit before tax and 25% is based on personal objective performance measures. The on-target bonus for both Executive Directors is 60% comprising 50% based on adjusted profit before tax and 10% based on personal objectives. No bonus deferral is currently in operation other than the requirement to effectively defer bonus payments in excess of 60% of base salary into shares to satisfy shareholding requirements, which have already been met. The table below sets out the annual bonus earned by the Executive Directors in respect of the 2017 financial year including the financial trigger points used in determining the level of bonus payable.

	Bonus opportunity	Elements of bonus opportunity	On-target	Maximum	Actual Group performance/assessment of personal objective performance	Payout £	Percentage of maximum bonus
John O'Higgins	150%	Group adjusted PBT	50%	125%	102.2%	610,134	68%
		Personal objectives	10%	25%	18.0%	107,460	12%
		Total			120.2%	717,594	80%
Clive Watson	125%	Group adjusted PBT	50%	100%	84.8%	320,968	68%
		Personal objectives	10%	25%	10.0%	37,850	8%
		Total			94.8%	358,818	76%

The adjusted profit before tax bonus range established by the Committee for 2017 was as follows:

Bonus level (as percentage of maximum for this element)	0%	50%	100/125%	Actual
Adjusted profit before tax	£184.8m	£203.3m	£225.0m	£218.4m

Note: Adjusted profit before tax is calculated as being the statutory profit before tax as adjusted to exclude certain non-operational items defined in Note 2 to the Financial Statements on page 103.

The 2017 personal objectives for the Chief Executive and Group Finance Director covered a range of areas. These objectives, and the weightings accorded to each, are detailed below.

Chief Executive

2017 Objectives	Weighting	Outcome
Strategy and Organisation Development: In support of the continued execution of the Group's strategy, the Chief Executive	25%	18%
<ul style="list-style-type: none"> led a detailed Group strategic review by the Executive team ahead of an in-depth review by the Board; led the progression of the sector-specific strategies focusing on life sciences, energy and industrial services, including the organisational integration of the PANalytical and Malvern Instruments merger, drove the successful further refinement of the Group's industrial internet strategy, as part of the detailed Group strategic review, defined a clear strategy and implementation roadmap and a broader M&A pipeline to support this roadmap, focused on the demonstrable improvement in the Group's customer focus through the implementation of common, consistent value selling and aligned customer satisfaction metrics, and ensured broad and deep support and maintained leadership focus on the Spectris Code of Business Ethics 		

Group Finance Director

2017 Objectives	Weighting	Outcome
Financial Strategy and Organisation: In support of the continued execution of the Group's strategy, the Group Finance Director	25%	10%
<ul style="list-style-type: none"> further aligned cost growth with sales growth, led the improvement in monthly average working capital to sales ratio; provided leadership and direction as Sponsor of Project Uplift, including the filling of key roles and allocation of resources to achieve key milestones and projected costs and benefits, created and maintained clear development plans for all identified high-potential talent within the Group's finance community, and supported the internal audit team in maintaining focus on pre-identified core audits 		

D. Performance Share Plan ('PSP') (audited)

PSP awards to the Executive Directors are currently structured so that one-third of the award is subject to an EPS target, one-third is subject to a TSR target and one-third is subject to an Economic Profit ('EP') target. Each condition operates over a fixed three-year period (being the three financial years commencing with the financial year in which an award is made in respect of the EPS and EP conditions; and three years from the date of grant in respect of the TSR condition) with no opportunity for re-testing. The TSR performance condition is measured independently by Aon.

PSP awards granted during 2017 (audited)

The table below details share options granted to Executive Directors, in line with the Remuneration Policy, under the PSP scheme during 2017. The maximum level of grant remains at 200% of base salary, calculated according to the average of the closing share price over the five days commencing with the day of the AGM (26 May 2017) and rounded down to the nearest ten shares. The awards were granted on 6 June 2017. A holding period of two years applies following vesting. Full details of the performance conditions are set out on page 76.

Director	Type of award	Basis on which award made	Number of shares under option	Face value of shares (£) ¹	Performance condition applied	Amount vesting		Financial/performance period
						Threshold performance (% of face value)	Maximum opportunity (% of face value)	
John O'Higgins	Nominal cost options of 5p	200% of base salary	45,380	1,193,857	Compound growth in EPS	6.66%	33.33%	1 January 2017 to 31 December 2019
					EP	6.66%	33.33%	
					TSR	6.66%	33.33%	6 June 2017 to 5 June 2020
					Total	20%	100%	
Clive Watson	Nominal cost options of 5p	200% of base salary	28,770	756,881	Compound growth in EPS	6.66%	33.33%	1 January 2017 to 31 December 2019
					EP	6.66%	33.33%	
					TSR	6.66%	33.33%	6 June 2017 to 5 June 2020
					Total	20%	100%	

¹ Face value based on the average of the closing share price over the five days commencing 26 May 2017, of 2,630.8 pence

Directors' Remuneration Report continued

PSP awards vested during 2017 (audited)

No PSP awards vested during the year as the minimum threshold for the EPS and EP conditions attached to the PSP awards granted in 2014 for the three financial years to 31 December 2016, and TSR threshold targets for the performance period to 5 March 2017, were not met, as detailed in the table below. Those awards matured in March 2017 and have therefore lapsed.

Performance condition	Weighting	Threshold	Actual
EPS	One-third	CPI + 5% compound per annum ('c.p.a.')	CPI + 3% c.p.a.
TSR	One-third	Median	5.7% (Median: 20.7%)
EP	One-third	£250 million	£157.5 million

PSP awards vesting in March 2018 (audited)

PSP awards granted in 2015 and maturing in March 2018 will not vest on the EPS and EP performance measures for the three financial years to 31 December 2017, in respect of two-thirds of the total award. However, based on the interim TSR performance results provided by Aon as at 31 December 2017, for the TSR performance period to 5 March 2018, part of the award (up to a maximum of one-third) may vest on the TSR measure in March 2018 (see tables below). Full details of all performance conditions are set out on page 76.

Performance condition	Weighting	Threshold	Actual
EPS	One-third	CPI + 5% c.p.a.	CPI + 3.6% c.p.a.
TSR	One-third	Median	27.8% (Median: 25.0%) ¹
EP	One-third	£250 million	£163.2 million

¹ The TSR figures are estimates based on the interim TSR performance results as at 31 December 2017.

The three-year period over which the TSR performance condition is measured ends on 5 March 2018. Based on the interim TSR performance results prepared by Aon as at 31 December 2017, TSR relative to the FTSE 250 index (excluding Investment Trusts and the Company) ranked above median at 27.8% resulting in an estimated vesting of 25.7% for this element of the 2015 PSP awards.

The vesting estimates included in the single figure of remuneration for Executive Directors are detailed in the table below.

Executive Director	Total number of shares subject to PSP option at date of grant	Face value at date of grant £	No. of shares subject to PSP options under TSR performance condition (one-third of total)	Vesting percentage	Estimated vesting number of shares	Estimated reinvested dividends shares	Estimated total vesting number of shares	Three month average share price at year end	Estimated vesting value £
John O'Higgins	51,830	1,138,809	17,277	25.7%	4,440	326	4,766	2,503.62p	119,322
Clive Watson	32,930	723,538	10,977	25.7%	2,821	207	3,028	2,503.62p	75,809

Vested awards are satisfied in shares (normally treasury shares) with sufficient shares being sold to meet income tax and national insurance contributions due on exercise, at the Director's discretion, and the net balance of shares transferred to the individual. Awards lapse if they do not vest on the third anniversary of their award.

E. Retirement benefits (audited)

The Executive Directors are entitled to a defined contribution pension contribution of 25% of base salary. In light of the pension lifetime allowance of £1 million and the maximum annual pension contribution allowance of £40,000, the Executive Directors are entitled, at their option, to a taxable salary supplement in lieu of some or all of such pension contributions. Both Executive Directors have chosen this option and each receives a 25% cash payment in lieu of participation in a Spectris pension scheme. No Executive Director participated in a defined benefit pension plan during the year, nor currently participates in a defined benefit plan.

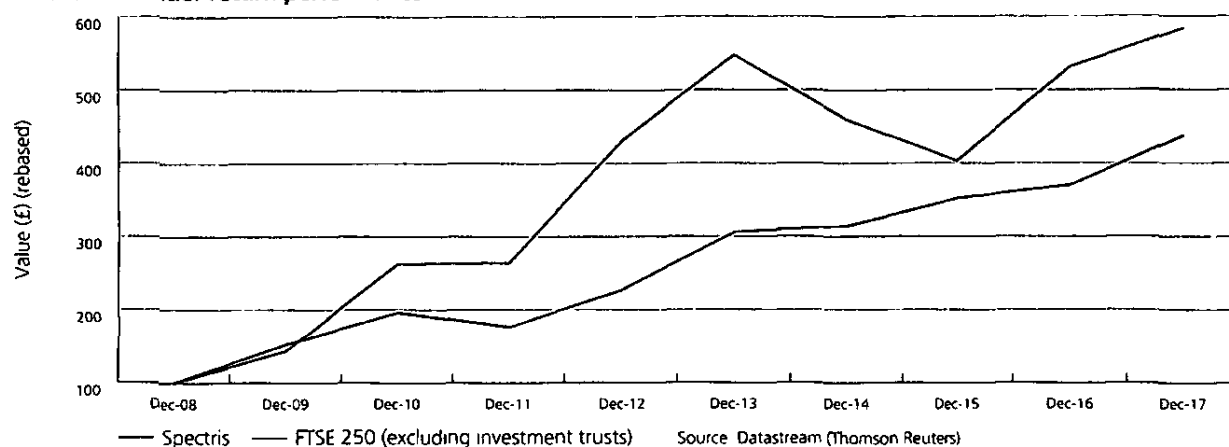
F. All-employee share plans (audited)

Options granted to John O'Higgins on 18 September 2014 under the Spectris Savings Related Share Option Scheme ('SAYE Scheme') vested on 1 December 2017 and were exercised to acquire 446 ordinary shares at an option price of 2,015 pence per share giving a total exercise value of £8,986.90. The option price was set at the time of grant based on the closing mid-market price of the Company's shares on 20 August 2014, being the last business day prior to the grant date. Although the SAYE Scheme rules permit the option price to be discounted up to a maximum of 20% of the market price at the time of grant, no discount was applied to the option price. The exercise price therefore reflects fair value as at the date of grant. The closing market price on 1 December 2017 was 2,442 pence per share producing a total gain on exercise of £1,904.42.

Payments for loss of office or to past Directors (audited)

No compensation payments on termination of employment were made to Directors during the year and no payments were made to former Directors.

Total shareholder return performance



This graph shows the value, by 31 December 2017, of £100 invested in Spectris on 31 December 2008, compared with the value of £100 invested in the FTSE 250 (excluding investment trusts) Index on the same date. This index has been chosen because it is a widely recognised performance benchmark for large companies in the UK.

The other points plotted are the values at intervening financial year ends.

Historical Chief Executive remuneration

The table below shows the total remuneration figure for the Chief Executive for the current year and over the previous eight years. The total remuneration figure includes the annual bonus and PSP awards that vested based on performance in those years. The annual bonus and PSP percentages show the pay-out for each year as a percentage of the potential maximum.

John O'Higgins	2009	2010	2011	2012	2013	2014	2015	2016	2017
Single figure of total remuneration (£'000)	849	1,104	1,481	2,995	2,172	1,122	729	1,388	1,611
Annual bonus (% of maximum)	0%	95%	100%	70%	20%	18%	0% ¹	90%	80%
PSP vesting (% of maximum)	33%	89%	100%	100%	100%	28%	0%	0%	9% ²

¹ Bonus entitlement waived

² Estimated vesting

Percentage change in the remuneration of the Chief Executive

The table below shows the percentage change in the salary, benefits and annual bonus of the Chief Executive compared with the change in the Executive team (excluding the Chief Executive) and in the Group's UK-based employees between the year ended 31 December 2016 and 31 December 2017. The Committee has selected this comparator group on the basis that the Chief Executive is UK-based and this provides a local market reference and a sufficiently large comparator group based on a similar incentive structure to the Chief Executive, and reduces any distortion arising from currency and cost of living differences in other geographies in which Spectris operates.

	% change 2016-2017		
	Base salary	Benefits	Annual bonus
Chief Executive	3.3%	4.1%	10.9%
Executive Team	4.7%	1.5%	3.0%
Spectris UK-based employees	3.4%	4.7%	3.2%

Relative importance of spend on pay

The table below shows the relative expenditure of the Group on the pay of its employees in comparison to adjusted profit before tax and distributions to shareholders by way of dividend payments between the years ended 31 December 2016 and 31 December 2017. Total employee pay is the total pay costs for all Group employees. Adjusted profit before tax has been used as a comparison as this is a key financial metric which the Board considers when assessing the Group's financial performance.

	2017 £m	2016 £m	% change
Total employee pay	600.6	511.3	17%
Total returns to shareholders	63.2	59.8	6%
Adjusted profit before tax	218.4	195.8	12%

Note: Adjusted profit before tax is calculated as being the statutory profit before tax as adjusted to exclude certain non-operational items defined in Note 2 to the Financial Statements on page 103.

Directors' Remuneration Report continued

Non-executive Directors' remuneration

Chairman and Non-executive Directors' fees

A biennial benchmark review of Non-executive Directors' fees was conducted by the Committee's remuneration advisers, FIT Remuneration Consultants LLP, during 2016 with the results effective from 1 January 2017. The next review is scheduled to be undertaken during 2018. The fee structure for the Non-executive Directors is set out below:

	2017 £'000	2016 £'000
Chairman (all-inclusive fee)	220	210
Non-executive Director basic fee	55	53
Senior Independent Director fee	10	5
Chairman of the Audit and Risk Committee	10	10
Chairman of the Remuneration Committee	10	10
Annual travel supplement to be paid to overseas-based Non-executive Directors	15	7.5

Non-executive Directors' total single figure remuneration (audited)

The single figure remuneration for each Non-executive Director who served during the year is as follows:

Director		Basic fees £'000	Additional fees £'000	Taxable expenses £'000	Total £'000
Mark Williamson ¹	2017	132	–	–	132
	2016	–	–	–	–
Russell King	2017	55	20	–	75
	2016	53	15	–	68
Karim Bitar ²	2017	33	–	–	33
	2016	–	–	–	–
Ulf Quellmann	2017	55	–	–	55
	2016	53	–	–	53
Bill Seeger ^{4,5}	2017	55	25 ⁴	10 ⁵	90
	2016	53	18 ⁴	–	71
Kjersti Wiklund ³	2017	52	–	–	52
	2016	–	–	–	–
Martha Wyrsh ⁴	2017	55	15 ⁴	–	70
	2016	53	8 ⁴	–	61
Former Chairman					
Dr John Hughes ⁶	2017	90	–	–	90
	2016	210	–	–	210

¹ Mark Williamson joined the Board as Non-executive Chairman on 26 May 2017. His fee is pro-rated from that date and is all-inclusive.

² Karim Bitar joined the Board on 1 July 2017. His fee is pro-rated from that date.

³ Kjersti Wiklund joined the Board on 19 January 2017. Her fee is pro-rated from that date.

⁴ Bill Seeger and Martha Wyrsh (both based overseas) received an additional annual travel supplement of £15,000 for the 2017 financial year (2016: £7,500), included in their respective additional fees figures.

⁵ Bill Seeger was reimbursed for certain travel expenses during the 2016/2017 tax year amounting to £5,566 which HMRC subsequently deemed to be subject to UK income tax producing a gross figure of £9,614. This tax liability amounted to £4,048 and was paid by Spectris on his behalf during 2017.

⁶ Dr John Hughes retired from the Board as Non-executive Chairman on 26 May 2017.

Additional notes to the Non-executive Directors' single figure remuneration table

Membership of Board Committees

Details of each Non-executive Director's Board Committee membership and, where relevant, Committee Chairmanship, held during 2017, and reflected in the additional fee figures for the financial year, are outlined in the table below.

Non-executive Director	
Mark Williamson	Non-executive Chairman with effect from 26 May 2017
Russell King	Senior Independent Director and Chairman of the Remuneration Committee
Karim Bitar	Member of the Audit and Risk and Remuneration Committees with effect from 1 July 2017
Ulf Quellmann	Member of the Audit and Risk and Remuneration Committees
Bill Seeger	Chairman of the Audit and Risk Committee
Kjersti Wiklund	Member of the Remuneration Committee with effect from 19 January 2017
Martha Wyrsh	Member of the Audit and Risk Committee
Former Chairman	
Dr John Hughes	Non-executive Chairman until 26 May 2017

At the date of this report, all Non-executive Directors served on the Nomination Committee, for which there was no additional payment.

Directors' shareholdings and share interests (audited)

Directors' shareholding requirements

Each Executive Director is, subject to personal circumstances, required to build a retained shareholding in Spectris plc of at least three times base salary in value and is required to apply the post-tax benefit of any vested PSP awards or any bonus payments exceeding 60% of base salary to the acquisition of shares until this required level of shareholding is achieved. Both Executive Directors currently have holdings in excess of this requirement. There is no such requirement in respect of the Chairman or Non-executive Directors, who have discretion as to whether to hold the Company's shares or not.

Executive Directors' interests in shares

The beneficial interest of each Executive Director (including their closely associated persons) in the shares of the Company, as at 31 December 2017, is as follows.

Director	Shares held as at 31 December 2017	Percentage of requirement achieved ¹	Interests in share plans		Total interests in shares
			PSP ²	SAYE ³	
John O'Higgins	287,550	399%	164,670	–	452,220
Clive Watson	131,000	287%	104,560	1,036	236,596

Notes

1 Based on the Company's closing share price on 29 December 2017, the last trading date of 2017, of 2.487 pence

2 PSPs are nominal cost share options of 5 pence. Performance conditions apply details of which are set out in the following sections

3 There are no conditions relating to performance of the Company or the individual other than continuous employment

There has been no change in Directors' interests in shares between 1 January 2018 and 19 February 2018

Executive Directors' interests in share plans

Director	Share Plan	Date granted	Exercise price (pence)	Performance period end date/date exercisable	Expiry date	Market value per share at date of award (pence)	No. of shares subject to options at 1 January 2017	Granted during the year	Face value at date of grant (£)	Exercised during the year	Lapsed during the year	No. of shares subject to options at 31 December 2017
John O'Higgins	SAYE	Sept 2014	2,015	Dec 2017	Jun 2018	2,015.0	446	–	8,987	446	–	–
	PSP	May 2014	5	May 2017	May 2024	2,217.4	50,460	–	1,118,900	–	50,460	–
	PSP	Mar 2015	5	Mar 2018	Mar 2025	2,197.2	51,830	–	1,138,809	–	–	51,830
	PSP	Feb 2016	5	Feb 2019	Feb 2026	1,713.6	67,460	–	1,155,995	–	–	67,460
	PSP	Jun 2017	5	Jun 2020	Jun 2027	2,630.8	–	45,380	1,193,857	–	–	45,380
	Total PSP						169,750	45,380		–	50,460	164,670
Clive Watson	SAYE	Sept 2015	1,737	Dec 2018	Jun 2019	1,737.0	1,036	–	17,995	–	–	1,036
	PSP	May 2014	5	May 2017	May 2024	2,217.4	32,050	–	710,677	–	32,050	–
	PSP	Mar 2015	5	Mar 2018	Mar 2025	2,197.2	32,930	–	723,538	–	–	32,930
	PSP	Feb 2016	5	Feb 2019	Feb 2026	1,713.6	42,860	–	734,449	–	–	42,860
	PSP	Jun 2017	5	Jun 2020	Jun 2027	2,630.8	–	28,770	756,881	–	–	28,770
	Total PSP						107,840	28,770		–	32,050	104,560

Notes to the interests in share plans table

Savings Related Share Option Scheme ('SAYE Scheme')

- The Spectris Savings Related Share Option Scheme 2007 expired on 25 May 2017 and was replaced by a new SAYE scheme, on substantially the same terms, on 26 May 2017. This Scheme is a HMRC tax-favoured savings-related share option scheme open to all employees.
- No performance conditions attached to SAYE options other than continuous service. No grants were made under the SAYE Scheme during 2017.
- The face value of SAYE awards is calculated using the exercise price. The option exercise price was set at the time of grant based on the closing mid-market share price on the day immediately before the invitation date. Although the SAYE Scheme rules permit the option price to be discounted up to a maximum of 20% of the market price at the time of grant, no such discount was applied to the option price.

Performance Share Plan ('PSP')

- Shareholders approved a three-year extension to the Spectris Performance Share Plan 2006 in 2014 and a further extension in 2017 for ten years.
- The PSP awards are conditional rights to acquire shares and are nominal cost options. The exercise price is the nominal value of a Spectris ordinary share, which is 5 pence.
- The level of PSP awards granted in 2016 and 2017 was 200% of base salary, calculated using the relevant market value at the date of the award, which was:
 - 1,713.6 pence per share for 2016, based on the average of the mid-market closing price of the Company's ordinary shares over the five business days prior to the date of grant. The number of shares awarded were rounded down to the nearest ten shares; and
 - 2,630.8 pence per share for 2017, based on the average of the mid-market closing share price over the five days commencing with the day of the AGM (26 May 2017). The number of shares awarded were rounded down to the nearest ten shares. The face value of the PSP awards is calculated using the average five-day closing mid-market price at date of award (as explained in (i) above).
- PSP awards to the Executive Directors are currently structured so that one-third of the award is subject to an EPS target, one-third is subject to a TSR target and one-third is subject to an Economic Profit ('EP') target. Each condition operates over a fixed three-year period (being the three financial years commencing with the financial year in which an award is made in respect of the EPS and EP conditions, and three years from the date of grant in respect of the TSR condition) with no opportunity for re-testing.
- PSP awards granted in 2017 are subject to an additional two-year holding period following the initial three-year vesting period.
- Under the terms of the PSP, notional dividends of the Company are applied at vesting over award shares during the period until vesting (and for any applicable holding period until exercise) thereby increasing the number of award shares granted. These additional award shares are subject to application of the performance criteria attaching to the award.

Directors' Remuneration Report continued

PSP performance conditions

The performance criteria for the awards granted in 2017 are summarised as follows

Performance condition	Performance metric	Percentage of award that vests (expressed as a percentage of one-third of the total number of shares subject to an award)
Earnings per share ('EPS')	CPI + 11% compound per annum ('c p a.')	100%
	Between CPI + 5% and 11% c p a.	Pro-rata on a straight-line basis between 20% and 100%
	CPI + 5% c.p.a	20%
	Less than CPI + 5% c p a.	0%
Total Shareholder Return ('TSR') Relative to the FTSE 250 (excluding investment trusts)	Upper quintile or above	100%
	Between median and upper quintile	Pro-rata between 20% and 100% on the basis of the Company's ranking
	Median	20%
	Below Median	0%
Economic Profit ('EP') Aggregate economic profit over the financial performance period	£280 million or more	100%
	Between £150 million and £280 million	Pro-rata on a straight-line basis between 20% and 100%
	£150 million	20%
	Less than £150 million	0%

The performance criteria for the awards granted in 2016 and 2015 are summarised as follows

Performance condition	Performance metric		Percentage of award that vests (expressed as a percentage of one-third of the total number of shares subject to an award)
	2015	2016	
EPS	CPI + 13% c p.a.	CPI + 13% c.p a.	100%
	Between CPI + 5% and 13% c.p.a.	Between CPI + 5% and 13% c.p a	Pro-rata on a straight-line basis between 20% and 100%
	CPI + 5% c p a	CPI + 5% c.p.a	20%
	Less than CPI + 5% c.p.a	Less than CPI + 5% c.p a	0%
TSR Relative to the FTSE 250 (excluding investment trusts)	Upper quintile or above	Upper quintile or above	100%
	Between median and upper quintile	Between median and upper quintile	Pro-rata between 20% and 100% on the basis of the Company's ranking
	Median	Median	20%
	Below median	Below median	0%
EP Aggregate economic profit over the financial performance period	£370 million or more	£275 million or more	100%
	Between £250 million and £370 million	Between £145 million and £275 million	Pro-rata on a straight-line basis between 20% and 100%
	£250 million	£145 million	20%
	Less than £250 million	Less than £145 million	0%

Economic profit is defined as adjusted operating profit (pre-tax and interest) less capital employed x the Company's weighted average cost of capital ('WACC'). WACC was set at 11% for the 2015, 2016 and 2017 awards except that lower transitional rates will be applied for subsequent acquisitions. Any impairment of goodwill over a performance period will be added back to capital employed. The TSR performance condition is measured independently by Aon Hewitt. The EPS figure is obtained from the audited Financial Statements and the calculation of achievement against growth condition is presented to and approved by the Committee. The Committee will also monitor outcomes for the EP measure to ensure that they achieve the original objectives and may adjust the vesting accordingly. Any exercise of discretion will be justified in the next Directors' Remuneration Report. Similarly, the Committee must satisfy itself that the Company's relative TSR performance is reflective of its underlying financial performance.

Dilution limits

In line with best practice, the use of new or treasury shares to satisfy the vesting of awards made under all of the Company's share plans (PSP and SAYE combined) is restricted to 10% in any ten-year rolling period. A further restriction applies to the PSP plan of 5% over the same period of which 3.98% has been utilised.

Chairman and Non-executive Directors' interests in shares

The Chairman and Non-executive Directors are not permitted to participate in any of the Company's incentive schemes nor are they required to build and retain a minimum shareholding in the Company. They have discretion as to whether to hold the Company's shares or not. The table below sets out the beneficial interests in the ordinary shares of the Company of each current Non-executive Director (including their closely associated persons) during the year ended 31 December 2017.

Current Non-executive Director	Shares held at 1 January 2017 (or date of appointment if later)	Shares held at 31 December 2017
Mark Williamson (appointed on 26 May 2017)	1,753	16,753
Russell King	3,000	3,000
Karim Bitar (appointed on 1 July 2017)	–	–
Ulf Quellmann	1,500	1,500
Bill Seeger	3,000	3,000
Kjersti Wiklund (appointed on 1 January 2017)	–	–
Martha Wyrsh	3,000	3,000

There has been no change in Directors' interests in shares between 1 January 2018 and 19 February 2018.

Share price

At 29 December 2017, the last trading day of 2017, the mid-market closing share price on the London Stock Exchange was 2,487 pence per share. The highest mid-market closing share price in the year was 2,834 pence per share and the lowest was 2,229 pence per share.

Directors' service contracts and letters of appointment

The Executive Directors have rolling contracts subject to 12 months' notice of termination by either party, or to summary notice in the event of serious breach of the Director's obligations, dishonesty, serious misconduct or other conduct bringing the Company into disrepute.

The contracts of employment in respect of John O'Higgins and Clive Watson contain an option, at the sole discretion of the Board, for the contract to be terminated by way of payments in lieu of notice equivalent to 1.4 times monthly base salary for the outstanding months of the notice period. Such payment accounts for the 25% employer pension contribution; company car, insurance and fuel benefits, mobile telephone provision; life, disability and medical expenses insurances, and settlement of any statutory employment claims that may arise upon termination, but excludes any element of compensation for loss of bonus and is in full and final settlement of all employment-related claims.

All letters of appointment in respect of the Non-executive Directors are renewable at each AGM, subject to review prior to proposal for re-election, and provide for a notice period of six months. Ordinarily, appointments do not continue beyond nine years after first election, at which time Non-executive Directors cease to be presumed independent under the UK Corporate Governance Code.

The table below summarises the current Directors' service contracts or terms of appointment.

	Date of contract	Expiry date	Notice period	Length of service at 19 February 2018
Executive Directors				
John O'Higgins	1 Jan 2006	3 Feb 2029	12 months	12 years 1 month
Clive Watson	1 Oct 2006	4 Feb 2023	12 months	11 years 4 months
Non-executive Directors				
Mark Williamson	26 May 2017	Renewable at each AGM	6 months	9 months
Russell King	12 Oct 2010	Renewable at each AGM	6 months	7 years 4 months
Karim Bitar	1 July 2017	Renewable at each AGM	6 months	7 months
Ulf Quellmann	1 Jan 2015	Renewable at each AGM	6 months	3 years 1 month
Bill Seeger	1 Jan 2015	Renewable at each AGM	6 months	3 years 1 month
Kjersti Wiklund	19 Jan 2017	Renewable at each AGM	6 months	1 year 1 month
Martha Wyrsh	1 Jun 2012	Renewable at each AGM	6 months	5 years 8 months

Directors' Remuneration Report continued

External appointments – Executive Directors

Executive Directors may retain any payments received in respect of external non-executive appointments held. Such appointments are normally limited to one per Director at any time and are subject to the approval of the Board. Details of the external non-executive appointments held by Executive Directors during 2017 are set out in the table below

	Company name	Fee retained
John O'Higgins ¹	Johnson Matthey plc	£8,051
Clive Watson	Spirax-Sarco Engineering plc	£59,000

¹ John O'Higgins was appointed on 16 November 2017. His fee is pro-rated from that date.

Summary of shareholder voting at 2017 AGM

At the AGM held on 26 May 2017, shareholders approved the 2017 Directors' Remuneration Policy by 98.46% of the votes cast, the 2016 Directors' Remuneration Report by 99.11% of the votes cast, and the continued operation of the Spectris Performance Share Plan (including the introduction of an additional two-year holding period following the initial vesting period) by 98.77% of the votes cast, as detailed in the table below:

	Votes for		Votes against		Votes withheld	
	Number	%	Number	%	Number	
2017 Directors' Remuneration Policy	93,190,031	98.46%	1,445,329	1.53%	517,033	
2016 Directors' Remuneration Report	94,315,494	99.11%	835,995	0.88%	950	
Continuing operation of the Spectris Performance Share Plan	93,984,929	98.77%	1,161,321	1.22%	6,189	

Directors' interests in contracts

No Director had during the year or at the end of the year any material interest in any contract of significance to the Group's business.

