Oxford Instruments plc

Report and Financial Statements 2019

Company number: 775598

ABOUT US

Oxford Instruments plc

is a leading provider of high technology products and services to the world's leading industrial companies and scientific research communities.

We help our customers to image, analyse and manipulate materials down to the atomic and molecular level, enabling them to accelerate their R&D, increase productivity and make new scientific discoveries.

Find out more about us

www.oxinst.com

Front cover image:
Biological tissue grown from patient cells captured by an Andor Dragonfly microscopy system

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Company Information

PERFORMANCE HIGHLIGHTS

We have made good progress in the year with the continued implementation of our Horizon strategy, which is delivering good growth and improved profitability.

Revenue[1]

£333.6m +12.4%

(2018: £296.9m)

Adjusted[2] operating profit[1]

£49.7m +6.9%

(2018: £46.5m)

Adjusted[2] profit before tax[1]

£47.5m +12.3%

(2018: £42.3m)

Profit before tax[1]

£35.5m +3.8%

(2018: £34.2m)

Adjusted[2] basic earnings per share[1]

64.9p +15.3%

(2018: 56.3p)

Dividend per share (full year)

14.4p +8.3%

(2018: 13.3p)

Cash generated from operations[1]

£56.3m

(2018: £33.4m)

Net cash/(debt)

£6.7m

(2018: £(19.7)m)

1. Continuing operations.
2. Throughout these Financial Statements we make reference to adjusted numbers. A full definition of adjusted numbers can be found in Note 1. Where we make reference to constant currency numbers these are prepared on a month by month basis using the translational and transactional exchange rates which prevailed in the previous year rather than the actual exchange rates which prevailed in the year. Transactional exchange rates include the effect of our hedging programme.

Financial highlights:

- Orders up 12.9% to £353.5 million (2018: £313.0 million), an increase of 12.0% at constant currency.
- Order book of £171.6 million (31 March 2018: £153.0 million, restated for IFRS 15) up 12.2% (9.4% at constant currency).
- The Group has adopted IFRS 15 Revenue from Contracts with Customers and IFRS 16 Leases. The impact is to increase revenue by £7.0 million.
- Reported revenue increased by 12.4% to £333.6 million (10.8% at constant currency).
- Adjusted operating profit from continuing operations up 6.9% to £49.7 million (9.7% at constant currency).
- Adjusted operating margin of 14.9% (2018: 15.7%), 15.5% at constant currency, impacted by a currency headwind and one-off investment in operational excellence.
- Reported profit before tax up 3.8% to £35.5 million after mark-to-market movement on currency derivatives and adjusting items.
- Net cash of £6.7 million following strong cash conversion of 103%.
- Full-year dividend increased by 8.3% to 14.4 pence.

Find out more in the Finance Review on pages 36 to 42

Operational highlights:

- Continued progress with the implementation of our Horizon strategy, embedding defined capabilities and disciplines across the businesses.
- Significant in-year investment in operational excellence with a focus on strategic procurement and operating processes.
- Strong order, revenue and profit growth in Materials & Characterisation supported by growth in advanced material and semiconductor customer segments.
- Healthy end markets across life science, quantum technology and academia supported strong order and revenue growth across our Research & Discovery sector. Operating profit was held back in the period by a lower performance from scientific X-ray tubes and Scienta Omicron.
- Order, revenue and profit growth, with margin improvement, in Service & Healthcare, supported by growth in service and support of our own products and an improved performance from our healthcare businesses.
- Investment in R&D supporting new and future product launches; received the Queen's Award for Innovation for our latest material analyser.

Find out more in the Operations Review on pages 26 to 35

OUR BUSINESS

Our core purpose is to address some of the world's most pressing challenges.

Our business is structured around three sectors to support our customer and application focus:

Materials & Characterisation

Products and solutions that enable the fabrication and characterisation of materials and devices down to the atomic scale, predominantly supporting customers across applied R&D as well as the production and manufacture of high technology products and devices.

Find out more on pages 26 to 29

Research & Discovery

Provides advanced solutions that create unique environments and enable imaging and analytical measurements down to the molecular and atomic level, predominantly used in scientific research and applied R&D.

Find out more on pages 30 to 33

Service & Healthcare

Provides customer service and support for our own products and the service, sale and rental of third-party healthcare imaging systems.

Find out more on pages 34 and 35

Our key enabling technologies, products and services facilitate a greener economy, increased connectivity, improved health and leaps in scientific understanding.

Our global end market segments

Materials & Characterisation

41% of Group revenue
End market segments revenue

42% Academic
58% Commercial

Revenue
£137.9m
+16.8%
(2018: £118.1m)

Adjusted operating profit
£22.1m
+10.0%
(2018: £20.1m)

Research & Discovery

38% of Group revenue
End market segments revenue

69% Academic
31% Commercial

Revenue
£125.2m
+11.8%
(2018: £112.0m)

Adjusted operating profit
£12.7m
-8%
(2018: £13.8m)

Service & Healthcare

21% of Group revenue

Revenue
£70.5m
+5.5%
(2018: £66.8m)

Adjusted operating profit
£14.9m
+18.3%
(2018: £12.6m)

This segment is captured within total Group revenue.

Healthcare & Lifescience
Where growth is driven by demand for improvements in disease detection and the understanding of fundamental mechanisms.

Semiconductor & Communications
Where there is a focus on speed, security and capacity.

Quantum Technology
Growth is being driven in quantum communications, computing and sensors, where quantum effects radically change the "rule book" of what is possible.

Environment
This includes greener production, recycling, detection of hazardous substances in soil, and agriculture and food.

Energy
Where improved efficiencies and sustainability remain core drivers, and includes work in photovoltaics and batteries.

Advanced Materials
Where we help customers lead the race to develop lighter, stronger, higher functioning and more affordable materials.

Research & Fundamental Science
Where we help customers develop breakthrough applications, gaining previously unknown insights.

OUR BUSINESS CONTINUED

We are proud to be a globally recognised premium brand with a reputation for innovation and product excellence.

Principal offices and development & manufacturing sites

For a full list of our locations please visit our website:
www.oxinst.com/service-and-support

28
offices around the world

1,579
people employed worldwide

Revenue from external customers by destination

Rest of World
£9.5m

UK
£14.2m

Germany
£28.3m

Rest of Asia
£34.4m

Rest of Europe
£38.7m

Japan
£38.7m

China
£70.0m

USA
£99.8m

INVESTMENT CASE

Horizon, our transformational programme for the Group, is building a stronger Oxford Instruments, positioned to deliver long-term sustainable growth and margin improvement.

As a customer-centric, market-focused Group, we understand the technical and commercial challenges faced by our customers.

Brand and reputation

A globally recognised premium brand with a reputation for innovation, world-class product performance, unprecedented ease of use and excellence in service and support. Oxford Instruments offers increased value to existing customers, as well as creating growth opportunities in new market segments, through application-specific solutions with improved workflows, bespoke analytics, data interpretation and associated support services.

Global business

Oxford Instruments is positioned to address a broad range of markets and industrial sectors. Its key enabling technologies are underpinning the shift to a greener economy, increased digital connectivity, improved healthcare and leaps in scientific understanding. This provides a global base and comprehensive portfolio, offering diversification of opportunity and reduced impact from individual market risks.

Attractive end markets

The Group focuses on attractive segments where their key enabling technologies drive long-term growth for customers and where they can maintain leadership positions. These end markets are robust, supported by sustained commercial and Government investment. This, alongside a customer application focus and excellent core capabilities, provides strong long-term drivers for future growth and margin improvement.

Focused investment

The Group focuses investment on market segments where its key enabling technologies drive product innovation, world-leading research and long-term growth for customers, where it can maintain leadership positions.

Strong customer relationships

By being customer-centric and market-driven, the Group has developed an in-depth understanding of customer needs, helping customers to accelerate their applied R&D, increase their manufacturing productivity and make ground-breaking discoveries. Today, just over half of Oxford Instruments' customer base comprises commercial organisations.

How we make a difference

Enabling 5G

5G is the latest iteration of cellular technology with the prospect of a transformational increase in speed, coverage and responsiveness of wireless networks. As a result of these improvements there will also be increasing demands on network infrastructure. Our capabilities in compound semiconductors are supporting manufacturers to develop the optoelectronic components, lasers and high-speed electronics required to deliver the improved performance enabling 5G and the rise in the data economy.

Find out more on page 29

How we make a difference

Cancer Research

In the UK alone, 1 in 2 people will get cancer in their lifetime. However, while cancer rates are increasing, the number of people who will die from the disease is decreasing. It's thanks to research that many people are now surviving cancer. With more than 200 different types of cancer, researchers are learning more about what causes the disease and are making breakthroughs in therapeutic responses. The imaging resolution and speed of our products are revealing unprecedented detail in living cells, helping to build an understanding of the complex intracellular mechanisms that underlie a wide range of disease states.

Find out more on page 32

How we make a difference

Electric Vehicles

Electric vehicles are widely seen as one of the most important innovations in transportation. As technology develops and we focus more on renewable energy and improved urban air quality, demand for them will continue to increase and they are expected to represent 22% of global share by 2030. With the rising popularity, demands on the performance capabilities have also increased. We are providing manufacturers with the solutions to address some of the most pressing problems, such as the range of electric vehicles, recharge speeds and reduction in energy loss. We also are enabling the manufacture of advanced sensors to help improve the safety of autonomous vehicles.

Find out more on page 29

How we make a difference

Quantum Technology

Quantum technology exploits the body of science that covers the extraordinary and unconventional behaviour of particles and matter when observed at the smallest of scales and under extreme conditions. Exploiting the quantum nature of matter enables a paradigm shift in performance across a range of exciting applications such as quantum computing, secure communications and medical sensors. We continue to work with leading companies and researchers worldwide to provide the fundamental tools for research and the development of solutions for commercial applications.

Find out more on page 33

CHAIRMAN'S STATEMENT

I was delighted to join Oxford Instruments as Chairman in December 2018 and this is my first report since taking on the role.

Oxford Instruments is a business that inspires the greatest admiration, with 2019 marking the Group's 60th anniversary. Today, Oxford Instruments' technologies are helping to find cures for cancer, advance space exploration and develop next generation electronics, advanced materials and quantum technologies. Our brand and capabilities are recognised by the world's leading industrial manufacturers and scientific research institutions, who specify our products to accelerate their R&D, increase productivity in high tech manufacturing and achieve ground-breaking innovations.

In my first six months with the Group, I have enjoyed travelling around our sites and meeting our talented teams. I have been impressed with the quality of our businesses and the calibre of management driving our growth strategy.

Our governance principles

Leadership
The Chairman is responsible for leadership of the Board and ensuring its effectiveness on all aspects of its role.

Find out more on page 61

Effectiveness
This year, the Board carried out its annual effectiveness evaluation exercise, including a specific review of the effectiveness of its principal Committees and members.

Find out more on page 67

Risk management
The Board has accountability for reviewing and approving the adequacy and effectiveness of internal controls, including financial, operational and compliance controls and risk management.

Find out more on pages 74 to 79

Remuneration
The Remuneration Policy promotes the delivery of the Group's strategy and seeks to align the interests of Directors and Shareholders.

Find out more on page 80

Engagement
We continue to ensure our investors receive regular and transparent communications.

Find out more on pages 100 and 101

Oxford Instruments is a business that inspires the greatest admiration, with 2019 marking the Group's 60th anniversary.

This is evident in our full-year results, which show strong progress across our businesses and in each of our major geographies. I am especially heartened by the Group's success in increasing its commercial customer base and its market share in segments with long-term growth potential. I am also impressed by the Group's strong cash position, which represents a major turnaround over the last couple of years.

As Ian Barkshire sets out in the Chief Executive's Review, the Group is making good progress transitioning from a product focus to become a customer-centric, market-driven Group, increasing the value for our existing customers whilst expanding our addressable markets. By building on our innovative technology and targeting attractive markets, I am confident that the Group will deliver long-term sustainable growth and margin improvements.

Given our positive cash position and continued confidence, the Board has proposed to raise the final dividend to 10.6 pence (2018: 9.6 pence), giving a full-year dividend of 14.4 pence (2018: 13.3 pence), an increase of 8.3%.

I would like to thank Steve Blair for his commitment as Interim Chairman during the year. I also thank the Board and all our employees for their contribution that has resulted in a successful year.

Neil Carson
Non-Executive Chairman

11 June 2019

Our brand and capabilities are recognised by the world's leading industrial manufacturers and scientific research institutions.

1: Technician working on a Triton

CHIEF EXECUTIVE'S REVIEW

It has been a positive year for Oxford Instruments, with the Horizon strategy now well embedded across the Group.

Summary

Materials & Characterisation

Building on a positive first half, the sector delivered a strong financial performance underpinned by increased demand from commercial customers within the Advanced Materials and Semiconductor & Communications segments.

Research & Discovery

Healthy end markets across Lifescience, Quantum Technologies and academic funded Research & Fundamental Science drove strong order and revenue growth in the year.

Service & Healthcare

Good growth in orders and revenue, resulting in increased profitability and higher margins through our increased focus on service products.

We were delighted to welcome Neil Carson to the Board as our Non-Executive Chairman in December 2018. His wealth of Board and strategic leadership experience in high tech companies will be invaluable in helping us realise our growth aspirations. I, and the rest of the Board, would like to thank Steve Blair for his leadership as Interim Chairman.