Loans to Directors

During the year there were no outstanding loans to any Director.

On behalf of the Board

Russell King

Chairman of the Remuneration Committee

19 February 2018



Directors' Report

This section sets out the information required to be disclosed by the Company and the Group in the Directors' Report in compliance with the Companies Act 2006 ('Companies Act'), the Listing Rules of the UK Listing Authority ('Listing Rules') and the Disclosure and Transparency Rules ('DTR'). Certain matters that would otherwise be disclosed in this Directors' Report have been reported elsewhere in this Annual Report. This report should therefore be read in conjunction with the Strategic Report on pages 1 to 47 and the Corporate Governance Report on pages 48 to 83 which are incorporated by reference into this Directors' Report. The Strategic Report and this Directors' Report, together with other sections of this Annual Report including the Corporate Governance Report on pages 48 to 83 incorporated by reference, when taken as a whole, form the Management Report as required under Rule 4.1.5R of the DTR.

Overview of the information required to be disclosed

A summary of the information required to be disclosed in the Directors' Report comprising pages 79 to 83 together with the relevant page reference is set out in the table below:

Disclosure	Reported in	Page reference
Acquisitions and disposals	Strategic Report	30
Amendments of Articles of Association	Directors' Report	80
Annual General Meeting	Directors' Report	80
Appointment and removal of Directors	Directors' Report	80
Authority to allot shares	Directors' Report	81
Business model	Strategic Report	6–7
Change in control	Directors' Report	80
Community and charitable giving	Strategic Report	45
Corporate governance	Corporate Governance Report	48–83
Directors' conflicts of interest	Directors' Report	80
Directors' details	Corporate Governance Report	50–51
Directors' indemnity	Directors' Report	80
Directors' responsibility statement	Directors' Report	83
Disclosure of information to auditors	Directors' Report	82
Diversity, equality and inclusion	Strategic Report	43
Employee engagement	Strategic Report	44
Employees with disabilities	Strategic Report	43
Employee equal opportunities	Strategic Report	43
Employee involvement	Strategic Report	43
Employee share plans	Directors' Report	81
Financial instruments	Directors' Report	81
Future developments and strategic priorities	Strategic Report	8–9
Going concern	Directors' Report	81
Greenhouse gas emissions	Strategic Report	41
Political donations	Directors' Report	81
Powers of Directors	Directors' Report	81
Principal risks and risk management	Strategic Report	33–38
Research and development activities	Strategic Report	7 and 29
Restrictions on transfer of shares	Directors' Report	81
Restrictions on voting rights	Directors' Report	81
Results and dividends	Strategic Report	1–32
Rights and obligations attaching to shares	Directors' Report	81
Share capital	Directors' Report	81
Substantial share interests	Directors' Report	82
Viability statement	Strategic Report	39

Directors' Report continued

Results and dividends

The results for the year are set out on pages 92 to 155. Adjusted operating profit for the year amounts to £223.5 million (2016: £200.8 million).

An interim dividend of 19.0 pence per share was paid on 10 November 2017 in respect of the half year ended 30 June 2017. The Board is recommending a final dividend of 37.5 pence per share, making the total dividend for the year of 56.5 pence per share (2016: 52.0 pence per share). Dividend details are given in Note 10 to the Financial Statements. Subject to approval of shareholders at the 2018 Annual General Meeting, the final dividend will be paid on 29 June 2018 to those shareholders on the register at 25 May 2018.

Articles of Association ('Articles')

The Company's Articles contain specific provisions and restrictions regarding the Company's power to borrow money. Powers relating to pre-emptive rights, the allotment of shares; and share buy-backs of the Company's shares are also included in the Articles and such authorities are renewed by shareholders each year at the Annual General Meeting. The Articles also give power to the Board to appoint and remove Directors and require Directors to submit themselves for election at the first Annual General Meeting following their appointment and for annual re-election at subsequent AGMs. The Articles may be amended by special resolution of the shareholders. The Company's Articles are available on the Company's website: www.spectris.com

Annual General Meeting ('AGM')

The AGM will be held at 12.30pm on Friday 25 May 2018 at Great Fosters, Stroud Road, Egham, Surrey TW20 9UR. The notice of the AGM accompanies this Annual Report.

Auditor's re-appointment and remuneration

In accordance with section 489 of the Companies Act, a resolution for the re-appointment of Deloitte LLP as the Company's auditor is to be proposed at the forthcoming 2018 AGM. A further resolution is to be proposed at that meeting to authorise the Directors to agree the remuneration of the auditor.

Branches

Spectris Group, through various subsidiaries, has established branches in a number of different countries in which the business operates.

Change in control

There are a number of agreements that take effect, alter or terminate upon a change of control of the Group following a takeover, such as bank loan agreements and Company share plans. None of these are deemed to be significant in terms of their potential impact on the business of the Group as a whole. It is also possible that funding arrangements for the Group's defined benefit pension arrangements would need to be enhanced following a change of control if that resulted in a weakening of the employer covenant.

The Company does not have any agreements with any Director that would provide for enhanced compensation for loss of office or employment following a takeover bid.

Directors

Details of the Directors who served, were appointed and who retired during the year are set out on pages 50 to 51 other than Dr John Hughes who retired from the Board on 26 May 2017. Directors are appointed and replaced in accordance with the Articles, Companies Act, and the UK Corporate Governance Code 2016. The powers of the Directors are set out in the Articles and the Companies Act.

Directors' conflicts of interest

The Board has an established process to review at least annually, and, if appropriate, authorise conflict or potential conflict of interests. Any transactional conflicts are reviewed as they arise. Directors are asked to review and confirm reported conflicts of interest as part of the year-end process.

Directors' remuneration and interests

Details of Directors' remuneration and their interest in the Company's shares can be found in the Directors' Remuneration Report on pages 64 to 78.

Directors' and officers' indemnities and insurance

The Spectris Group maintains liability insurance for its Directors and officers. The Directors, Company Secretary and members of the Executive Committee have also been granted a third-party indemnity, under the Companies Act, which remains in force. Neither the Company's indemnity nor insurance provides cover in the event that an indemnified individual is proved to have acted fraudulently or dishonestly.

Directors' powers

Subject to the Company's Articles, UK legislation and any directions given by special resolution, the business of the Company is managed by the Board, which may exercise all the powers of the Company

Borrowing powers

The Directors may exercise all the powers of the Company to borrow money

Pre-emptive rights and new issues

Subject to the Articles and applicable laws and regulations, the Directors may allot, grant options over, offer or otherwise deal with or dispose of shares of the Company to such persons at such times and generally on such terms and conditions as they may determine

Share buy-backs

The Company was authorised by shareholders at the 2017 AGM to purchase in the market up to 10% of the Company's issued share capital, as permitted under the Company's Articles. No shares were bought back under this authority during the year ended 31 December 2017

On 19 February 2018, the Directors announced their intention to undertake a £100 million on-market share buy-back programme. Shares purchased under this programme will be cancelled

This standard authority is renewable annually, the Directors will seek to renew this authority at the 2018 AGM. It is the Company's present intention to cancel any shares it buys back.

Employee share plans

Details of employee share plans are set out in the Remuneration Policy tables on pages 66 to 69

Financial instruments

Information on the Group's financial risk management objectives and policies, its exposure to foreign currency risk, interest rate risk, liquidity risk, credit risk and capital management is contained in Note 27 to the Financial Statements on pages 135 to 136.

Going concern and viability statements

Having reviewed the Group's plans and available financial facilities, the Board has a reasonable expectation that the Group has adequate resources to continue in operational existence for at least 12 months following the signing of the accounts. For this reason it continues to adopt the going concern basis in preparing the Group's accounts. The Company's Viability Statement can be found on page 39.

Related party transactions

Related party transactions are set out in Note 32 to the Financial Statements on page 140

Political donations

The Group's policy is not to make any political donations and none were made during the financial year (2016: nil)

Post balance sheet events

Events after the balance sheet date are disclosed in Note 34 to the Financial Statements on page 141

Share capital

The share capital of the Company comprises ordinary shares of 5 pence each, each share carries the right to one vote at general meetings of the Company. The authorised and issued share capital of the Company, together with movements in the Company's issued share capital during the year, is shown in Note 44 to the Financial Statements on page 150. The Articles, available on the Company's website, contain provisions governing the ownership and transfer of shares

Shareholders' rights and obligations attaching to shares

Restrictions on shareholders' rights

All of the issued and outstanding ordinary shares of the Company have equal voting rights, with one vote per share. There are no special control rights attaching to them

Alteration of share capital and variation of rights

The Company may reduce or vary the rights attaching to its share capital by special resolution. Such matters are subject to the relevant provisions of the Articles and applicable laws and regulation. Further details in relation to rights and restrictions applying to the Company's shares are set out in the Articles

Transfer of shares

There are no restrictions on the transfer of shares beyond those required by applicable law under the Articles or under any applicable share dealing policy.

Voting

Subject to any special rights or restrictions, every shareholder on the Register not less than 48 hours (excluding non-working days) before the time fixed for a general meeting, will have one vote for every fully-paid share that they hold. Shareholders may cast votes either personally or by proxy and a proxy need not be a shareholder. Details relating to the appointment of proxies and registration of voting instructions for the 2018 AGM are set out in the Notice of AGM accompanying this Annual Report

Directors' Report continued

Substantial share interests

As at 31 December 2017, the Company had received formal notifications of the following holdings in its ordinary shares in accordance with DTR5.

	Shareholding in Spectris shares	Date of notification	Percentage of issued share capital at date of notification
MFS Investment Management	12,039,317	05/11/2015	10.11%
Fidelity Management & Research Company	6,403,655	23/11/2016	5.37%
Oppenheimer Funds, Inc	6,031,367	04/08/2017	5.06%

No changes in disclosable holdings under DTR5 have been notified to the Company between 31 December 2017 and 19 February 2018.

An updated list of the Company's major shareholders is available on page 156.

Treasury shares

Shares held by the Company in treasury do not have voting rights and are not eligible to receive dividends.

Disclosures required under UK Listing Rule 9.8.4

There are no disclosures required to be made under UK Listing Rule 9.8.4 other than in respect of long-term incentive schemes, details of which are set out in the Directors' Remuneration Report on pages 64 to 78.

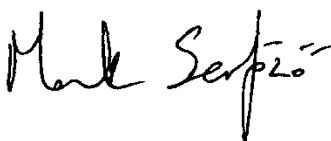
Disclosure of information to auditors

The Directors who held office at the date of approval of the Directors' Report confirm that

- so far as they are each aware, there is no relevant audit information, which would be needed by the Company's auditor in connection with preparing its audit report, of which the Company's auditor is unaware, and
- each Director has taken all steps that they ought to have taken as a Director in order to make themselves aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

By order of the Board

Mark Serfözö
General Counsel and Company Secretary
19 February 2018



Statement of Directors' responsibilities in respect of the Annual Report and the Financial Statements

The Directors are responsible for preparing the Annual Report, Directors' Remuneration Report and the Group and Parent Company Financial Statements in accordance with applicable law and regulations.

Under the Companies Act, the Directors are required to prepare the Group and Parent Company Financial Statements in accordance with International Financial Reporting Standards ('IFRS') as adopted by the European Union and Article 4 of the IAS regulation and have also elected to prepare the Parent Company Financial Statements in accordance with UK Accounting Standards, including FRS 101 Reduced Disclosure Framework.

Under company law, the Directors are required to prepare such Financial Statements for each financial year and must not approve the Financial Statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Parent Company and of their profit or loss for that period.

In preparing each of the Group and Parent Company Financial Statements, the Directors are required to

- › select accounting policies and then apply them consistently;
- › make judgements and accounting estimates that are reasonable and prudent;
- › for the Group Financial Statements, state whether they have been prepared in accordance with IFRS as adopted by the EU;
- › for the Parent Company Financial Statements, state 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 the going concern basis unless it is inappropriate to presume that the Group and Parent Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Parent Company and enable them to ensure that its Financial Statements comply with the Companies Act 2006. 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, Directors' Report, Directors' Remuneration Report and Corporate Governance Statement that comply with that law and those regulations.

The Directors are 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.

Directors' responsibility statement

We confirm that to the best of our knowledge:

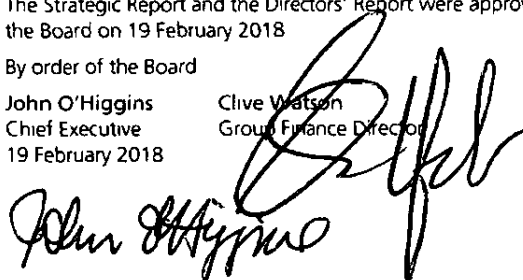
- › the Financial Statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole;
- › the Strategic Report on pages 1 to 47 and the Directors' Report on pages 48 to 83 include a fair review of the development and performance of the business and the position of the Group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face; and
- › the Annual Report and Accounts 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.

The Strategic Report and the Directors' Report were approved by the Board on 19 February 2018.

By order of the Board

John O'Higgins
Chief Executive
19 February 2018

Clive Watson
Group Finance Director



Independent Auditor's Report to the Members of Spectris plc

Opinion on Financial Statements of Spectris plc

In our opinion:

- › 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 International Financial Reporting Standards ('IFRSs') as adopted by the European Union;
- › the Parent Company Financial Statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006; 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.

The Financial Statements that we have audited comprise

- › the Consolidated Income Statement;
- › the Consolidated Statement of Comprehensive Income;
- › the Consolidated and Parent Company Statement of Financial Position;
- › the Consolidated Statement of Cash Flows;
- › the Consolidated and Parent Company Statements of Changes in Equity; and
- › the related Notes 1 to 50

The financial reporting framework that has been applied in their preparation is applicable law and IFRSs as adopted by the European Union and, as regards the Parent Company Financial Statements, as applied in accordance with the provisions of the Companies Act 2006

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.

We are independent of the Group and the 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 confirm that the non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the Parent Company.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Summary of our audit approach

Key audit matters	<p>The key risks that we identified in the current year were:</p> <ul style="list-style-type: none"> › Impairment of the valuation of goodwill and other intangible assets in four of the Group's cash-generating units, › Override in the application of the Group inventory provision accounting policy for obsolete, excess and slow-moving inventory items, and › Accuracy of provisions for taxation in respect of dividends received from EU based companies <p>In addition, in the prior year the previous auditors identified acquisitions as a key audit matter. This has not been identified as a key audit matter in the current year as there were no significant acquisitions.</p>
Materiality	<p>The materiality that we used in the current year was £9.0 million which was determined on the basis of 5% of expected adjusted profit before tax.</p>
Scoping	<p>Full scope audit work was completed on 68 reporting entities and specified audit procedures were undertaken on a further 28 reporting entities. Our full scope and specified audit procedures covered 74% of Group revenue and 91% of Group profit before tax.</p>

Conclusions relating to principal risks, going concern and viability statement

Going concern

We have reviewed the Directors' Statement on page 83 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 Group's and Company's ability to continue to do so over a period of at least 12 months from the date of approval of the Financial Statements

We are required to state whether we have anything material to add or draw attention to in relation to the statement required by Listing Rule 9.8.6R(3) and report if the statement is materially inconsistent with our knowledge obtained in the audit

We confirm that we have nothing material to report, add or draw attention to in respect of these matters.

Principal risks and viability statement

Based solely on reading the Directors' statements and considering whether they were consistent with the knowledge we obtained in the course of the audit, including the knowledge obtained in the evaluation of the Director's assessment of the Group's and Company's ability to continue as a going concern, we are required to state whether we have anything material to add or draw attention to in relation to

- › the disclosures on pages 34 to 38 that describe the principal risks and explain how they are being managed or mitigated;
- › the Directors' confirmation on page 39 that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity;
- › the Directors' explanation on page 39 as to how they have assessed the prospects of the Group, 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 Group 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

We are also required to report whether the Directors' statement relating to the prospects of the Group required by Listing Rule 9.8.6R(3) is materially consistent with our knowledge obtained in the audit

We confirm that we have nothing material to report, add or draw attention to in respect of these matters.

Independent Auditor's Report to the Members of Spectris plc continued

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 forming our opinion thereon, and we do not provide a separate opinion on these matters.

Impairment of goodwill and other intangible assets in four of the Group's cash-generating units**Key audit matter description**

Total goodwill and intangible assets at 31 December 2017 were £627.5 million and £209.9 million, respectively. We focused our impairment of goodwill and other intangible assets testing on four cash-generating units ('CGUs'), being Omega (£231.7 million), Millbrook (£151.6 million), ESG (£14.6 million) and Servomex (£54.3 million), based on growth assumptions and levels of headroom.

There is a risk surrounding the recoverability of these balances, as assessed annually by management as part of their goodwill impairment review using discounted cash flows on a value in use basis.

The key judgements in assessing goodwill and intangible assets for impairment are the discount rate, the long-term growth rate and the short-term projected cash flows. The value in use model is sensitive to changes in these estimates, all of which must reflect a long-term view of underlying growth in the respective economies within which these businesses operate and the reasonableness of projected cash flows. We have pinpointed this significant risk to the short-term future cash flows including the terminal value in the four CGUs above and material judgements contained therein. This is where the highest degree of sensitivity exists to determining the value in use.

We note that estimating a value in use is inherently uncertain, and a range of assumptions can reasonably be applied in determining the estimates mentioned above.

Note 1 to the Financial Statements sets out the Group's accounting policy for testing goodwill for impairment. The basis for the impairment reviews is outlined in Note 12 to the Financial Statements, including details of the discount rate and long-term growth rate used. Note 12 to the Financial Statements also includes details of the extent to which the goodwill and other intangibles test is sensitive to changes in discount rates, long-term growth rates and short-term cash flow projections.

How the scope of our audit responded to the risk




Our procedures for challenging management's methodology and assumptions focused on the four cash-generating units discussed above and included:

- › validating the integrity of management's impairment model through testing of the mechanical accuracy and verifying the application of the input assumptions;
- › understanding the underlying process used to determine the risk adjusted cash flow projections;
- › evaluating the process management undertook to prepare the cash flow forecasts in its impairment model including agreement with the latest Board approved plans and management approved forecasts;
- › challenging the cash flow projections through assessing the accuracy of historical budgeting by comparing them with actual performance and independent evidence to support any significant expected future changes to the business;
- › considered reasonable possible changes in assumptions to challenge the appropriateness of management's assessment of reasonable possible change scenarios; and
- › our challenge was informed by input from certain of our internal valuation specialists, utilising their knowledge and expertise.




Key observations

We determined that there is currently sufficient headroom for Omega, Millbrook, ESG and Servomex such that we concur with management that no impairment is required. We conclude that the assumptions applied in the impairment models, when taken in aggregate, are within our acceptable range.

Override in the application of the Group inventory provision accounting policy for obsolete, excess and slow-moving inventory items

Key audit matter description 	<p>As described in Note 1 (Accounting policies) and Note 14 (Inventory), the Group carries inventory at the lower of cost and net realisable value. As at 31 December 2017, the Group held inventories of £176.0 million (2016: £187.8 million).</p> <p>Management has to apply judgement to assess the level of provision required to write down obsolete, excess and slow-moving inventory items to their net realisable value. The Group has an inventory provisioning policy and methodology for determining the level of required provision. The calculation of the inventory provision relies upon assumptions made in determining appropriate provisioning percentages based on estimates of future sales. The Group accounting policy sets out criteria to apply in determining the level of inventory provision, with written dispensation required from the Group for any override of the policy. There is a significant risk of material misstatement or potential fraud in any override to the application of the Group accounting policy given the level of management judgement involved in determining whether an override should be recognised and how it should be measured.</p> <p><i>The Group's accounting policy for the inventory provision is outlined in Note 1 to the Financial Statements.</i></p>
How the scope of our audit responded to the key audit matter 	<p>We obtained assurance over the appropriateness of any override of the Group inventory provisioning policy and methodology by:</p> <ul style="list-style-type: none"> › considering the appropriateness of the Group's inventory provisioning policy in the context of our understanding of the individual businesses in the Group; › identifying and understanding instances where the inventory provisioning policy had been overridden compared to that set out in the Group accounting manual; and › challenging the validity and accuracy of any override through consideration of actual and forecast sales, actual inventory write-offs and other sources of available evidence, including the ageing and nature of inventory.
Key observations 	<p>Based on our procedures we confirm that instances of override in the application of the Group inventory provision accounting policy for obsolete, excess and slow-moving inventory items are appropriate.</p>

Accuracy of provisions for taxation in respect of dividends received from EU-based companies

Key audit matter description 	<p>Estimation is required in relation to the value of the tax provision recorded in respect of taxation on historical dividends received from EU-based companies. Accordingly, tax provisioning is included in Note 1 as one of the significant accounting estimates.</p> <p>As outlined in Note 9, the UK's dividend taxation regime prior to July 2009 is the subject of long-running litigation between HMRC and taxpayers in relation to the tax charge on dividends received from EU-based companies. Similar to the prior year, as at 31 December 2017 this tax provision remains unchanged at £12.6 million based on the likely outcome of this dispute that certain dividends received from EU-based companies are relevant.</p> <p><i>The Audit Committee Report on page 59 refers to provision for uncertain tax exposures as a key estimate considered by the Audit Committee. The Group's accounting policy for the provision is outlined in Note 1 to the Financial Statements. Note 1 also includes details of the key sources of estimation uncertainty in relation to taxation.</i></p>
How the scope of our audit responded to the key audit matter 	<p>We have reviewed the correspondence in respect of the ongoing litigation between HMRC and tax payers in relation to dividends received from EU-based companies and recalculated the £12.6 million provision based on existing tax law.</p> <p>We used our tax specialists to assist us in appraising the likely outcome of the litigation with HMRC based on their experience of working with the revenue authorities and reviewed correspondence with the authorities to challenge the reasonableness of the provision. Our tax specialist also considered management's assessment of the risk inherent in tax positions taken and reasonably possible outcomes pending resolution of the litigation.</p>
Key observations 	<p>Based on the procedures performed, we consider that the overall tax provision in respect of dividends received from EU-based companies is reasonable.</p>

Independent Auditor's Report to the Members of Spectris plc continued

Our application of materiality

We define materiality as the magnitude of misstatement in the Financial Statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the Financial Statements as a whole as follows:

Group materiality	Group materiality as £9.0 million (2016: £7.4 million). Company materiality as £3.6 million.
Basis for determining materiality	We have used 5% of expected adjusted profit before tax as the benchmark for determining materiality. In 2016, the previous auditors used 5% of Group profit before tax, adjusted for the impairment charge related to Omega Engineering and ESG. Company materiality was set at 40% of Group materiality and equates to 0.4% of the Company's net assets.
Rationale for the benchmark applied	Adjusted profit before tax is a key performance measure for management, investors and the analyst community. This metric is important to the users of the Financial Statements (investors and analysts being the key users for a listed entity) because it portrays the performance of the business and hence its ability to pay a return on investment to the investors. Likewise this metric takes into account the acquisitive nature of the Group which results in adjusting items needing to be considered when determining the performance of the business. Net assets are considered to be an appropriate benchmark for the Company given that it is mainly a holding company.

Materiality

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £0.45 million (2016: £0.40 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the Financial Statements.

An overview of the scope of our audit

The Group operates in more than 30 countries spread across five continents with the largest footprint being in North America, Asia and Europe. Our Group audit was scoped by obtaining an understanding of the Group and its environment, including Group-wide controls, and assessing the risks of material misstatement at the Group and component level. Based on that assessment, we focused our Group audit scope primarily on the audit work at the four segments, managed via 12 operating companies located and controlled across different geographical regions, and the Group head office function. These 12 operating companies are comprised of many individual reporting entities or components, which are the lowest level at which management prepares financial information that is included in the Group Financial Statements. The parent Company is located in the UK and is audited directly by the Group audit team.

We have considered components on the basis of their contribution to Group revenue and operating profit, as well as those that require local statutory audits in their jurisdiction. Full scope audit work was completed on 68 reporting entities and specified audit procedures were done on a further 28 reporting entities. Our full scope and specified audit procedures covered 74% of total Group revenue and 91% of Group profit before tax. In the prior year, the previous auditors' procedures covered 75% of total Group revenue and 87% of Group profit before tax.

Each component in scope was subject to an audit materiality level between £3.0 million and £3.6 million. The audit work on all components was performed by Deloitte Touche Tohmatsu Limited member firms under the direction and supervision of the Group audit team. Further work was performed at a Group level over the consolidation and components not in scope.

We communicated the results of our risk assessment exercise to the component auditors and instructed them on the areas of significant risk, the procedures to be performed and the form and timing of their reporting to us. We also provided direction on enquiries made by the component auditors through online and telephone conversations. All the findings noted were discussed with the component auditor in detail and further procedures to be performed were issued where relevant.

The Group audit team followed a programme of planned visits that has been designed so that on a rotational basis the Senior Statutory Auditor or a senior member of the Group audit team visits each of the primary operating companies where the Group audit scope was focused in addition to the work performed at the Group head office. In relation to the current year audit, the Senior Statutory Auditor and/or a senior member of the audit team visited South Korea, China, Denmark, Germany, Switzerland, Netherlands, USA, Canada and various locations in the UK. The visits were structured at different stages of the audit and the key components in the UK, USA, China and South Korea were visited during the local audit close meetings.

Other information

The Directors are responsible for the other information. The other information comprises the information included in the annual Report, other than the Financial Statements and our auditor's report thereon.

Our opinion on the Financial Statements does not cover the other information and, except to the extent otherwise explicitly stated in our 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 this other information, we are required to report that fact.

In this context, matters that we are specifically required to report to you as uncorrected material misstatements of the other information include where we conclude that:

- › *Fair, balanced and understandable* – 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* – the section describing the work of the audit committee does not appropriately address matters communicated by us to the audit committee, or
- › *Directors' statement of compliance with the UK Corporate Governance Code* – 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.

We have nothing to report in respect of these matters.

Independent Auditor's Report to the Members of Spectris plc continued

Responsibilities of Directors

As explained more fully in the Directors' responsibilities statement, 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's and the Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the 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.

A further description of our responsibilities for the audit of the Financial Statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

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.

Report on other legal and regulatory requirements

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.

In the light of the knowledge and understanding of the Group and the Company and their environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report or the Directors' Report.

Matters on which we are required to report by exception

Adequacy of explanations received and accounting records

Under the Companies Act 2006, we are required to report to you if, in our opinion

- › we have not received all the information and explanations we require for our audit; or
- › adequate accounting records have not been kept by the Company, or returns adequate for our audit have not been received from branches not visited by us, or
- › the Company Financial Statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Directors' remuneration

Under the Companies Act 2006, we are also required to report if in our opinion certain disclosures of Directors' remuneration have not been made or the part of the Directors' Remuneration Report to be audited is not in agreement with the accounting records and returns

We have nothing to report in respect of these matters.

Other matters**Auditor tenure**

Following the recommendation of the Audit Committee, we were appointed by the Board in July 2016 to audit the Financial Statements for the year ending 31 December 2017 and subsequent financial periods. The Board's decision was approved at the Group's Annual General Meeting in May 2017.

Consistency of the audit report with the additional report to the Audit Committee

Our audit opinion is consistent with the additional report to the Audit Committee we are required to provide in accordance with ISAs (UK).

Mark Mullins FCA
Senior Statutory Auditor



For and on behalf of Deloitte LLP
Statutory Auditor
London, UK

19 February 2018

Financial Statements

Consolidated Income Statement

For the year ended 31 December 2017

	Note	2017 £m	2016 £m
Continuing operations			
Revenue	2,3,4	1,525.6	1,345.8
Cost of sales		(658.1)	(585.3)
Gross profit		867.5	760.5
Indirect production and engineering expenses		(116.8)	(108.9)
Sales and marketing expenses		(336.4)	(320.1)
Administrative expenses		(231.9)	(177.9)
Impairment of goodwill and other acquisition-related intangible assets		–	(115.3)
Adjusted operating profit	2	223.5	200.8
Net acquisition-related costs and fair value adjustments	2	(0.4)	(10.1)
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	2,13	(0.7)	(0.2)
Amortisation of acquisition-related intangible assets	2,12	(41.9)	(36.9)
Bargain purchase on acquisition	2,25	1.9	–
Impairment of goodwill and other acquisition-related intangible assets	2,12	–	(115.3)
Operating profit	2,3,5	182.4	38.3
Profit on disposal of business	7	100.5	–
Financial income	8	1.9	0.5
Finance costs	8	(6.4)	(6.9)
Profit before tax		278.4	31.9
Taxation charge	9	(43.6)	(21.6)
Profit after tax for the year from continuing operations attributable to owners of the Parent Company		234.8	10.3
Basic earnings per share	11	197.0p	8.6p
Diluted earnings per share	11	196.1p	8.6p
Interim dividends paid and final dividends proposed for the year (per share)	10	57.5p	52.0p
Dividends paid during the year (per share)	10	53.0p	50.2p

Consolidated Statement of Comprehensive Income

For the year ended 31 December 2017

	Note	2017 £m	2016 £m
Profit for the year attributable to owners of the Parent Company		234.8	10.3
Other comprehensive income:			
Items that will not be reclassified to the Consolidated Income Statement:			
Re-measurement of net defined benefit obligation, net of foreign exchange	20	5.9	(12.6)
Tax on items above	9	(1.4)	3.0
		4.5	(9.6)
Items that are or may be reclassified subsequently to the Consolidated Income Statement:			
Net gain/(loss) on effective portion of changes in fair value of forward exchange contracts on cash flow hedges		4.0	(3.1)
Foreign exchange movements on translation of overseas operations		(44.7)	160.4
Currency translation differences transferred to profit on disposal of business	7	(4.4)	–
Tax on items above	9	(0.7)	0.7
		(45.8)	158.0
Total comprehensive income for the year attributable to owners of the Parent Company		193.5	158.7

Financial Statements

Consolidated Statement of Changes in Equity

For the year ended 31 December 2017

	Share capital £m	Share premium £m	Retained earnings £m	Translation reserve £m	Hedging reserve £m	Merger reserve £m	Capital redemption reserve £m	Total equity £m
Balance at 1 January 2017	6.2	231.4	638.3	193.4	(5.3)	3.1	0.3	1,067.4
Profit for the year	-	-	234.8	-	-	-	-	234.8
Other comprehensive income								
Net gain on effective portion of changes in fair value of forward exchange contracts, net of tax	-	-	-	-	3.3	-	-	3.3
Foreign exchange movements on translation of overseas operations	-	-	-	(44.7)	-	-	-	(44.7)
Foreign exchange gain on disposal of business taken to Consolidated Income Statement	-	-	-	(4.4)	-	-	-	(4.4)
Re-measurement of net defined benefit obligation, net of foreign exchange and tax	-	-	4.5	-	-	-	-	4.5
Total comprehensive income for the year	-	-	239.3	(49.1)	3.3	-	-	193.5
Transactions with owners recorded directly in equity								
Equity dividends paid by the Company	-	-	(63.2)	-	-	-	-	(63.2)
Share-based payments, net of tax	-	-	5.9	-	-	-	-	5.9
Utilisation of treasury shares	-	-	0.5	-	-	-	-	0.5
Balance at 31 December 2017	6.2	231.4	820.8	144.3	(2.0)	3.1	0.3	1,204.1

	Share capital £m	Share premium £m	Retained earnings £m	Translation reserve £m	Hedging reserve £m	Merger reserve £m	Capital redemption reserve £m	Total equity £m
Balance at 1 January 2016	6.2	231.4	694.9	33.0	(2.9)	3.1	0.3	966.0
Profit for the year	-	-	10.3	-	-	-	-	10.3
Other comprehensive income								
Net loss on effective portion of changes in fair value of forward exchange contracts, net of tax	-	-	-	-	(2.4)	-	-	(2.4)
Foreign exchange movements on translation of overseas operations	-	-	-	160.4	-	-	-	160.4
Re-measurement of net defined benefit liability, net of foreign exchange and tax	-	-	(9.6)	-	-	-	-	(9.6)
Total comprehensive income for the year	-	-	0.7	160.4	(2.4)	-	-	158.7
Transactions with owners recorded directly in equity								
Equity dividends paid by the Company	-	-	(59.8)	-	-	-	-	(59.8)
Share-based payments, net of tax	-	-	2.3	-	-	-	-	2.3
Utilisation of treasury shares	-	-	0.2	-	-	-	-	0.2
Balance at 31 December 2016	6.2	231.4	638.3	193.4	(5.3)	3.1	0.3	1,067.4

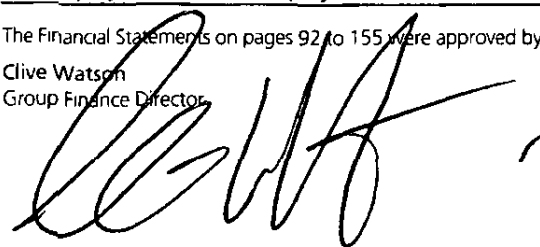
Consolidated Statement of Financial Position

As at 31 December 2017

	Note	2017 £m	2016 £m
ASSETS			
Non-current assets			
Intangible assets			
Goodwill	12	627.5	654.3
Other intangible assets	12	209.9	245.2
		837.4	899.5
Property, plant and equipment	13	275.8	238.8
Deferred tax assets	21	10.5	13.4
		1,123.7	1,151.7
Current assets			
Inventories	14	176.0	187.8
Current tax assets		3.5	2.4
Trade and other receivables	15	323.9	306.6
Derivative financial instruments	28	1.4	–
Cash and cash equivalents	16	137.9	83.5
		642.7	580.3
Assets held for sale	26	32.5	–
Total assets		1,798.9	1,732.0
LIABILITIES			
Current liabilities			
Borrowings	17	(1.3)	(12.3)
Derivative financial instruments	28	(0.5)	(4.2)
Trade and other payables	18	(272.5)	(259.2)
Current tax liabilities		(23.6)	(36.8)
Provisions	19	(25.2)	(19.5)
		(323.1)	(332.0)
Net current assets		319.6	248.3
Non-current liabilities			
Borrowings	17	(187.2)	(222.1)
Other payables	18	(20.7)	(29.0)
Retirement benefit obligations	20	(34.0)	(40.3)
Deferred tax liabilities	21	(25.0)	(41.2)
		(266.9)	(332.6)
Liabilities directly associated with the assets held for sale	26	(4.8)	–
Total liabilities		(594.8)	(664.6)
Net assets		1,204.1	1,067.4
EQUITY			
Share capital	22	6.2	6.2
Share premium		231.4	231.4
Retained earnings		820.8	638.3
Translation reserve	22	144.3	193.4
Hedging reserve	22	(2.0)	(5.3)
Merger reserve	22	3.1	3.1
Capital redemption reserve	22	0.3	0.3
Total equity attributable to equity holders of the Parent Company		1,204.1	1,067.4

The Financial Statements on pages 92 to 155 were approved by the Board of Directors on 19 February 2018 and were signed on its behalf by

Clive Watson
Group Finance Director



Company Registration No. 2025003



Consolidated Statement of Cash Flows

For the year ended 31 December 2017

	Note	2017 £m	2016 £m
Cash flows from operating activities			
Profit after tax		234.8	10.3
Adjustments for			
Taxation charge	9	43.6	21.6
Profit on disposal of business	7	(100.5)	–
Finance costs	8	6.4	6.9
Financial income	8	(1.9)	(0.5)
Depreciation	13	25.6	23.0
Amortisation of intangible assets	12	47.5	42.4
Impairment of goodwill and other acquisition-related intangible assets	12	–	115.3
Bargain purchase on acquisition	25	(1.9)	–
Acquisition-related fair value adjustments	2	(3.0)	5.6
Loss/(profit) on sale of property, plant and equipment	5	0.1	(1.2)
Equity-settled share-based payment expense	6	5.4	2.1
Operating cash flow before changes in working capital and provisions		256.1	225.5
Increase in trade and other receivables		(34.3)	(7.1)
(Increase)/decrease in inventories		(0.6)	25.4
Increase in trade and other payables		17.5	8.2
Decrease in provisions and retirement benefits		(1.1)	(6.3)
Cash generated from operations		237.6	245.7
Net income taxes paid		(47.0)	(29.8)
Net cash inflow from operating activities		190.6	215.9
Cash flows from investing activities			
Purchase of property, plant and equipment and software		(74.3)	(28.7)
Proceeds from disposal of property, plant and equipment and software		0.5	5.4
Acquisition of businesses, net of cash acquired	25	(36.5)	(160.9)
Proceeds from disposal of business, net of tax paid of £19.0m		91.9	–
Proceeds from government grants	13	1.2	–
Interest received		0.6	0.5
Net cash flows used in investing activities		(16.6)	(183.7)
Cash flows from financing activities			
Interest paid		(4.7)	(4.6)
Dividends paid	10	(63.2)	(59.8)
Proceeds from exercise of share options		0.5	0.2
Proceeds from borrowings		–	41.0
Repayment of borrowings		(41.0)	–
Net cash flows used in financing activities		(108.4)	(23.2)
Net increase in cash and cash equivalents		65.6	9.0
Cash and cash equivalents at beginning of year		71.2	56.5
Effect of foreign exchange rate changes		(0.1)	5.7
Cash and cash equivalents at end of year	16	136.7	71.2
Reconciliation of changes in cash and cash equivalents to movements in net debt	Note	2017 £m	2016 £m
Net increase in cash and cash equivalents		65.6	9.0
Proceeds from borrowings		–	(41.0)
Repayment of borrowings		41.0	–
Effect of foreign exchange rate changes		(6.2)	(20.3)
Movement in net debt		100.4	(52.3)
Net debt at start of year		(150.9)	(98.6)
Net debt at end of year	2	(50.5)	(150.9)

Notes to the Accounts

1. Basis of preparation and summary of significant accounting policies

a) Basis of preparation

Basis of accounting

The Consolidated Financial Statements have been prepared on a historical cost basis except for items that are required by IFRS to be measured at fair value, principally certain financial instruments. The Consolidated Financial Statements have been prepared in accordance with IFRS as issued by the International Accounting Standards Board ('IASB') and interpretations issued by the International Financial Reporting Interpretations Committee of the IASB, as adopted by the European Union ('IFRS'), and in accordance with the provisions of the Companies Act 2006

The Financial Statements set out on pages 92 to 155 have been prepared using consistent accounting policies, except for the adoption of new accounting standards and interpretations noted below. No revisions to adopted IFRS that became applicable in 2017 had a significant impact on the Group Financial Statements.

These Financial Statements are presented in millions of Sterling rounded to the nearest one decimal place.

Basis of consolidation

The Consolidated Financial Statements set out the Group's financial position as at 31 December 2017 and the Group's financial performance for the year ended 31 December 2017, which incorporate the Financial Statements of Spectris plc and its subsidiaries.

Subsidiaries are those entities controlled by the Group. Control exists when the Group has the power, directly or indirectly, to govern the financial and operating policies of an entity so as to obtain benefits from its activities. 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. Associates and joint ventures are accounted for using the equity method of accounting and are initially recognised at cost.

All inter-company balances and transactions, including unrealised profits arising from intra-group transactions, have been eliminated. Unrealised losses are eliminated in the same way as unrealised gains except that they are only eliminated to the extent that there is no evidence of impairment.

Going concern

The Group's business activities, together with factors likely to affect its future development, performance and financial position, are set out in the Strategic Report on pages 1 to 47. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Financial Review on pages 28 to 32. In addition, Note 27 to the Financial Statements includes the Group's objectives, policies and processes for managing its capital, its financial risk management objectives, details of its financial instruments and hedging activities, and its exposure to credit risk and liquidity risk.

The Group's net debt balance at 31 December 2017 was £50.5m (2016: £150.9m), with available undrawn committed borrowing facilities of £406.5m (2016: £406.0m).

The Board has reviewed sensitivity analysis on the Group's forecasts to 30 June 2019, the maturity profile of its financial facilities and liabilities (Notes 17 and 28) and the ability of the Group to re-finance these obligations as they fall due. The principal liquidity risk is mitigated through its financial risk management policies (Note 27). For the foreseeable future, the Board has a high level of confidence that the Group will have the necessary liquid resources to meet its liabilities as they fall due and will be able to sustain its business model, strategy and operations and remain solvent, including the impact of reasonably possible adverse scenarios. For this reason, it continues to adopt the going concern basis in preparing the Group Financial Statements. There are no key sensitivities identified in relation to this conclusion. Further information on the going concern of the Group can be found on page 39 in the Viability Statement.

New standards and interpretations not yet adopted

There are a number of new standards, amendments to standards and interpretations that are not yet effective for the year ended 31 December 2017 which, therefore, have not been applied in preparing these Consolidated Financial Statements.

IFRS 9 'Financial Instruments'

Transition to IFRS 9 for the Group will take effect from 1 January 2018 with the half-year results for June 2018 being IFRS 9 compliant, and the first Annual Report published in accordance with IFRS 9 being for the year ended 31 December 2018. There is no requirement to restate comparatives.

IFRS 9 provides a new impairment model for financial assets, which requires the recognition of impairment provisions based on expected credit losses rather than incurred credit losses as is the case under IAS 39. This requires the Group to record expected credit losses on all of its trade receivables, either on a 12-month or lifetime basis. The Group will apply the simplified approach and record lifetime expected losses on all trade receivables.

Overall, the Group expects no material impact on its statement of financial position and equity from applying the impairment requirements of IFRS 9.

IFRS 15 'Revenue from Contracts with Customers'

The Group has adopted IFRS 15 'Revenue from Contracts with Customers' using the modified retrospective approach, which means that the cumulative impact on adoption will be recognised in retained earnings as of 1 January 2018 with the half-year results for June 2018 being IFRS 15 compliant, and the first Annual Report published in accordance with IFRS 15 being for the year ended 31 December 2018. Comparatives will not be restated. IFRS 15 provides a single, principles-based, five-step model to be applied to all sales contracts, based on the transfer of control of goods and services to customers, and it replaces the separate model for goods and services of IAS 18 'Revenue'.

Notes to the Accounts continued

1. Basis of preparation and summary of significant accounting policies continued

Management carried out a comprehensive impact assessment which included scoping the Group's revenues to identify different revenue streams and performing sample contract reviews to determine the appropriate revenue recognition treatment under IFRS 15. To ensure a consistent approach across the Group, the exercise was supported centrally through setting the approach to transition and providing the appropriate tools and guidance. Revenue is derived from a single performance obligation which is either the sale of goods or the provision of services

Under IFRS 15, revenue from the sale of goods, where the goods are not required to be installed, will continue to be recognised when legal title transfers to the customer on delivery.

When the sale of goods is combined with installation, revenue recognition depends upon the nature of the installation. Simple installations are those which the customer perceives as a separate obligation within the overall contract to deliver goods, whereas complex installations are those for which the installation is an integral part of the delivery of the goods. Revenue will be recognised for simple installations separately from the delivery of goods, and only when the installation has occurred. For complex installations, revenue recognition on the delivery of the goods will be deferred until installation is complete.

Revenue from the provision of services, including ongoing support, servicing and maintenance, will continue to be recognised in line with the delivery of the service.

For contracts which combine sale of goods and provision of services, the contract's revenue will continue to be allocated across the individual components in line with the relative value and accounted for as described above.

The overall impact on transition on 1 January 2018 for the Group is expected to be as follows.

Segment	Decrease in retained earnings £m	Increase in deferred income £m
Materials Analysis	(22.6)	30.8
Test and Measurement	–	–
In-line Instrumentation	(0.3)	0.7
Industrial Controls	–	0.1
Group	(22.9)	31.6

If the Group had applied IFRS 15 from 1 January 2017, the impact on reported revenue for 2017 would have been a decrease of £7.1m (0.5%). The adoption of IFRS 15 will also have an impact on the phasing of revenue between the first and second halves of the year with an increase in revenue recognised in the first half of the year driven by later recognition of revenues from the peak sales month of December to January under IFRS 15.

IFRS 16 'Leases'

Transition to IFRS 16 for the Group will take effect from 1 January 2019 with the half-year results for June 2019 being IFRS 16 compliant, with the first Annual Report published in accordance with IFRS 16 being for the year ended 31 December 2019. IFRS 16 provides a single model for lessees which recognises a right of use asset and lease liability for all leases which are longer than one year or which are not classified as low value. The impact of IFRS 16 will be to recognise a lease liability and a corresponding asset in the Statement of Financial Position for leases currently classified as operating leases. The most significant impact will be that the Group's land, building and car leases will be recognised on the balance sheet. Further assessment of other leases is ongoing. The Group's future lease commitments for land, building and car leases as at 31 December 2017, which provides an indicator of the value to be recognised on the balance sheet, was £66.4m.

There are no other standards that are not yet effective and that would be expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

Significant accounting judgements and estimates

In determining and applying accounting policies, judgement is often required where the choice of specific policy, assumption or accounting estimate to be followed could materially affect the reported amounts of assets, liabilities, income and expenses, should it later be determined that a different choice be more appropriate. Estimates and assumptions are reviewed on an ongoing basis and are based on historical experience and various other factors that are believed to be reasonable under the circumstances.

In the course of preparing these Financial Statements in accordance with the Group's accounting policies, no judgements that have a significant effect on the amounts recognised in the Financial Statements have been made, other than those involving estimation. Management considers the following to be key areas of estimation uncertainty for the Group due to the possibility of material change in the next year.

Key sources of estimation uncertainty**i) Taxation**

The Group operates in a number of countries and is subject to taxes in numerous jurisdictions. Significant estimation is required in determining the provision for taxes as the tax treatment is often by its nature complex, and cannot be finally determined until a formal resolution has been reached with the relevant tax authority which may take several years to conclude. Amounts provided are accrued based on management's interpretation of country-specific tax laws and the likelihood of settlement. Actual liabilities could differ from the amount provided which could have a consequent adverse impact on the results and net position of the Group. The assumptions and estimates which have been applied in the determination of taxation are detailed in Note 9. Details of the accounting policies applied in respect of taxation are set out on page 100.

ii) Retirement benefit plans

Accounting for retirement benefit plans under IAS 19 (revised) requires an assessment of the future benefits payable in accordance with actuarial assumptions. The discount rate and rate of retail price inflation ('RPI') assumptions applied in the calculation of plan liabilities, which are set out in Note 20, represent a key source of estimation uncertainty for the Group. Details of the accounting policies applied in respect of retirement benefit plans are set out on page 102.

b) Summary of significant accounting policies

The accounting policies set out below have been applied consistently by Group entities to all years presented in these Financial Statements

Business combinations and goodwill

Goodwill represents the excess of the fair value of the purchase consideration for the interests in subsidiary undertakings over the net fair value to the Group of the identifiable assets, liabilities and contingent liabilities acquired. Where the fair value of the Group's share of identifiable net assets acquired exceeds the fair value of the consideration, the difference is recognised immediately in the Consolidated Income Statement. Contingent consideration is initially recognised as a liability with changes to estimates of contingent consideration reflected in operating profit unless they occur during the 12-month measurement period, in which situation the amount of goodwill recognised on the acquisition is adjusted. Adjustments to contingent consideration are treated as an adjusting item for the purposes of alternative performance measures (see Note 2).

Transaction costs on a business combination are expensed as incurred in the Consolidated Income Statement and treated as an adjusting item for the purposes of alternative performance measures (see Note 2).

Goodwill arising on the acquisition of a business is tested annually for impairment. Goodwill is not amortised, and any impairment losses are not subsequently reversed. The net book value of goodwill at the date of transition to IFRS has been treated as deemed cost. On the subsequent disposal or discontinuance of a previously acquired business, the relevant goodwill is dealt with in the Consolidated Income Statement except for the goodwill already charged to reserves. From 1 January 2004, goodwill is allocated on acquisition to cash-generating units that are anticipated to benefit from the combination. Goodwill is tested for impairment by assessing the recoverable amount of the cash-generating unit to which the goodwill relates and comparing it against the net book value. This estimate of recoverable amount is determined annually and additionally when there is an indication that a cash-generating unit may be impaired. The Group's identified cash-generating units are smaller than the reportable operating segments in Note 3.

The estimate of recoverable amount requires significant assumptions to be made and is based on a number of factors such as the near-term business outlook for the cash-generating unit, including both its operating profit and operating cash flow performance. Where the recoverable amount of the cash-generating unit is less than the carrying amount, an impairment loss is recognised in the Consolidated Income Statement. Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed of in this circumstance is measured on the basis of the relative values of the operation disposed of and the portion of the cash-generating unit retained.

Intangible assets and amortisation

The cost of acquiring software (including associated implementation costs where applicable) that is not specific to an item of property, plant and equipment is classified as an intangible asset.

Self-funded research and development costs are charged to the Consolidated Income Statement in the year in which they are incurred unless development expenditure meets certain strict criteria for capitalisation. These criteria include demonstration of the technical feasibility and intent of completing a new intangible asset that will be available for sale and that the asset will generate probable future economic benefits. From the point where expenditure meets the criteria, development costs are capitalised and amortised over the useful economic lives of the assets to which they relate. The Directors consider that, due to the nature of projects undertaken, the proportion of development costs incurred that meets the criteria for capitalisation is immaterial.

Intangible assets arising from a business combination that are separable from goodwill are recognised initially at fair value at the date of acquisition. Other acquired intangible assets (including software not specific to an item of property, plant and equipment) are initially recognised at cost (plus any associated implementation costs where applicable).

Subsequent expenditure is capitalised only when it increases the future economic benefits, otherwise it is expensed as incurred.

Amortisation of intangible assets is charged to administrative expenses in the Consolidated Income Statement on a straight-line basis over the shorter of the estimated useful economic life (determined on an asset-by-asset basis) or underlying contractual life. The estimated useful lives are as follows:

- › Software – 3 to 5 years
- › Patents, contractual rights and technology – up to 10 years, dependent upon the nature of the underlying contractual right
- › Customer-related and trade names – 3 to 20 years, dependent upon the underlying contractual arrangements and specific circumstances such as customer retention experience

Property, plant and equipment and depreciation

Property, plant and equipment is stated at cost less accumulated depreciation and impairment losses. The cost comprises the purchase price paid and any costs directly attributable to bringing it into working condition for its intended use. Tangible assets arising from a business combination are recognised initially at fair value at the date of acquisition.

Notes to the Accounts continued

1. Basis of preparation and summary of significant accounting policies continued

Depreciation is recognised in the Consolidated Income Statement on a straight-line basis to write off the cost, less the estimated residual value (which is reviewed annually), of property, plant and equipment over its estimated useful economic life. Depreciation commences on the date the assets are available for use within the business and the asset carrying values are reviewed for impairment when there is an indication that they may be impaired. The depreciation charge is revised where useful lives are different from those previously estimated, or where technically obsolete assets are required to be written down. Where parts of an item of plant and equipment have separate lives, they are accounted for and depreciated as separate items. Land is not depreciated. Estimated useful lives are as follows.

- › Freehold and long leasehold property and automotive testing tracks – 20 to 40 years.
- › Short leasehold property – over the period of the lease
- › Plant and equipment – 3 to 20 years

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets that take a substantial period of time to get ready for their intended use are capitalised as part of the cost of the respective asset.

Inventories

Inventories and work in progress are carried at the lower of cost and net realisable value. Inventory acquired as part of business combinations is valued at fair value less cost to sell. Cost represents direct costs incurred and, where appropriate, production or conversion costs and other costs to bring the inventory to its existing location and condition. In the case of manufacturing inventory and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity. Inventory is accounted for on a first-in, first-out basis or, in some cases, a weighted-average basis, if deemed more appropriate for the business. Provisions are made to write down slow-moving, excess and obsolete items to net realisable value, based on an assessment of technological and market developments and on an analysis of historical and projected usage with regard to quantities on hand.

Trade and other receivables

Trade receivables are carried at original invoice amount (which is considered a reasonable proxy for fair value) and are subsequently held at amortised cost less provision for impairment. A provision for impairment of trade receivables is established when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of the transactions. The amount of the provision is the difference between the original carrying amount and the recoverable amount, being the present value of expected cash flows receivable. The movement in the provision is recognised in the Consolidated Income Statement.

Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and in hand and short-term deposits held on call or with maturities of less than three months at inception. Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are included as a component of cash equivalents for the purposes of the Consolidated Statement of Cash Flows.

Assets and liabilities held for sale

Assets, liabilities and disposal groups classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell.

Assets, liabilities and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than continuing use. This condition is regarded as met only when the sale is highly probable and the asset (or disposal group) is available for immediate sale in its present condition and when management is committed to the sale which is expected to qualify for recognition as a completed sale within one year from the date of classification.

Trade and other payables

Trade and other payables are recognised at the amounts expected to be paid to counterparties and subsequently held at amortised cost.

Provisions

A provision is recognised in the Consolidated Statement of Financial Position when the Group has a present legal or constructive obligation as a result of a past event and it is probable that an outflow of resources, that can be reliably measured, will be required to settle the obligation. In respect of warranties, a provision is recognised when the underlying products or services are sold. Provisions are recognised at an amount equal to the best estimate of the expenditure required to settle the Group's liability. A contingent liability is disclosed where the existence of the obligation will only be confirmed by future events or where the amount of the obligation cannot be measured with reasonable reliability. Contingent assets are not recognised, but are disclosed where an inflow of economic benefit is probable. Obligations arising from restructuring plans are recognised when detailed formal plans have been established and when there is a valid expectation that such a plan will be carried out.

Leasing

Rentals payable under operating leases are charged to the Consolidated Income Statement on a straight-line basis over the term of the relevant lease. Benefits received and receivable as an incentive to enter into an operating lease are also spread on a straight-line basis over the lease term.

Taxation

Tax on the profit or loss for the year comprises both current and deferred tax. Tax is recognised in the Consolidated Income Statement except to the extent that it relates to items recognised either in other comprehensive income or directly in equity, in which case tax is recognised in the Consolidated Statement of Comprehensive Income or the Consolidated Statement of Changes in Equity, respectively.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the statement of financial position date, and any adjustments to tax payable in respect of prior years. Tax positions are reviewed to assess whether a provision should be made based on prevailing circumstances. Tax provisions are included within Current taxation payable.

Deferred taxation is provided on taxable temporary differences between the carrying amounts of assets and liabilities in the Financial Statements and their corresponding tax bases. No provision is made for deferred tax which would become payable on the distribution of retained profits by overseas subsidiaries where the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax is measured using the tax rates expected to apply when the asset is realised or the liability settled based on tax rates enacted or substantively enacted at the statement of financial position date.

Deferred tax is not provided on the initial recognition of goodwill, nor on the initial recognition of an asset or liability unless the related transaction is a business combination or affects tax or accounting profit.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Deferred tax assets and liabilities are offset if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Additional income taxes that arise from the distribution of intra-group dividends are recognised at the same time as the liability to pay the related dividend.

Foreign currency translation

The functional currency for each entity in the Group is determined with reference to the currency of the primary economic environment in which it operates. Transactions in currencies other than the functional currency are initially recorded at the functional currency rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the statement of financial position date. Exchange gains and losses on settlement of foreign currency transactions are determined using the rate prevailing at the date of the transactions, or the translation of monetary assets and liabilities at period end exchange rates, and are charged/credited to the Consolidated Income Statement. Non-monetary assets and liabilities denominated in foreign currencies that are stated at historical cost are translated to the functional currency at the foreign exchange rate ruling at the date of the transaction.

On consolidation, the Income Statement items of subsidiaries are translated into Sterling at average rates of exchange. Statement of Financial Position items are translated into Sterling at year-end exchange rates. Exchange differences on the retranslation are taken to the translation reserve within equity. Exchange differences on foreign currency borrowings designated as a hedge of the net investment in a foreign operation are reported in the Consolidated Statement of Comprehensive Income. All other exchange differences are charged or credited to the Consolidated Income Statement in the year in which they arise. On disposal of an overseas subsidiary, any cumulative exchange movements relating to that subsidiary held in the translation reserve are transferred to the Consolidated Income Statement.

Derivative financial instruments may be purchased to hedge the Group's exposure to changes in foreign exchange rates. The accounting policies applied in these circumstances are described below.

Interest-bearing borrowings

Interest-bearing borrowings are recognised initially at the fair value of consideration received less directly attributable transaction costs. *Subsequent to initial recognition, interest-bearing borrowings are measured at amortised cost with any difference between cost and redemption value being recognised in the Consolidated Income Statement over the period of the borrowings on an effective-interest basis.*

Financial instruments

Recognition

The Group recognises financial assets and liabilities on its Consolidated Statement of Financial Position when it becomes a party to the contractual provisions of the instrument.

Financial assets and liabilities are offset and the net amount is reported in the Consolidated Statement of Financial Position when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis, or realise the asset and settle the liability simultaneously.

Measurement

When financial assets and liabilities are initially recognised, they are measured at fair value, being the consideration given or received plus directly attributable transaction costs. In determining estimated fair value, investments are valued at quoted bid prices on the trade date. When quoted prices on an active market are not available, fair value is determined by reference to price quotations for similar instruments traded.

Originated loans and receivables are initially recognised in accordance with the policy stated above and subsequently re-measured at amortised cost using the effective-interest method. Allowance for impairment is estimated on a case-by-case basis.

The Group uses derivative financial instruments such as forward foreign exchange contracts to hedge risks associated with foreign exchange fluctuations. These are designated as cash flow hedges. At the inception of the hedge relationship, the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument that is used in a hedging relationship is highly effective in offsetting changes in cash flows of the hedged item.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are deferred in equity. The gain or loss relating to the ineffective portion is recognised immediately in the Consolidated Income Statement.

Amounts deferred in equity are reclassified to the Consolidated Income Statement in the periods when the hedged item is recognised in the Consolidated Income Statement, in the same line of the Consolidated Income Statement as the recognised hedged item. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset or liability.

Notes to the Accounts continued

1. Basis of preparation and summary of significant accounting policies continued

Hedge accounting is discontinued when the Group revokes the hedging relationship, the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. Any cumulative gain or loss deferred in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the Consolidated Income Statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was deferred in equity is recognised immediately in the Consolidated Income Statement.

Derecognition

A financial asset is derecognised when the Group loses control over the contractual rights to the cash flows from the asset. This occurs when the rights are realised, expire or are surrendered. A financial liability is derecognised when the obligation specified in the contract is discharged, cancelled or expired. Originated loans and receivables are derecognised on the date they are transferred by the Group.

Impairment of financial assets

The Group assesses at each Consolidated Statement of Financial Position reporting date whether there is any objective evidence that a financial asset, or group of financial assets, is impaired. A financial asset, or group of financial assets, is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Net investment hedge accounting

The Group uses Euro-denominated borrowings as a hedge against the translation exposure on the Group's net investment in overseas companies. To the extent that the hedge is effective at hedging the variability in the net assets of such companies, caused by changes in foreign exchange rates, the changes in the value of the borrowings are recognised in the Consolidated Statement of Comprehensive Income. The ineffective part of any change in value caused by changes in foreign exchange rates is recognised in the Consolidated Income Statement.