Embedding the Horizon strategy

It has been a positive year for Oxford Instruments, with the Horizon strategy now well embedded across the Group. This is driving our long-term plans and initiatives and has transformed our operating processes and day-to-day activities, resulting in a return to growth and improved financial performance. In particular, I have been delighted by the level of employee engagement and their ownership of the execution of our new strategy. Through Horizon we are building a stronger Oxford Instruments, positioning ourselves to deliver long-term sustainable growth and improved margins. Our performance in the year is testament to our progress, with strong order and revenue growth across each of our three sectors, year-on-year profit growth, a closing net cash position, strong order book growth and a book-to-bill ratio of 1.06.

Horizon is our transformational programme for the Group and has now been in place for two years. Through our focus on Market Intimacy, Innovation and Product Development, Customer Support Services, and Operational Excellence we have been changing the way we operate and have been embedding clearly defined capabilities and disciplines across our businesses. Whilst there is still much to do, we have made significant progress over the past two years and are already seeing tangible returns.

We have been able to identify growth opportunities within our current markets and into new markets.

We are now better positioned to address a broad and diverse range of attractive end markets and industrial sectors, and we have seen the share of commercial customers rise to over 50% of revenue. This was achieved by reshaping our portfolio and focusing on those areas where our key enabling technologies are driving long-term success for our customers, where we can achieve and maintain leadership positions. Within these markets, our products, solutions and services are facilitating a greener economy, increased connectivity, improved health and leaps in scientific understanding.

Through our Horizon focus, we help our customers accelerate their applied R&D, increase productivity in high tech manufacturing and make ground-breaking discoveries.

Our solutions are being used by customers to find cures for cancer, advance space exploration and develop next generation electronics, advanced materials and quantum technologies.

Market Intimacy

We have made good progress in our transformation to a more customer-centric, market-focused Group. Through a deeper understanding of our target market segments and the diverse challenges faced by our customers, we have changed the way we communicate and reach our prospective and existing customers, more clearly identifying the value our products can add.

As we get closer to our customers across our target markets we have been able to identify growth opportunities within our current markets and into new markets. We are seeing strong revenue growth from commercial customers as we expand our offerings and addressable markets. Examples include the analytical solutions we offer for batteries, additive manufacturing, automotive and aerospace, neuroscience and cell biology, lasers and optoelectronic devices, power electronics, and astronomy. Our heightened customer application-based market intelligence has strengthened our future product roadmaps by identifying more attractive development opportunities and driving our priorities and focus for innovation.

Operational model

Find out more on page 22

CHIEF EXECUTIVE'S REVIEW CONTINUED

Embedding the Horizon strategy continued

Operational Excellence

In the year, with our cohort of lean champions in place, we undertook a significant investment to deliver a step change in our operational excellence programme, targeting three key areas: strategic procurement, operational efficiency and logistics. This has re-shaped our operational teams and embedded new operating practices. Already this has increased our revenue capacity with improved productivity for the current year. Investment in our operational excellence programme within the year held back operating margins but helped to deliver increased revenues and established the foundations and methodologies to support future growth and margin improvement.

Innovation & Product Development

Innovation is part of our heritage and remains central to our strategy. Through Horizon we are more keenly targeting our R&D investment to create differentiated products and solutions that will provide significant value for our customers in our chosen long-term, high growth market segments. In the year, the success of our recently launched products helped drive our growth across advanced materials, semiconductor, life science and quantum technology applications. Examples of new product innovations are provided in the Operations Review.

People Capabilities

Within the Group we continue to build our leadership team, while enhancing commercial focus and core capabilities across and within the Group at an operational level. This has been a dual approach of investing in our existing employees as well as looking outside the organisation for individuals with specific capabilities and experience to accelerate our progress.

Results

The Group delivered a strong full-year performance, with positive second half trading building on the progress seen in the first half of the year. This resulted in strong order, revenue and profit growth, with the Horizon strategy producing tangible improvements in business performance. This was underpinned by our chosen end markets and their underlying growth drivers remaining attractive and robust. In addition, continued success from recently launched products further strengthened our market-leading product portfolio, supported by an increased commercial focus and progress in establishing our customer-centric end application approach.

Reported revenue rose to £333.6 million (2018: £296.9 million), an increase of 12.4% (10.8% at constant currency). Materials & Characterisation and Research & Discovery sectors both delivered double-digit revenue growth supported by the success of recently launched products and an increased presence and demand from commercial customers. The Service & Healthcare sector delivered good growth, driven predominantly by increased demand for services related to our own products. From an end market perspective, we had significant growth in Advanced Materials (31%), with strong growth across the Lifescience (5%), Quantum Technologies (14%) and Semiconductor (4%) segments. From a geographical perspective, we had strong constant currency revenue growth in Asia and North America of 17.7% and 9.8% respectively, with modest growth of 2.5% in Europe. Within Asia we had strong growth across the region including China, Japan and South East Asia. Global distribution of revenues remains broadly in line with the previous year, with Asia representing 43% of Group revenue, Europe 24% and North America 31%, which are broadly in line with global R&D spend profiles.

Increased volumes and our enhanced commercial focus drove reported adjusted operating profit up 6.9% to £49.7 million (2018: £46.5 million) despite a modest currency headwind, representing an increase of 9.7% at constant currency. Adjusted operating margin for the Group of 14.9% (2018: 15.7%) was impacted by an incremental in-year investment in our operational excellence programme and a small currency headwind. Operating margin at constant currency of 15.5% was broadly in line with last year. Adjusted profit before tax increased by 12.3% to £47.5 million (2018: £42.3 million), representing an increase of 15.4% at constant currency.

Continuing adjusted basic earnings per share increased by 15.3% to 64.9 pence (2018: 56.3 pence).

Reported orders for the Group were up 12.9% (12.0% at constant currency) to £353.5 million (2018: £313.0 million) with strong growth across all three sectors. We continue to see increased customer demand, supported by our enhanced customer application and market focus with good order growth from academic customers and stronger growth from commercial customers. Orders grew in Europe, North America and Asia and across each of our market segments.

The order book, representing orders for future delivery, increased by 12.2% to £171.6 million (2018: £153.0 million), growth of 9.4% at constant currency, with strong growth across Materials & Characterisation, Research & Discovery and services related to our own products.

Good cash collection resulted in the Group moving to a net cash position of £6.7 million from net debt of £19.7 million at the previous year end.

Sector performance

Turning to the individual sector performance:

Materials & Characterisation products and solutions enable the fabrication and characterisation of materials and devices down to the atomic scale, predominately supporting customers across applied R&D as well as the production and manufacture of high technology products and devices. Building on a positive first half, the sector delivered a strong financial performance underpinned by increased demand from commercial customers within the Advanced Materials and Semiconductor & Communications segments.

The proportion of revenue from commercial customers rose in the year, representing 58% of sales from the sector. Reported orders grew in the period by 11.2% to £144.0 million (2018: £129.5 million). Reported revenue increased by 16.8% to £137.9 million, with reported adjusted operating profit rising to £22.1 million (2018: £20.1 million), growth of 10.0%. The order book for future deliveries increased by 20.5% to £41.2 million (2018: £34.2 million). The reported operating margin of 16.0% (2018: 17.0%) was held back by a currency headwind and investment in our operational excellence programme, with constant currency margin of 16.8%.

Growth in Advanced Materials is driven by the increasing demand for lighter, stronger and higher performing materials to address customer needs across a broad range of end applications including autonomous vehicles, increased connectivity and a greener economy. Order and revenue growth of 8% and 4% respectively within the Semiconductor & Communications segment was supported by our breadth of analytical solutions utilised to accelerate the development of next generation devices, as well as the increasing demand for compound semiconductor processing solutions required for 5G, autonomous vehicles and higher efficiency energy devices. This has more than offset a reduction in demand from mainstream silicon-based semiconductor chip manufacture and consumer electronics.

Research & Discovery provides advanced solutions that create unique environments and enable imaging and analytical measurements down to the molecular and subatomic level, predominantly used in scientific research and applied R&D. Healthy end markets across Lifescience, Quantum Technology and academic funded Research & Fundamental Science drove strong order and revenue growth in the year. Whilst the proportion of revenue from commercial customers increased in the year, 69% of sales in the sector are from academic and Government-funded research communities. Growth in Lifescience was predominantly driven by increased demand for our optical microscopy products and scientific cameras; Quantum Technology by the continued global investment in fundamental technologies and applied development in quantum computing, communication and optics; and Research & Fundamental Science by the increased funding globally in larger scale national facilities driving demand across our portfolio of scientific instruments, cryogenics and high magnetic field platforms.

Reported orders of £138.2 million (2018: £118.2 million) represented growth of 16.9%, with increases from both academic and commercial customers. Reported revenue increased by 11.8% to £125.2 million (2018: £112.0 million).

The Group has adopted IFRS 15 Revenue from Contracts with Customers. The primary impact is the recognition of revenue on our complex cryogenic and magnet systems on installation, rather than shipment. The financial impact in the year between the two accounting policies is an increase in revenue of £7.0 million. The business has fundamentally changed its approach to its operational processes, from assembly through to testing and onsite installation. Accordingly, we have seen a significant reduction in the backlog of uninstalled complex systems.

In addition to the strategic investment in operational excellence, adjusted operating profit was held back in the period due to a temporary but sustained period of low manufacturing yield and increased costs within our scientific X-ray tube business as well as a lower contribution from our share of the Scienta Omicron joint venture. As a consequence, operating margin reduced 220 basis points in the period to 10.1% (2018: 12.3%).

Service & Healthcare provides customer services and support for our own products and the service, sale and rental of third-party healthcare imaging systems under the OI Healthcare brand. The sector had good growth in orders and revenue, resulting in increased profitability and higher margins through our increased focus on service products, customer support offerings and consumables related to our own products. In addition, this was combined with an improved performance from the US OI Healthcare business. Reported orders increased by 8.7% to £71.3 million (2018: £65.6 million), reported revenue grew 5.5% to £70.5 million (2018: £66.8 million) and adjusted operating profit increased 18.3% to £14.9 million (2018: £12.6 million). Reported operating margin improved 220 basis points to 21.1% (2018: 18.9%).

R&D

One of the core elements of our Horizon strategy is our investment in highly targeted innovation and product development in line with our short, medium and longer-term roadmaps to improve our market shares and expand our addressable markets.

We incurred expenditure of £25.4 million (2018: £24.8 million) with an increased emphasis on products, solutions and technologies that provide new capabilities, ease of use and enhanced productivity. We monitor the proportion of revenue which originates from products launched in the last three years (our vitality index). In the period, our vitality index remained in line with the previous year at 37% (2018: 37%) representing a continued healthy pipeline and performance of newly launched products.

People

Our staff are fundamental to our business success and I am delighted with their engagement, development and implementation of our Horizon strategy. We have continued to increase the capabilities of our teams through the development of existing employees and the targeted recruitment of new talent.

I would like to thank all our employees for their commitment to Oxford Instruments and their passion to deliver an exceptional experience for all our customers.

Summary and outlook

We have made good progress in the year with the continued implementation of our Horizon strategy, which is delivering good growth and improved profitability. We are serving attractive markets with long-term fundamental growth drivers and focusing on segments where we can maintain leadership positions.

Our core purpose is to address some of the world's most pressing challenges. We have positioned the Group to be a leading provider of high technology products and services to image, analyse and manipulate materials down to the atomic and molecular level, facilitating a greener economy, increased connectivity, improved health and leaps in scientific understanding.

While mindful of the backdrop of geopolitical and market uncertainty, we remain focused on improving the business and expect to make further progress in the year.

Ian Barkshire
Chief Executive

11 June 2019

MARKET CONTEXT

We are well positioned to address a broad and diverse range of attractive markets and industrial sectors.

Growth drivers

Our key markets with strong growth drivers include:

Healthcare & Lifescience

Growth is driven by demand for improvements in disease detection and the understanding of fundamental mechanisms. As technology evolves, researchers are gathering more information and generating huge datasets, with increasing cellular details. By looking at the biological processes involved in conditions such as cancer, Alzheimer's and Parkinson's, researchers can develop new therapeutic approaches with the aim of finding a cure for life-limiting diseases. Having the ability to observe such mechanisms is also facilitating gene sequencing, which aides the development of personalised medicines, and drug development within the pharmaceutical industry.

28%
of Group revenue

Our solutions

Our advanced imaging and analysis solutions, such as our confocal microscopy systems, high performance scientific cameras and our visualisation and analysis software, are providing enhanced capabilities and productivity for investigators working in this area. We are helping to reveal detail not previously seen in applications such as neuroscience and cancer research, while our software is helping to analyse and interpret the extremely large datasets now being produced. By offering enhanced performance at low light levels, we enable the measurement and observation of the cellular interactions taking place in real time. This greatly increases the accuracy and relevance of the results.

Advanced Materials

Those working in this area are racing to develop lighter, stronger, higher functioning and more affordable materials, and range from Nobel Prize winners through to Quality Assurance for leading manufacturers. Researchers need to be able to assess a material's properties, performance and quality, which also helps optimise manufacturing processes. The disruptive transformation within the automotive industry towards electric, hybrid and autonomous vehicles is driving manufacturers to use new composite materials, super alloys, faster dynamic control electronics, and develop more efficient battery storage and power delivery solutions. There has been a further shift towards using additive manufacturing to produce much lighter and more complex components.