Employee benefits

The Group operates defined benefit post-retirement plans and defined contribution pension plans.

Defined benefit plans

The Group's net obligation recognised in the Consolidated Statement of Financial Position in respect of defined benefit plans is calculated separately for each plan as the present value of the plan's liabilities less the fair value of the plan's assets. The operating and financing costs of defined benefit plans are recognised separately in the Consolidated Income Statement. Operating costs comprise the current service cost, plan administrative expense, any gains or losses on settlement or curtailments, and past service costs where benefits have vested. Finance items comprise the unwinding of the discount on the net asset surplus/deficit. Actuarial gains or losses comprising changes in plans' liabilities due to experience and changes in actuarial assumptions are recognised in the Consolidated Statement of Comprehensive Income.

The amount of any pension fund asset recognised in the Consolidated Statement of Financial Position is limited to any future refunds from the plan or the present value of reductions in future contributions to the plan.

Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognised in the Consolidated Income Statement in the periods during which services are rendered by employees.

In certain countries, the Group participates in industry-wide defined benefit-type pension arrangements. In such circumstances, it is not possible to determine the amount of any surplus or deficit attributable to the Group and the pension costs are accounted for as if the arrangements were defined contribution plans. These are not material to the Group and, accordingly, no additional disclosures are provided.

Short-term benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

Share-based payments

Certain employees of the Group receive part of their remuneration in the form of share-based payment transactions, whereby employees render services in exchange for shares or rights over shares (equity-settled transactions). The cost of equity-settled transactions with employees is measured at fair value at the date at which they are granted. The fair value of share awards with market-related vesting conditions is determined by an external consultant and the fair value at the grant date is expensed on a straight-line basis over the vesting period based on the Group's estimate of shares that will eventually vest. The estimate of the number of awards likely to vest is reviewed at each Consolidated Statement of Financial Position reporting date up to the vesting date, at which point the estimate is adjusted to reflect the actual outcome of awards which have vested. No adjustment is made to the fair value after the vesting date even if the awards are forfeited or not exercised.

Where it is not possible to incentivise managers of the Group's operating companies with equity-settled options, they are issued with cash-settled options. The charge for these awards is adjusted to reflect the expected and actual levels of options that vest and the fair value is based on either the share price at date of exercise or the share price at the Consolidated Statement of Financial Position date if sooner.

Own shares

Own equity instruments which are re-acquired (own shares) are recognised at cost and deducted from equity. No gain or loss is recognised in the Consolidated Income Statement on the purchase, sale, issue or cancellation of the Group's own equity instruments. Any difference between the carrying amount and the consideration paid to acquire such equity instruments is recognised within equity.

Dividends

Dividends are recognised as a liability in the period in which they are approved by shareholders.

Revenue

Revenue is measured at the fair value of the right to consideration and represents amounts receivable for goods and services provided in the normal course of business to external customers net of returns and discounts, excluding value added tax and other sales-related taxes.

Revenue from the sale of goods is recognised in the Consolidated Income Statement when the significant risks and rewards of ownership of the goods have been transferred to the customer, recovery of the consideration is probable, the costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods, and the amount of revenue can be measured reliably. This is typically on delivery when legal title transfers to the customer. If it is probable that discounts will be granted and the amount can be measured reliably, then the discount is recognised as a reduction of revenue as the sales are recognised.

For contracts that involve a significant element of installation or testing of equipment, revenue is recognised at the point of customer acceptance.

Revenue from services rendered is recognised in the Consolidated Income Statement in proportion to the measurement of the stage of completion of services rendered as at the Consolidated Statement of Financial Position date. This is assessed by reference to the amount of time incurred in proportion to the total expected time to be taken to deliver the service.

Occasionally, the initial contract covers both the supply of goods and ongoing support, servicing and maintenance. For such contracts revenue is allocated across each of the individual components in line with their relative value and each element is accounted for as described above.

Interest payable and receivable

Interest payable comprises the interest payable on borrowings calculated using the effective interest method and the unwinding of the discount factor on deferred or contingent consideration. Interest receivable comprises interest income on cash and invested funds and is recognised in the Consolidated Income Statement as it accrues.

2. Alternative performance measures

Policy

Spectris uses adjusted figures as key performance measures in addition to those reported under IFRS, as management believe these measures enable management and stakeholders to assess the underlying trading performance of the businesses as they exclude certain non-operational items, foreign exchange movements and the impact of acquisitions and disposals.

The adjusted performance measures ('APMs') are consistent with how the businesses performance is planned and reported within the internal management reporting to the Board and Operating Committees. Some of these measures are used for the purpose of setting remuneration targets. The key APMs that the Group uses include like-for-like ('LFL') organic performance measures and Adjusted measures for the income statement together with adjusted financial position and cash flow measures. Explanations of how they are calculated and how they are reconciled to an IFRS statutory measure are set out below.

Adjusted measures

The Group's policy is to exclude items that are considered to be significant in nature and/or quantum and where treatment as an adjusted item provides stakeholders with additional useful information to assess the period-on-period trading performance of the Group. On this basis, adjusted figures exclude certain non-operational items that are predominantly acquisition- or disposal-related items which management have defined as:

- › Amortisation and impairment of acquisition-related goodwill and other intangible assets,
- › Bargain purchase on acquisition,
- › Depreciation of acquisition-related fair value adjustments to property, plant and equipment,
- › Acquisition-related costs, deferred and contingent consideration fair value adjustments,
- › Profits or losses on termination or disposal of businesses,
- › Unwinding of the discount factor on deferred and contingent consideration,
- › Unrealised changes in the fair value of financial instruments,
- › Gains or losses on retranslation of short-term inter-company loan balances, and
- › Related tax effects on the above and other tax items which do not form part of the underlying tax rate (see Note 9)

Notes to the Accounts continued

2. Alternative performance measures continued

LFL measures

The Board reviews and compares current and prior year segmental sales and adjusted profit at constant exchange rates and excludes the impact of acquisitions and disposals during the year. In addition, Project Uplift programme implementation costs are excluded from adjusted profit to better reflect year-on-year operating performance.

The constant exchange rate comparison uses the current year reported segmental information, stated in each operating entity's functional currency, and translates the results into its presentation currency using the prior year's monthly exchange rates, irrespective of the underlying transactional currency.

Within the In-line Instrumentation segment, the BTG business has large functional currency mismatches against its underlying transaction currencies which distort LFL comparison at times of significant currency movements. Accordingly, we have modified the basis on which BTG's LFL results are translated into Sterling by using the actual underlying transaction currency mix for determining transactional gains/losses to provide more accurate and reliable information on BTG's underlying performance.

The incremental impact of business acquisitions is excluded for the first 12 months of ownership from the month of purchase. For business disposals, comparative figures for segmental sales and adjusted operating profit are adjusted to reflect the comparable periods of ownership. The Microscan business was disposed of on 2 October 2017 and the segmental sales and adjusted profit for 2016 exclude the trading results of the last three months of 2016.

The LFL measure is presented as a means of eliminating the effects of exchange rate fluctuations on the period-on-period reported results as well as allowing the Board to assess the underlying trading performance of the businesses on a LFL basis for both sales and operating profit.

Based on the above policy, the adjusted performance measures are derived from the reported figures as follows:

Income statement measures**a) LFL and adjusted sales by segment**

Sales by segment	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2017 Total £m
Reported sales	464.9	487.3	310.9	262.5	1,525.6
Constant exchange rate adjustment	(16.8)	(21.5)	(12.8)	(13.1)	(64.2)
Acquisitions	(0.9)	(38.2)	(5.1)	-	(44.2)
LFL adjusted sales	447.2	427.6	293.0	249.4	1,417.2

Sales by segment	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2016 Total £m
Reported sales	418.9	404.5	275.6	246.8	1,345.8
Disposal of business	-	-	-	(11.3)	(11.3)
LFL adjusted sales	418.9	404.5	275.6	235.5	1,334.5

b) LFL and adjusted operating profit and margin by segment and EBITDA

Adjusted operating profit by segment	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2017 Total £m
Reported operating profit	68.6	55.6	29.5	28.7	182.4
Net acquisition-related costs and fair value adjustments	1.8	(0.1)	0.4	(1.7)	0.4
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	–	0.7	–	–	0.7
Amortisation of acquisition-related intangible assets	12.7	14.6	3.3	11.3	41.9
Bargain purchase on acquisition	–	(1.9)	–	–	(1.9)
Adjusted operating profit	83.1	68.9	33.2	38.3	223.5
Project Uplift costs	4.2	5.3	2.8	3.5	15.8
Adjusted operating profit before Project Uplift costs	87.3	74.2	36.0	41.8	239.3
Constant exchange rate adjustment	(1.0)	(2.1)	(1.1)	(1.7)	(5.9)
Acquisitions	(0.1)	(3.9)	2.0	–	(2.0)
LFL adjusted operating profit before Project Uplift costs	86.2	68.2	36.9	40.1	231.4

Adjusted operating profit by segment	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2016 Total £m
Reported operating profit	66.2	26.7	37.6	(92.2)	38.3
Net acquisition-related costs and fair value adjustments	0.2	2.1	0.3	7.5	10.1
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	–	0.2	–	–	0.2
Amortisation of acquisition-related intangible assets	9.8	11.9	3.3	11.9	36.9
Impairment of goodwill and other acquisition-related intangible assets	–	20.9	–	94.4	115.3
Adjusted operating profit	76.2	61.8	41.2	21.6	200.8
Project Uplift costs	0.9	1.2	0.6	0.5	3.2
Adjusted operating profit before Project Uplift costs	77.1	63.0	41.8	22.1	204.0
Disposal of business	–	–	–	(1.7)	(1.7)
LFL adjusted operating profit before Project Uplift costs	77.1	63.0	41.8	20.4	202.3

Operating margin	Materials Analysis %	Test and Measurement %	In-line Instrumentation %	Industrial Controls %	2017 Total %
Reported operating profit	14.8	11.4	9.5	10.9	12.0
Adjusted operating profit	17.9	14.1	10.7	14.6	14.7
LFL adjusted operating profit before Project Uplift costs	19.3	16.0	12.6	16.1	16.3

Operating margin	Materials Analysis %	Test and Measurement %	In-line Instrumentation %	Industrial Controls %	2016 Total %
Reported operating profit	15.8	6.6	13.6	(37.4)	2.8
Adjusted operating profit	18.2	15.3	15.0	8.7	14.9
LFL adjusted operating profit before Project Uplift costs	18.4	15.6	15.2	8.7	15.2

Notes to the Accounts continued

2. Alternative performance measures continued

	2017 £m	2016 £m
Adjusted EBITDA		
Reported operating profit	182.4	38.3
Depreciation	25.6	23.0
Amortisation of intangible assets	47.5	42.4
Impairment of goodwill and other acquisition-related intangible assets	–	115.3
EBITDA	255.5	219.0
Net acquisition-related costs and fair value adjustments	0.4	10.1
Bargain purchase on acquisition	(1.9)	–
Adjusted EBITDA	254.0	229.1

c) Adjusted net finance costs

	Note	2017 £m	2016 £m
Reported net finance costs	8	(4.5)	(6.4)
Net (gain)/loss on retranslation of short-term inter-company loan balances	8	(1.3)	0.8
Unwinding of discount factor on deferred and contingent consideration	8	0.7	0.6
Adjusted net finance costs		(5.1)	(5.0)

d) Adjusted profit before taxation

	Note	2017 £m	2016 £m
Adjusted operating profit	2b	223.5	200.8
Adjusted net finance costs	2c	(5.1)	(5.0)
Adjusted profit before taxation		218.4	195.8

e) Adjusted earnings per share

	Note	2017 £m	2016 £m
Adjusted earnings			
Reported profit after tax		234.8	10.3
Adjusted for:			
Net acquisition-related costs and fair value adjustments		0.4	10.1
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	13	0.7	0.2
Amortisation of acquisition-related intangible assets	12	41.9	36.9
Bargain purchase on acquisition	25	(1.9)	–
Impairment of goodwill and other acquisition-related intangible assets	12	–	115.3
Profit on disposal of business		(100.5)	–
Net (gain)/loss on retranslation of short-term inter-company loan balances	8	(1.3)	0.8
Unwinding of discount factor on deferred and contingent consideration	8	0.7	0.6
Tax effect of the above and other non-recurring items	9	(1.8)	(22.3)
Adjusted earnings		173.0	151.9

	Note	2017	2016
Adjusted earnings per share			
Weighted average number of shares outstanding (millions)	11	119.2	119.1
Adjusted earnings per share (pence)		145.1	127.5

	Note	2017	2016
Adjusted diluted earnings per share			
Diluted weighted average number of shares outstanding (millions)	11	119.7	119.6
Adjusted diluted earnings per share (pence)		144.5	127.0

Basic and diluted earnings per share in accordance with IAS 33 'Earnings Per Share' are disclosed in Note 11.

Financial position measures

f) Net debt

	Note	2017 £m	2016 £m
Bank overdrafts	17	1.3	12.3
Bank loans unsecured	17	187.2	222.1
Total borrowings		188.5	234.4
Cash and cash equivalents including held for sale	16	(138.0)	(83.5)
Net debt		50.5	150.9

Cash flow measures

g) Adjusted operating cash flow

	2017 £m	2016 £m
Net cash inflow from operating activities	190.6	215.9
Acquisition-related costs paid	2.8	5.4
Net income taxes paid	47.0	29.8
Purchase of property, plant and equipment and software	(73.1)	(28.7)
Proceeds from disposal of property, plant and equipment and software	0.5	5.4
Adjusted operating cash flow	167.8	227.8
Adjusted operating cash flow conversion ¹	75%	113%

¹ Adjusted operating cash flow conversion is calculated as adjusted operating cash flow as a proportion of adjusted operating profit.

Net acquisition-related costs and fair value adjustments comprise acquisition costs of £3.4m (2016: £4.5m) that have been recognised in the Consolidated Income Statement under IFRS 3 (Revised) 'Business Combinations' and other fair value adjustments relating to deferred and contingent consideration comprising of a credit of £3.0m (2016: debit of £5.6m). Net acquisition-related costs and fair value adjustments are included within administrative expenses. Acquisition-related costs have been excluded from the adjusted operating profit and acquisition costs paid of £2.8m (2016: £5.4m) have been excluded from the adjusted operating cash flow.

Notes to the Accounts continued

3. Operating segments

The Group has four reportable segments, as described below, which are the Group's strategic business units. These units offer different applications, assist companies at various stages of the production cycle and are focused on specific industries. These segments reflect the internal reporting provided to the Chief Operating Decision Maker (considered to be the Board) on a regular basis to assist in making decisions on capital allocated to each segment and to assess performance. The segment results include an allocation of head office expenses. The following summary describes the operations in each of the Group's reportable segments:

- Materials Analysis provides products and services that enable customers to determine structure, composition, quantity and quality of particles and materials during their research and product development processes, when assessing materials before production, or during the manufacturing process. The operating companies in this segment are Malvern Panalytical and Particle Measuring Systems.
- Test and Measurement supplies test, measurement and analysis equipment, software and services for product design optimisation and validation, manufacturing control, microseismic monitoring and environmental noise monitoring. The operating companies in this segment are Brüel & Kjær Sound & Vibration, ESG Solutions, HBM and Millbrook.
- In-line Instrumentation provides process analytical measurement, asset monitoring and online controls as well as associated consumables and services for both primary processing and the converting industries. The operating companies in this segment are Brüel & Kjær Vibro, BTG, NDC Technologies and Servomex.
- Industrial Controls provides products and solutions that measure, monitor, control, inform and connect during the production process. The operating companies in this segment are Microscan (disposed 2 October 2017), Omega Engineering and Red Lion Controls.

Further details of the nature of these segments and the products and services they provide are contained in the Strategic Report on pages 20 to 27.

Information about reportable segments	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2017 Total £m
Segment revenues	465.2	487.5	311.1	262.9	1,526.7
Inter-segment revenue	(0.3)	(0.2)	(0.2)	(0.4)	(1.1)
External revenue	464.9	487.3	310.9	262.5	1,525.6
Operating profit	68.6	55.6	29.5	28.7	182.4
Profit on disposal of business ¹					100.5
Financial income ¹					1.9
Finance costs ¹					(6.4)
Profit before tax ¹					278.4
Tax ¹					(43.6)
Profit after tax ¹					234.8

¹ Not allocated to reportable segments

	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2016 Total £m
Segment revenues	419.0	404.7	275.6	247.5	1,346.8
Inter-segment revenue	(0.1)	(0.2)	–	(0.7)	(1.0)
External revenue	418.9	404.5	275.6	246.8	1,345.8
Operating profit	66.2	26.7	37.6	(92.2)	38.3
Financial income ¹					0.5
Finance costs ¹					(6.9)
Profit before tax ¹					31.9
Tax ¹					(21.6)
Profit after tax ¹					10.3

¹ Not allocated to reportable segments

Reportable segments are consistent with those presented to the Chief Operating Decision Maker. Inter-segment revenue reflects the movements in internal cash flow hedges with inter-segment pricing on an arm's length basis. Segments are presented on the basis of actual inter-segment charges made.

	Carrying amount of segment assets		Carrying amount of segment liabilities	
	2017 £m	2016 £m	2017 £m	2016 £m
Materials Analysis	408.4	400.6	(117.4)	(118.2)
Test and Measurement	644.4	581.7	(123.2)	(104.5)
In-line Instrumentation	270.9	271.5	(54.4)	(53.4)
Industrial Controls	321.4	378.9	(27.4)	(31.6)
Total segment assets and liabilities	1,645.1	1,632.7	(322.4)	(307.7)
Cash and borrowings (including cash and cash equivalents held for sale)	138.0	83.5	(188.5)	(234.4)
Derivative financial instruments	1.4	–	(0.5)	(4.2)
Retirement benefit liabilities	–	–	(34.0)	(40.3)
Taxation (including taxation held for sale)	14.4	15.8	(49.4)	(78.0)
Total assets and liabilities	1,798.9	1,732.0	(594.8)	(664.6)

Segment assets comprise goodwill and other intangible assets, property, plant and equipment, inventories, trade and other receivables. Segment liabilities comprise trade and other payables, provisions and other payables, which can be reasonably attributed to the reported operating segments. Unallocated items represent current and deferred taxation balances, defined benefit plan assets and liabilities, derivative financial instruments and all components of net debt.

	Additions to non-current assets		Depreciation, amortisation and impairment	
	2017 £m	2016 £m	2017 £m	2016 £m
Materials Analysis	15.1	17.3	19.6	16.4
Test and Measurement	75.0	170.3	28.0	43.6
In-line Instrumentation	14.0	23.4	9.6	9.5
Industrial Controls	9.9	2.9	15.9	111.2
	114.0	213.9	73.1	180.7

Geographical segments

The Group's operating segments are each located in several geographical locations and sell to external customers in all parts of the world. No individual country amounts to more than 3% of revenue by location of customer, other than those noted below. The following is an analysis of revenue by geographical destination.

	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2017 Total £m
UK	14.6	62.0	7.5	7.6	91.7
Germany	24.7	82.5	25.4	11.3	143.9
France	15.1	20.6	7.4	3.1	46.2
Rest of Europe	73.2	76.5	51.4	11.2	212.3
USA	97.6	89.2	89.3	169.0	445.1
Rest of North America	13.6	11.7	12.6	13.3	51.2
Japan	33.7	28.3	15.4	3.3	80.7
China	72.8	63.4	43.6	21.8	201.6
South Korea	21.7	14.0	7.9	6.7	50.3
Rest of Asia	61.5	24.3	29.1	11.3	126.2
Rest of the world	36.4	14.8	21.3	3.9	76.4
	464.9	487.3	310.9	262.5	1,525.6

Notes to the Accounts continued

3. Operating segments continued

	Materials Analysis £m	Test and Measurement £m	In-line Instrumentation £m	Industrial Controls £m	2016 Total £m
UK	15.1	26.4	6.7	7.2	55.4
Germany	26.6	67.3	20.8	11.1	125.8
France	13.4	20.1	7.3	2.6	43.4
Rest of Europe	63.6	66.9	44.8	11.6	186.9
USA	88.5	80.7	80.7	159.9	409.8
Rest of North America	13.9	9.5	10.7	11.9	46.0
Japan	30.8	26.2	13.5	3.1	73.6
China	62.4	55.0	40.6	18.3	176.3
South Korea	16.4	14.6	6.9	5.5	43.4
Rest of Asia	54.9	21.4	25.6	11.8	113.7
Rest of the world	33.3	16.4	18.0	3.8	71.5
	418.9	404.5	275.6	246.8	1,345.8

	Non-current assets	
	2017 £m	2016 £m
UK	207.4	183.9
Germany	68.1	63.8
France	0.1	0.2
Rest of Europe ¹	358.4	340.3
USA	434.5	477.6
Rest of North America	23.2	27.7
Japan	0.5	0.6
China	8.7	4.9
South Korea	3.1	4.2
Rest of Asia	4.6	31.4
Rest of the world	4.6	3.7
	1,113.2	1,138.3
Deferred taxation ²	10.5	13.4
Total non-current assets	1,123.7	1,151.7

¹ Principally in Denmark and Switzerland

² Not allocated to reportable geographic area in reporting to the Chief Operating Decision Maker

4. Revenue

An analysis of the Group's revenue is as follows

	2017 £m	2016 £m
Sale of goods	1,255.4	1,137.7
Services rendered	270.2	208.1
Revenue	1,525.6	1,345.8

No individual customer accounted for more than 2% of external revenue in either 2017 or 2016.

Total revenue for the Group, after including financial income of £1.9m (2016: £0.5m), was £1,527.5m (2016: £1,346.3m)

5. Operating profit

Operating profit has been arrived at after charging/(crediting)

	Note	2017 £m	2016 £m
Net foreign exchange losses/(gains)		2.1	(2.7)
Research and development expenditure		105.1	98.6
Amortisation of intangible assets	12	47.5	42.4
Bargain purchase on acquisition	25	(1.9)	–
Impairment of goodwill and other acquisition-related intangible assets	12	–	115.3
Depreciation of property, plant and equipment	13	25.6	23.0
Operating lease rental payments		18.9	19.9
Cost of inventories recognised as expense		381.9	364.9
Loss/(profit) on sale of property, plant and equipment and software		0.1	(1.2)

Auditor's remuneration		2017 £m	2016 £m
Fees payable to the Company's auditor for audit of the Company's annual accounts		0.5	0.6
Fees payable to the Company's auditor for the audit of the Company's subsidiaries, pursuant to legislation		1.2	1.2
Total audit-related fees		1.7	1.8
Fees payable to the Company's auditor for other services			
› audit-related assurance services ¹		0.1	0.1
› tax compliance services		–	0.1
		1.8	2.0

1. Review of the half-year Financial Statements

6. Employee costs and other information

Employee costs, including Directors' remuneration, comprise:

	Note	2017 £m	2016 £m
Wages and salaries		494.0	420.8
Social security costs		82.6	72.8
Defined benefit pension plans			
› current service cost	20	2.2	2.1
› settlement and past service credit	20	(1.7)	(1.4)
Defined contribution pension plans	20	15.3	13.7
Equity-settled share-based payment expense		5.4	2.1
Cash-settled share-based payment expense		2.8	1.2
		600.6	511.3

Directors' remuneration		2017 £m	2016 £m
Short-term benefits		3.0	2.8
Equity-settled share-based payment expense		0.7	0.4
		3.7	3.2

Further details of Directors' remuneration and share options are given in the Directors' Remuneration Report on pages 66 to 78

Average number of employees on a full-time equivalent basis	2017 Number	2016 Number
Production and engineering	3,748	3,718
Sales, marketing and service	4,116	3,724
Administrative	849	796
	8,713	8,238

Notes to the Accounts continued

7. Profit on disposal of business

The profit on disposal of business wholly relates to the disposal of 100% of Microscan on 2 October 2017

	Note	2017 £m
Goodwill and other intangible assets	12	5.5
Property, plant and equipment	13	0.8
Deferred tax assets	21	2.0
Inventory		5.9
Trade and other receivables		7.0
Cash and cash equivalents		0.4
Trade and other payables		(4.0)
Provisions	19	(0.1)
Net assets disposed		17.5
Consideration received, satisfied in cash		114.6
Cash disposed of		(0.4)
Transaction expenses		(3.3)
Net proceeds from disposal of business		110.9
Contingent consideration		2.3
Cash disposed of		0.4
Net assets disposed of		(17.5)
Currency translation differences transferred from translation reserve		4.4
Profit on disposal of business		100.5

The sale of Microscan did not meet the definition of a discontinued operation given in IFRS 5 'Non-Current Assets Held for Sale and Discontinued Operations' and, therefore, no disclosures in relation to discontinued operations have been made

The Group did not divest any businesses during 2016

8. Financial income and finance costs

	2017 £m	2016 £m
Financial income		
Interest receivable	0.6	0.5
Net gains on retranslation of short-term inter-company loan balances	1.3	–
	1.9	0.5
Finance costs		
Interest payable on loans and overdrafts	4.9	5.1
Unwinding of discount factor on deferred and contingent consideration	0.7	0.6
Net losses on retranslation of short-term inter-company loan balances	–	0.8
Net interest cost on pension plan obligations	0.7	0.3
Other finance costs	0.1	0.1
	6.4	6.9
Net finance costs	4.5	6.4

Net interest costs of £4.3m (31 December 2016: £4.6m) for the purposes of the calculation of interest cover comprise of bank interest receivable of £0.6m (31 December 2016: £0.5m) and interest payable on loans and overdrafts of £4.9m (31 December 2016: £5.1m)

9. Taxation

	2017			2016		
	UK £m	Overseas £m	Total £m	UK £m	Overseas £m	Total £m
Current tax charge	6.3	58.3	64.6	5.9	32.0	37.9
Adjustments in respect of current tax of prior years	(1.0)	(4.8)	(5.8)	0.7	(3.6)	(2.9)
Deferred tax - origination and reversal of temporary differences (Note 21)	(1.1)	(5.3)	(6.4)	(2.2)	(11.2)	(13.4)
Deferred tax - changes in tax rate (Note 21)	–	(8.8)	(8.8)	–	–	–
Taxation charge	4.2	39.4	43.6	4.4	17.2	21.6

The standard rate of corporation tax for the year, based on the weighted average of tax rates applied to the Group's profits, is 28.6% (2016: 13.8%). The tax charge for the year is lower (2016: higher) than the standard rate of corporation tax largely due to profits arising in the US (a higher tax jurisdiction) from the sale of Microscan in 2017, charges arising in the US from the impairment of goodwill and other acquisition-related intangible assets in 2016 and for other reasons as set out in the following reconciliation

	2017 £m	2016 £m
Profit before taxation	278.4	31.9
Corporation tax charge/(credit) at standard rate of 28.6% (2016: 13.8%)	79.6	(4.4)
Profit on disposal of business taxed at lower rate	(17.1)	–
Net impact of US tax reform measures	(8.0)	–
Non-deductible goodwill impairment losses	–	33.8
Effect of intra-group financing	(5.4)	(4.1)
Other non-deductible expenditure	3.8	3.6
Movements on unrecognised deferred tax assets	–	0.7
Tax credits and incentives	(5.0)	(4.4)
Change in tax rates (excluding US)	–	(0.4)
Adjustments relating to prior year acquisitions	–	(3.1)
Adjustments to prior year current and deferred tax charges	(4.3)	(0.1)
Taxation charge	43.6	21.6

'Net impact of US tax reform measures' above refers to the impact of the US Tax Cuts and Jobs Act and comprises a credit of £8.8m arising from the re-measurement of deferred tax liabilities at a lower tax rate, net of a one-off charge of £0.8m arising on accumulated foreign profits of the Group's US subsidiaries

'Tax credits and incentives' above refers principally to research and development tax credits and other reliefs for innovation such as the UK Patent Box regime and Dutch Innovation Box regime, as well as tax reliefs available for manufacturing activities located in the USA

Factors that may affect the future tax charge

The Group's tax charge in future years is likely to be affected by the proportion of profits arising, and the effective tax rates, in the various territories in which the Group operates, as well as changes in the tax law affecting future periods, such as the US Tax Cuts and Jobs Act

Tax on items recognised directly in the Consolidated Statement of Comprehensive Income	2017 £m	2016 £m
Tax charge/(credit) on net gain/(loss) on effective portion of changes in fair value of forward exchange contracts	0.7	(0.7)
Tax charge/(credit) on re-measurement of net defined benefit obligations, net of foreign exchange	1.4	(3.0)
Aggregate current and deferred tax charge/(credit) relating to items recognised directly in the Consolidated Statement of Comprehensive Income	2.1	(3.7)
Tax on items recognised directly in the Consolidated Statement of Changes in Equity	2017 £m	2016 £m
Tax credit in relation to share-based payments	(0.5)	(0.3)
Aggregate current and deferred tax credit on items recognised directly in the Consolidated Statement of Changes in Equity	(0.5)	(0.3)

Notes to the Accounts continued

9. Taxation continued

The following tax (credits)/charges relate to items of income and expense that are excluded from the Group's adjusted performance measures.

	2017 £m	2016 £m
Tax credit on amortisation of acquisition-related intangible assets	(12.9)	(12.3)
Tax credit on depreciation of acquisition-related fair value adjustments to property, plant and equipment	(0.1)	–
Tax credit arising from net impact of US tax reform measures	(8.0)	–
Tax credit on impairment of goodwill and other acquisition-related intangible assets	–	(5.1)
Tax credit on net acquisition-related costs and fair value adjustments	(0.1)	(1.7)
Tax charge on retranslation of short-term inter-company loan balances	0.3	0.2
Tax credit on unwinding of discount factor on deferred and contingent consideration	–	(0.3)
Tax charge on profit on disposal of business	19.0	–
Tax credit relating to prior year acquisitions	–	(3.1)
Total tax credit	(1.8)	(22.3)

The effective adjusted tax rate for the year was 20.8% (2016: 22.4%) as set out in the reconciliation below

Reconciliation of the reported taxation charge to the adjusted taxation charge	2017 £m	2016 £m
Reported taxation charge	43.6	21.6
Tax credit on items of income and expense that are excluded from the Group's adjusted profit before tax	1.8	22.3
Adjusted taxation charge	45.4	43.9

Management judgement is applied to determine the level of provisions required in respect of both direct and indirect taxes. The Group is potentially subject to tax audits in many jurisdictions. By their nature these are often complex and could take a significant period of time to be agreed with the tax authorities. Judgement is therefore applied based on the interpretation of country-specific tax legislation and the likelihood of settlement. The Group estimates and accrues taxes that will ultimately be payable when reviews or audits by tax authorities of tax returns are completed. These estimates include judgements about the position expected to be taken by each tax authority.

The Group applies judgement in respect of possible tax audit adjustments primarily in respect of transfer pricing as well as in respect of financing arrangements and tax credits and incentives. In respect of transfer pricing, the level of provision is determined by reference to management judgements of the adjustments that would arise in the event that certain intra-group transactions are successfully challenged as not being at arm's length.

Management estimates of the level of risk arising from tax audit may change in the next year as a result of changes in legislation or tax authority practice or correspondence with tax authorities during a specific tax audit. It is not possible to quantify the impact that such future developments may have on the Group's tax positions. Actual outcomes and settlements may differ significantly from the estimates recorded in these Consolidated Financial Statements. Further detail is provided below in relation to tax provisions that are known to be potentially material.

Judgement is also applied relating to the recognition of deferred tax assets which are dependent on an assessment of the generation of future taxable income in the countries concerned in which temporary differences become deductible or in which tax losses can be utilised. These estimates may change in the next year if there are changes in the forecast profitability of the relevant company.

The UK's dividend taxation regime prior to July 2009 is the subject of long-running litigation between HMRC and other taxpayers in relation to the tax charge on dividends received from EU-based companies. The outcome of this dispute is likely to be relevant to the Group in respect of certain dividends received by UK Group companies before that date. Pending resolution in the courts, an amount of £7.5m (2016: £7.5m) continues to be held as a current tax liability for the potential tax liabilities arising if the final decision is in HMRC's favour. Following an IFRIC Agenda decision during the year, an amount of £5.1m relating to accrued interest on the potential tax liabilities, which in previous years was held as a current tax liability, has now been reclassified as a provision (see Note 19).

In October 2017 the EU Commission opened a formal State Aid investigation into an exemption within the UK's current Controlled Foreign Company ('CFC') regime (introduced in 2013) for certain finance income. The investigation is ongoing, but if the Commission ultimately concludes that the provisions do constitute State Aid then they would require the UK to recover any such aid from affected parties. The Group has claimed the benefit of this exemption, and therefore may be adversely affected by the outcome of the investigation. If the Commission were to conclude that the finance exemption with the UK's CFC regime constitutes State Aid and no other exemptions were available to the Group then, as at 31 December 2017, an additional liability of £14.0m in respect of tax and £0.3m in respect of interest would arise unless such a decision could be successfully challenged in the EU Courts. However, no provision has been made in respect of this investigation since we believe that it is more likely than not that no additional tax will ultimately be due.

Within the tax charge for 2016 is a credit of £3.1m relating to recognition of the net benefit of unused tax losses arising from the acquisition of Spectraseis AG in 2015. The ultimate utilisation of these losses is now considered probable as a result of the post-acquisition restructuring of the business.

10. Dividends

Amounts recognised and paid as distributions to owners of the Parent Company in the year	2017 £m	2016 £m
Final dividend for the year ended 31 December 2016 of 34.0p (2015: 32.2p) per share	40.5	38.4
Interim dividend for the year ended 31 December 2017 of 19.0p (2016: 18.0p) per share	22.7	21.4
	63.2	59.8

Amounts arising in respect of the year	2017 £m	2016 £m
Interim dividend for the year ended 31 December 2017 of 19.0p (2016: 18.0p) per share	22.7	21.4
Proposed final dividend for the year ended 31 December 2017 of 37.5p (2016: 34.0p) per share	44.7	40.5
	67.4	61.9

The proposed final dividend is subject to approval by shareholders at the Annual General Meeting on 25 May 2018 and has not been included as a liability in these Financial Statements

11. Earnings per share

Basic earnings per share amounts are calculated by dividing net profit for the year attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the year (excluding treasury shares)

Diluted earnings per share amounts are calculated by dividing the net profit attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the year but adjusted for the effects of dilutive options. The key features of the Company's share option schemes are described in Note 24

Basic earnings per share	2017	2016
Profit after tax (£m)	234.8	10.3
Weighted average number of shares outstanding (millions)	119.2	119.1
Basic earnings per share (pence)	197.0	8.6

Diluted earnings per share	2017	2016
Profit after tax (£m)	234.8	10.3
Basic weighted average number of shares outstanding (millions)	119.2	119.1
Weighted average number of dilutive 5p ordinary shares under option (millions)	0.9	0.8
Weighted average number of 5p ordinary shares that would have been issued at average market value from proceeds of dilutive share options (millions)	(0.4)	(0.3)
Diluted weighted average number of shares outstanding (millions)	119.7	119.6
Diluted earnings per share (pence)	196.1	8.6

Notes to the Accounts continued

12. Goodwill and other intangible assets

Cost	Note	Goodwill £m	Patents, contractual rights and technology £m	Customer- related and trade names £m	Software £m	Total £m
At 1 January 2016		616.1	180.4	183.7	47.7	1,027.9
Additions		–	–	–	5.8	5.8
Recognised on acquisitions	25	81.5	14.3	30.7	0.1	126.6
Adjustments to provisional fair values		(0.2)	–	–	–	(0.2)
Transfers from property, plant and equipment		–	–	–	0.3	0.3
Disposals		–	–	–	(1.1)	(1.1)
Foreign exchange difference		108.5	26.7	36.9	6.9	179.0
At 31 December 2016		805.9	221.4	251.3	59.7	1,338.3
Additions		–	–	–	12.7	12.7
Recognised on acquisitions	25	16.8	5.6	10.3	–	32.7
Transfers to assets held for sale	26	(22.2)	(6.4)	(8.9)	–	(37.5)
Disposals		–	–	–	(1.2)	(1.2)
Disposal of business	7	(4.1)	(6.3)	(1.3)	–	(11.7)
Foreign exchange difference		(24.5)	(12.5)	(15.3)	(1.1)	(53.4)
At 31 December 2017		771.9	201.8	236.1	70.1	1,279.9
Accumulated amortisation and impairment						
At 1 January 2016		31.2	98.0	79.9	32.2	241.3
Charge for the year		–	19.2	17.7	5.5	42.4
Impairment		114.3	–	1.0	–	115.3
Disposals		–	–	–	(1.0)	(1.0)
Foreign exchange difference		6.1	14.6	15.7	4.4	40.8
At 31 December 2016		151.6	131.8	114.3	41.1	438.8
Charge for the year		–	22.3	19.6	5.6	47.5
Transfers to assets held for sale	26	–	(5.7)	(7.8)	–	(13.5)
Disposals		–	–	–	(1.2)	(1.2)
Disposal of business	7	–	(5.7)	(0.5)	–	(6.2)
Foreign exchange difference		(7.2)	(7.6)	(7.7)	(0.4)	(22.9)
At 31 December 2017		144.4	135.1	117.9	45.1	442.5
Carrying amount						
At 31 December 2017		627.5	66.7	118.2	25.0	837.4
At 31 December 2016		654.3	89.6	137.0	18.6	899.5

Goodwill is allocated to the cash-generating units that are anticipated to benefit from the acquisition

The Group's identified cash-generating units are smaller than the four reportable segments, being the 12 operating companies. Goodwill arising on a bolt-on acquisition is combined with the goodwill in the existing Group company and is not considered separately for impairment purposes, since such acquisitions are quickly integrated

The most significant amounts of goodwill are as follows:

	2017		2016	
	Goodwill £m	Pre-tax discount rate %	Goodwill £m	Pre-tax discount rate %
Malvern Panalytical ¹	139.2	10.7	–	–
PANalytical ¹	–	–	101.6	11.4
Malvern ¹	–	–	36.1	10.8
Omega Engineering	109.0	12.8	119.9	12.8
HBM	103.4	11.8	93.5	11.8
Brüel & Kjær Sound & Vibration	65.0	11.2	87.7	11.2
BTG	68.1	11.1	68.5	11.1
Millbrook	54.1	12.1	54.1	12.1
Red Lion Controls	39.6	13.8	43.3	13.8
Servomex	24.8	12.3	26.0	12.3
Other	24.3	13.1-13.8	23.6	13.1-13.8
	627.5		654.3	

1 On 1 January 2017, two of the Group's operating companies in the Materials Analysis segment, Malvern Instruments and PANalytical, merged their activities to form Malvern Panalytical. Both companies were previously identified as separate cash-generating units. Subsequent to the merger, the two operating companies have been reviewed, managed and budgeted for as one operating company for internal purposes therefore for annual impairment review purposes in 2017 they have been reviewed as one cash-generating unit.

Included within 'Other' are three (2016: four) cash-generating units in which none of the goodwill balances is considered to be individually significant.

Goodwill is not amortised but is tested for impairment annually or whenever there is an indication that the asset may be impaired. As part of the annual impairment review, the carrying amount of goodwill has been assessed with reference to its recoverable amount, determined based on value in use. In assessing value in use, the forecast projected cash flows of each cash-generating unit, which are based on actual operating results, the most recent budget for the next financial year as approved by the Board, detailed strategic review projections and an assumed long-term growth rate to perpetuity, are discounted to their present value using a pre-tax discount rate that reflects the time value of money and the risks specific to the cash-generating unit.

The key assumptions on which the value in use calculations are based on relate to future business performance over the forecast period (generally three years), projected long-term growth rates and the discount rates applied. The forecast cash flows include management's latest estimates on sales volumes and pricing, production and other costs. The key estimates applied in the impairment review are the forecast level of revenue, operating margins and the proportion of operating profit converted to cash in each year. A long-term growth rate of 2.0% (2016: 2.0%) has been consistently applied in the impairment review for all cash-generating units based on current forecast global industrial production growth rates, and long-term GDP growth rates for the Group's primary markets. The cash flow projections have been discounted using cash-generating unit specific pre-tax discount rates of between 10.7% and 13.8% (2016: 10.8% and 17.8%). These rates have been determined by taking into account the size of business and specific geographical and industry risk factors. As a result of the annual impairment review, no goodwill impairment charge has been recognised within operating profit in the Consolidated Income Statement (2016: charge of £114.3m) in respect of Omega and ESG Solutions ('ESG') goodwill.

Sensitivity analysis

The results of the Group's impairment tests are dependent upon estimates, particularly in relation to the key assumptions described above. Sensitivity analysis to potential changes in the key assumptions has been undertaken based on the following sensitivities in isolation.

Key assumption change:

- a two percentage point ('pp') increase in the pre-tax discount rate applied to each cash-generating unit,
- if the long-term growth rate assumption is reduced by 1.0pp to 1%, and
- if the cash flow projections for cash-generating units are reduced by 25% in each of the next two years

For each cash-generating unit, the Directors do not consider that there are any reasonably possible sensitivities for the business that could arise in the next 12 months that could result in an impairment charge being recognised.

Notes to the Accounts continued

12. Goodwill and other intangible assets continued

Other intangible assets

Of the total amortisation charge of £47.5m (2016: £42.4m), the amount attributable to the amortisation of acquisition-related intangible assets was £41.9m (2016: £36.9m)

The Group has no internally-generated intangible assets from development expenditure in either 2017 or 2016 as the criteria for the recognition as an asset under IAS 38 'Intangible Assets' have not been met.

The trade names and technology assets recognised on the acquisition of Omega Engineering in 2011, and included within the Industrial Controls reportable segment, are considered significant by the Directors as they represent 42.5% (2016: 43.9%) of total customer-related and trade names, and 19.6% (2016: 20.0%) of total patents, contractual rights and technology, respectively. The carrying amount of trade name intangible assets at 31 December 2017 is £50.3m (2016: £59.3m) and is being amortised over 20 years with the remaining amortisation period being 13.8 years. The carrying amount of technology intangible assets at 31 December 2017 is £12.4m (2016: £17.3m) and is being amortised over ten years with the remaining amortisation period being 3.8 years.

13. Property, plant and equipment

Cost	Note	Freehold property £m	Leasehold property £m	Plant and equipment £m	Total £m
At 1 January 2016		138.4	13.7	169.8	321.9
Additions		3.8	1.1	18.0	22.9
Recognised on acquisitions	25	43.7	–	15.1	58.8
Transfers to other intangible assets		–	–	(0.3)	(0.3)
Transfers to freehold property		0.7	–	(0.7)	–
Disposals		(4.5)	(0.4)	(8.2)	(13.1)
Foreign exchange difference		21.4	2.0	28.2	51.6
At 31 December 2016		203.5	16.4	221.9	441.8
Additions		10.1	2.1	53.3	65.5
Recognised on acquisitions	25	–	–	3.1	3.1
Transfer to assets held for sale	26	(1.6)	(0.1)	(3.3)	(5.0)
Disposals		–	(0.4)	(8.7)	(9.1)
Disposal of business	7	–	(0.1)	(5.1)	(5.2)
Foreign exchange difference		(1.1)	(0.8)	(3.9)	(5.8)
At 31 December 2017		210.9	17.1	257.3	485.3
Accumulated depreciation and impairment					
At 1 January 2016		42.5	8.9	109.7	161.1
Charge for the year		4.4	1.4	17.2	23.0
Transfers to freehold property		0.3	–	(0.3)	–
Disposals		(1.7)	(0.4)	(6.9)	(9.0)
Foreign exchange difference		7.8	1.5	18.6	27.9
At 31 December 2016		53.3	11.4	138.3	203.0
Charge for the year		5.6	1.3	18.7	25.6
Transfer to assets held for sale	26	(1.1)	–	(2.5)	(3.6)
Disposals		–	(0.4)	(8.1)	(8.5)
Disposal of business	7	–	(0.1)	(4.3)	(4.4)
Foreign exchange difference		0.3	(0.5)	(2.4)	(2.6)
At 31 December 2017		58.1	11.7	139.7	209.5
Carrying amount					
At 31 December 2017		152.8	5.4	117.6	275.8
At 31 December 2016		150.2	5.0	83.6	238.8

The amount recognised in the carrying amount of items of plant and equipment in the course of its construction was £38.8m (2016: £11.9m)

No borrowing costs were capitalised during the year (2016: £nil).

Of the total depreciation charge of £25.6m (2016: £23.0m), the amount attributable to the depreciation on fair value adjustments of acquisition-related property, plant and equipment was £0.7m (2016: £0.2m)

Included within 'Freehold property' is an amount of £11.4m (2016: £11.9m) attributable to automotive testing tracks. Additions are net of £1.2m (2016: £nil) relating to the receipt of government grants.

14. Inventories

	2017 £m	2016 £m
Raw materials	66.4	67.2
Work in progress	39.4	39.7
Finished goods and goods held for resale	70.2	80.9
	176.0	187.8

In the ordinary course of business, the Group makes provision for slow-moving, excess and obsolete inventory to write it down to its net realisable value based on an assessment of technological and market developments specific to the relevant business, and an analysis of historical and projected usage on an individual item or product line basis.

Finished goods and goods held for resale expected to be utilised after 12 months amounted to £3.7m (2016: £6.0m).

15. Trade and other receivables

	2017 £m	2016 £m
Trade receivables	269.2	258.4
Prepayments	5.6	7.2
VAT and similar taxes receivable	10.7	10.2
Other receivables	38.4	30.8
	323.9	306.6

Included within 'Prepayments' and 'Other receivables' are amounts receivable in more than one year of £3.8m (2016: £4.9m).

Trade receivables are non-interest bearing. Standard credit terms provided to customers differ according to business and country, and are typically between 30 and 60 days. Trade receivables are stated after the provision for impairment of £7.0m (2016: £13.2m).

The fair value of trade and other receivables approximates to its carrying amount due to the short-term maturities associated with these items. There is no impairment risk identified with regards to other receivables where no amounts are past due.

The maximum exposure to credit risk for trade receivables at 31 December by geographical region was:

	2017 £m	2016 £m
UK	15.6	15.1
Germany	22.7	20.9
France	12.0	13.1
Rest of Europe	52.9	44.5
USA	68.4	71.7
Rest of North America	16.6	13.3
Japan	14.2	16.3
China	23.0	19.0
South Korea	7.1	6.9
Rest of Asia	21.1	22.4
Rest of the world	15.6	15.2
	269.2	258.4

Notes to the Accounts continued

15. Trade and other receivables continued

Impairment losses

A provision for impairment of trade receivables is established when there is objective evidence that the Group will not be able to collect amounts due from customers according to the original terms of the sale.

The ageing of trade receivables and related provisions for impairment at 31 December was

	2017		2016	
	Gross £m	Impairment provision £m	Gross £m	Impairment provision £m
Not past due	188.4	0.3	188.9	0.1
One month past due	47.3	–	44.8	–
Two months past due	16.8	0.1	14.7	0.1
Three months past due	8.2	–	6.1	0.1
Over three months past due	4.3	–	4.2	–
Over four months past due	11.2	6.6	12.9	12.9
	276.2	7.0	271.6	13.2

The movement in the provision for impairment in respect of trade receivables during the year was as follows

	2017 £m	2016 £m
Balance at 1 January	13.2	8.6
Provision for impairment of receivables	(4.5)	3.8
Receivables written off as uncollectible	(0.8)	(0.3)
Disposal of business	(0.4)	–
Foreign exchange difference	(0.5)	1.1
Balance at 31 December	7.0	13.2

16. Cash and cash equivalents

	Note	2017 £m	2016 £m
Cash and cash equivalents included in current assets		137.9	83.5
Cash and cash equivalents included in assets held for sale	26	0.1	–
Bank overdrafts included in current borrowings	17	(1.3)	(12.3)
Cash and cash equivalents in the Consolidated Statement of Cash Flows		136.7	71.2

The Group's exposure to interest rate risk and a sensitivity analysis for financial assets and liabilities is disclosed in Note 28.

Cash balances include £2.4m of restricted cash which is held in escrow until 1 September 2018 as potential deferred consideration relating to the acquisition of Millbrook in 2016

17. Borrowings

Current		Repayable date	2017 £m	2016 £m
Bank overdrafts		on demand	1.3	12.3
Non-current	Fixed interest rate	Agreement maturity date	2017 £m	2016 £m
Bank loans – unsecured		30 October 2019	–	41.0
Bank loans unsecured – €94.8m	2.56%	14 October 2020	84.1	81.4
Bank loans unsecured – €116.2m	1.15%	9 September 2022	103.1	99.7
Total unsecured borrowings			187.2	222.1

At 31 December 2017, the Group had available £406.5m (2016: £406.0m) of undrawn committed borrowing facilities in respect of its US Dollar \$550m revolving credit facility, of which all conditions precedent had been met

Movements in total unsecured borrowings are reconciled as follows:

	2017 £m	2016 £m
Balance at 1 January	222.1	155.1
Proceeds from borrowings	–	41.0
Repayment of borrowings	(41.0)	–
Effect of foreign exchange rates	6.1	26.0
Balance at 31 December	187.2	222.1

18. Trade and other payables

Current	2017 £m	2016 £m
Trade payables	59.7	58.7
Accruals	105.6	95.2
Customer advances	21.4	27.2
Deferred income	38.7	41.7
Deferred and contingent consideration on acquisitions	6.3	5.3
VAT and similar taxes payable	12.3	13.6
Other payables	28.5	17.5
	272.5	259.2
Non-current	2017 £m	2016 £m
Deferred and contingent consideration on acquisitions	4.8	10.9
Other payables	15.9	18.1
	20.7	29.0

The fair value of trade and other payables approximates to their carrying amount due to the short-term maturities associated with these items

19. Provisions

	Note	Reorganisation £m	Product warranty £m	Legal, contractual and other £m	Total £m
At 1 January 2017		0.7	11.9	6.9	19.5
Additional provision in the year		2.0	7.8	2.4	12.2
Released in the year		–	(1.3)	(1.0)	(2.3)
Utilised in the year		(0.7)	(6.3)	(1.8)	(8.8)
Disposal of business	7	–	(0.1)	–	(0.1)
Transfer from current tax liabilities	9	–	–	5.1	5.1
Foreign exchange difference		–	(0.3)	(0.1)	(0.4)
At 31 December 2017		2.0	11.7	11.5	25.2

Provisions are all presented as current liabilities

Notes to the Accounts continued

19. Provisions continued

Reorganisation

Reorganisation provisions relate to committed restructuring plans in place within the business. Costs are expected to be incurred within one year and there is little judgement in determining the amount.

Product warranty

Product warranty provisions reflect commitments made to customers on the sale of goods in the ordinary course of business and included within the Group's standard terms and conditions. Warranty commitments typically apply for a 12-month period, but can extend to 36 months. These extended warranties are not significant.

Legal, contractual and other

Legal, contractual and other provisions mainly comprise amounts provided against open legal and contractual disputes arising in the normal course of business. The Company has on occasion been required to take legal or other actions to protect its intellectual property rights, to enforce commercial contracts or otherwise and similarly to defend itself against proceedings brought by other parties. Provisions are made for the expected costs associated with such matters, based on past experience of similar items and other known factors, taking into account professional advice received, and represent management's best estimate of the most likely outcome. The timing of utilisation of these provisions is frequently uncertain, reflecting the complexity of issues and the outcome of various court proceedings and negotiations. Contractual and other provisions represent the Directors' best estimate of the cost of settling current obligations although there is a higher degree of judgement involved. The increase during the year relates to £5.1m of interest related to tax provisions which was transferred from current tax liabilities during the year (see Note 9).

No provision is made for proceedings which have been or might be brought by other parties against Group companies unless management, taking into account professional advice received, assesses that it is probable that such proceedings may be successful. Contingent liabilities associated with such proceedings have been identified, but the Directors are of the opinion that any associated claims that might be brought can be defeated successfully and, therefore, the possibility of any material outflow in settlement is assessed as remote.

20. Retirement benefit plans

Spectris plc operates funded defined benefit and defined contribution pension plans for the Group's qualifying employees in the UK. In addition, 14 overseas subsidiaries (2016: 14) in three overseas countries provide defined benefit plans. Other UK and overseas subsidiaries have their own defined contribution plans invested in independent funds.

Defined benefit plans

The UK, German, Dutch and Swiss plans provide pensions in retirement, death in service and in some cases disability benefits to members. The pension benefit is linked to members' final salary at retirement and their service life. Since 31 December 2009, the UK plan has been closed to all service accruals. The German and Dutch plans are closed to new members.

The UK plan is administered by a pension fund, but the Swiss and Dutch plans are held by insurance companies that are legally separate from the Group. The majority of the overseas plan assets are insurance policies held in the Swiss plans, which are not matching in nature. The UK plan is managed by a Board of Trustees that represents both employees and employer, who is required to act in the best interest of the plan's participants and is responsible for setting certain policies (e.g. investment, contribution and indexation policies) of the various funds.

The plans expose the Group to actuarial risks, such as longevity risk, currency risk, interest rate risk and market (investment) risk. Inflation and interest rate hedges are taken out to mitigate against risks arising on the UK plan and some reinsurance exists in respect of the overseas plans.

The overseas plans are funded by the Group's overseas subsidiaries, and the UK plan has been funded in the past by both the Group's UK subsidiaries and the Company. The assets of the UK plan are invested in accordance with Section 40 of the Pensions Act 1995. Although the Act permits 5% of the plan's assets to be invested in 'employer-related investments', the Trustees have elected that none of the plan assets are to be invested directly in Spectris plc shares. The Trustees also hold interest rate and inflation swaps to help protect against the impact of changes in prevailing interest rates and price inflation, which in conjunction with the corporate bond portfolio aims to fully hedge against interest and inflation rate risks on the basis used by the Trustee to fund the plan. Trustee investment in derivatives is only made in so far as they contribute to the reduction of investment risks or facilitate efficient portfolio management and are managed such as to avoid excessive risk exposure to a single counterparty or other derivative operations.

The funding requirements are based on the individual funds' actuarial measurement framework set out in the funding policies of the various plans.

The Group has determined that, in accordance with the terms and conditions of the defined benefit plans, and in accordance with statutory requirements (including minimum funding requirements) of the plans of the respective jurisdictions, the present value of the refunds or reductions in future contributions is not lower than the balance of the total fair value of the plan assets less the total present value of obligations. This determination has been made on a plan-by-plan basis. As such, no decrease in the defined benefit asset was necessary at 31 December 2017.

The last full actuarial valuation for the UK plan was 31 December 2014 and for the overseas plans was 31 December 2017. Where applicable, the valuations were updated to 31 December 2017 for IAS 19 (Revised) 'Employee Benefits' purposes by qualified independent actuaries.

The Group's contributions to defined benefit plans during the year ended 31 December 2017 were £2.2m (2016: £2.1m). Contributions for 2018 are expected to be £2.1m for the overseas plans.

Contributions to the Spectris Pension Plan (UK) ceased from 1 July 2012. The contribution rates are subject to review at future valuations and periodic certifications of the schedule of contributions

The assumptions used by the actuary to value the liabilities of the defined benefit plans were

	2017		2016	
	UK plan % p.a.	Overseas plans % p.a.	UK plan % p.a.	Overseas plans % p.a.
Discount rate	2.4	0.7 – 2.0	2.6	0.55 – 2.0
Salary increases	n/a	1.0 – 3.0	n/a	1.0 – 3.0
Pension increases in payment	2.1 – 3.7	0.0 – 2.0	2.2 – 3.8	0.0 – 2.0
Pension increases in deferment	2.3 – 3.2		2.6 – 3.5	
Inflation assumption	2.3 – 3.2	1.0 – 2.0	2.6 – 3.5	1.0 – 2.0
Interest credit rate		0.0 – 1.0		0.0 – 1.0

The weighted average duration of the defined benefit obligation at 31 December 2017 was approximately 17 years (2016: 16 years) for the UK plan and 18.6 years (2016: 14.7 years) for the overseas plans

Pensioner life expectancy assumed in the 31 December 2017 valuation is based on the following tables:

UK plan	92% S1PMA/96% S1PFA centred in 2006, future improvements in line with CMI_2014 with a long-term rate of improvement of 1.25% per annum
German plans	Dr K Heubeck pension tables 2005 G
Dutch plans	A.G. Prognosetafel 2016 tables
Swiss plan	BVG 2015 – CMI 1.50%

Samples of the ages which pensioners are assumed to live to are as follows.

	Male	Female
Pensioners aged 65 in 2017	84.3 – 88.2	88.4 – 90.2
Pensioners aged 65 in 2027	85.6 – 89.1	89.6 – 91.1

	UK plan		Overseas plans		Total	
Amounts recognised in the Consolidated Income Statement	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Current service cost	–	–	2.2	2.1	2.2	2.1
Net interest cost	0.4	0.1	0.3	0.2	0.7	0.3
Administrative cost	0.3	0.4	0.2	0.1	0.5	0.5
Settlement	–	–	–	(0.1)	–	(0.1)
Past service credit	–	–	(1.7)	(1.3)	(1.7)	(1.3)
	0.7	0.5	1.0	1.0	1.7	1.5

The current service cost and past service credit are recognised in administrative expenses in the Consolidated Income Statement. The net interest cost on the net defined benefit obligation is recognised in finance costs in the Consolidated Income Statement. Actuarial losses or gains are recognised in the Consolidated Statement of Comprehensive Income.