24%
of Group revenue

Our solutions

Our portfolio enables customers to undertake significantly more accurate and much faster analysis, driving both capability and productivity for customers in the automotive and aerospace industries, as well as those analysing metals, ceramics, composites and polymers. We are helping develop the next generation of products and components and in the quality control and quality assurance of current manufactured products. Further, we have exploited our expertise in particle analysis to develop a tailored solution for the quality control of the raw material feedstock, helping avoid contamination and maintaining end-product performance.

We are focusing on those areas where our key enabling technologies are driving long-term success for our customers and where we can achieve and maintain leadership positions.

Semiconductor & Communications

There is an increasing focus on creating more compact devices, higher speeds, larger capacity and higher energy efficiency. This is required to deliver the functionality and demands for big data, IoT, AI, high speed communications and autonomous vehicles. Within compound semiconductors increasing demand is being driven by the long-term transitioning of technology away from silicon-based solutions for power electronics, connectivity and communications. Power electronics are the enabling technologies to use, distribute and generate electrical energy and are increasingly important in the development of electric vehicles. With the rise of the data economy, improved connectivity is focused on increasing the speed and infrastructure capacity to support the rollout of 5G. Finally, demand for increased communication is driving growth across sensors and optoelectronic devices.

22%
of Group revenue

Our solutions

It is our ability to provide the fabrication capabilities for new materials and device structures, and the subsequent characterisation of their performance that helps our customers, for example in photonics, semiconductors and data storage devices. Our solutions are being utilised by fundamental science right through to the practical application of new materials within this area. We are targeting growth applications within the compound semiconductor device market, tailoring and adapting our market-leading research and applied R&D products for production customers. We have helped customers working to enhance wireless charging capabilities and increase energy storage, providing longer range electric vehicles and the higher data communications rates and capacity required for 5G networks.

Quantum Technology

This is the exploitation of the regime where quantum effects dominate and radically change the rulebook of what is possible. Quantum technologies offer the potential for vast increases in computation speed, new paradigms for secure information transfer and unprecedented sensor sensitivities applicable across a broad range of industrial and medical applications. A number of quantum imaging centres of excellence have been established in support of this rapidly growing and well-funded market.

9%
of Group revenue

Our solutions

Our cryogenics, advanced fabrication, imaging and characterisation capabilities are all critical to the advancement of this field. Our single photon sensitive cameras are helping researchers investigate and develop quantum optics, which are required for communication systems and imaging solutions. We work with the leading companies and researchers worldwide to provide the fundamental tools for research and the development of solutions for commercial applications.

BUSINESS MODEL

We are well positioned to address a broad and diverse range of attractive end markets and industrial sectors.

Relationships and resources

Customer relationships

We are a leading provider of high technology products and services to the world's leading industrial companies and scientific research communities. We enable our customers to image, analyse and manipulate materials down to the atomic and molecular level. We have implemented a new sector structure to align our businesses with our chosen customer segments and applications.

Continuous innovation

We focus our investment on market segments where our key enabling technologies drive product innovation, world-leading research and long-term growth for our customers and where we can maintain leadership positions. We use the insights we get from our market intimacy to drive our development priorities and to ensure future higher returns on our innovation.

Our people

We have invested in building a new management and leadership team across the business as well as defining and building on the core capabilities we need to succeed. This includes undertaking professional sales skills training, internal workshops on the Jobs to be Done methodology and operational excellence lean training. We are developing a culture of accountability, empowering our employees to own the challenge and the solution.

Our infrastructure

The significant management we have undertaken of our portfolio has delivered a more focused, synergistic Group. We are creating greater value by breaking down silos, establishing cross-business and cross-functional working groups to extract best practice and better leverage our scale and synergies.

Supplier partnerships

We recognise that relationships built on trust and respect with our business partners establish mutually beneficial relations. We perform regular inspections and audits and have strategic reviews in place for key suppliers. We have a Group supplier management process in place that promotes a common supply chain strategy driving the business towards fewer, high level, quality suppliers.

How we do it

By better understanding our customers' world we are transforming the way we communicate the value and benefits of our products by tailoring the information for each specific end market application, as represented above.

We are increasingly providing application-specific solutions building on our existing platforms through tailored products, software upgrades, bespoke data interpretation and associated support services. This is creating more value for our existing customers and, importantly, expanding our addressable market at improved margins.

Within these markets, our products, solutions and services are facilitating a greener economy, increased connectivity, improved health and leaps in scientific understanding.

Our offering

Imaging, analysis and manipulation is critical from fundamental research into applied R&D and commercial markets; enabling commercial exploitation and fundamental discovery of advanced technology.

Fundamental research

Providing solutions to those exploring new frontiers at the nanoscale.

Physical & Life Sciences

Innovation approach

Product application insight

Applied R&D

Our key enabling technologies and solutions facilitate the development of more advanced products.

Market insight

Product application insight

Commercial markets

Providing products to support today's manufacturing challenges and create new opportunities.

Find out more on pages 18 and 19

What we deliver

Value for customers through solutions

We provide advanced technology solutions to a broad range of end markets, supported by new product offerings and personalised customer support. We enable our customers to accelerate their R&D, increase productivity and make new scientific discoveries.

Thought leadership

Our key enabling technologies provide the basis for innovation across a range of markets and industrial sectors and help underpin the shift to a greener economy, increased digital connectivity, and advances in materials, life science, manufacturing and healthcare.

Rewarding careers

We are proud to be widely recognised as leaders in what we do and for the difference we make in the world. We have high performance expectations and, by working together, our committed and skilled employees make a real impact. We are committed to being the company where the best people in our sector want to work.

Corporate responsibility

Corporate responsibility is integral to our ongoing business success. It reminds us of the need to minimise our impact on the environment, encourages us to pay attention to the needs of our customers, employees and investors, and to build engagement with local communities.

Shareholder value

The business is underpinned by sound financial management. By achieving sustainable revenue growth and margin improvement, we are well placed to deliver business growth and maximise Shareholder returns over the long term.

Strong financials

We have positioned the Group to become a leading provider of high technology products and services to the world's leading industrial and scientific research companies. Our chosen end markets remain robust and, combined with our customer applications focus and improved core capabilities, provide strong long-term drivers for future growth and margin improvement.

OUR STRATEGY

Horizon is a transformational programme for Oxford Instruments and has been in place for two years.

Our strategy

Horizon is now well embedded across the Group and is helping us to deliver sustained revenue growth and margin improvement. Horizon is driving our long-term plans and initiatives and has transformed our operating processes and day-to-day activities. We are building a stronger Oxford Instruments, changing the way we operate, enhancing our commercial focus and core capabilities across the Group.

We are now better positioned to address a broad and diverse range of attractive end markets and industrial sectors.

Our products, solutions and services are facilitating a greener economy, increased connectivity, improved health and leaps in scientific understanding. Through our Horizon focus, we help our customers accelerate their applied R&D, increase productivity in high tech manufacturing and make ground-breaking discoveries. Our solutions are being used by customers to find cures for cancer, advance space exploration and develop next generation electronics, advanced materials and quantum technologies.

Operational model

Whilst there is still much to do, we have made significant progress over the past two years and are already seeing tangible returns.

Our Horizon strategy has the following key elements:

- we will focus our investment on market segments where our key enabling technologies drive long-term growth for our customers and where we can maintain or develop leadership positions;
- we will be a more commercially focused, market-driven Group by maintaining our heritage in supporting fundamental research whilst increasing our focus on solutions for applied R&D and products that can support our commercial manufacturing and production customers;
- we will drive the delivery of synergies and enhanced collaboration. For example, in R&D we will prioritise our high-impact projects and resource them from across the Group;
- we will provide more value to our existing customers, as well as creating growth opportunities in new market segments through application-specific solutions with improved workflows, bespoke analytics, data interpretation and associated support services; and
- we will transform our operational model to embed consistency and excellence across our businesses, measured by clearly defined core capabilities that will enhance our competitive advantage.

Market Intimacy

We continue to develop an in-depth understanding of our customer segments and are tailoring our solutions to more closely meet customer needs. Insights from our stronger customer relationships are informing and aligning our innovation and product development initiatives to customers' strategic roadmaps.

Progress during the year

We have made good progress in our transformation to a more customer-centric, market-focused Group. We have changed the way we communicate and reach prospective and existing customers, and we are seeing strong revenue growth from commercial customers as we expand our offerings and addressable markets.

Innovation and Product Development

We are focusing our R&D investment on higher growth segments, prioritising our efforts on the most valuable product development opportunities. Importantly, our new operating model is enhancing our ability to leverage the technical capabilities and synergies across the Group, ensuring the more effective delivery of our chosen priority projects.

Progress during the year

Our heightened customer application-based market intelligence has strengthened our future product roadmaps by identifying more attractive development opportunities and driving our priorities and focus for innovation.

Customer Support

We are building on the growing customer demand for a higher level and broader range of services and support to help meet their evolving commercial and strategic needs. Service will become a core differentiator in our markets.

Progress during the year

We continue to develop our customer service offerings to support our customers' needs. We are offering remote support packages, dynamic and remote monitoring of system performance and are developing bespoke training packages to ensure that our customers can achieve the most from our products and solutions.

Operational Excellence

We are targeting improvements in cost, time and defects to deliver a world-class experience for Oxford Instruments' customers. Operational excellence is driving us to become a more delivery and outcome-focused business.

Progress during the year

We undertook a significant investment in the year to deliver a step change in three key areas: strategic procurement, operational efficiency and logistics. Already this has increased our revenue capacity with improved productivity for the current year.

KEY PERFORMANCE INDICATORS

The Group uses a range of measures to monitor progress against its strategic plans. The key performance indicators are presented below:

Strategic priorities

Inventing the Future

Link to strategy

What we measure

Proportion of revenue coming from products launched in the previous three years[1]

Why we measure

To measure the effectiveness of our R&D programmes

How we performed %

Realising the Brand

Link to strategy

What we measure

Net Promoter Score®[2]

Why we measure

To measure customer feedback

How we performed

Adding Personal Value

Link to strategy

What we measure

"Value add" = (adjusted operating profit + employment costs)/employment costs

Why we measure

To measure efficiency

How we performed

1. To ensure this metric better reflects the performance of those businesses which invest in R&D, the revenue from the Group's OI Healthcare division has been excluded from this metric. Results from previous years have been restated to show this.
2. The Net Promoter Score is a metric which is compiled by asking customers whether they would recommend Oxford Instruments to a friend or colleague. Customers give a score between zero and ten. Those customers who score nine or ten are promoters, those customers who score seven or eight are neutral and customers who score six or less are detractors. The Net Promoter Score is the difference between the number of promoters and the number of detractors (both expressed as a percentage of the number of replies received). The score can range between -100 (no customers are promoters) and +100 (all customers are promoters). A positive score indicates that the Company has fewer detractors than promoters.
3. Calculated as adjusted operating profit divided by revenue.
4. Cash conversion is defined as the ratio of cash generated from continuing operations before non-recurring items and acquisition-related costs, and pension scheme payments, less capitalised development expenditure and net capital expenditure on property, plant and equipment to adjusted operating profit (see Income Statement).
5. Calculated as adjusted operating profit less amortisation (but before impairment) of intangible assets divided by capital employed. Capital employed is defined as assets (excluding cash, tax and derivative assets) less liabilities (excluding tax, debt, derivative and pension liabilities).

Financial goal

To deliver Shareholder returns through profitable, sustainable growth with strong cash conversion and efficient use of capital.

Revenue growth

Link to strategy

Why we measure

To drive profitable, sustainable growth through the implementation of our strategy

How we performed %

Adjusted operating profit and margin[3]

Link to strategy

Why we measure

To consistently maintain underlying operating margins

How we performed %

Adjusted earnings per share (EPS) growth

Link to strategy

Why we measure

To achieve long-term, consistent growth in EPS

How we performed %

Cash flow[4]

Link to strategy

Why we measure

To maintain a strong operating cash conversion ratio and high level of free cash flow

How we performed %

Return on capital employed (ROCE)[5]

Link to strategy

Why we measure

To deliver ROCE in excess of our cost of capital

How we performed %

Core capabilities: **Market Intimacy** **Innovation and Product Development** **Customer Support** **Operational Excellence**

OPERATIONS REVIEW

Materials & Characterisation

This sector includes:
NanoAnalysis, Asylum Research and Plasma Technology.

Semiconductor wafer

Materials & Characterisation delivered strong growth in orders, revenue and profitability.

Revenue

£137.9m

+16.8%

(2018: £118.1m)

+15.3%[1]
At constant currency

Adjusted[2] operating profit

£22.1m

+10.0%

(2018: £20.1m)

+13.9%[1]
At constant currency

Adjusted[2] operating margin

16.0%

(2018: 17.0%)

Profit before tax after adjusting items

19.7m

(2018: £17.3m)

This sector has a broad customer base across a wide range of applications for the imaging and analysis of materials down to the atomic level as well as the fabrication of semiconductor devices and structures through our range of advanced semiconductor etch and deposition process systems. Our portfolio of imaging systems includes our range of market-leading X-ray and electron analysis systems used in conjunction with electron and ion microscopes as well as our performance-leading atomic force microscopes. The sector has a strong focus on supporting and accelerating our customers' applied R&D, enabling the development of new devices, next generation higher performance materials and enhancing productivity in advanced manufacturing, quality assurance (QA) and quality control (QC).

We provide leading product performance, improved ease of use and enhanced productivity, with the analytics and information to aid the interpretation of acquired data.

Materials & Characterisation delivered strong growth in orders, revenue and profitability. This was supported by our continued focus on tailoring our product offering to targeted end customer segments and the success of recently launched products and solutions. Through our applications focus we have been able to increase value for our existing customers and expanded our reach into new addressable markets. This led to significant growth from industrial and commercial customers, with their proportion of sales in the period increasing to 58% (2018: 49%). Academic markets remained robust, with orders broadly in line with the previous year.

The sector had growth across each of our target application segments, with particularly strong growth within Advanced Materials, which accounted for 39% of sales in the sector. Semiconductor & Communications represented 42% of sales, with Energy, Environment and Healthcare & Lifescience applications representing 7%, 6% and 5% of sales, respectively. From a geographic perspective, revenue grew in each of the major regions of Europe, North America and Asia.

1. For definition refer to note on page 2.
2. Details of adjusting items can be found in Note 1 to these Financial Statements.

OPERATIONS REVIEW CONTINUED

Materials & Characterisation

The continued demand for lighter, stronger and higher functioning materials has driven our growth in Advanced Materials. Here, our solutions are being used to aid the development of next generation products and components, as well as in the QC and QA of current manufactured products. Some of the key market applications include automotive and aerospace, additive manufacturing, consumer electronics, displays, and polymers.

As an example, the disruptive transformation within the automotive industry towards electric, hybrid and autonomous vehicles is driving manufacturers to use new composite materials and super alloys, faster dynamic control electronics, and develop more efficient battery storage and power delivery solutions. This is driving an increasing demand for our advanced analytical imaging and etch and deposition systems, with the mechanical properties, performance and reliability of advanced materials being determined through the design and precise control of the composition, microstructure and thin film coatings.

In particular, we have had strong sales growth from our imaging and analysis products used with electron microscopes, namely our Ultim™ range of large area X-ray detectors and Symmetry™, our super-fast material structural analysers. These analysers enable productivity improvement through higher speed, resolution and accuracy of analysis.

We have also had good growth within additive manufacturing applications where our imaging systems are being used to measure a range of critical material properties, assess the performance and quality of the manufactured components, and help optimise the manufacturing process. Building on our expertise in particle analysis, we have developed a tailored solution for the QC of the raw material feedstock, helping avoid contamination and maintaining end product performance.

The Semiconductor & Communications segment saw continued order and revenue growth in the year. Whilst sales to mainstream silicon chip manufacturing and electronics declined, we received particularly strong growth from commercial customers across our portfolio of semiconductor etch and deposition solutions, underpinned by our leading performance and expertise in compound semiconductors. Here, materials such as silicon carbide, indium phosphide and gallium nitride are critical to produce the higher speeds, larger capacity and improved energy efficiencies required to realise a greener economy, autonomous vehicles and ubiquitous unbound connectivity, when compared to current silicon-based technologies. Success in the segment was supported by the breadth of end applications that we support, as well as our reach across fundamental research, applied R&D of next generation products, and the manufacturing support and production of current products.

Within compound semiconductors we have seen increasing demand being driven by the long-term transitioning of technology away from silicon-based solutions for power electronics, connectivity and communication. Power electronics are the enabling technologies to use, distribute and generate electrical energy. The move to silicon carbide and gallium nitride-based solutions enables a step change in energy efficiency, with increased sales across a range of end applications including electric vehicles and distribution networks. Our gallium arsenide and indium phosphide process solutions support the increased speed and infrastructure capacity required to deliver the desired transformation in connectivity, for example 5G networks and the rise in the data economy. Demand for increased communication is driving growth across sensors and optoelectronic devices such as vertical cavity surface emitting lasers (VCSELs), three-dimensional sensor arrays and microLEDs used across heads-up displays, video walls and smart watches.

We have been working with a number of leading commercial organisations to help develop the necessary semiconductor device performance, quality and reliability at commercially effective price points.

In the Energy segment, we saw good growth across energy generation, storage and battery applications as a result of the increasing interest in lithium (Li) batteries. Here our material analysers support two key drivers. First, our advanced high energy-resolution and ultra-sensitive Extreme™ X-ray analyser is the market leader in imaging of the internal chemistry and active interfaces at the nanoscale required for the development of new, higher capacity and faster charging systems. Second, we have developed a tailored particle analysis solution to aid the detection of microscale metal impurities, which degrade performance and can cause catastrophic failure.
In recognition of the innovation encompassed within the Extreme™, it has recently received the Queen's Award for Innovation.

As our analytical systems become increasingly sensitive and easier to use by non-experts, we have found new opportunities within several markets for our X-ray analysers and atomic force microscopes. In Lifescience, researchers are using our video rate Cypher™ atomic force microscope to observe biomolecular interactions in real-time, furthering their understanding of how our bodies work.
Our large area and high sensitivity X-ray solutions are being used to observe the role of calcium, sodium and potassium ions in cardiac, brain and nerve cell functionality; while in food markets we are helping to improve food integrity and production yield.

1: Cypher Atomic Force Microscope

2: PlasmaPro etching system

OPERATIONS REVIEW CONTINUED

Research & Discovery

This sector includes:
Andor Technology, NanoScience, Magnetic Resonance, X-ray Technology and our minority share in Scienta Omicron.

Mould specimen captured by a Sona camera

The sector had good growth in orders and revenue.

Revenue

£125.2m +11.8%

(2018: £112.0m) +9.9%[1]
At constant currency

Adjusted[2] operating profit

£12.7m -8.0%

(2018: £13.8m) -2.2%[1]
At constant currency

Adjusted[2] operating margin

10.1%

(2018: 12.3%)

Profit before tax after adjusting items

£6.6m

(2018: £4.1m)

This sector provides advanced solutions that create unique environments and enable imaging and analytical measurements down to the molecular and subatomic level, used predominantly in fundamental and applied research. We build on our relationships with customers working on breakthrough applications in research to gain insights and support future commercial applications. We have strong brand recognition and leading product performance in our chosen market segments, with 69% of sales from the academic or Government-funded research community and 31% from industrial or commercial customers.

The sector had good growth in orders and revenue driven by a strong performance from our optical microscopy systems, scientific cameras, cryogenic systems and superconducting research magnets. Performance was supported by positive academic end markets leading to strong order growth across the product portfolio, augmented by further growth into commercial customers for our scientific cameras, cryogenic and optical microscopy systems. We saw continued improvement in our NanoScience business under a new leadership team. However, underlying profit improvement within the sector was more than offset by a temporary, but sustained, period of low manufacturing yield at X-Ray Technology, which produces our scientific X-ray tubes for third-party customers, a lower contribution from the Scienta Omicron joint venture and an investment in operational excellence.

We had growth across our three largest customer segments of Healthcare & Lifescience, Quantum Technology and Research & Fundamental Science, which represent 41%, 22% and 19% of sales respectively. Sales to customers exploring new advanced materials, semiconductors or developing energy and environmental applications remained broadly in line with the previous year. From a geographical perspective, we had good growth across Europe, Asia and North America.

1. For definition refer to note on page 2.
2. Details of adjusting items can be found in Note 1 to these Financial Statements.

OPERATIONS REVIEW CONTINUED

Research & Discovery

Growth in Healthcare & Lifescience was driven by a strong performance from our optical microscopy products and solutions, including our Dragonfly™ confocal microscope, our image visualisation and analysis software and scientific cameras used on third-party measurement solutions. The launch of our Sona™ camera further enhanced our portfolio of high sensitivity cameras specifically tailored for life science applications.

There is an increasing need from those working in neuroscience, cell and developmental biology to be able to acquire, visualise and analyse multiple large samples to better understand the core biological processes that lead to disease. Dragonfly™ has become a platform of choice for these researchers as it can handle such sample types while offering ease of use and an exceptional imaging capability that spans from the millimetre scale right down to the nanometre scale.

The enhanced performance it provides researchers is enabling improved understanding and the development of new therapeutic approaches for cancer and neurological conditions, such as Alzheimer's and Parkinson's.

Building on our understanding of the needs of researchers in this segment, Imaris™, our imaging software, enables the visualisation and analysis of the huge datasets modern optical microscopy systems create. Imaris™ offers enhanced interpretation of results and our customers are using it to better understand conditions, such as autism and Alzheimer's, and processes, such as cellular activity during wound and organ repair and immune response to foreign organisms.

Our high sensitivity cameras, which offer enhanced performance at low light levels, are being used to measure and observe the interaction with individual biomolecules in real time, increasing the accuracy and relevance of results.

This has proven especially valuable for our strategic OEM partners. It is providing them with a core capability for their gene sequencing and clinical screening solutions, which are used for drug feasibility studies and in the development of personalised medicines.

With the expanding role of technology in the world we have seen an increase in academic and Government investment in more basic and fundamental science across a broad range of disciplines, as well as an ongoing renewal and regeneration of large-scale national user facilities. While end user applications vary, we are well positioned to support them with a range of optical, cryogenic, magnetic resonance imaging and high magnetic field solutions.

During the year we won a significant global tender to supply several high-performance cryogenic and extreme magnetic field systems to the renowned Institute of Physics Chinese Academy of Sciences (IOP-CAS). This builds on the performance and reliability of the many systems we have previously supplied to the IOP-CAS's existing laboratories. *Our solutions will allow researchers to make* ground-breaking discoveries of new materials and novel phenomena, furthering our understanding of the structure, properties and performance of these materials on a quantum scale.

We continue to see sales growth in astronomy, where our specialised cameras, such as the recently launched Marana™, are allowing the rapid imaging of large areas of the sky with increased sensitivity. This is enhancing the tracking of small particles of space junk that had been previously undetectable; space junk can be very damaging to operational satellites and future space missions.

Exoplanet discovery continues to attract notable funding within astronomy and our range of large area cameras are well placed for this application. The drive to find other earth-like planets and the increased level of privately funded space developments provide continued growth opportunities.

Fundamental shifts in technology and capability are driving increased research and applied development for both academic and commercial customers. Quantum Technology continues to deliver strong demand and we had increased order growth in the year for this segment. Global annual spend on quantum technologies is estimated to exceed $1.5 billion and is set to continue over the next decade. Quantum technologies offer the potential for vast increases in computational speed, new paradigms for secure information transfer and unprecedented sensor sensitivities applicable across a broad range of industrial and medical applications. With our Triton™ ultra-low temperature cryogenic platforms and iXon™ cameras, we are well placed to exploit these growing opportunities.

Within the Energy, Environment and Advanced Materials segments our broad range of analytical systems are supporting research into sustainable foods, water cleanliness and advanced fabrics, as well as ensuring compliance within food supply. For example, our high field benchtop magnetic resonance analysers are being used to measure the oil *and fat content of foods, contamination* within water, and are aiding the productivity and quality control of high-performance fabrics for clothing manufacture.

1: Royal Mail stamp commemorating the superconducting magnet

2: Scientist analysing crisp sample using Pulsar NMR

OPERATIONS REVIEW CONTINUED

Service & Healthcare

This sector includes:
The Group's maintenance service contracts, billable repairs, training and support services, and spare part sales.

Engineer servicing a Triton dilution refrigerator

In OiService we have seen an increased demand for services and support related to our own products.

Revenue

£70.5m +5.5%

(2018: £66.8m) +4.2%[1]
At constant currency

Adjusted[2] operating profit

£14.9m +18.3%

(2018: £12.6m) +15.9%[1]
At constant currency

Adjusted[2] operating margin

21.1%

(2018: 18.9%)

Profit before tax after adjusting items

£14.1m

(2018: £10.6m)

The Service & Healthcare sector comprises the Group's maintenance service contracts, billable repairs, training and support services, and spare part sales related to Oxford Instruments' own products under the OiService brand; and the sale, service and rental of refurbished third-party MRI and CT machines under the OI Healthcare brand.

In the year the sector had order and revenue growth, with increased profitability and operating margin, as a result of an improved performance from both OI Healthcare and OiService.

Our US OI Healthcare business continues to return a higher proportion of revenue from service contracts relative to the sale of refurbished systems, in line with our strategy. In the year there has been good improvement in the lease utilisation of our fleet of mobile imaging systems, and our increased focus on service capabilities has helped win multi-instrument contracts at larger imaging centres.

Within Japan, we continue our focus on supporting our key account customers through the provision of best-in-class service support for a range of MRI systems. Our technical expertise, response times and national coverage has enabled us to win further accounts within the year.

In OiService we have seen an increased demand for services and support related to our own products. As part of our Horizon strategy we continue to develop our customer service offerings, supporting our customers' needs by focusing on how we can add value in their day-to-day work and increase their overall productivity. We offer remote support packages and can undertake dynamic and remote monitoring of system performance to improve yield and maximise up-time. We have also created bespoke training packages to help our customers get the most from their equipment and help with expert data interpretation. We have built on the ongoing success of our Chinese Summer Microscopy School by hosting Taiwan's first School of Microscopy with the National Taiwan University. This two-day event attracted over 150 participants from academia and industry. Through our dedicated e-commerce website, our customers can conveniently find a range of relevant consumables and a selection of related services.

1. For definition refer to note on page 2.
2. Details of adjusting items can be found in Note 1 to these Financial Statements.

FINANCE REVIEW

Revenue

£333.6m +12.4%

(2018: £296.9m)

Adjusted operating profit from continuing operations increased by 6.9% to £49.7 million (2018: £46.5 million)

Summary

- Orders up 12.9% to £353.5 million.
- Order book of £171.6 million, up 12.2%.
- Net cash of £6.7 million following strong cash conversion of 103%.
- Full-year dividend increased by 8.3% to 14.4 pence.