During the year, insurance premiums for death-in-service benefits amounting to £0.3m (2016: £0.3m) were paid

The total return on plan assets in the year was £7.7m (2016: £15.6m)

	UK plan		Overseas plans		Total	
Amounts recognised in the Consolidated Statement of Comprehensive Income	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Actuarial (gains)/losses recognised in the current year	2.9	(13.0)	2.6	0.4	5.5	(12.6)
Foreign exchange gains/(losses) in the current year	–	–	0.4	(3.7)	0.4	(3.7)
Total gains/(losses) recognised in the current year	2.9	(13.0)	3.0	(3.3)	5.9	(16.3)

Notes to the Accounts continued

20. Retirement benefit plans continued

Amounts recognised in the Consolidated Statement of Financial Position	UK plan		Overseas plans		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Present value of defined benefit obligations	(137.4)	(138.4)	(54.7)	(59.2)	(192.1)	(197.6)
Fair value of plan assets	124.1	122.9	34.0	34.4	158.1	157.3
Net deficit in plans	(13.3)	(15.5)	(20.7)	(24.8)	(34.0)	(40.3)

Reconciliation of movement in net deficit	Note	UK plan		Overseas plans		Total	
		2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
At 1 January		(15.5)	(2.0)	(24.8)	(20.1)	(40.3)	(22.1)
Current service cost		–	–	(2.2)	(2.1)	(2.2)	(2.1)
Net interest cost		(0.4)	(0.1)	(0.3)	(0.2)	(0.7)	(0.3)
Plan administrative cost		(0.3)	(0.4)	(0.2)	(0.1)	(0.5)	(0.5)
Net liabilities acquired in business combinations	25	–	–	–	(2.3)	–	(2.3)
Settlement		–	–	–	0.1	–	0.1
Past service credit		–	–	1.7	1.3	1.7	1.3
Contributions from sponsoring company and plan members		–	–	1.5	1.4	1.5	1.4
Benefits paid		–	–	0.6	0.5	0.6	0.5
Actuarial gain/(losses)		2.9	(13.0)	2.6	0.4	5.5	(12.6)
Foreign exchange difference		–	–	0.4	(3.7)	0.4	(3.7)
At 31 December		(13.3)	(15.5)	(20.7)	(24.8)	(34.0)	(40.3)

Analysis of movement in the present value of the defined benefit obligation	UK plan		Overseas plans		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
At 1 January	138.4	116.0	59.2	44.4	197.6	160.4
Current service cost	–	–	2.2	2.1	2.2	2.1
Interest cost	3.5	4.2	0.6	0.5	4.1	4.7
Liabilities acquired in business combinations	–	–	–	8.3	–	8.3
Settlement	–	–	–	(0.5)	–	(0.5)
Past service credit	–	–	(1.7)	(1.3)	(1.7)	(1.3)
Contributions from plan members	–	–	1.3	0.9	1.3	0.9
Actuarial losses/(gains) – financial	0.6	25.6	(0.7)	0.9	(0.1)	26.5
Actuarial gains – demographic	–	–	(1.3)	(1.7)	(1.3)	(1.7)
Actuarial (gains)/losses – experience	(0.3)	(1.3)	0.5	0.3	0.2	(1.0)
Benefits paid	(4.8)	(6.1)	(4.0)	(3.5)	(8.8)	(9.6)
Foreign exchange difference	–	–	(1.4)	8.8	(1.4)	8.8
At 31 December	137.4	138.4	54.7	59.2	192.1	197.6

Analysed as

Present value of unfunded defined benefit obligation	–	–	7.9	7.9	7.9	7.9
Present value of funded defined benefit obligation	137.4	138.4	46.8	51.3	184.2	189.7

Reconciliation of movement in fair value of plan assets	UK plan		Overseas plans		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
At 1 January	122.9	114.0	34.4	24.3	157.3	138.3
Interest income on assets	3.1	4.1	0.3	0.3	3.4	4.4
Plan administration cost	(0.3)	(0.4)	(0.2)	(0.1)	(0.5)	(0.5)
Assets acquired in business combinations	–	–	–	6.0	–	6.0
Settlement	–	–	–	(0.4)	–	(0.4)
Contributions from sponsoring company	–	–	1.6	1.4	1.6	1.4
Contributions from plan members	–	–	1.2	0.9	1.2	0.9
Actuarial gains/(losses)	3.2	11.3	1.1	(0.1)	4.3	11.2
Benefits paid	(4.8)	(6.1)	(3.4)	(3.0)	(8.2)	(9.1)
Foreign exchange difference	–	–	(1.0)	5.1	(1.0)	5.1
At 31 December	124.1	122.9	34.0	34.4	158.1	157.3

Fair value of assets	UK plan		Overseas plans		Total	
	2017 £m	2016 £m	2017 £m	2016 £m	2017 £m	2016 £m
Equity instruments	8.9	7.5	–	–	8.9	7.5
Corporate bonds	106.4	112.0	–	–	106.4	112.0
Government bonds	6.6	5.6	–	–	6.6	5.6
Cash and financial derivatives (net)	2.2	(2.2)	–	–	2.2	(2.2)
Insurance policies	–	–	34.0	34.4	34.0	34.4
	124.1	122.9	34.0	34.4	158.1	157.3

The UK plan assets are invested in active markets which have a quoted market price. The overseas plan assets are invested in insurance policies.

Sensitivity analysis

The table below shows the sensitivity of the Consolidated Statement of Financial Position to changes in the significant pension assumptions based on a reasonably expected change given current market conditions:

Change in assumption	Impact on plan liabilities as at 31 December 2017		
	UK plan	Overseas plans	
Discount rate	Increase by 1%	Decrease by £20.3m	Decrease by £8.1m
Rate of price inflation (RPI)	Increase by 1%	Increase by £13.7m	Increase by £2.1m
Assumed life expectancy at age 65	Increase by 1 year	Increase by £4.7m	Increase by £1.7m

Defined contribution plans

The total cost of the defined contribution plans for the year ended 31 December 2017 was £15.3m (2016: £13.7m). There were no outstanding or prepaid contributions to these plans as at 31 December 2017 or 31 December 2016.

Notes to the Accounts continued

21. Deferred tax

The movement in the net deferred tax liability/(asset) is shown below:

	Note	2017 £m	2016 £m
At 1 January		27.8	23.7
Foreign exchange difference		(2.4)	6.0
Acquisition of subsidiary undertakings	25	0.3	15.5
Disposal of business	7	2.0	–
Transfer to assets held for sale	26	0.4	–
Deferred tax on changes in fair value of forward exchange contracts recognised in the Consolidated Statement of Comprehensive Income		0.3	(0.7)
Deferred tax on re-measurement of net defined benefit liability recognised in the Consolidated Statement of Comprehensive Income		1.4	(3.0)
Deferred tax on share-based payments recognised in equity		(0.1)	(0.3)
Credited to the Consolidated Income Statement	9	(15.2)	(13.4)
At 31 December		14.5	27.8

Comprising:

Deferred tax liabilities	25.0	41.2
Deferred tax assets	(10.5)	(13.4)
	14.5	27.8

The movements in deferred tax assets and liabilities during the year are shown below. Deferred tax assets and liabilities are only offset where there is a legally enforceable right of offset and they relate to income taxes levied by the same taxation authority.

Net deferred tax liabilities/(assets)	Accelerated tax depreciation £m	Accruals and provisions £m	Tax losses £m	Unrealised profit on inter-company transactions £m	Pension plans £m	Goodwill and other intangible assets £m	Other £m	Total £m
At 1 January 2017	5.1	(19.6)	(2.4)	(5.7)	(9.3)	58.9	0.8	27.8
Foreign exchange difference	–	–	–	–	–	(2.4)	–	(2.4)
Acquisition of subsidiary undertakings	–	–	–	–	–	0.3	–	0.3
Disposal of business	–	–	–	–	–	0.6	1.4	2.0
Transfer to assets held for sale	–	0.6	–	–	–	(0.2)	–	0.4
Deferred tax on changes in fair value of forward exchange contracts recognised in the Consolidated Statement of Comprehensive Income	–	–	–	–	–	–	0.3	0.3
Deferred tax on re-measurement of net defined benefit obligation recognised in the Consolidated Statement of Comprehensive Income	–	–	–	–	1.4	–	–	1.4
Deferred tax on share-based payments recognised in equity	–	–	–	–	–	–	(0.1)	(0.1)
Charged/(credited) to the Consolidated Income Statement	(1.4)	8.0	0.2	0.4	0.2	(21.0)	(1.6)	(15.2)
At 31 December 2017	3.7	(11.0)	(2.2)	(5.3)	(7.7)	36.2	0.8	14.5

Net deferred tax liabilities/(assets)	Accelerated tax depreciation £m	Accruals and provisions £m	Tax losses £m	Unrealised profit on inter-company transactions £m	Pension plans £m	Goodwill and other intangible assets £m	Other £m	Total £m
At 1 January 2016	4.6	(14.3)	(3.0)	(5.1)	(5.6)	49.1	(2.0)	23.7
Foreign exchange difference	–	–	–	–	–	6.0	–	6.0
Acquisition of subsidiary undertakings	–	–	–	–	(0.4)	11.0	4.9	15.5
Deferred tax on changes in fair value of forward exchange contracts recognised in the Consolidated Statement of Comprehensive Income	–	–	–	–	–	–	(0.7)	(0.7)
Deferred tax on re-measurement of net defined benefit obligation recognised in the Consolidated Statement of Comprehensive Income	–	–	–	–	(3.0)	–	–	(3.0)
Deferred tax on share-based payments recognised in equity	–	–	–	–	–	–	(0.3)	(0.3)
Charged/(credited) to the Consolidated Income Statement	0.5	(5.3)	0.6	(0.6)	(0.3)	(7.2)	(1.1)	(13.4)
At 31 December 2016	5.1	(19.6)	(2.4)	(5.7)	(9.3)	58.9	0.8	27.8

Unrecognised temporary differences

Deferred tax assets have not been recognised on the following temporary differences due to the degree of uncertainty over both the amount and utilisation of the underlying tax losses and deductions in certain jurisdictions. £1.3m will expire between 2026 and 2028. There is no expiry date associated with the remaining tax losses of £46.7m.

	2017 £m	2016 £m
Tax losses (including tax capital losses of £32.0m (2016: £32.0m))	48.0	19.6
Other temporary differences	0.4	1.5
	48.4	21.1

Phased reductions in the UK corporation tax rate to 19% effective from 1 April 2017 and 17% from 1 April 2020 were substantively enacted in the UK Finance (No. 2) Act 2015 and UK Finance Act 2016 respectively.

It is likely that the unremitted earnings of overseas subsidiaries would qualify for the UK dividend exemption such that no UK tax would be due upon remitting these earnings to the UK. However, £54.7m (2016: £68.2m) of those earnings may still result in a tax liability, principally as a result of the dividend withholding taxes levied by the overseas tax jurisdictions in which those subsidiaries operate. These tax liabilities are not expected to exceed £3.2m (2016: £3.3m), of which only £1.4m (2016: £1.3m) has been provided for as the Group is able to control the timing of the dividends. It is not expected that further amounts will crystallise in the foreseeable future.

Notes to the Accounts continued

22. Share capital and other reserves

	2017		2016	
	Number of shares millions	£m	Number of shares millions	£m
Issued and fully paid (ordinary shares of 5p each):				
At 1 January and 31 December	125.0	6.2	125.0	6.2

Other reserves

Movements in reserves are set out in the Consolidated Statement of Changes in Equity. The retained earnings reserve also includes own shares purchased by the Company and treated as treasury shares (see Note 23). The nature and purpose of other reserves forming part of equity are as follows

Translation reserve

The foreign currency translation reserve is used to record exchange differences arising from the translation into Sterling of the Financial Statements of foreign subsidiaries, including gains or losses arising on net investment hedges

Hedging reserve

This reserve records the cumulative net change in the fair value of forward exchange contracts where they are designated as effective cash flow hedge relationships

Merger reserve

This reserve arose on the acquisition of Servomex in 1999, a purchase satisfied substantially by the issue of share capital and therefore eligible for merger relief under the provisions of Section 612 of the Companies Act 2006

Capital redemption reserve

This reserve records the historical repurchase of the Company's own shares

23. Treasury shares

At 31 December 2017, the Group held 5,747,360 treasury shares (2016: 5,840,513). During the year 93,153 (2016: 58,395) of these shares were issued to satisfy options exercised by employees which were granted under the Group's share schemes. No shares were repurchased by the Group during the year (2016: nil) and no shares were cancelled during the year (2016: nil)

24. Share-based payments

The Spectris Savings Related Share Option Scheme ('SAYE') provides UK employees with options to purchase ordinary shares in the Company following a three-year vesting period. Options may be exercised during a six-month period following the vesting date. The exercise price is determined according to the mid-market closing share price prevailing on the day before the date of grant. There are no performance criteria associated with options granted under SAYE.

Under the Performance Share Plan ('PSP') the exercise price is the nominal cost of the Company's shares.

From 2014, awards to Spectris plc Executive Directors have been subject to the following performance criteria: 33.33% of the award being based on fulfilment of an adjusted earnings per share growth target ('EPS'), 33.33% of the award subject to a total shareholder return target ('TSR') and 33.33% of the award being based on fulfilment of an economic profit ('EP') target.

Awards to other members of the Spectris plc Executive Committee were subject to the same performance criteria up to 2016. For 2017 onwards, awards to the Executive Committee are subject to the following performance criteria: 33.33% of the award being based on fulfilment of EPS, 33.33% of the award being based on EP target and 33.33% of the award being subject to continued employment for the three-year vesting term. Awards to other senior managers were until 2016 subject to EPS for 50% of the award and TSR for the remaining 50%. From 2017, these awards to senior management are 66.67% subject to EPS and 33.33% subject to continued employment over the three-year vesting period.

Awards made to executives and senior managers of the Group's operating companies in 2008/2009 were subject to EPS in respect of 50% of the award and operating company profit targets in respect of 50% of the award. Awards made between 2009 and 2013 were entirely subject to operating company profit targets. In 2016, the performance criteria was EPS in respect of 33.33% of the award and operating company profit targets in respect of 66.67% of the award and for 2017 onwards, the performance criteria was operating company profit targets in respect of 66.67% of the award and continued employment within the Group during the three-year vesting period for 33.33% of the award. All PSP awards vest after a period of three years and must be exercised during the seven-year period following vesting.

Since 2011, PSP options have also been granted to UK employees as tax-advantaged share options as defined by HMRC. The performance criteria and vesting conditions are consistent with the PSP options granted described above.

The tax-advantaged share options are linked to the PSP share options in order to benefit from the tax-exempt status of the tax-advantaged share option grants to an aggregate value not exceeding £30,000. Should there be a gain on exercise under the tax-advantaged options, such gain will cause a proportionate reduction in the number and value of the linked PSP options. Should there be no gain on exercise under the tax-advantaged options, these options are then forfeited and the linked PSP options may be exercised in full, to the extent their performance criteria are met.

From 2014, awards were made under the Restricted Shares Plan ('RSP') to selected employees. Awards vest three years from grant and are cash-settled on vesting. The RSP is subject to the same rules as the PSP but gives flexibility as to whether or not awards are subject to performance criteria. Awards under the RSP may be granted to an employee of the Group, but may not be granted to an Executive Director of Spectris plc.

			2017	2016
Share options outstanding at the end of the year	Exercise price £	Expected remaining life of options	Number thousands	Number thousands
SAYE – year of grant				
2013	22.45	nil	–	12
2014	20.15	1 year	7	26
2015	17.37	2 years	52	57
2016	19.38	3 years	27	31
			86	126

The weighted average remaining contractual life of the SAYE options is 2.26 years (2016: 2.27 years)

			2017	2016
Performance Share Plan – year of grant	Exercise price £	Remaining contractual life of options	Number thousands	Number thousands
2007	0.05	nil	–	1
2008	0.05	1 year	1	7
2009	0.05	2 years	20	29
2010	0.05	3 years	33	45
2011	0.05	4 years	42	69
2012	0.05	5 years	3	3
2013	0.05	6 years	2	3
2014	0.05	7 years	3	411
2015	0.05	8 years	445	482
2016	0.05	9 years	617	680
2017	0.05	10 years	519	–
			1,685	1,730

The weighted average remaining contractual life of the PSP awards is 8.70 years (2016: 7.89 years)

			2017	2016
Performance Share Plan (tax-advantaged) – year of grant	Exercise price £	Remaining contractual life of options	Number thousands	Number thousands
2011	11.30	4 years	2	2
2012	17.31	5 years	2	2
2013	23.78	6 years	1	1
2014	23.03	7 years	–	16
2015	21.79	8 years	34	41
2016	17.33	9 years	21	24
2017	26.02	10 years	39	–
			99	86

The weighted average remaining contractual life of the tax-advantaged awards is 8.84 years (2016: 8.08 years)

Notes to the Accounts continued

24. Share-based payments continued

	2017		2016	
Restricted Shares Plan – year of grant	Exercise price £	Remaining contractual life of options	Number thousands	Number thousands
2014	0.05	nil	–	64
2015	0.05	1 year	67	76
2016	0.05	2 years	119	129
2017	0.05	3 years	87	–
			273	269

The weighted average remaining contractual life of the Restricted Shares Plan awards is 2.07 years (2016: 1.41 years)

	2017			2016		
SAYE	Number thousands	Weighted average exercise price £	Weighted average fair value at grant date £	Number thousands	Weighted average exercise price £	Weighted average fair value at grant date £
At 1 January	126	18.93	–	133	18.55	–
Granted	–	–	–	31	19.38	3.06
Exercised	(26)	20.61	–	(12)	17.04	–
Forfeited	(14)	18.08	–	(26)	18.31	–
At 31 December	86	18.22	–	126	18.93	–
Exercisable at 31 December	7	20.15	–	12	22.45	–

	2017			2016		
Performance Share Plan	Number thousands	Exercise price £	Weighted average fair value at grant date £	Number thousands	Exercise price £	Weighted average fair value at grant date £
At 1 January	1,730	0.05	–	1,562	0.05	–
Shares granted	529	0.05	22.93	734	0.05	15.68
Addition of reinvested dividends	3	0.05	–	5	0.05	–
Exercised	(68)	0.05	–	(46)	0.05	–
Forfeited	(509)	0.05	–	(525)	0.05	–
At 31 December	1,685	0.05	–	1,730	0.05	–
Exercisable at 31 December	107	0.05	–	150	0.05	–

	2017			2016		
Performance Share Plan (tax-advantaged)	Number thousands	Weighted average exercise price £	Weighted average fair value at grant date £	Number thousands	Weighted average exercise price £	Weighted average fair value at grant date £
At 1 January	86	22.58	–	91	22.08	–
Shares granted	39	26.02	4.80	25	21.67	2.44
Exercised	–	–	–	(1)	11.30	–
Forfeited	(26)	22.01	–	(29)	20.64	–
At 31 December	99	24.14	–	86	22.58	–
Exercisable at 31 December	–	–	–	–	–	–

Restricted Shares Plan	2017			2016		
	Number thousands	Exercise price £	Weighted average fair value at grant date £	Number thousands	Exercise price £	Weighted average fair value at grant date £
At 1 January	269	0.05		154	0.05	
Shares granted	89	0.05	26.05	133	0.05	17.67
Exercised	(51)	0.05		–	–	
Forfeited	(34)	0.05		(18)	0.05	
At 31 December	273	0.05		269	0.05	
Exercisable at 31 December	–	–		–	–	

Share-based payment expense

Share options are valued using the stochastic option pricing model (also known as the Monte Carlo model) in respect of TSR, and the Black-Scholes model for all other options, with support from an independent remuneration consultant. The TSR performance condition was included in the calculation of fair value under the PSP. For options granted in 2016 and 2017, the fair value of options granted and the assumptions used in the calculation are as follows:

	SAYE	Performance Share Plan		Performance Share Plan (tax-advantaged)		Restricted Shares Plan	
	2016	2017	2016	2017	2016	2017	2016
Weighted average share price at date of grant (£)	19.86	26.26	17.17	26.02	17.34	26.22	17.72
Weighted average exercise price (£)	19.38	0.05	0.05	26.02	17.33	0.05	0.05
Expected volatility	25.99%	n/a	n/a	25.45%	26.76%	n/a	n/a
Expected life	3.44 yrs	3 yrs	3 yrs	3 yrs	3 yrs	3 yrs	3 yrs
Risk-free rate	0.15%	0.15%	0.46%	0.15%	0.43%	n/a	n/a
Expected dividends (expressed as a yield)	2.52%	–	–	2.13%	2.86%	–	–
Fair value per option (£)	3.06						
Weighted average fair values at date of grant (£):							
Equity-settled (TSR condition)		14.85	10.29	–	2.46		
Equity-settled (Profit condition)		25.99	17.09	3.72	2.42		
Equity-settled (EPS condition)		25.72	17.02	3.78	2.45		
Equity-settled (Economic profit condition)		25.29	17.05	3.03	–		
Cash-settled (TSR condition)		–	10.47			n/a	n/a
Cash-settled (Profit condition)		26.22	17.10			26.22	17.10
Cash-settled (EPS condition)		26.22	17.10			–	17.10
Weighted average fair values at 31 December (£):							
Cash-settled (TSR condition)		–	16.98			n/a	n/a
Cash-settled (Profit condition)		23.56	22.03			–	22.42
Cash-settled (EPS condition)		23.56	22.03			–	22.42
Cash-settled (service condition)		23.52	–			23.56	–

No grant of SAYE options was made in 2017.

The expected volatility is based on historical volatility over the expected term. The expected life is the average expected period to exercise. The risk-free rate of return is the yield on zero-coupon UK government bonds of a term consistent with the assumed option life.

The weighted average share price at the date of exercise for share options exercised under the PSP in 2017 was £25.00 (2016: £18.00). The weighted average fair value of cash-settled options outstanding at 31 December 2017 is £24.31 (2016: £22.53) for the EPS condition.

The Group recognised a total share-based payment charge of £8.2m (2016: £3.3m) in the Consolidated Income Statement, of which £5.4m (2016: £2.1m) related to equity-settled share-based payment transactions.

Notes to the Accounts continued

25. Acquisitions

On 6 February 2017, the Group acquired 99% of the share capital of Pixirad Imaging Counters S.r.l. (Pixirad), a supplier based in Italy, for a total consideration of £2.8m. The company develops and distributes high performance X-ray detectors. The excess of the fair value of the consideration paid over the fair value of net tangible assets acquired is represented by the following intangible assets: technology and goodwill of £1.1m and £1.7m, respectively. The goodwill arising is attributable to the acquired workforce and synergies from leveraging the customer base to optimise the sales potential of Pixirad and Spectris products. Goodwill includes an amount of £0.3m representing the requirement to recognise a net deferred tax liability on the fair value adjustments. The business is being integrated into the Materials Analysis segment. The remaining 1% of share capital was purchased on 24 July 2017.

On 15 May 2017, the Group acquired the trade and certain assets of Setpoint, a US business, for a total consideration of £8.0m. This extends the Group's capabilities in the condition monitoring market. The excess of the fair value of the consideration paid over the fair value of net tangible assets acquired is represented by the following intangible assets: customer-related (customer relations), technology and goodwill of £0.3m, £2.4m and £4.6m, respectively. The goodwill arising is attributable to the acquired workforce, opportunities expected from the extension of the Group's product offerings leveraging its stronger position in vibration and condition monitoring solutions, and sharing capabilities and technologies in value-added solutions. The business is being integrated into the In-line Instrumentation segment.

On 1 July 2017, the Group acquired the trade and certain assets of CSA Leyland, a UK business, for no consideration. This extends the Group's capabilities in the automotive testing services market. The excess of the fair value of net tangible assets acquired has resulted in a gain on purchase, as a consequence of buying the business in a troubled state, amounting to £1.9m and is disclosed in the Consolidated Income Statement. The business is being integrated into the Test and Measurement segment.

On 2 October 2017, the Group acquired the shares of Omnicon Group Inc., a US company, for a total consideration of £23.8m including £1.4m deferred consideration. This extends the Group's capabilities in engineering services to support the design of reliability electronic and software systems. The excess of the fair value of the consideration paid over the fair value of net tangible assets acquired is represented by the following intangible assets: customer-related (customer relations), contractual rights, trade name and goodwill of £7.6m, £2.1m, £2.4m and £10.5m, respectively. The goodwill arising is attributable to the acquired workforce and synergies from leveraging the customer base to optimise the sales potential of Omnicon and Spectris services. The business is being integrated into the Test and Measurement segment. The assets and liabilities acquired with the above acquisitions, together with the total purchase consideration, are summarised in the table below. The revenue and operating profit contribution from the acquisitions in the year to the Group's results for the year were £6.6m and £(3.5)m, respectively. Group revenue and operating profit would have been £1,534.9m and £182.1m, respectively (adjusted operating profit: £222.6m), had each of these acquisitions taken place on the first day of the financial year.

The following fair value table is provisional, reflecting the timing of the acquisitions, and is expected to be finalised within 12 months of the acquisition date

		2017		
		Book value £m	Adjustments £m	Provisional fair value £m
Net assets acquired under 2017 acquisitions	Note			
Intangible assets	12	0.1	15.8	15.9
Property, plant and equipment	13	3.1	–	3.1
Inventories		0.2	(0.1)	0.1
Trade and other receivables		1.9	–	1.9
Cash and cash equivalents		0.8	–	0.8
Trade and other payables		(1.5)	(0.3)	(1.8)
Deferred tax liabilities	21	–	(0.3)	(0.3)
Net assets acquired		4.6	15.1	19.7
Goodwill	12			16.8
Bargain purchase on acquisition	5			(1.9)
Total consideration in respect of 2017 acquisitions				34.6
Total consideration				34.6
Adjustment for cash acquired				(0.8)
Net consideration in respect of 2017 acquisitions				33.8
Analysis of cash outflow in Consolidated Statement of Cash Flows				
Total consideration in respect of 2017 acquisitions				34.6
Adjustment for net cash acquired on 2017 acquisitions				(0.8)
Deferred and contingent consideration on 2017 acquisitions to be paid in future years				(1.4)
Cash paid in 2017 in respect of 2017 acquisitions				32.4
Acquisitions prior to 2017				
Deferred and contingent consideration in relation to prior years' acquisitions				
Accrued at 31 December 2016				4.1
Cash paid in 2017 in respect of prior years' acquisitions				4.1
Net cash outflow relating to acquisitions				36.5

Where appropriate, a detailed exercise has been undertaken to assess the fair value of assets acquired and liabilities assumed, supported by the use of third-party experts. The valuation of the above intangible and tangible assets requires the use of assumptions and estimates. Intangible asset assumptions consist of future growth rates, expected inflation and attrition rates, discount rates used and useful economic lives.

The fair value of contingent consideration on the 2017 acquisitions amounts to £1.4m. The contingent consideration payable on financial milestones could range from £nil to £5.3m, dependent on incremental future revenues, and the total contingent consideration is sensitive to risk-adjusted discount rates.

Due to their contractual due dates, the fair value of receivables acquired approximates to the gross contractual amounts receivable. The amount of gross contractual receivables not expected to be recovered is immaterial.

There are no material contingent liabilities recognised in accordance with IFRS 3 (Revised).

Notes to the Accounts continued

25. Acquisitions continued

The following tables represent the fair values relating to the 2016 acquisitions:

	2016		
	Book value £m	Adjustments £m	Fair value £m
Net assets acquired under 2016 acquisitions			
Intangible assets	1.5	43.6	45.1
Property, plant and equipment	29.1	29.7	58.8
Inventories	1.3	(0.8)	0.5
Trade and other receivables	17.0	(1.3)	15.7
Cash and cash equivalents	6.9	–	6.9
Trade and other payables	(14.5)	–	(14.5)
Current tax liabilities	(0.6)	–	(0.6)
Provisions	(1.3)	(0.1)	(1.4)
Retirement benefit obligation	–	(2.3)	(2.3)
Deferred tax liabilities	(1.1)	(14.4)	(15.5)
Net assets acquired	38.3	54.4	92.7
Goodwill			81.5
Total consideration in respect of 2016 acquisitions			174.2
Total consideration			174.2
Adjustment for cash acquired			(6.9)
Net consideration in respect of 2016 acquisitions			167.3
Analysis of cash outflow in Consolidated Statement of Cash Flows			
Total consideration in respect of 2016 acquisitions			174.2
Adjustment for net cash acquired on 2016 acquisitions			(6.9)
Deferred and contingent consideration on 2016 acquisitions to be paid in future years			(7.6)
Cash paid in 2016 in respect of 2016 acquisitions			159.7
Acquisitions prior to 2016			
Purchase price adjustment in relation to prior years' acquisitions			(1.4)
Deferred and contingent consideration in relation to prior years' acquisitions:			
Accrued at 31 December 2015			2.6
Cash paid in 2016 in respect of prior years' acquisitions			1.2
Net cash outflow relating to acquisitions in 2016			160.9
Net assets acquired for significant 2016 acquisitions – Millbrook			
Intangible assets	0.1	21.9	22.0
Property, plant and equipment	26.4	27.9	54.3
Inventories	0.1	–	0.1
Trade and other receivables	12.3	(1.2)	11.1
Cash and cash equivalents	4.8	–	4.8
Trade and other payables	(11.2)	0.4	(10.8)
Provisions	(1.3)	–	(1.3)
Deferred tax liabilities	(1.1)	(7.5)	(8.6)
Net assets acquired	30.1	41.5	71.6
Goodwill			54.1
Total consideration			125.7
Total consideration			125.7
Adjustment for cash acquired			(4.8)
Net consideration			120.9

26. Assets and liabilities held for sale

On 14 December 2017, the Group signed an agreement with Macquarie Corporate Holdings Pty Limited for them to acquire 50% of the Group's environmental monitoring business, EMS Bruel & Kjaer, for a total cash consideration of AUD\$76.6m, subject to closing adjustments. The sale is expected to close in the second quarter of 2018, subject to regulatory approvals in China, the European Union and South Korea. The net proceeds from the sale will be used to reduce net debt, thereby increasing the Group's financial flexibility for future capital deployment. As at 31 December 2017, assets and liabilities of this business are presented in the Group's Financial Statements as held for sale and are stated at the lower of their carrying amount and fair value less cost to sell. There was no gain or loss as a result of the classification as held for sale. This business is part of the Test and Measurement segment.

Assets held for sale	Note	2017 £m
Goodwill and other intangible assets	12	24.0
Property, plant and equipment	13	1.4
Inventory		0.9
Trade and other receivables		5.7
Deferred tax assets	21	0.4
Cash and cash equivalents	16	0.1
		32.5
Liabilities directly associated with assets held for sale		
Trade and other payables		4.0
Current tax liabilities		0.8
		4.8

The sale of the EMS Bruel & Kjaer business did not meet the definition of a discontinued operation given in IFRS 5 'Non-Current Assets Held for Sale and Discontinued Operations' and, therefore, no disclosures in relation to discontinued operations have been made.