The Group has adopted IFRS 15 Revenue from Contracts with Customers using the modified retrospective approach. Comparatives have not been restated. The main difference is within our NanoScience business where the revenue recognition on complex customised magnetic and cryogenic systems is deferred from being primarily on transfer of rights and rewards of ownership to completion of installation. The Group has also adopted IFRS 16 Leases in the 2018/19 financial year. The net accounting impact of adopting IFRS 15 and IFRS 16 is to increase revenue by £7.0 million and profit before tax by £2.6 million.

Reported orders increased by 12.9% to £353.5 million (2018: £313.0 million), an increase of 12.0% at constant currency. At the end of the period the Group's order book for future deliveries stood at £171.6 million (31 March 2018: £134.0 million). The order book as at 31 March 2018 restated on an IFRS 15 basis is £153.0 million, against £134.0 million as previously reported. Against this IFRS 15 adjusted comparative, the order book grew 12.2% on a reported basis and 9.4% at constant currency.

Reported revenue increased by 12.4% to £333.6 million (2018: £296.9 million). Revenue, excluding currency effects, increased by 10.8%, with the movement in average currency exchange rates over the year increasing reported revenue by £4.7 million.

Adjusted operating profit from continuing operations increased by 6.9% to £49.7 million (2018: £46.5 million). Adjusted operating profit from continuing operations, excluding currency effects, increased by 9.7%. Adjusted operating margin from continuing operations decreased by 80 basis points to 14.9% (2018: 15.7%), impacted by a currency headwind and in-year investment in operational excellence. Excluding currency effects, adjusted operating margin fell by 20 basis points to 15.5%.

Adjusted profit before tax from continuing operations grew by 12.3% to £47.5 million (2018: £42.3 million), representing a margin of 14.2% (2018: 14.2%).

Adjusting items include amortisation of acquired intangibles of £9.6 million and a net charge of £0.9 million relating to loan note make-whole settlement payments, a net credit from our associate, Scienta Omicron, and a charge due to Guaranteed Minimum Pension equalisation. The movement in the mark-to-market valuation of un-crystallised currency hedges for future years gave rise to a charge of £1.5 million.

After adjusting items, the Group recorded an operating profit of £38.6 million (2018: £38.4 million) and profit before tax of £35.5 million (2018: £34.2 million).

Continuing adjusted basic earnings per share grew by 15.3% to 64.9 pence (2018: 56.3 pence). Continuing basic earnings per share were 50.1 pence (2018: 34.3 pence).

Cash generated from operations of £56.3 million (2018: £33.4 million), represents 103% (2018: 69%) cash conversion. Net debt decreased from £19.7 million on 31 March 2018 to net cash of £6.7 million.

Adjusted operating profit is stated before impairment and amortisation of goodwill and acquired intangibles, restructuring costs, the mark-to-market valuation of unexpired currency hedges, and other adjusting items, as set out in Note 1 to the Financial Statements.

Gross profit

£177.0m +17.3%

(2018: £150.9m)

Adjusted operating profit

£49.7m +6.9%

(2018: £46.5m)

Income Statement

The Group's Income Statement is summarised below.

	Year ended 31 March 2019 £m	Year ended 31 March 2018 £m	Change
Revenue	**333.6**	296.9	12.4%
Gross profit	**177.0**	150.9	17.3%
Administrative expenses	**(126.3)**	(105.8)	
Share of profit of associate	**0.2**	0.5	
Foreign exchange	**(1.2)**	0.9	
Adjusted operating profit	**49.7**	46.5	6.9%
Net finance costs	**(2.2)**	(4.2)	
Adjusted profit before tax	**47.5**	42.3	12.3%
Amortisation of acquired intangibles	**(9.6)**	(10.9)	
Non-recurring items	**(0.9)**	(0.3)	
Mark-to-market of currency hedges	**(1.5)**	3.1	
Profit before tax	**35.5**	34.2	
Tax from continuing operations	**(6.8)**	(14.6)	
Profit for the period from continuing operations	**28.7**	19.6	
Adjusted effective tax rate[1]	**21.9%**	23.9%	
Continuing adjusted earnings per share – basic	**64.9p**	56.3p	15.3%
Continuing earnings per share – basic	**50.1p**	34.3p	46.1%
Continuing adjusted earnings per share – diluted	**64.3p**	56.1p	14.6%
Continuing earnings per share – diluted	**49.7p**	34.1p	45.7%
Dividend per share	**14.4p**	13.3p	8.3%

1. The adjusted effective tax rate is calculated excluding amortisation of acquired intangibles, the mark-to-market of financial derivatives, and other adjusting items.

Orders and revenue

Total reported orders grew by 12.9% (12.0% at constant currency) to £353.5 million. Orders, at constant currency, increased by 10.3% for Materials & Characterisation, 16.1% for Research & Discovery and 7.6% for Service & Healthcare.

Reported revenue of £333.6 million (2018: £296.9 million) increased by 12.4% (10.8% at constant currency). Reported revenue increased by 16.8% for Materials & Characterisation, 11.8% for Research & Discovery and 5.5% for Service & Healthcare.

The book-to-bill ratio (orders received to goods and services billed in the period) for the year was 1.06.

Revenue, at constant currency, increased by 15.3% for Materials & Characterisation, with a particularly strong performance from NanoAnalysis and Plasma Technology. Constant currency growth of 9.9% in Research & Discovery was primarily driven by good progress from Andor Technology, partially offset by a small decline in revenue for X-Ray Technology. Service & Healthcare constant currency revenue grew by 4.2%, with good growth from the service of our own products.

On a geographical basis, at constant currency, revenue grew by 2.5% in Europe, 9.8% in North America, 17.7% in Asia, with a small decline in Rest of World of 5.9%.

FINANCE REVIEW CONTINUED

Income Statement continued

Orders and revenue continued

After adjusting the comparative period for IFRS 15, total reported order book grew by 12.2% (9.4% at constant currency). The order book, at constant currency, compared to 31 March 2018, increased by 16.7% for Materials & Characterisation and 15.3% for Research & Discovery. Good growth in orders from the service of our own products was offset by a decline in OI Healthcare's order book, resulting in a segment decline of 8.0%.

£m	Materials & Characterisation	Research & Discovery	Service & Healthcare	Total[1]
Revenue: 2017/18	118.1	112.0	66.8	296.9
Underlying movement	18.1	11.1	2.8	32.0
Foreign exchange	1.7	2.1	0.9	4.7
Revenue: 2018/19	**137.9**	**125.2**	**70.5**	**333.6**
Revenue growth: reported	16.8%	11.8%	5.5%	12.4%
Revenue growth: constant currency	15.3%	9.9%	4.2%	10.8%

1. Excluding inter-sector revenue.

Gross profit

Gross profit increased by 17.3% to £177.0 million (2018: £150.9 million), representing a gross profit margin of 53.1%, an increase of 230 basis points over last year.

Operating profit

Adjusted operating profit from continuing operations increased by 6.9% to £49.7 million (2018: £46.5 million), representing an adjusted operating profit margin of 14.9%, a decrease of 80 basis points against last year. At constant currency, the adjusted operating profit margin was 15.5%, a decrease of 20 basis points. The margins across all three segments have been impacted by the allocation of £2.0 million of incremental costs associated with our operational improvement programme. Excluding these costs, adjusted operating margin would have been 15.5% on a reported basis and 16.1% at constant currency.

Materials & Characterisation margin declined by 100 basis points to 16.0% (2018: 17.0%). At constant currency, the margin was 16.8%, a decline of 20 basis points.

Research & Discovery's adjusted operating margin declined to 10.1% (2018: 12.3%), a decline of 220 basis points. At constant currency, the margin was 11.0%, a decline of 130 basis points. In addition to the segment's share of operational improvement costs, the reduction was impacted by a loss in the year incurred within our X-Ray Technology business.

Service & Healthcare margin increased by 220 basis points to 21.1% (2018: 18.9%). At constant currency, the margin was 21.0%, an increase of 210 basis points.

During the year the Group received a favourable legal opinion on a long-term patent dispute. Consequently, a provision of £1.5 million was released to adjusted operating profit. As a key element of its operational excellence programme, the Group is committed to reducing working capital across its portfolio of businesses. Inventories and receivables are being closely scrutinised and measured against set targets. The Group has increased the provision for a write-down of working capital by £1.8 million.

Our share of the Scienta Omicron joint venture showed an adjusted profit after tax of £0.2 million for the year, against a profit of £0.5 million for the comparative period. After adjusting items, our share of the Scienta Omicron joint venture was a profit of £0.5 million.

Currency effects (including the impact of transactional currency hedging) have reduced reported adjusted operating profit by £1.3 million when compared to blended hedged exchange rates for the comparative period.

£m	Materials & Characterisation	Research & Discovery	Service & Healthcare	Total
Adjusted operating profit: 2017/18	20.1	13.8	12.6	46.5
Underlying movement	2.8	(0.3)	2.0	4.5
Foreign exchange	(0.8)	(0.8)	0.3	(1.3)
Adjusted operating profit: 2018/19	**22.1**	**12.7**	**14.9**	**49.7**
Margin: 2017/18	17.0%	12.3%	18.9%	15.7%
Margin: 2018/19	**16.0%**	**10.1%**	**21.1%**	**14.9%**

Adjusting items

Amortisation of acquired intangibles of £9.6 million relates to intangible assets recognised on acquisitions, being the value of technology, customer relationships and brands.

Non-recurring items were a net charge of £0.9 million. During the period we repaid £11.5 million of the principal outstanding on loan notes as a condition of the sale of Industrial Analysis. The make-whole settlement cost due at the time of the repayment was £0.9 million. Following the High Court's confirmation on Guaranteed Minimum Pension equalisation between males and females, we have recognised a charge of £0.3 million. Our associate recognised a net gain of £0.3 million, comprised of a gain of £0.6 million on a reversal of an impairment, partially offset by £0.3 million of restructuring costs.

The Group uses derivative products to hedge its short-term exposure to fluctuations in foreign exchange rates. It is Group policy to have in place at the beginning of the financial year hedging instruments to cover 80% of its forecast transactional exposure for that year. The Group has decided that the additional costs of meeting the extensive documentation requirements of IFRS 9 to apply hedge accounting to these foreign exchange hedges cannot be justified. Accordingly, the Group does not use hedge accounting for these derivatives.

Net movements on marking-to-market derivatives in respect of future periods are disclosed in the Income Statement as foreign exchange and excluded from our calculation of adjusted profit before tax.

The mark-to-market loss in respect of derivative financial instruments was £1.5 million (2018: £3.1 million gain). This reflects the movement on currency derivatives that are hedging future transactional currency exposures for the Group – from an opening net fair value asset of £1.5 million to a closing neutral position. The year-end neutral position reflects an un-crystallised loss arising from a fall in the value of Sterling at the balance sheet date against a blended rate achieved on US Dollar forward contracts that will mature over the next twelve months.

This has been offset by an un-crystallised gain attributable to a rise in the value of Sterling at the balance sheet date against a blended rate achieved on Euro and Japanese Yen forward contracts that will mature over the next twelve months.

Net finance costs

The Group's adjusted net finance costs fell by £2.0 million to £2.2 million (2018: £4.2 million) with net finance charges falling by £1.7 million to £1.9 million, and pension financing charges falling by £0.3 million to £0.3 million.

Profit before tax

Continuing adjusted profit before tax increased by 12.3% to £47.5 million (2018: £42.3 million). The adjusted profit before tax margin of 14.2% (2018: 14.2%) was in line with last year.

Profit before tax of £35.5 million (2018: £34.2 million) is after the mark-to-market movement on derivative financial instruments, amortisation of acquired intangibles and other adjusting items.

Tax

The adjusted tax charge from continuing operations of £10.4 million (2018: £10.1 million) represents an effective tax rate of 21.9% (2018: 23.9%). In April 2019, the Tax Tribunal adjudicated on a historical loan arrangement structure. The decision went against Oxford Instruments and as a result a payment of £4.0 million was made to HMRC in April 2019. The liability was broadly covered by historical provisions and one-off credits.

Earnings per share

Continuing adjusted basic earnings per share increased by 15.3% to 64.9 pence (2018: 56.3 pence); continuing adjusted diluted earnings per share grew by 14.6% to 64.3 pence (2018: 56.1 pence). Continuing basic earnings per share increased by 46.1% to 50.1 pence (2018: 34.3 pence); continuing diluted earnings per share grew by 45.7% to 49.7 pence (2018: 34.1 pence).

The number of undiluted weighted average shares remained constant at 57.2 million.

Foreign exchange

The Group faces transactional and translational currency exposure, most notably against the US Dollar, Euro and Japanese Yen. For the year, approximately 14% of Group revenue was denominated in Sterling, 55% in US Dollars, 18% in Euros, 11% in Japanese Yen and 2% in other currencies. Translational exposures arise on the consolidation of overseas Company results into Sterling. Transactional exposures arise where the currency of sale or purchase transactions differs from the functional currency in which each company prepares its local accounts.

The Group maintains a hedging programme against its net transactional exposure using internal projections of expected currency trading transactions expected to arise over a period extending from 12 to 24 months. As at 31 March 2019 the Group had currency hedges in place extending up to twelve months forward.

Discontinued operations

In May 2019, the Group received £1.6 million in relation to the finalisation of tax affairs outstanding upon the disposal of the Industrial Analysis business. A gain of £1.3 million after taxation has been recorded under discontinued operations. Recorded within the comparative period under discontinued operations is a post-tax profit of £45.9 million from the sale of Industrial Analysis, which was completed on 3 July 2017.

Dividend

The Group's policy is to increase the dividend each year in line with the increase in underlying earnings, considering movements in currency. The Board has proposed to increase the final dividend to 10.6 pence (2018: 9.6 pence). This results in a total dividend of 14.4 pence (2018: 13.3 pence), an increase of 8.3%. The final dividend will be paid, subject to Shareholder approval, on 18 October 2019 to Shareholders on the register as at 13 September 2019.

FINANCE REVIEW CONTINUED

Cash flow

The Group cash flow is summarised below.

	Year ended 31 March 2019 £m	Year ended 31 March 2018 £m
Adjusted operating profit	**49.7**	46.5
Depreciation and amortisation	**11.0**	9.1
Adjusted EBITDA	**60.7**	55.6
Working capital movement	**3.7**	(13.2)
Purchase of rental assets held for subsequent sale	**(1.1)**	(0.7)
Loss on disposal of property, plant and equipment	**0.2**	0.3
Equity settled share schemes	**0.8**	1.1
Share of profit from associate	**(0.2)**	(0.5)
Restructuring costs	**(0.7)**	(1.3)
Pension scheme payments above charge to operating profit	**(7.1)**	(7.9)
Cash generated from operations	**56.3**	33.4
Interest	**(3.2)**	(2.1)
Tax	**(8.7)**	(3.8)
Capitalised development expenditure	**(3.5)**	(5.8)
Expenditure on tangible and intangible assets	**(6.3)**	(4.8)
Proceeds from sale of property, plant and equipment	—	9.3
Increase in investment in associate	—	(2.1)
Proceeds from sale of subsidiary undertaking	—	71.2
Decrease in long-term receivables	**1.1**	0.9
Dividends paid	**(7.6)**	(7.4)
Proceeds from issue of share capital and exercise of share options	**0.2**	0.2
Payments made in respect of lease liabilities	**(3.2)**	—
Decrease in borrowings	**(11.5)**	(96.8)
Net increase/(decrease) in cash and cash equivalents from continuing operations	**13.6**	(7.8)

Note: Adjusted EBITDA is earnings before interest, tax, depreciation, amortisation of acquired intangibles, mark-to-market of financial derivatives, restructuring costs and other non-cash adjusting items.

Cash generated from operations

Cash generated from operations of £56.3 million (2018: £33.4 million) represents 103% (2018: 69%) cash conversion. The impact of IFRS 16 is to recognise a lease liability and corresponding asset for leases previously classified as operating leases. As a result, the depreciation charge for the year includes an additional £3.3 million reflecting the increase in asset base. Compared to the comparative period, cash generated from operations is also higher by £3.3 million. Cash conversion is defined as cash generated from operations before non-recurring items and pension scheme payments, less capitalised development expenditure, capital expenditure and payments made in respect of finance leases/adjusted operating profit. Payments made in respect of finance leases are now included within our definition of cash conversion to retain a like-for-like comparison following the introduction of IFRS 16.

Working capital fell by £3.7 million, reflecting an increase in inventories of £4.0 million and receivables of £3.5 million, combined with payables and customer deposits increasing by £4.1 million and £7.1 million respectively.

Interest

Net interest paid was £3.2 million (2018: £2.1 million). This includes loan note make-whole payments of £0.9 million as a consequence of repaying loan note principal following the sale of Industrial Analysis. Net interest paid in the comparative period was low due to payment timing differences.

Tax

Tax paid was £8.7 million (2018: £3.8 million), the comparative period benefiting from tax deductions on allowable adjusting items and utilisation of brought-forward tax losses. Following the Tax Tribunal adjudication on historical loan structures, the Group made a cash settlement to HMRC of £4.0 million in April 2019, after the end of the financial year.

Investment in Research and Development (R&D)

Total cash spend on R&D in the year was £25.4 million, equivalent to 7.6% of sales (2018: £24.8 million, 8.4% of sales). A reconciliation between the amounts charged to the Income Statement and the cash spent is given below:

	Year ended 31 March 2019 £m	Year ended 31 March 2018 £m
R&D expense charged to the Income Statement	**25.4**	23.4
Depreciation of R&D-related fixed assets	**(0.1)**	(0.1)
Amounts capitalised as fixed assets	**0.1**	0.1
Amortisation and impairment of R&D costs capitalised as intangibles	**(3.5)**	(4.4)
Amounts capitalised as intangible assets	**3.5**	5.8
Total cash spent on R&D during the year	**25.4**	24.8

Investment in associate

In the comparative period, the Shareholders of Scienta Omicron agreed to a capital injection to strengthen the balance sheet of the joint venture and ensure future liquidity in support of the business strategy. Our share was £2.1 million and was paid in September 2017.

Disposals

The sale of Industrial Analysis was completed on 3 July 2017. A post-tax profit of £45.9 million is recorded within discontinued operations for the comparative period.

Net debt and funding

Net debt

Good cash generation in the year moved the Group from having opening net debt of £19.7 million to net cash of £6.7 million. Cash generated from operations was £56.3 million. The Group invested in capitalised development costs of £3.5 million and tangible and intangible assets of £6.3 million.

Movement in net debt	£m
Net debt as at 31 March 2018	19.7
Cash generated from operations	(56.3)
Interest	3.2
Tax	8.7
Capitalised development expenditure	3.5
Capital expenditure on tangible and intangible assets	6.3
Payments made in respect of lease liabilities	3.2
Decrease in long-term receivables	(1.1)
Dividends paid	7.6
Foreign exchange and other items	(1.5)
Net cash as at 31 March 2019	**(6.7)**

Funding

On 2 July 2018 the Group entered into a new unsecured multi-currency revolving facility agreement, which is committed until June 2023 with one-year extension options at the end of the first and second years. The facility has been entered into with two banks and comprises a Euro-denominated multi-currency facility of €50.0 million and a US Dollar-denominated multi-currency facility of $80.0 million.

In the first half of the year the Group repaid, as a pre-condition relating to the sale of Industrial Analysis, £11.5 million of its bilateral private placement note, leaving an outstanding note of £27.9 million, which matures in March 2021. Associated make-whole settlement costs of £0.9 million have been included within non-recurring items.

Debt covenants are net debt to EBITDA less than 3.0 times and EBITDA to interest greater than 4.0 times. As at 31 March 2019 the business had net cash.

FINANCE REVIEW CONTINUED

Pensions

The Group has defined benefit pension schemes in the UK and USA. Both have been closed to new entrants since 2001 and closed to future accrual from 2010.

At 31 March 2019, the net liability arising from our defined benefit scheme obligations was £6.5 million (31 March 2018: £15.3 million), a fall of £8.8 million. The reduction in the deficit was primarily due to the contributions paid in the period. Total scheme assets at 31 March 2019 were £311.4 million (31 March 2018: £289.5 million) while liabilities were £317.9 million (31 March 2018: £304.8 million).

As at 31 March 2019, the UK defined benefit pension liability includes an allowance of £0.3 million for the expected cost of equalising Guaranteed Minimum Pension between males and females.

We have commenced a process to terminate the US defined benefit pension scheme. This will extinguish all liabilities of the scheme. The process is in its early stages and is not expected to complete until the end of March 2020. We estimate that the cash cost of termination will be approximately US$4.5 million, with most of this due to be paid in the second half of the 2019/20 financial year.

Going concern

The Group's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Performance, Strategy and Operations sections. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Finance Review.

The diverse nature of the Group, combined with its financial strength, provides a solid foundation for a sustainable business. The Directors have reviewed the Group's forecasts and flexed them to incorporate a number of potential scenarios relating to changes in trading performance. The Directors believe that the Group will be able to operate within its existing debt facilities. This review also considered the hedging arrangements in place. The Directors believe that the Group is well placed to manage its business risks successfully.

The Financial Statements have been prepared on a going concern basis, based on the Directors' opinion, after making reasonable enquires, that the Group has adequate resources to continue in operational existence for the foreseeable future.

Forward-looking statements

This document contains certain forward-looking statements.
The forward-looking statements reflect the knowledge and information available to the Company during the preparation and up to the publication of this document. By their very nature, these statements depend upon circumstances and relate to events that may occur in the future, thereby involving a degree of uncertainty. Therefore, nothing in this document should be construed as a profit forecast by the Company.

Gavin Hill
Group Finance Director

11 June 2019

PRINCIPAL RISKS

Risk management

The effective management of risk plays a significant part in achieving strategic plans and objectives. Consequently, risk management forms a key element of all business units' recurring management activities. This is supported by Group risk management which provides challenge, support and the reporting link to the Audit and Risk Committee.

The risk management process starts with a detailed assessment of key risks in all operating business units. Business units report their risk registers to Group every quarter. A common methodology for the classification of risks is used across all business units, following a standard approach to quantify the financial impact of a risk materialising, combined with an assessment of the likelihood of it arising to generate a gross risk score. The impact of any existing mitigating actions is considered to quantify the level of residual risk. The resultant score is used to classify the risks as low, moderate, high or significant. Group risk management consolidates the business units' risk registers and adds additional Group-wide risks to generate the Group risk register. The Group risk register focuses on the risks that are classified as high and significant. Where appropriate, all high and significant risks are ascribed to a risk owner who is responsible for agreeing and implementing any ongoing mitigating actions.

The update and review of individual business units' risk registers are embedded in the regular activities of their senior management teams. At Group level, the consolidation of business unit risks and the addition of Group-wide risks are reviewed and approved by either the Group Finance Director or the Chief Executive in conjunction with Group risk management. Once approved, the Group risk register is reported to the Audit and Risk Committee at each of its regular meetings.

During the course of the year, the Group has undertaken a detailed risk analysis on Brexit-related risks. The key Brexit-related risks are set out at risk 6 overleaf. The work performed shows that the Group is likely to be sheltered from a number of common Brexit-related risks that are faced by UK companies. For example, the risks relating to potential future tariffs on EU purchases or sales post Brexit are largely mitigated by the type of goods that the Group produces and purchases as they typically have preferential (i.e. 0%) tariff rates. Further, the Group already exports its products to countries outside the EU so it is already set up to deal with the additional administrative requirements that would arise from trading with the remaining EU 27 post Brexit. The risk of the potential devaluation of Sterling post Brexit would not have an adverse impact on the Group's earnings – rather, due to the significant proportion of earnings in foreign currencies, any devaluation of Sterling should have a positive impact on profitability.

In its review of Brexit-related risks, management concluded that the most significant risk relates to the risk of supply chain disruption in the event that ports and airports are congested, resulting in significant delays to the movement of goods. A potential mitigating solution to this risk is stock-piling of raw materials. However, having considered the risks and rewards of such an approach, the Group took the decision not to stockpile.

PRINCIPAL RISKS CONTINUED

Principal risks and uncertainties

Specific risk 1: Routes to market

Context: In some instances, the Group's products are components of higher-level systems sold by OEMs, and thus the Group does not control its route to market.

Risk	Possible impact	Control mechanisms	Mitigation
• Vertical integration by OEMs.	• Loss of key customers/routes to market. • Reduction in sales volumes or pricing and lower profitability.	• Customer intimacy to match product performance to customer needs. • Positioning of Oxford Instruments brand and marketing directly to end users.	• Strategic relationships with OEMs to sell performance of the combined system. • Product differentiation to promote advantages of Oxford Instruments equipment and solutions. • Direct marketing to end users.

Specific risk 2: Technical risk

Context: The Group provides high technology equipment, systems and services to its customers.

Risk	Possible impact	Control mechanisms	Mitigation
• Failure of the advanced technologies applied by the Group to produce commercially viable products.	• Loss of market share or negative pricing pressure resulting in lower turnover and reduced profitability. • Additional NPI expenditure. • Adverse impact on the Group's brand and reputation.	• "Voice of the Customer" approach and market intimacy to direct product development activities. • Formal NPI processes to prioritise investment and to manage R&D expenditure. • Product lifecycle management.	• Understanding customer needs/expectations and targeted new product development programme to maintain and strengthen product positioning. • Stage gate process in product development to challenge commercial business case and mitigate technical risks. • Operational practices around sales-production matching and inventory management to mitigate stock obsolescence risks.

Specific risk 3: Economic environment

Context: Government expenditure may become constrained in key markets.

Risk	Possible impact	Control mechanisms	Mitigation
• Reduction in research funding in key markets such as the US, China and the EU (including the UK).	• Lower sales and profitability.	• Market intimacy and commercial market diversification.	• Increased focus on customers that are not reliant on Government funding.

Specific risk 4: Political risk

Context: The Group operates in global markets and can be required to secure export licences from Governments.

Risk	Possible impact	Control mechanisms	Mitigation
• Changes in the geopolitical landscape or a global trade war resulting in a complete embargo on trade with specific nations, barriers to trade with individual customers, or significant increases in tariffs.	• Lower export volumes or net pricing to key markets adversely affecting turnover. • Increases to input costs and lower gross margins. • Limitations on ability to provide after-sales service to existing customers.	• Contract review and protection against breach should export licences be withheld.	• Broad global customer base; contractual protection.

Specific risk 5: Legal/compliance risk

Context: The Group operates in a complex regulatory and technological environment. The Group may at times experience unintentional non-conformance with regulations and competitors may seek to protect their position through intellectual property rights.