27. Financial risk management

The Group's multinational operations and debt financing expose it to a variety of financial risks. In the course of its business, the Group is exposed to foreign currency risk, interest rate risk, liquidity risk and credit risk. Financial risk management is an integral part of the way the Group is managed. Financial risk management policies are set by the Board of Directors. These policies are implemented by a central treasury department that has formal procedures to manage foreign exchange risk, interest rate risk and liquidity risk, including, where appropriate, the use of derivative financial instruments. The Group has clearly defined authority and approval limits. The central treasury department operates as a service centre to the Group and not as a profit centre.

In accordance with its treasury policy, the Group does not hold or use derivative financial instruments for trading or speculative purposes. Such instruments are only used to manage the risks arising from operating or financial assets or liabilities or highly probable future transactions. The quantitative analysis of financial risk is included in Note 28.

Foreign currency risk

Foreign currency risk arises both where sale or purchase transactions are undertaken in currencies other than the respective functional currencies of Group companies (transactional exposures) and where the results of overseas companies are consolidated into the Group's reporting currency of Sterling (translational exposures). The Group has operations around the world which record their results in a variety of different local functional currencies. In countries where the Group does not have operations, it invariably has some customers or suppliers that transact in a foreign currency. The Group is therefore exposed to the changes in foreign currency exchange rates between a number of different currencies but the Group's primary exposures relate to the US Dollar, Euro, Danish Krone, Swiss Franc and Japanese Yen. Where appropriate, the Group manages its foreign currency exposures using derivative financial instruments.

The Group manages its transactional exposures to foreign currency risks through the use of forward exchange contracts. Forward exchange contracts are used to hedge highly probable transactions which can be forecast to occur typically up to 18 months into the future.

The Group's translational exposures to foreign currency risks can relate both to the Consolidated Income Statement and net assets of overseas subsidiaries. The Group's policy is not to hedge the translational exposure that arises on consolidation of the Consolidated Income Statement of overseas subsidiaries. The Group finances overseas company investments partly through the use of foreign currency borrowings in order to provide a natural hedge of foreign currency risk arising on translation of the Group's foreign currency subsidiaries. The quantitative analysis of foreign currency risk is included in Note 28.

Interest rate risk

Interest rate risk comprises both the interest rate price risk that results from borrowing at fixed rates of interest and also the interest cash flow risk that results from borrowing at variable rates. Where appropriate, interest rate swaps are used to manage the Group's interest rate profile.

Notes to the Accounts continued

27. Financial risk management continued

Liquidity risk

Liquidity risk represents the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing this risk is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation. The Group manages this risk through the use of regularly updated cash flow and covenant compliance forecasts and a liquidity headroom analysis which is used to determine funding requirements. Adequate committed lines of funding are maintained from high-quality investment grade lenders. The facilities committed to the Group as at 31 December 2017 are set out in Note 17.

Credit risk

Credit risk arises because a counterparty may fail to perform its obligations. The Group is exposed to credit risk on financial assets such as cash balances, derivative financial instruments and trade and other receivables.

The Group's credit risk is primarily attributable to its trade receivables. The amounts recognised in the Consolidated Statement of Financial Position are net of appropriate allowances for doubtful receivables, estimated by the Group's management based on whether receivables are past due based on contractual terms, payment history and other available evidence of collectability. Trade receivables are subject to credit limits and control and approval procedures in the operating companies. Due to its large geographical base and number of customers, the Group is not exposed to material concentrations of credit risk on its trade receivables. The quantitative analysis of credit risk relating to receivables is included in Note 15.

Credit risk associated with cash balances and derivative financial instruments is managed centrally by transacting with existing relationship banks with strong investment grade ratings. Accordingly, the Group's associated credit risk is limited. The Group has no significant concentration of credit risk.

The Group's maximum exposure to credit risk is represented by the carrying amount of each financial asset, including derivative financial instruments, as shown in Note 28.

Capital management

The Board considers equity shareholders' funds, together with committed debt facilities, as capital for the purposes of funding the Group's operations. Total managed capital at 31 December is

	2017 £m	2016 £m
Equity shareholders' funds	1,204.1	1,067.4
Committed debt facilities	593.7	628.1
	1,797.8	1,695.5

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares and share options are recognised as a deduction from equity, net of any tax effects.

The Board's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain the future development of the business. The Board of Directors monitors both the geographic spread of shareholders and the level of dividends to ordinary shareholders.

The Board encourages employees to hold shares in the Company. This is carried out through a SAYE option scheme in the UK, as well as performance and restricted share plans. Full details of these schemes are given in Note 24.

The main financial covenants in the Company's debt facilities are the ratio of net debt to adjusted earnings before interest, tax, depreciation and amortisation and the ratio of finance charges to adjusted earnings before interest, tax, amortisation and impairment. Covenant testing is completed twice a year based on the half-year and year-end Financial Statements. At 31 December 2017, the Company had, and is expected to continue to have, significant headroom under these financial covenant ratios.

From time to time the Group purchases its own shares in the market, the timing of these purchases depends on market prices. Buy and sell decisions are made on a specific transaction basis by the Board.

There were no changes to the Group's approach to capital management during the year.

Neither the Company nor any of its subsidiaries is subject to externally-imposed capital requirements.

28. Financial instruments

The following tables show the fair value measurement of financial instruments by level following the fair value hierarchy.

- Level 2: inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices), and
- Level 3: inputs for assets and liabilities derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data.

	2017		
	Level 2 fair value £m	Level 3 fair value £m	Carrying amount £m
Fair value and carrying amount of financial instruments			
Trade and other receivables excluding prepayments	–	–	318.3
Trade and other payables excluding deferred income, customer advances and deferred and contingent consideration on acquisitions	–	(11.1)	(222.0)
Forward exchange contracts	1.4	–	1.4
Cash and cash equivalents including held for sale	–	–	138.0
Floating rate borrowings	–	–	(1.3)
Fixed rate borrowings	(193.3)	–	(187.2)
Forward exchange contracts	(0.5)	–	(0.5)
			46.7

	2016		
	Level 2 Fair value £m	Level 3 Fair value £m	Carrying amount £m
Fair value and carrying amount of financial instruments			
Trade and other receivables excluding prepayments	–	–	299.4
Trade and other payables excluding deferred income, customer advances and deferred and contingent consideration on acquisitions	–	(16.2)	(203.1)
Cash and cash equivalents	–	–	83.5
Floating rate borrowings	–	–	(53.3)
Fixed rate borrowings	(189.9)	–	(181.1)
Forward exchange contracts	(4.2)	–	(4.2)
			(58.8)

There were no movements between the different levels of the fair value hierarchy in the year.

The fair value of cash and cash equivalents including held for sale, receivables and payables approximates to the carrying amount because of the short maturity of these instruments.

The fair value of floating rate borrowings approximates to the carrying amount because interest rates are at floating rates where payments are reset to market rates at intervals of less than one year.

The fair value of fixed rate borrowings is estimated by discounting the future contracted cash flow, using appropriate yield curves, to the net present values.

The fair value of forward exchange contracts is determined using discounted cash flow techniques based on readily available market data.

The fair value of forward exchange contracts outstanding as at 31 December 2017 is a net asset of £0.9m (2016: net liability £4.2m), of which £0.7m has been credited to the hedging reserve (2016: £3.4m charged) and £0.2m credited to the Consolidated Income Statement (2016: £0.8m charged). These contracts mature over periods typically not exceeding 18 months. A summary of the movements in the hedging reserve during the year is presented below. All of the cash flow hedges in 2017 and 2016 were deemed to be effective.

	2017	
	Deferred and contingent consideration £m	Level 3 fair value £m
Reconciliation of level 3 fair values		
At 1 January 2017	(16.2)	(16.2)
Deferred and contingent consideration arising from acquisitions	(1.4)	(1.4)
Deferred and contingent consideration paid	4.1	4.1
Costs charged to the Consolidated Income Statement		
Adjustments outside of the measurement period	3.0	3.0
Unwinding of discount factor on deferred and contingent consideration (unrealised)	(0.7)	(0.7)
Loss recognised in Other Comprehensive Income		
Foreign exchange difference	0.1	0.1
Balance at 31 December 2017	(11.1)	(11.1)

Notes to the Accounts continued

28. Financial instruments continued

The fair value of deferred and contingent consideration is determined by considering the performance expectations of the acquired entity or the likelihood of non-financial integration milestones whilst applying the entity-specific discount rates. The unobservable inputs are the projected forecast measures that are assessed on an annual basis. Changes in the fair value of deferred and contingent consideration relating to updated projected forecast performance measures are recognised in the Consolidated Income Statement in the period that the change occurs.

Deferred and contingent consideration relates to financial (2017: £4.6m, 2016: £10.4m) and non-financial (2017: £6.5m, 2016: £5.8m) milestones on current and prior year acquisitions, as disclosed in Note 25. The financial milestones are mainly sensitive to risk-adjusted discount rates and annual future revenue targets.

Analysis of movements in hedging reserve net of tax	2017 £m	2016 £m
At 1 January	(5.3)	(2.9)
Amounts removed from the Consolidated Statement of Changes in Equity and included in the Consolidated Income Statement during the year	1.1	7.8
Amounts recognised in the Consolidated Statement of Changes in Equity during the year	2.2	(10.2)
At 31 December	(2.0)	(5.3)

The amount included in the Consolidated Income Statement is split between revenue and administrative expenses depending on the nature of the hedged item.

The following table shows the total outstanding contractual forward exchange contracts hedging designated transactional exposures split by currencies which have been sold back into the functional currency of the underlying business. These contracts typically mature in the next 18 months and, therefore, the cash flows and resulting effect on the Consolidated Income Statement are expected to occur within this time period.

Forward exchange contracts	2017	2016
Foreign currency sale amount (£m)	154.6	145.7
Percentage of total		
US Dollar	44%	51%
Euro	23%	23%
Japanese Yen	19%	18%
Other	14%	8%

A maturity profile of the gross cash flows related to financial liabilities is

Maturity of financial liabilities	2017			2016		
	Bank loans and overdrafts £m	Unsecured loans £m	Total £m	Bank loans and overdrafts £m	Unsecured loans £m	Total £m
Due within one year	1.3	3.3	4.6	12.3	3.7	16.0
Due between one and two years	–	3.3	3.3	–	3.8	3.8
Due between two and five years	–	193.0	193.0	–	130.6	130.6
Due in more than five years	–	–	–	–	100.9	100.9
	1.3	199.6	200.9	12.3	239.0	251.3

Trade and other payables (Note 18) are substantially due within one year.

It is not expected that the cash flows described above could occur significantly earlier or at substantially different amounts

Interest rate exposure of financial assets and liabilities by currency	Financial assets				Financial liabilities			2017
	Fixed rate £m	Floating rate £m	Non-interest bearing £m	Total £m	Fixed rate £m	Floating rate £m	Total £m	Net financial assets/(liabilities) £m
Sterling	23.8	–	5.1	28.9	–	–	–	28.9
Euro	0.3	2.5	10.7	13.5	(187.2)	–	(187.2)	(173.7)
US Dollar	46.6	20.4	7.9	74.9	–	(0.4)	(0.4)	74.5
Other	–	6.2	14.5	20.7	–	(0.9)	(0.9)	19.8
	70.7	29.1	38.2	138.0	(187.2)	(1.3)	(188.5)	(50.5)

Interest rate exposure of financial assets and liabilities by currency	Financial assets				Financial liabilities			2016
	Fixed rate £m	Floating rate £m	Non-interest bearing £m	Total £m	Fixed rate £m	Floating rate £m	Total £m	Net financial assets/(liabilities) £m
Sterling	–	2.9	3.8	6.7	–	(51.0)	(51.0)	(44.3)
Euro	0.2	3.2	17.4	20.8	(181.1)	(0.3)	(181.4)	(160.6)
US Dollar	–	2.5	18.6	21.1	–	(0.7)	(0.7)	20.4
Other	0.1	6.1	28.7	34.9	–	(1.3)	(1.3)	33.6
	0.3	14.7	68.5	83.5	(181.1)	(53.3)	(234.4)	(150.9)

Sensitivity analysis

The table below shows the Group's sensitivity to foreign exchange rates and interest rates. The US Dollar, Euro/Danish Krone and Swiss Franc represent the main foreign exchange translational exposures for the Group. The Group's borrowings are primarily in US Dollars and Euros

	2017		2016	
	Decrease in equity £m	Decrease in profit before tax £m	Decrease in equity £m	Decrease in profit before tax £m
Impact on foreign exchange translational exposures against Sterling				
10% weakening in the US Dollar	96.8	5.6	93.5	5.2
10% weakening in the Euro/Danish Krone	55.0	5.8	53.0	5.6
10% weakening in the Swiss Franc	3.5	1.6	4.4	1.6
Impact of interest rate movements				
1% (100 basis points) increase in interest rates	(0.1)	(0.1)	0.4	0.4

Notes to the Accounts continued

29. Contingent liabilities

In the normal course of business, Group companies have provided bonds and guarantees through local banking arrangements amounting to £20.0m (2016: £19.3m)

30. Operating lease arrangements

	2017			2016		
	Property £m	Other £m	Total £m	Property £m	Other £m	Total £m
Total commitments under non-cancellable operating leases falling due as follows:						
Within one year	12.4	4.8	17.2	13.3	5.0	18.3
More than one year but less than five years	26.3	5.5	31.8	25.7	5.8	31.5
Greater than five years	18.5	–	18.5	12.1	–	12.1
	57.2	10.3	67.5	51.1	10.8	61.9

Group companies are party to a number of operating leases for property, plant and machinery and motor vehicles. The arrangements do not impose any significant restrictions on the Group.

31. Capital commitments

At 31 December 2017, the Group had entered into contractual commitments for the purchase of property, plant and equipment and software amounting to £18.2m (2016: £13.9m) which have not been accrued.

32. Related party transactions

The remuneration of key management personnel during the year was as follows:

	2017 £m	2016 £m
Short-term benefits	6.1	4.9
Post-employment benefits	0.6	0.5
Equity-settled share-based payment expense	1.8	0.9
	8.5	6.3

Key management personnel comprise the Executive Directors and members of the Executive Management Team.

Further details of the Executive Directors' remuneration are included in the Directors' Remuneration Report on pages 64 to 78.

There were no other related party transactions in either 2016 or 2017.

33. Subsidiary undertakings

The table below lists the Group's principal subsidiary undertakings at 31 December 2017. They operate mainly in the countries of incorporation. All of the subsidiaries are involved in the manufacture and sale of highly-specialised measuring instruments and controls together with the provision of services.

Spectris plc holds 100% of the ordinary share capital of all the subsidiaries either directly or indirectly through intermediate holding companies

	Country of incorporation
Engineering Seismology Group Canada Inc	Canada
Brüel & Kjær Sound & Vibration Measurement A/S	Denmark
Brüel & Kjær Vibro GmbH	Germany
Hottinger Baldwin Messtechnik GmbH	Germany
BTG Edéps S A	Switzerland
Malvern Panalytical Limited (formerly Malvern Instruments Limited)	UK
Millbrook Proving Ground Limited	UK
Servomex Group Limited	UK
NDC Technologies, Inc	USA
Omega Engineering, Inc	USA
Particle Measuring Systems, Inc	USA
Red Lion Controls, Inc.	USA

A full list of subsidiaries is given in Note 50

34. Events after the balance sheet date

On 26 January 2018, the Group acquired 100% of the share capital of Concept Life Sciences (Holdings) Limited, for a consideration of £163m, on a debt and cash-free basis. This acquisition adds to the Group's capabilities in test services in the Materials Analysis segment.

Financial Statements

Spectris plc Statement of Financial Position

As at 31 December 2017

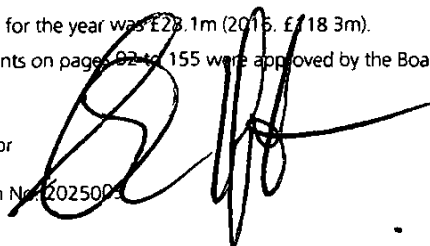
	Note	2017 £m	2016 £m
ASSETS			
Non-current assets			
Intangible assets	38	2.2	0.9
Property, plant and equipment	39	2.5	2.7
Investments in subsidiary undertakings	40	1,068.6	1,149.0
Deferred tax assets		3.7	3.6
		1,077.0	1,156.2
Current assets			
Current tax assets		4.8	4.0
Other receivables (due after more than one year: £334.1m (2016: £244.5m))	41	602.9	547.0
Derivative financial instruments		3.1	–
Cash and cash equivalents		107.5	21.0
		718.3	572.0
Total assets		1,795.3	1,728.2
LIABILITIES			
Current liabilities			
Short-term borrowings	42	(15.5)	(10.0)
Derivative financial instruments		(3.0)	(0.8)
Other payables	43	(501.8)	(365.3)
		(520.3)	(376.1)
Net current assets		182.5	195.9
Non-current liabilities			
Medium- and long-term borrowings	42	(187.2)	(222.1)
Other payables	43	(146.6)	(154.9)
Retirement benefit obligations	46	(13.4)	(15.5)
		(347.2)	(392.5)
Total liabilities		(867.5)	(768.6)
Net assets		927.8	959.6
EQUITY			
Share capital	44	6.2	6.2
Share premium		231.4	231.4
Retained earnings		652.7	684.5
Merger reserve	45	3.1	3.1
Capital redemption reserve	45	0.3	0.3
Special reserve	45	34.1	34.1
Total equity		927.8	959.6

The Company's profit for the year was £28.1m (2016: £118.3m).

The Financial Statements on pages 82 to 155 were approved by the Board of Directors on 19 February 2018 and were signed on its behalf by:

Clive Watson
Group Finance Director

Company Registration No. 2025003



Spectris plc Statement of Changes in Equity

For the year ended 31 December 2017

	Note	Share capital £m	Share premium £m	Merger reserve £m	Capital redemption reserve £m	Special reserve £m	Retained earnings £m	Total equity £m
At 1 January 2017		6.2	231.4	3.1	0.3	34.1	684.5	959.6
Profit for the year		-	-	-	-	-	23.1	23.1
Other comprehensive income								
Re-measurement of net defined benefit obligations, net of tax		-	-	-	-	-	2.3	2.3
Total comprehensive income for the year		-	-	-	-	-	25.4	25.4
Transactions with owners recorded directly in equity								
Equity dividends paid	48	-	-	-	-	-	(63.2)	(63.2)
Capital contribution relating to share-based payments		-	-	-	-	-	3.3	3.3
Share-based payments, net of tax		-	-	-	-	-	2.2	2.2
Utilisation of treasury shares		-	-	-	-	-	0.5	0.5
At 31 December 2017		6.2	231.4	3.1	0.3	34.1	652.7	927.8

	Note	Share capital £m	Share premium £m	Merger reserve £m	Capital redemption reserve £m	Special reserve £m	Retained earnings £m	Total equity £m
At 1 January 2016		6.2	231.4	3.1	0.3	34.1	635.4	910.5
Profit for the year		-	-	-	-	-	118.3	118.3
Other comprehensive income								
Re-measurement of net defined benefit obligations, net of tax		-	-	-	-	-	(11.0)	(11.0)
Total comprehensive income for the year		-	-	-	-	-	107.3	107.3
Transactions with owners recorded directly in equity								
Equity dividends paid	48	-	-	-	-	-	(59.8)	(59.8)
Capital contribution relating to share-based payments		-	-	-	-	-	1.2	1.2
Share-based payments, net of tax		-	-	-	-	-	0.2	0.2
Utilisation of treasury shares		-	-	-	-	-	0.2	0.2
At 31 December 2016		6.2	231.4	3.1	0.3	34.1	684.5	959.6

Notes to the Accounts continued

35. Basis of preparation and summary of significant accounting policies

The separate Financial Statements of the Company are presented as required by the Companies Act 2006. As permitted by that Act, the separate Financial Statements have been prepared in accordance with applicable accounting standards in the United Kingdom. In accordance with the exemption provided by Section 408 of the Companies Act 2006, the Company has not presented its own income statement or statement of comprehensive income.

a) Basis of preparation

These Financial Statements were prepared in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework' ('FRS 101'). The Company's shareholders were notified in 2015 of the use of the EU-adopted IFRS disclosure exemptions and there were no objections to the adoption of 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 ('IFRSs'), but makes amendments where necessary in order to comply with the Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions has been taken.

The Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

- › 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 IFRSs
- › Disclosures in respect of the compensation of key management personnel

As the Consolidated Financial Statements of Spectris plc (pages 92 to 141) 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 Payments' in respect of Group-settled share-based payments
- › Certain disclosures required by IFRS 13 'Fair Value Measurement' and the disclosures required by IFRS 7 'Financial Instrument Disclosures'

The Financial Statements have been prepared on the historical cost basis, except for the revaluation of financial instruments. Historical cost is generally based on the fair value of the consideration given in exchange for the assets. The principal accounting policies are set out below.

As permitted by s408 of the Companies Act 2006, the Company has elected not to present its own profit and loss account or statement of comprehensive income for the year. The profit attributable to the Company is disclosed in the footnote to the Company's balance sheet.

The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the Financial Statements.

Significant accounting judgements and estimates

In determining and applying accounting policies, judgement is often required where the choice of specific policy, assumption or accounting estimate to be followed could materially affect the reported amounts of assets, liabilities, income and expenses, should it later be determined that a different choice be more appropriate. Estimates and assumptions are reviewed on an ongoing basis and are based on historical experience and various other factors that are believed to be reasonable under the circumstances.

In the course of preparing these Financial Statements in accordance with the Company's accounting policies, no judgements that have a significant effect on the amounts recognised in the Financial Statements have been made, other than those involving estimation. Management considers the following to be key areas of estimation for the Company due to greater complexity and/or are particularly subject to uncertainty.

Key sources of estimation uncertainty

Retirement benefit plans

Accounting for retirement benefit plans under IAS 19 (revised) requires an assessment of the future benefits payable in accordance with actuarial assumptions. The discount rate and rate of retail price inflation ('RPI') assumptions applied in the calculation of plan liabilities, which are set out in Note 20, represent a key source of estimation uncertainty for the Company.

b) Summary of significant accounting policies

Intangible assets

Intangible assets purchased by the Company are capitalised at their cost.

Intangible assets with finite lives are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The estimated useful economic lives are as follows:

- › Software – 3 to 5 years

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses. The cost comprises the purchase price paid and any costs directly attributable to bringing it into working condition for its intended use.

Depreciation is recognised in the Income Statement on a straight-line basis to write off the cost, less the estimated residual value (which is reviewed annually), of property, plant and equipment over their estimated useful economic life. Depreciation commences on the date the assets are ready for use within the business and the asset carrying values are reviewed for impairment when there is an indication that they may be impaired. Land is not depreciated. Estimated useful lives are as follows:

- › Freehold property – 25 years
- › Office equipment – 3 to 5 years.

Investments

Investments in subsidiaries are stated at historical cost, less provision for any impairment in value.

Trade and other receivables

Trade and other receivables are carried at original invoice amount (which is considered a reasonable proxy for fair value) and are subsequently held at amortised cost less provision for impairment. A provision for impairment of trade receivables is established when there is objective evidence that the Company will not be able to collect all amounts due according to the original terms of the transactions. The amount of the provision is the difference between the original carrying amount and the recoverable amount, being the present value of expected cash flows receivable.

Cash and cash equivalents

This comprises cash at bank and in hand and short-term deposits held on call or with maturities of less than three months at inception.

Trade and other payables

Trade and other payables are recognised at the amounts expected to be paid to counterparties and subsequently held at amortised cost.

Taxation

Tax on the profit or loss for the year comprises both current and deferred tax. Tax is recognised in the Profit and Loss Account except to the extent that it relates to items recognised either in other comprehensive income or directly in 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 in respect of prior years.

Deferred taxation is provided on taxable temporary differences between the carrying amounts of assets and liabilities in the Financial Statements and their corresponding tax bases. Deferred tax is measured using the tax rates expected to apply when the asset is realised or the liability settled based on tax rates enacted or substantively enacted at the balance sheet date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised or that they will reverse. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Deferred tax assets and liabilities are offset if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Foreign currency translation

The functional currency of the Company is Pounds Sterling and is determined with reference to the currency of the primary economic environment in which it operates. Transactions in currencies other than the functional currency are initially recorded at the functional currency rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date. Exchange gains and losses on settlement of foreign currency transactions are translated at the rate prevailing at the date of the transactions, or the translation of monetary assets and liabilities at period end exchange rates, and are charged/credited to the profit and loss account. Non-monetary assets and liabilities denominated in foreign currencies that are stated at historical cost are translated to the functional currency at the foreign exchange rate ruling at the date of the transaction.

Financial instruments

Recognition

The Company recognises financial assets and liabilities on its balance sheet when it becomes a party to the contractual provisions of the instrument.

Financial assets and liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis, or realise the asset and settle the liability simultaneously.

Measurement

When financial assets and liabilities are initially recognised, they are measured at fair value, being the consideration given or received plus directly attributable transaction costs.

Originated loans and debtors are initially recognised in accordance with the policy stated above and subsequently re-measured at amortised cost using the effective interest method. Allowance for impairment is estimated on a case-by-case basis.

The Company uses derivative financial instruments such as forward foreign exchange contracts to hedge risks associated with foreign exchange fluctuations. These are designated as cash flow hedges. At the inception of the hedge relationship, the Company documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Company documents

Notes to the Accounts continued

35. Basis of preparation and summary of significant accounting policies continued

whether the hedging instrument that is used in a hedging relationship is highly effective in offsetting changes in cash flows of the hedged item

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are deferred in equity. The gain or loss relating to the ineffective portion is recognised immediately in the Income Statement.

Amounts deferred in equity are reclassified to the Income Statement in the periods when the hedged item is recognised in the Income Statement, in the same line of the Income Statement as the recognised hedged item. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset or liability.

Hedge accounting is discontinued when the Company revokes the hedging relationship, the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting. Any cumulative gain or loss deferred in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the Income Statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was deferred in equity is recognised immediately in the Income Statement.

Derecognition

A financial asset is derecognised when the Company loses control over the contractual rights to the cash flows from the asset. This occurs when the rights are realised, expire or are surrendered. A financial liability is derecognised when the obligation specified in the contract is discharged, cancelled or expires. Originated loans and debtors are derecognised on the date they are transferred by the Company.

Impairment of financial assets

The Company assesses at each balance sheet reporting date whether there is any objective evidence that a financial asset, or group of financial assets, is impaired. A financial asset, or group of financial assets, is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that have occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Employee benefits

The Company operates a defined benefit post-retirement benefit plan and a defined contribution pension plan.

Defined benefit plan

The Company's net obligation recognised in the balance sheet in respect of its defined benefit plan is calculated as the present value of the plan's liabilities less the fair value of the plan's assets. The operating and financing costs of the defined benefit plan are recognised separately in the Income Statement. Operating costs comprise the current service cost, scheme administrative expense, any gains or losses on settlement or curtailments, and past service costs where benefits have vested. Finance items comprise the unwinding of the discount on the net asset/deficit. Actuarial gains or losses comprising changes in plan liabilities due to experience and changes in actuarial assumptions are recognised in other comprehensive income.

The amount of any pension fund asset recognised in the balance sheet is limited to any future refunds from the plan or the present value of reductions in future contributions to the plan.

Defined contribution plan

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognised in the Income Statement in the periods during which services are rendered by employees.

Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

Share-based payments

Certain employees of the Company receive part of their remuneration in the form of share-based payment transactions, whereby employees render services in exchange for shares or rights over shares (equity-settled transactions). The cost of equity-settled transactions with employees is measured at fair value at the date at which they are granted. The fair value of share awards with market-related vesting conditions is determined by an external consultant and the fair value at the grant date is expensed on a straight-line basis over the vesting period based on the Company's estimate of shares that will eventually vest. The estimate of the number of awards likely to vest is reviewed at each balance sheet reporting date up to the vesting date, at which point the estimate is adjusted to reflect the actual outcome of awards which have vested. No adjustment is made to the fair value after the vesting date even if the awards are forfeited or not exercised.

Where it is not possible to incentivise managers of the Company with equity-settled options, they are issued with cash-settled options. The charge for these awards is adjusted to reflect the expected and actual levels of options that vest and the fair value is based on either the share price at date of exercise or the share price at the balance sheet date if sooner.

Where the Company grants options over its own shares to the employees of its subsidiaries, it recognises an increase in the cost of investment in its subsidiaries equivalent to the equity-settled share-based payment charge recognised in the subsidiary's Financial Statements with the corresponding credit being recognised directly in equity. In cases where a subsidiary is recharged for the share-based payment expense, no such increase in investment is recognised which may result in a credit in a particular year.

Dividends

Dividends are recognised as a liability in the period in which they are approved by shareholders.

Treasury shares

Shares held in treasury are treated as a deduction from equity until the shares are cancelled, reissued or disposed. Where such shares are subsequently sold or reissued, any consideration received, net of any directly attributable incremental costs and related tax effects, is included in equity attributable to the Company's equity shareholders

36. Auditor's remuneration

The details regarding the remuneration of the Company's auditor are included in Note 5 under 'Fees payable to the Company's auditor for audit of the Company's annual accounts'

37. Employee costs and other information

Average number of employees on a full-time equivalent basis.

	2017 Number	2016 Number
Administrative	67	52

Employee costs, including Directors' remuneration, are as follows:

	2017 £m	2016 £m
Wages and salaries	13.8	9.1
Social security costs	2.5	1.2
Contributions to defined contribution plans	0.4	0.3
Equity-settled share-based payment expense	2.2	1.2
Cash-settled share-based payment expense	0.1	0.1
	19.0	11.9

Directors' remuneration

Further details of Directors' remuneration and share options are given in Note 6 and in the Directors' Remuneration Report on pages 64 to 78

Tax losses

As at 31 December 2017, the Company had capital tax losses of £16.4m (2016: £16.4m). No provision has been made for deferred tax on the basis that there is insufficient evidence that suitable taxable profits will arise in the future against which the losses may be offset and the asset recovered

Cash and cash equivalents

Cash balances includes £2.4m of restricted cash which is held in escrow until 1 September 2018 as potential deferred consideration relating to the 2016 acquisition of Millbrook

38. Intangible assets

Cost	Software £m
At 1 January 2017	4.2
Additions	1.5
At 31 December 2017	5.7
Accumulated amortisation and impairment	
At 1 January 2017	3.3
Charge for the year	0.2
At 31 December 2017	3.5
Carrying amount	
At 31 December 2017	2.2
At 31 December 2016	0.9

Notes to the Accounts continued

39. Property, plant and equipment

Cost	Freehold property £m	Office equipment £m	Total £m
At 1 January 2017	3.4	0.7	4.1
Additions	–	0.1	0.1
At 31 December 2017	3.4	0.8	4.2
Accumulated depreciation and impairment			
At 1 January 2017	0.8	0.6	1.4
Charge for the year	0.2	0.1	0.3
At 31 December 2017	1.0	0.7	1.7
Carrying amount			
At 31 December 2017	2.4	0.1	2.5
At 31 December 2016	2.6	0.1	2.7

40. Investments in subsidiary undertakings

Cost	Investments in subsidiary undertakings £m
At 1 January 2017	1,240.7
Disposals	(175.0)
Movements relating to share options granted to subsidiary employees	2.9
At 31 December 2017	1,068.6
Provision for impairment	
At 1 January 2017	91.7
Disposals	(91.7)
At 31 December 2017	–
Carrying amount	
At 31 December 2017	1,068.6
At 31 December 2016	1,149.0

Details of the Company's subsidiaries are given in Note 50

During the year, following a company reorganisation, Millbrook Group Limited, a holding company, was liquidated, resulting in the disposal of the investment. The carrying amount of the investment prior to disposal was £83.2m. The Company received a dividend of £84.2m from Millbrook Group Limited before liquidation.

Servomex Limited, a dormant entity, was dissolved during the year. This investment had already been impaired to £nil.

During the year, the Company disposed of investments in subsidiaries following a transfer of ownership or dissolution. These investments were held at £nil carrying value.

41. Other receivables

	2017 £m	2016 £m
Current		
Amounts owed by Group undertakings	6.5	0.8
Loans owed by Group undertakings	255.1	299.3
Prepayments	4.2	1.5
Other receivables	3.0	0.9
	268.8	302.5
Non-current		
Loans owed by Group undertakings	333.7	243.6
Prepayments	0.4	0.9
	334.1	244.5
Total other receivables	602.9	547.0

All loans owed by Group undertakings are in relation to interest bearing intra-group loans which are formalised arrangements on an arm's length basis. Interest is charged at fixed rates between 2% and 12%. Amounts owed by Group undertakings are non-interest bearing and repayable on demand.

42. Borrowings

		2017 £m	2016 £m
Current	Repayable date		
Bank overdrafts	on demand	15.5	10.0
Non-current	Fixed interest rate	2017 £m	2016 £m
Bank loans unsecured	30 October 2019	-	41.0
Bank loans unsecured - €94.8m	2.56%	84.1	81.4
Bank loans unsecured - €116.2m	1.15%	103.1	99.7
Total unsecured borrowings		187.2	222.1

Further details of borrowings are provided in Note 17.

43. Other payables

	2017 £m	2016 £m
Current		
Amounts owed to Group undertakings	0.7	0.7
Loans owed to Group undertakings	490.5	358.6
Accruals	10.6	6.0
	501.8	365.3
Non-current	2017 £m	2016 £m
Loans owed to Group undertakings	146.6	154.9

All loans owed to Group undertakings are in relation to interest bearing intra-group loans which are formalised arrangements on an arm's length basis. Interest is charged at fixed rates between 0% and 12%. Amounts owed to Group undertakings are non-interest bearing and repayable on demand.

Notes to the Accounts continued

44. Share capital

Allotted, called-up and fully paid	Number of shares millions	£m
At 1 January 2017 and 31 December 2017	125.0	6.2

No ordinary shares were issued upon exercise under share option schemes during the year (2016: nil)

Share options have been granted to subscribe for ordinary shares of Spectris plc. Full details of share options currently in issue, including those issued during the year, together with information regarding the basis of calculation of the share-based payment expense, is contained in Note 24

45. Reserves

Merger reserve

This reserve arose on the acquisition of Servomex in 1999, a purchase satisfied substantially by the issue of share capital and therefore eligible for merger relief under the provisions of Section 612 of the Companies Act 2006

Capital redemption reserve

This reserve records the historical repurchase of the Company's own shares.

Special reserve

The special reserve was created historically following the cancellation of an amount of share premium for the purpose of writing off goodwill. The special reserve is not distributable

46. Retirement benefit plan

The Company participates in, and is the sponsoring employer of, the UK Group defined benefit plan. The plan provides pensions in retirement, death in service and, in some cases, disability benefits to members. The pension benefit is linked to members' final salary at retirement and their service life. Since 31 December 2009, the UK plan has been closed to new members.

There is no contractual agreement or stated policy for charging the net defined benefit cost within the Group. In accordance with IAS 19 (Revised 2011), there were no Company contributions made to the defined benefit plan during the year (2016: £nil).

Further details of the UK Spectris Pension Plan, including all disclosures required under FRS 101, are contained in Note 20.

47. Contingent liabilities

The cross-guarantee arrangements to support trade finance facilities are stated in Note 27

Where the Company enters into financial guarantee contracts to guarantee the indebtedness of other companies within its group, the Company considers these to be insurance arrangements in accordance with the requirements of IFRS 4 and accounts for them as such. In this respect, the Company treats the guarantee contract as a contingent liability until such time as it becomes probable that the Company will be required to make a payment under the guarantee

In the normal course of business, the Company has provided bonds and guarantees through local banking arrangements amounting to £19.6m (2016: £16.1m).

48. Dividends

Amounts recognised and paid as distributions	2017 £m	2016 £m
Final dividend for the year ended 31 December 2016 of 34.0p (2015: 32.2p) per share	40.5	38.4
Interim dividend for the year ended 31 December 2017 of 19.0p (2016: 18.0p) per share	22.7	21.4
	63.2	59.8
Amounts arising in respect of the year	2017 £m	2016 £m
Interim dividend for the year ended 31 December 2017 of 19.0p (2016: 18.0p) per share	22.7	21.4
Proposed final dividend for the year ended 31 December 2017 of 37.5p (2016: 34.0p) per share	44.7	40.5
	67.4	61.9

The proposed final dividend is subject to approval by shareholders at the Annual General Meeting on 25 May 2018 and has not been included as a liability in these Financial Statements

49. Treasury shares

At 31 December 2017, Spectris plc held 5,747,360 treasury shares (2016: 5,840,513). During the year 93,153 treasury shares were utilised to satisfy options exercised by employees of Spectris plc and its subsidiaries which were granted under share schemes (2016: 58,395). No shares were repurchased by Spectris plc during the year (2016: nil) and no shares were cancelled during the year (2016: nil).

50. Group companies

The following is a full list of the subsidiaries, the registered office addresses and percentage of equity owned directly or indirectly by Spectris plc, as at 31 December 2017. This information is provided in accordance with Section 409 of the Companies Act 2006.

Name	Registered address	Country of incorporation	Shareholding ¹	
			% held directly	% held indirectly
Analytical Spectral Devices Inc ⁴	3773 Cherry Creek North Drive #575, Denver, CO 80209, United States	USA	–	100.0
BK Vibro America Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Bruel & Kjaer EMS (Australia) Pty Ltd	Level 14/409 St Kilda Road, Melbourne, VIC, 3004, Australia	Australia	–	100.0
Brüel & Kjaer EMS BV	Panoven 68, 3401 RB IJsselstein, Netherlands	Netherlands	–	100.0
Bruel & Kjaer EMS Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Bruel & Kjaer EMS Pty Ltd	Level 14/409 St Kilda Road, Melbourne, VIC, 3004, Australia	Australia	–	100.0
Bruel & Kjaer France SAS	46 rue du Champoreux, F-91540 Mennecy, Cedex, France	France	–	100.0
Brüel & Kjaer GmbH	Linzerstrasse 3, Bremen, D-28359, Germany	Germany	–	100.0
Brüel & Kjaer Iberica SA	Teide 5, E-28700 San Sebastian de los Reyes, Spain	Spain	–	100.0
Bruel & Kjaer Italia SRL	Viale Milanofiori, Strada 4, Palazzo Q5, I-20089 Rozzano, Milano, Italy	Italy	–	100.0
Brüel & Kjaer North America Inc	2815 Colonnades Court, Norcross, USA 30071-1588, United States	USA	–	100.0
Bruel & Kjaer Polska Sp zoo	ul. Goraszewska 12, PL-02-910 Warszawa, Poland	Poland	–	100.0
Bruel & Kjaer Sound & Vibration Measurement A/S	Skodsborgvej 307, DK-2850, Naerum, Denmark	Denmark	–	100.0
Bruel & Kjaer UK Limited	Jarman Way, Royston, Hertfordshire, SG8 5BQ, United Kingdom	England & Wales	100.0	–
Bruel & Kjaer Vibro A/S	Skodsborgvej 307B, Naerum, 2850, Denmark	Denmark	–	100.0
Bruel & Kjaer Vibro GmbH	Leydheckerstrasse 10, D-64293, Darmstadt, Germany	Germany	–	100.0
Bruel & Kjaer VTS Limited	Jarman Way, Royston, Hertfordshire, SG8 5BQ, United Kingdom	England & Wales	–	100.0
BTG Americas Inc	5085 Avalon Ridge Parkway, Suite 100, Norcross, GA 30071, United States	USA	–	100.0
BTG Eclépens SA	ZI Village, 1312 Eclépens, Switzerland	Switzerland	–	100.0
BTG Holding Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
BTG Instruments AB	Box 602, S-66129 Saffle, Sweden	Sweden	–	100.0
BTG Instruments GmbH	Arzbergerstrasse 10, Herrsching, 82211, Germany	Germany	–	100.0
BTG IPI LLC	1375 Plane Site Boulevard, PO Box 5334, DePere, WI, WI 54115-5334, United States	USA	–	100.0
BTG Southern Europe Sarl	46 Rue de Champoreux, Mennecy, 91540, France	France	–	100.0
Burnfield Limited	Heritage House, Church Road, Egham, Surrey, TW20 9QD, United Kingdom	England & Wales	–	100.0
Capstone Technology Asia Pte Ltd	51 Godhill Plaza, #15-06, Singapore, 308900, Singapore	Singapore	–	100.0
Capstone Technology Corporation	505 Union Avenue, SE Suite 120, Olympia, WA, 98501, United States	USA	–	100.0
CAS Clean-Air-Service AG	Reinluftweg 1, Zurich, CH-9630, Switzerland	Switzerland	–	100.0
DISCOM Elektronische Systeme und Komponenten GmbH	Neustadt 10-12, Göttingen, 37073, Germany	Germany	–	100.0
Engineering Seismology Group Canada Inc	20 Hyperion Court, Kingston, ON, K7K 7K2, Canada	Canada	–	100.0

Notes to the Accounts continued

50. Group companies continued

Name	Registered address	Country of incorporation	Shareholding ¹	
			% held directly	% held indirectly
ESG (Beijing) Seismic Technology Co Ltd	Room 1226, Building No 1, Yinan, North Erlizhuang No 44, Beijing, Dongcheng District	China	–	100.0
ESG USA Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
HBM Danmark ApS	Nydamsvej 19D, 8362 Horning, Skanderborg, Denmark	Denmark	–	100.0
HBM FiberSensing SA	Rua Vasconcelos Costa 277, Moreira, Maia, Portugal	Portugal	–	100.0
HBM France SAS	46 Rue du Champoreux, Mennecy, 91540, France	France	–	100.0
HBM Italia SRL	Milano (MI), Via Pordenone 8, Milan, 20132, Italy	Italy	12.5	87.5
HBM nCode Federal LLC	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0 ²
HBM Netherlands BV	Schutweg 15a, Waalwijk, 5145 NP, Netherlands	Netherlands	–	100.0
HBM Norge AS	Rosenholmveien 25, Trollasen, 1414, Norway	Norway	–	100.0
HBM Prentiss Inc	1450 S Eastside Loop, Tucson, AZ, 85710-6703, United States	USA	–	100.0
HBM Prentiss Pte Ltd	2 Bukit Merah Central, #14-02, Spring Singapore, 159835, Singapore	Singapore	–	100.0
HBM Prentiss Corporation Poland sp zoo	Ul. Wronia 45 lok 200, Warsaw, 01-015, Poland	Poland	–	100.0
HBM United Kingdom Limited	Technology Centre, Advanced Manufacturing Park, Brunel Way, Catcliffe, Rotherham, South Yorkshire, S60 5WG, United Kingdom	England & Wales	–	100.0
Hottinger Baldwin (Suzhou) Electronic Measurement Technology Ltd	106 Henshan Road, Suzhou New District, Suzhou, Jiangsu Province, 215009, China	China	–	100.0
Hottinger Baldwin Measurements Inc	19 Bartlett Street, Marlborough, MA, 017525, United States	USA	–	100.0
Hottinger Baldwin Messtechnik AG	c/o Simon Berger, Alpenblickstrasse 57, Uster, 8610, Switzerland	Switzerland	–	100.0
Hottinger Baldwin Messtechnik GmbH	Im Tiefen See 45, Darmstadt, D-64293, Germany	Germany	–	100.0
Hottinger Baldwin Messtechnik GmbH	Lemboeckgasse 63/2, A-1230, Wien, Vienna, Österreich	Austria	–	100.0
Hottinger Baldwin Messtechnik Iberica SL	Plaza de la Encina 10-11, Nucleo 3, 1A, E-28760 Tres Cantos (Madrid), Spain	Spain	–	100.0
International Applied Reliability Symposium LLC	1450 S Eastside Loop, Tucson, AZ, 85710-6703, United States	USA	–	100.0 ²
LLC Spectris CIS	Building 1, Usacheva Street, Moscow 119048, Russian Federation	Russia	–	100.0
Malvern Biosciences Inc ⁴	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Malvern Analytical Inc (formerly Malvern Instruments Inc)	117 Flanders Road, Westborough, MA 01581-1042, United States	USA	–	100.0
Malvern Analytical Limited (formerly Malvern Instruments Limited)	Enigma Business Park, Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom	England & Wales	–	100.0
Malvern Instruments Nordic AB	Vallongatan 1, 752 28, Uppsala, Sweden	Sweden	–	100.0
Malvern Instruments Nordic Oy	Kumitehtaankatu, 5 04260, Kerava, Asianajotoimisto OY, Finland	Finland	–	100.0
Malvern Analytical BV	Lelyweg 1, 7602EA, Almelo, Netherlands	Netherlands	–	100.0
Malvern Analytical GmbH	Nuernbergerstr 113, D 34123 Kassel, Germany	Germany	–	100.0
Malvern Analytical Sarl	30 Rue Jean Rostand, Parc Club de l'Universite, Orsay, Cedex, 91893, France	France	–	100.0

Name	Registered address	Country of incorporation	Shareholding ¹	
			% held directly	% held indirectly
Malvern Panalytical SRL	Via Casati 23, Monza, Milan, Italy	Italy	5.0	95.0
Malvern-Aimil Instruments Pvt Limited	Naimex House, A-8, Mohan Co-operative Industrial Estate, Mathura Road, New Delhi - 110044, India	India	–	100.0
Millbrook European Holdings Limited	Millbrook, Bedford, MK45 2JQ, United Kingdom	England & Wales	–	100.0
Millbrook Group Limited ⁵	Millbrook, Bedford, MK45 2JQ, United Kingdom	England & Wales	100.0	–
Millbrook Proving Ground Limited	Millbrook, Bedford, MK45 2JQ, United Kingdom	England & Wales	–	100.0
Millbrook Special Vehicles Limited	Millbrook, Bedford, MK45 2JQ, United Kingdom	England & Wales	–	100.0
Millbrook TDC Ltd ⁵	Millbrook, Bedford, MK45 2JQ, United Kingdom	England & Wales	–	100.0
MPG Bidco Limited ⁵	Millbrook, Bedford, MK45 2JQ, United Kingdom	England & Wales	–	100.0
MPG Finland Oy	c/o Tilisakut Oy, Kauppakatu 12, Kuopio, 70100, Finland	Finland	–	100.0
MPG Midco Limited ⁵	Millbrook, Bedford, MK45 2JQ, United Kingdom	England & Wales	–	100.0
Nanosight Limited	Enigma Business Park, Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom	England & Wales	–	100.0
NDC Technologies GmbH	Im Tiefen See 45, Darmstadt, D-64293, Germany	Germany	–	100.0
NDC Technologies Limited	Bates Road, Maldon, Essex, CM9 5FA, United Kingdom	England & Wales	–	100.0
NDC Technologies S.A	Rue H Goossens 16, B-4431 Loncin, Belgium	Belgium	–	100.0
NDC Technologies Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Newport Electronics Limited	One Omega Drive, Northbank, Irlam, Manchester, M44 5BD, United Kingdom	England & Wales	–	100.0
Novisim Limited	Jarman Way, Royston, Hertfordshire, SG8 5BQ, United Kingdom	England & Wales	–	100.0
Omega Engineering B.V	C/O Intertrust, Prins Bernhardplein 200, 1097 JB Amsterdam, Netherlands	Netherlands	–	100.0
Omega Engineering GmbH	Daimlerstrasse 26, Deckenpfronn, 75392, Germany	Germany	–	100.0
Omega Engineering Limited	One Omega Drive, Northbank, Irlam, Manchester, M44 5BD, United Kingdom	England & Wales	–	100.0
Omega Engineering SARL	c/o BDO, 7 Rue de Parc de Clagny, Versailles, 78000, France	France	–	100.0
Omega Engineering Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Omega Group Inc	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE, DE 19801, United States	USA	–	100.0
Omega Technologies Limited	One Omega Drive, Riverbend Technology Centre, Northbank Irlam, Manchester, M44 5BD, United Kingdom	England & Wales	–	100.0
Omega Technologies Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Omega Inc	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE, DE 19801, United States	USA	–	100.0
PANalytical (Proprietary) Limited	Private Bag 4015, Ferndale, 2160, South Africa	South Africa	–	100.0
PANalytical Inc ⁴	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
PANalytical Limited	Jarman Way, Royston, Hertfordshire, SG8 5BQ, United Kingdom	England & Wales	100.0	–
PANalytical SAS	22 Avenue Descartes, BP-45, Limeil-Brevannes, Cedex, 94454, France	France	–	100.0

Notes to the Accounts continued

50. Group companies continued

Name	Registered address	Country of incorporation	Shareholding ¹	
			% held directly	% held indirectly
Particle Measuring Systems Germany GmbH	Im Tiefen See 45, Darmstadt, D-64293, Germany	Germany	–	100.0
Particle Measuring Systems Limited ⁶	Heritage House, Church Road, Egham, Surrey TW20 9QD, United Kingdom	England & Wales	100.0	–
Particle Measuring Systems SRL	Via Aurora n.27, 00013 Fonte Nuova, Italy	Italy	–	100.0
Particle Measuring Systems Inc	3773 Cherry Creek North Drive #575, Denver, CO 80209, United States	USA	–	100.0
Pixirad Imaging Counters SRL	Via Cadore 21, Lissone, 20851, Italy	Italy	–	100.0
Red Lion Controls BV	Softwareweg 9, 3821 BN Amersfoort, Netherlands	Netherlands	–	100.0
Red Lion Controls Inc	1001 State Street #1400, Erie, PA 16501, United States	USA	–	100.0
ReliaSoft India Private Limited	New No.16, Old No 21, Cenotaph 1st Street, Alwarpet, Chennai, 600 018, India	India	–	100.0
Servomex BV	P.O. Box 406, 2700 AK, W Dreeslaan 436, 2729 NK Zoetermeer, Netherlands	Netherlands	–	100.0
Servomex Company	1209 Orange Street, Wilmington New Castel, 19801, United States	USA	–	100.0
Servomex GmbH	Munsterstrasse 5, 59065 Hamm, Germany	Germany	–	100.0
Servomex Group Limited	Jarvis Brook, Crowborough, East Sussex, TN6 3FB, United Kingdom	England & Wales	–	100.0
Servomex SA	23 Rue de Roule, Paris, 75001, France	France	–	100.0
Soundwave Denmark ApS	Skodsborgvej 307, DK-2850, Naerum, Denmark	Denmark	–	100.0
Soundwave Holdings Pty Ltd	Levels 11&12, 432 St Kilda Road, Melbourne, VIC 3004, Australia	Australia	–	100.0
Sound Answers Inc	6855 Commerce Boulevard, Canton, MI, 48187, United States	USA	–	100.0
Spectraseis Canada Inc	1900, 520 - 3rd Avenue S W , Calgary, AB, T2P 0R3, Canada	USA	–	100.0
Spectraseis Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Spectraseis ISM LLC	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0 ²
Spectris Australia Pty Ltd	Suite 2, 6-10 Talavera Road, PO Box 349, North Ryde, New South Wales 2113, Australia	Australia	–	100.0
Spectris Canada Inc	4995 Levy Street, Montreal, Quebec, H4R 2N9, Canada	Canada	–	100.0
Spectris China Limited	Unit 706 7/F, Miramar Tower, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong	Hong Kong	–	100.0
Spectris Co Ltd	Tsukasa-machi Bldg, 2-6 Kanda Tsukasa-machi, Chiyoda-ku, Tokyo, 101-0048, Japan	Japan	–	100.0
Spectris Denmark ApS	Skodsborgvej 307, Naerum, DK-2850, Denmark	Denmark	–	100.0
Spectris Do Brasil Instrumentos Eletrônicos Ltda	Rua Laguna 276, Santo Amaro, CEP 04728-000, Sao Paulo SP, Brazil	Brazil	–	100.0
Spectris Finance Ireland Designated Activity Company	12 Merrion Square, Dublin 2, Ireland	Ireland	–	100.0
Spectris Funding BV	Lelyweg 1, 7602EA, Almelo, Netherlands	Netherlands	–	100.0
Spectris Germany GmbH	Im Tiefen See 45, Darmstadt, D-64293, Germany	Germany	–	100.0
Spectris Group Holdings Limited	Heritage House, Church Road, Egham, Surrey TW20 9QD, United Kingdom	England & Wales	100.0	–
Spectris Holdings Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0
Spectris Inc	3411 Silverside Road Tatnall Building #104, Wilmington, DE 19810, United States	USA	–	100.0

Name	Registered address	Country of incorporation	Shareholding ¹	
			% held directly	% held indirectly
Spectris Instrumentation and Systems Shanghai Ltd	Bldg 9, No. 88, Lane 2888, HuaNing Road, MingHang District, Shanghai, 201108, China	China	–	100.0
Spectris Korea Ltd	7th & 8th Fl, SH Energy Building, 16-6 Sunae-Dong, Bundang-Gu, Seongnam-City Kyeonggi-Do, Republic of Korea	Republic of Korea	–	100.0
Spectris Mexico, S de RL de CV	Av. Pedro Ramirez Vazquez No. 200-13, Nivel 1, Col. Valle Oriente, San Pedro Garza Garcia, C P. 66269, Mexico	Mexico	–	100.0
Spectris Netherlands BV	Lelyweg 1, 7602 EA Almelo, Netherlands	Netherlands	–	100.0
Spectris Netherlands Cooperatief WA	Lelyweg 1, 7602 EA Almelo, Netherlands	Netherlands	100.0	–
Spectris Pension Trustees Limited	Heritage House, Church Road, Egham, Surrey TW20 9QD, United Kingdom	England & Wales	100.0	–
Spectris Taiwan Limited	13F-1, No. 128, Sec. 3, Min Sheng E. Road, Taipei, Taiwan, China	China	–	100.0
Spectris Technologies Private Limited	202 Anarkali Complex, Jhandelwala Extension, Opp Videcon Tower, New Delhi 110 055, India	India	–	100.0
Spectris UK Holdings Limited	Heritage House, Church Road, Egham, Surrey TW20 9QD, United Kingdom	England & Wales	–	100.0 ³
Spectris US Holdings Limited	Heritage House, Church Road, Egham, Surrey TW20 9QD, United Kingdom	England & Wales	–	100.0
Test World Holding Oy	Kauniaistentie 13 B 30, Kauniainen, 02700, Finland	Finland	–	100.0
Test World Oy	PL 167, Nellimintie 569, Ivalo, 99801, Finland	Finland	–	100.0
The Omnicon Group Inc	50 Engineers Road, Hauppauge, NY 11788, United States	USA	–	100.0
Viscotek Europe Limited	Heritage House, Church Road, Egham, Surrey TW20 9QD, United Kingdom	England & Wales	30.0	70.0
Zhuhai Omec Instruments Co Ltd	Floor 1-3, No 9 R&D Main Building, Keji No 1 Road, Scientific & Technical Innovation Sea Shore, New High Tech Zone, Zhuhai, Guangdong Province, China	China	–	100.0

Footnotes

¹ Ownership held in class of ordinary shares unless noted with ² or ³

² All LLP, LLC, Cooperatief and other non-capital ownership entities listed are 100% owned and controlled by Spectris plc directly or indirectly through intermediate holding companies

³ Ownership held in class of ordinary shares, deferred share and redeemable ordinary shares

⁴ Merged on 1 January 2018 into Malvern Panalytical Inc (formerly named Malvern Instruments Inc)

⁵ Dissolved on 9 January 2018

⁶ In liquidation.

UK registered subsidiaries exempt from audit

The following UK subsidiaries will take advantage of the audit exemption set out within section 479A of the Companies Act 2006 for the year ended 31 December 2017. Unless otherwise stated, the undertakings listed below are all 100% owned, either directly or indirectly, by Spectris plc.

The Company will guarantee the debts and liabilities of the UK subsidiaries listed below at the balance sheet date of £7.8m in accordance with section 479C of the Companies Act 2006. The Company has assessed the probability of loss under the guarantee as remote.

Name	Proportion of shares held by the Company (%)	Proportion of shares held by subsidiary (%)	Company number
Brüel & Kjær UK Limited	100.0	–	4066051
Brüel & Kjær VTS Limited	–	100.0	1539186
HBM United Kingdom Limited	–	100.0	1589921
NDC Technologies Limited	–	100.0	630998
Novisim Limited	–	100.0	5269664
Omega Engineering Limited	–	100.0	2564017
Omega Technologies Limited	–	100.0	2775272
PANalytical Limited	100.0	–	1005071

Shareholder Information

Financial calendar

Trading update	25 May 2018
Annual General Meeting	25 May 2018
Record date for 2017 final dividend	25 May 2018
2017 final dividend payable	29 June 2018
2018 half-year results	24 July 2018
Trading update	20 November 2018
2018 full-year results	February 2019

Company Secretary

Mark Serfőző

Head of Corporate Affairs

Siobhán Andrews

Email investorrelations@spectris.com

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Company registered in England, No. 2025003

Auditors

Deloitte LLP

Bankers

Royal Bank of Scotland Plc

Solicitors

Macfarlanes LLP

Brokers

Jefferies Hoare Govett

J P Morgan Cazenove

Financial PR advisers

FTI Consulting

Registrars

Equiniti Limited
Aspect House
Spencer Road
Lancing
West Sussex
BN99 6DA

The registrars provide a range of shareholder services
online at www.shareview.co.uk.

Share price information

The Company's ordinary shares are listed on the London Stock Exchange. The latest share price is available via the Company's website at www.spectris.com

Major shareholders

	Shareholding in Spectris shares	Percentage of issued share capital at 31 December 2017
MFS Investment Management	12,929,501	10.84
FMR LLC	9,683,917	8.12
Oppenheimer Funds	7,059,506	5.92
Marathon Asset Management LLP	5,944,158	4.98
BlackRock Inc	4,676,832	3.93
Liontrust Investment Partners LLP	3,921,045	3.29
Sprucegrove Investment Management	3,656,850	3.07

Email news service

To receive details of press releases and other announcements as they are issued, register with the email alert service on the Company's website at www.spectris.com.

Cautionary statement

This Annual Report may contain forward-looking statements. These statements can be identified by the fact that they do not relate only to historical or current facts. Without limitation, forward-looking statements often use words such as anticipate, target, expect, estimate, intend, plan, goal, believe, will, may, should, would, could or other words of similar meaning. These statements may (without limitation) relate to the Company's financial position, business strategy, plans for future operations or market trends. No assurance can be given that any particular expectation will be met or proved accurate and shareholders are cautioned not to place undue reliance on such statements because, by their very nature, they may be affected by a number of known and unknown risks, uncertainties and other important factors which could cause actual results to differ materially from those currently anticipated. Any forward-looking statement is made on the basis of information available to Spectris plc as of the date of the preparation of this Annual Report. All forward-looking statements contained in this Annual Report are qualified by the cautionary statements contained in this section. Other than in accordance with its legal and regulatory obligations, Spectris plc disclaims any obligation to update or revise any forward-looking statement contained in this Annual Report to reflect any change in circumstances or its expectations.

'Spectris' is a trademark of Spectris plc and is protected by registration in the United Kingdom and other jurisdictions. Other product names referred to in this Annual Report are registered or unregistered trademarks or registered names of Spectris plc or its subsidiary companies and are similarly protected.

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Manufactured at a mill that is FSC® accredited

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