Risk	Possible impact	Control mechanisms	Mitigation
• Infringement of a third party's intellectual property. • Regulatory breach.	• Potential loss of future revenue. • Future royalty payments. • Payment of damages. • Fines and non-financial sanctions such as restrictions on trade, disbarment from public procurement contracts. • Reputational damage.	• Formal "Freedom to Operate" assessment to identify potential IP issues during product development. • Internal control framework including policies, procedures and training in risk areas such as bribery and corruption, sanctions and export controls.	• Confirmation of "Freedom to Operate" during new product development stage gate process. • Compliance monitoring programmes.

Specific risk 6: Brexit-related risks

Context: The UK has triggered Article 50 to leave the EU.

Risk	Possible impact	Control mechanisms	Mitigation
• Supply chain disruption. • Lower participation in EU-funded research projects post-Brexit. • Potential short-term hiatus in UK research funding. • Barriers to existing free movement of goods and services in the EU. • Tariffs on exports to EU countries from the UK and vice versa. • UK becomes less attractive to EU nationals as a place to work.	• Delays to shipments. • Lower sales and profitability. • Salary inflation. • Loss of key skills, and/or increased recruitment, and/or salary costs. • Supply chain disruption. • Lower net pricing on UK exports to EU and cost increases on products sourced from the EU.	• Sales production matching and resource planning. • Customer intimacy and monitoring of funded projects. • Strategic sourcing programme. • Product pricing reviews. • Skills and capabilities reviews. • International Trade Committee.	• Existing stock of raw materials and work in progress. • Market diversification. • Long-term pricing agreements for key suppliers and strategic sourcing. • Pricing strategy. • Renewal of UK work permit scheme to facilitate employment of non-UK/EU nationals. • Application for Authorised Economic Operator status to facilitate movement of goods with remaining EU 27.

PRINCIPAL RISKS CONTINUED

Principal risks and uncertainties continued

Specific risk 7: Adverse movements in long-term foreign currency rates

Context: A high proportion of the Group's revenue is in foreign currencies, notably US Dollars, while the majority of the cost base is denominated in Sterling.

Risk	Possible impact	Control mechanisms	Mitigation
• Long-term strengthening of Sterling against key currencies such as the US Dollar, Japanese Yen and the Euro. (Short-term exposure to volatility is managed by hedging programme.)	• Reduced profitability.	• Procurement "make or buy" strategy. • Treasury management.	• Strategic procurement in US Dollars, Euros and Yen. • Active review of exposure in key currencies.

Specific risk 8: Supply chain risk

Context: The Group operates a strategic "make or buy" policy which places reliance on key partners, notably single source suppliers, in terms of pricing and on-time delivery.

Risk	Possible impact	Control mechanisms	Mitigation
• Supply chain disruption, in particular for single source components, leading to production delays and potentially lost revenue.	• Disruption to customers. • Lower sales and profitability. • Higher input costs. • Negative impact on the Group's reputation.	• Procurement strategy to manage stock availability.	• Buffer stocks of key components. • Where possible, dual source supply is sought.

Specific risk 9: People

Context: A number of the Group's employees have business-critical skills.

Risk	Possible impact	Control mechanisms	Mitigation
• Key employees leave and effective replacements are not recruited on a timely basis.	• Adverse impact on NPI. • Operational disruption. • Lower sales and profitability.	• HR people strategy for retention and recruitment of staff with key skills.	• Succession management plans. • Technical career paths. • UK work permit scheme to facilitate employment of non-UK/EU nationals in place.

Specific risk 10: IT risk

Context: *Elements of production, financial and other systems rely on IT availability.*

Risk	Possible impact	Control mechanisms	Mitigation
• Cyber attack on the Group's IT infrastructure. • Spread of viruses or malware through "Zero-day" incidents or phishing attacks. • Insider threat.	• Disruption to business as usual operations. • Loss of business-critical data. • Financial and reputational damage.	• IT security policy and associated standards and protection systems. • Internal IT governance to maintain those protection systems and our incident response. • Employee awareness training.	• Regular review, monitoring and testing of key security measures to assess adequacy of protection against known threats. • Citadel approach to protect key data. • User education.

Specific risk 11: Operational risk

Context: Business units' production facilities are typically located at a single site.

Risk	Possible impact	Control mechanisms	Mitigation
• Sustained disruption to production arising from a major incident at a site.	• Inability to fulfil orders in the short term, resulting in a reduction in sales and profitability. • Additional, non-recurring overhead costs.	• Business Continuity Plans (BCPs) exist for all manufacturing sites. • Contractual clauses to limit financial consequences of delayed delivery.	• Detailed response plans in BCPs can reduce downtime arising from incidents and facilitate the restoration or relocation of production. • Standard sales contracts include clauses for limitation of liability, liquidated damages and the exclusion of consequential losses.

Specific risk 12: Pensions

Context: The Group's calculated pension deficit is sensitive to changes in the actuarial assumptions.

Risk	Possible impact	Control mechanisms	Mitigation
• The reported pension deficit is sensitive to movements in actuarial assumptions and returns on investments.	• Increase in net debt as additional Group contributions become payable to fund the deficit. • Increase in the annual levy paid to the Pension Protection Fund. • Reduction in net assets.	• Regular review of pension strategy. • Liability hedging programme to mitigate exposure to movements in interest rates and inflation.	• The Group has closed its defined benefit pension schemes in the UK and US to future accrual. • The Group has a funding plan in place to reduce the pension deficit over the short to medium term.

VIABILITY STATEMENT

In accordance with the UK Corporate Governance Code 2016, the Directors are required to perform an assessment of the Group's viability over a period longer than the twelve months required for the going concern statement. This year's viability assessment covers a three-year period. This has not changed since the requirement was introduced in the 2016 Report and Financial Statements. The Directors consider that three years continues to be the most appropriate time frame for assessing the Group's longer-term viability. This is largely because the medium-term strategic financial plan (SFP) provides appropriate visibility of key areas such as product development and capital expenditure requirements over this period. This year's assessment covers the period from 1 April 2019 to 31 March 2022 (the "Viability Assessment Period").

Key criteria applied in the assessment

As in previous years, the Board considers that the Group's viability can reasonably be assured if it can maintain a net cash position or, failing that, is able to obtain sufficient debt funding to meet its liabilities as they fall due. During the year, the Group refinanced its revolving credit facility, which includes covenants requiring the Group to operate at a leverage level of no more than three to one net debt to EBITDA. On this basis, the Directors consider that being able to operate within the parameters of three times leverage is the key criterion to consider in the viability assessment.

Methodology and sensitivities applied

The viability assessment evaluates the potential financial impact of the principal risks and uncertainties which are faced by the Group to assess the Group's ability to withstand them. The calculations start with the financial budgets and strategic financial plans which include profit and loss data and cash flow movements and form the baseline for the assessment. Adverse sensitivities are applied to the baseline in each year in the Viability Assessment Period to quantify the financial impact of the key risks and uncertainties materialising. It also includes the estimated impact of certain mitigating actions that could be taken by management to offset the potential impact of downside risks. The key risks and uncertainties considered in the assessment are disclosed on the preceding pages 44 to 47 of the Report and Financial Statements.

In performing the viability assessment, the financial impact of risks having similar consequences has been aggregated and the potential impact has been quantified by reference to the following four consequences:

1. reduction in revenue;
2. increased cost of sales;
3. additional overhead costs; and
4. reduction in net profitability arising from adverse movements in exchange rates (in practice this would be the sum of lower contribution margin and higher overheads).

The potential financial consequences of the twelve principal risks and uncertainties faced by the Group is set out in the table below.

		Potential direct financial consequences			
Risk ID	**Description**	**Lower turnover**	**Higher cost of sales**	**Higher overheads**	**Lower net profit**
1	Routes to market	✓			
2	Technical risk	✓		✓	
3	Economic environment	✓			
4	Political risk	✓	✓		
5	Legal/compliance risk	✓	✓	✓	
6	Brexit-related risks	✓	✓	✓	
7	Adverse movements in long-term foreign currency rates				✓
8	Supply chain risk	✓	✓	✓	
9	People	✓		✓	
10	IT risk	✓		✓	
11	Operational risk	✓	✓	✓	
12	Pensions			✓	

1. For the purpose of this viability assessment, EBITDA = Adjusted EBITDA (as defined in Note 1 to the Financial Statements).

In this year's assessment, the most significant risk quantified relates to the reduction in revenue that is a potential consequence of multiple risk factors. Over the Viability Assessment Period, the sensitivities applied in this area represent a 20% reduction in sales against the baseline total. The quantum of this sensitivity is the most significant of the four set out above and represents almost 80% of the sensitivities applied in value terms. As in previous years, this sensitivity has been applied at a Group level, rather than at a business unit or segment level. While the impact of the loss of a key customer or market in an individual business unit might be severe for the specific business unit, the risk is mitigated at a Group level by operating in diverse geographic markets and through diversification of the customer base within those markets.

In the prior year assessment, the potential impact from adverse movements in exchange rates (risk 7) was the most significant risk quantified in value terms. In contrast, it is less significant in this year's assessment because there is less variation and less downside risk, as calculated, in the downside currency rates applied compared to the rates used in the budget/SFP. The relative importance is also diminished due to the magnitude of the downside revenue risk in this year's assessment. However, the methodology used to quantify this risk has not changed. As described on page 46, long-term adverse movements in three key currencies (US Dollar, Euro and Japanese Yen) would be detrimental to Group profitability because the Group predominantly operates with a Sterling cost base.

The risk of short-term adverse movements in exchange rates is mitigated by the Group's hedging programme. In this assessment, the impact has been quantified in terms of net profitability, by reference to estimated net currency exposure. However, if this risk were to materialise, the reported impact in Sterling would be more complex – foreign currency-denominated turnover, prime costs and overheads would all reduce in absolute, Sterling terms, and the net impact would be unfavourable in terms of net profitability.

The second largest downside risk modelled in quantum terms in this year's assessment relates to possible increases in overheads. In each year in the Viability Assessment Period, the potential for additional overheads is quantified by the same fixed value increase to annual overheads. In total, the downside risk included in the assessment represents 3.8% of total overheads in the baseline model. In the prior year assessment, the downside risk quantified for overheads was 3.2% of the total.

The potential impact of increases to direct costs (i.e. cost of sales) arising from increases in input costs due to factors such as Brexit, tariffs, etc. has been considered in a consistent way to the prior year. The risk is quantified by a 4% increase in the cost of sales figures in each year in the period.

Over the Viability Assessment Period as a whole, the impact of the downside risks modelled resulted in a decrease to the baseline EBITDA of roughly 39%. For the purposes of the assessment, the impact on EBITDA of all of the sensitivities considered is expected to flow through to cash in the same period, resulting in an equal reduction to net cash balances.

Outcome

As quantified, the impact of the sensitivities applied is to reduce cash generation in each year of the Viability Assessment Period. However, each year in the Viability Assessment Period remains cash generative, resulting in year-on-year increases to the Group's net cash position. On this basis, the Board has a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the next three years.

This assessment supports not only the viability statement above, but also the statement on going concern, set out below.

Going concern statement

The Group's business activities and factors that are considered likely to affect its performance and position in the future are set out in the Strategic Report on pages 2 to 59. The Finance Review on pages 36 to 42 discloses information relevant to the Group's financial position, its cash flows, borrowing facilities and liquidity.

The Directors have considered the Group's current financial position and future prospects and, as set out in the viability statement above, have performed an assessment of longer-term viability up to 31 March 2022. On this basis, the Directors conclude that there is a reasonable expectation that the Group will continue in operational existence for the foreseeable future and that there are no material uncertainties that may cast significant doubt over its ability to continue as a going concern.

As a result, the Directors continue to prepare the Financial Statements under the going concern basis.

CORPORATE RESPONSIBILITY

Corporate responsibility is integral to our ongoing business success.

Through our commitment to corporate responsibility, we recognise the impact we have on the world, our employees, our communities and our working environments.

Our values

Inclusive:
We listen and engage with customers, colleagues, Shareholders and partners for mutual success

Innovative and progressive:
We bring skill, experience and openness to new ideas to address the needs of the 21st Century

Trusted:
We build long-term relationships based on integrity, trust and respect

Wholehearted:
We approach what we do with passion, with care and with pace

The key areas in which we focus our efforts are:

- the development, engagement and wellbeing of our employees;
- sustaining and developing an inclusive workplace;
- health and safety and environmental improvements; and
- the ethics of how we do business, including human rights and business malpractice.

Oxford Instruments is committed to the following guiding principles of corporate responsibility:

- establishing and maintaining long-term, effective stakeholder relationships;
- offering our people an excellent employment experience and sense of belonging;
- strengthening our business through diversity and inclusion; and
- operating in an ethical, sustainable and environmentally responsible manner.

Just as we approach what we do for our customers and investors with passion, care and pace, this same wholehearted value underpins our work to ensure that Oxford Instruments is a responsible business.
We enable our customers to image, analyse and manipulate materials at the nanoscale and our technologies help to underpin the shift to a greener economy, increased digital connectivity and advances in healthcare and life sciences. We take our role in the world seriously, and recognise that how we do business is as important as what we do.

CORPORATE RESPONSIBILITY CONTINUED

Our people vision is to be proud to be recognised as the leaders in what we do and for the difference we make in the world.

Our employees

At Oxford Instruments, our employees are fundamental to our business success. We continually invest in our people, developing the capabilities that we will need to succeed over the longer term. We are committed to being the company where the best in our sector want to work and strive to offer opportunities that will attract, motivate and retain talented employees, enabling them to give their best.

Our people vision is to be proud to be recognised as the leaders in what we do and for the difference we make in the world; and this year we have continued to develop our employer brand and value proposition to articulate this for both internal and external audiences. Our aim is to retain, attract and enable the best people to perform, creating an inclusive environment and culture, where difference is valued and people are recognised for what they deliver and bring to the team.

This year, we conducted a global Employee Engagement survey to find out more from our employees about what they thought of the experience of working for Oxford Instruments across all of our businesses and the regions in which we operate. Since the last global engagement survey in 2015, our overall Engagement Score has increased to 79%, and we were ahead of global benchmark data on all of the measures of Employee Engagement included the survey. Our employees are proud to tell people where they work, feel safe in the workplace, are encouraged to make their own decisions, and feel trusted, valued and motivated to do more than is required in their roles.

Going forward, members of our main Board and Management Board will be running focus groups and informal employee group meetings to ensure that there are sufficient future opportunities for two-way dialogue, and we will be repeating our Employee Engagement survey on an annual basis as we continue to build on our strengths and address areas of concern.

Health and wellbeing

This year we launched our Mental Health First Aider programme. A team of colleagues from each of our UK sites and our global regions volunteered to attend an internationally recognised training programme, and act as a first point of contact for any colleagues who are experiencing mental health issues or emotional distress, either themselves or in their families. This service complements our Employee Assistance Programmes and the physical health checks we already provide at many of our locations.

In addition, many of our sites organise wellbeing activities such as mindfulness sessions, onsite massages and Pilates classes, and we encourage staff to set up walking groups and informal running and cycling clubs to help increase physical activity and exercise. We also offer our employees the opportunity to purchase additional leave entitlement. This year, more than one in five of our UK-based staff have taken advantage of this.

Our workplace

As an international organisation, our employees are located across the world, frequently based in satellite offices that are remote from the main business sites. In this context it is important that we work hard to create a sense of belonging for our employees, and so we continued to run a series of global and local initiatives to ensure people feel part of a wider Oxford Instruments team. We have commissioned eye-catching new artwork using images from our customers and their applications of our technology for all of our sites to display. This improves the working environments for our colleagues and brings a sense of connection to the wider Group for each of our sites. We have also produced a new Company video which has been displayed prominently in all of our sites and gives a global overview of who we are, our customer groups, and example applications of our technology. We have used this to increase the sense of belonging internally, and raise awareness of our employer brand and values externally.

This year, we have also organised a virtual team of more than 120 employees who are logging their running, swimming, cycling and skiing miles and we are tracking these against the distances between our office locations, with updates on the intranet each time the team reaches a new location. This gives everyone in the Group the opportunity to find out more about the work of each of our sites, and the colleagues who are based there.

1: Oxford Instruments Town & Gown runners

2: Young Scientist award in India

3: UK China space event

4: International Women's Day celebrations

5: Recent MDP cohort

To mark International Women's Day, our sites around the world held a series of lunches and informal networking events. Our Group HR Director, Vicki Potter, attended a number of these, and was able to share some findings from the Employee Engagement survey about women's experiences of working for the Company.

We have also rolled out a number of green initiatives at our different sites. Each business has an energy champion at a local level who is responsible for monitoring energy use, waste streams, recycling and emissions to air, water and land. As part of their work, we have installed electric car charging points at two of our locations, with plans to expand this next year, organised a sunflower growing competition in Bristol to raise awareness of our Go Green initiative, and removed plastic cutlery, polystyrene food boxes and single use coffee cups from our Oxford site.

Developing capability

We regularly undertake capability reviews, recognising the importance of ensuring we have the skills we need to help us deliver long-term sustainable growth. We have been working hard to address capability gaps across the Group by bringing in the capabilities we need for the future, and by investing in the talented people we have. This year we have made a significant investment in our commercial and operations teams across the Group, as well as in the business systems that give our employees the data they need to make evidence-based decisions.

Examples include rolling out additional functionality of Gem, our cloud-based HR Information System, as well as the deployment to further sites and businesses of our integrated Enterprise Resource Planning, Customer Relationship Management and Product Lifecycle Management systems.

Our training programme for our commercial staff, developed and delivered by Miller Heiman, has continued this year, and 249 employees have now successfully completed this training. Notable successes from our Operational Excellence training programme, accredited by Cardiff University, include now having over 90 colleagues from across our businesses who are trained in all aspects of OpEx. The financial savings made from continuous improvement projects completed during this programme represent almost a five-fold return on investment of the training fees.

We continue to underpin our capability development through the various leadership development programmes we run. Our flagship Management Development Programme (MDP) covers many of the skills needed to be a successful manager in Oxford Instruments. We have built on this further with our Early Careers and Maximising Potential programmes that focus on introducing high potential candidates to the business and helping them to succeed within the Group.

We continue to offer our Technical Development Programme and structured career development opportunities for our technical staff, and we use this programme to help us attract and retain the best engineers and scientists. Through our technical competency framework and technical career ladder, our employees in these roles can see clear future career paths that offer a choice between technical or people management pathways and that allow them to develop their careers with the Company in the direction that best suits them.

We offer Industrial Post-Doctoral placements to high-calibre researchers, providing them the opportunity to experience a role in industry. In many cases, these individuals have decided to join us on a permanent basis, helping to ensure that our technical skill base remains at the cutting edge.

Our values are deeply ingrained in Oxford Instruments and we endeavour to embody them in all we do. This year, we completed the global rollout of our Accountability Builder workshop for managers. All of our people managers, and those leading change, have the skills needed to increase performance, boost innovation and create joint accountability for delivering our strategically important results. The results from our global staff survey confirmed that our managers do what they say they will do to a far greater extent than managers at benchmark organisations.

CORPORATE RESPONSIBILITY CONTINUED

We continue to encourage our sites to support their local communities through charity and community activities.

Our local communities

We believe the work we do and that we enable others to do is important and both benefits and advances society. To ensure this continues, we are committed to helping the generations coming up through all stages of education to see the importance of choosing STEM subjects and the career opportunities this will offer them.

This year, we have organised events for graduates, post-graduates and academics at the Universities of Oxford, Bristol and Exeter, both on their campuses and hosted at our business sites. We were also pleased to work with the National Taiwan University to host Taiwan's first School of Microscopy, a two-day event involving over 150 delegates and representatives from multiple Oxford Instruments businesses.

We were involved in the 2019 ATOM Festival of Science & Technology in Abingdon-on-Thames, which has the mission of making science available to everyone in the local community around our Oxford site. Not only did we sponsor the Festival, but our Group HR Director, Vicki Potter, was an invited panellist for a VIP night to discuss the challenges of making science accessible to all. Some of our scientists and engineers also gave up their time to attend a careers event for local schoolchildren and a series of demonstrations and workshops which were open to the public around the area throughout the Festival.

Separately, we also welcomed pupils from local primary and secondary schools to our Oxford site for a hands-on demonstration of low-temperature physics, and hosted a careers in STEM workshop for middle school girls at our Santa Barbara site.

All of our UK sites continue to run school work experience programmes and we are working with a range of Centres for Doctoral Training to offer students the opportunity to build on their educational learning with practical, project-based experience. We also offer industrial postdocs, which are fixed-term contracts that allow postdoc students the opportunity to gain meaningful industrial experience as they decide whether to pursue careers in academia or industry.

We continue to encourage our sites to support their local communities through charity and community activities. This year, as well as regular charity coffee mornings and bake sales, colleagues donated over 250 bras to be donated to women in Africa, collected food for homeless shelters and food banks in our local communities in the UK and the US, and ran events at a local community centre which aims to tackle loneliness and boost health and wellbeing for older residents at risk of social isolation. We also continued our sponsorship of local community sports teams and events such as the Christmas lights in Yatton, Bristol.

Our working environment

Diversity and inclusion

Our objective is to ensure that we have a high capability, diverse workforce that enables us to better understand our customers and markets; with a broad range of perspectives and experiences that maximise our capability to innovate, make the right decisions and exceed our customers' expectations. In order to retain, attract and enable the best people to perform, we need to create an inclusive environment and culture, where difference is valued and everyone can contribute to their full potential.

Questions around inclusion were included in our global Employee Engagement survey. We were ahead of the global benchmark data on the recognition by employees that we make an effort to have a diverse mix of people working in the Company, and we matched the benchmark data on the belief that everyone at the Company is treated with respect. We also learned from the survey that the positive sense of feeling included and valued is a key driver for overall levels of employee engagement, and are proud that this forms an important part of our culture.

Analysis of the survey results by gender showed that women are more engaged overall than men, and also rated the Company more favourably than men for all questions relating to inclusion. However, we still have more work to do to improve the gender balance across our Group.

1: Some of our mental health first aiders

2: An Oxford Instruments lab in Lego®

3: Family fun day

4: Attendees on our Technical Development Programme

5: Team member at our NanoScience site

This year, we invited a representative of the National Autistic Society to run a workshop for our global HR Directors to understand how we can be an effective employer for autistic talent, and we signed up to support the Leonard Cheshire Change 100 programme and offered four internships to talented students and graduates with disabilities or long-term health conditions.

All UK staff have now completed our Respect training, which is a workshop designed to help to create an inclusive performance-orientated working environment. Feedback has been highly positive, and this session is now being adapted and rolled out globally.

Our drive to introduce balanced shortlists for leadership recruitment saw a small increase in the number of final shortlists which included at least one candidate from a group that is typically under-represented in the Company. Last year, 52% of our Director-level appointments were made from a balanced shortlist. This year, the figure was 55%. Whilst this was a slight improvement, it was short of our target of 60%, and shows there is more we can do to attract diverse candidates to the Company. We were able to capture additional data so we can also measure the success of this initiative for senior management recruitment going forwards.

This year we published our second gender pay gap report. This is available on our website at **www.oxinst.com/gender-pay-review** and shows that our mean and median gender pay gaps have decreased since last year.

Ethics

This year we published a new Code of Business Conduct and Ethics, with updated policies on how we do business and what we expect of others. We are a Company united by strong standards and values and by creating a clearer, more helpful document for stakeholders, we are providing more transparency for our employees about what's expected of them. This will help give them confidence that they are taking the right actions in various situations.

Human rights and modern slavery

We continue to review our policies and systems supporting human rights. Our policy is guided by the United Nations Guiding Principles on Business and Human Rights. Our Human Rights Policy states our intent to be inclusive, supportive and safe, covering matters including forced labour, child labour, discrimination and the right to form or join a trade union and to bargain collectively.

We expect every employee to adhere to the spirit of our Policy and it is fully supported by our Board. All members of the Group's Executive Committee take responsibility for ensuring its implementation within their part of the Group. We also extend our expectations on human rights to those we work with: our partners, contractors and suppliers.

We are committed to preventing acts of modern slavery and human trafficking from occurring within our business and supply chain and put in place effective systems and controls in order to do so. We have reviewed, and improved, our supplier due diligence and audit procedures. We have a zero-tolerance approach to all forms of modern slavery, including servitude, forced, bonded and compulsory labour and human trafficking and we expect our suppliers to adopt the same approach.

Health and safety – protecting our employees

During the year, our Group HR Director, Vicki Potter, has taken up responsibility for Health and Safety across Oxford Instruments. Vicki is supported by Dave Wales, Group Health, Safety and Environment Manager, who is responsible for ensuring that day-to-day activities are carried out safely and that we have the capabilities, infrastructure and processes in place across the Group to manage our health, safety and environment matters effectively.

CORPORATE RESPONSIBILITY CONTINUED

The global carbon footprint for 2018/19 continued to reduce – falling to 6,835 tCO_2e from 7,161 tCO_2e the previous year[1].

Global accident figures remain at a low level

The total number of accidents recorded worldwide during 2018/19 increased slightly from 52 to 53. The accident numbers for our ongoing businesses over the past five years have been fairly static, with an average of 52 accidents each year. When looked at in relation to the number of accidents per 1,000 employees, the average number over the last five years is 34 accidents/1,000 employees, which benchmarks positively against industry norms in the regions in which we operate.

We are committed to the health and safety of our employees and our customers and work hard, as a team, to effect improvements. We record accidents down to the very smallest cuts and abrasions – which account for the majority of accidents recorded – and have begun a campaign across the Group to drive pro-active accident prevention.

Globally, five serious accidents occurred during 2018/19 of which four were reportable accidents. This was an increase from three serious accidents the previous year. For reporting purposes, global reportable accidents were normalised using the UK RIDDOR definition of over seven days' absence from work. The graph above shows the five-year accident performance for ongoing businesses with all business disposals removed.

Sustainability – Protecting the environment

The global carbon footprint for 2018/19 continued to reduce – falling to 6,835 tCO_2e from 7,161 tCO_2e the previous year[1].

Our overall priority here is to minimise the environmental footprint of our products and services, and our operations around the world. Each business has an Energy Champion at a local level who is responsible for monitoring energy use, waste streams, recycling and emissions to air, water and land. They also continuously look for innovative ways to reduce their environmental footprint. Current initiatives include energy reduction, improving wildlife habitats, the installation of electric car charging points and the removal of single use plastics.

Energy consumption

We continue to monitor our global energy use and implement energy-saving techniques. Oxford Instruments consumed 12.41 GWh of electricity, 1.01 GWh of gas and 0.5 GWh of oil globally during 2018/19, reflecting our increased manufacturing output. The Company's measure of total energy use was 41.73 MWh/£million of revenue compared to 44.7 MWh/£million of revenue in the previous year.

1. It should be noted that the above reduction was due in part to the Government reducing the greenhouse gas carbon conversion factors for electricity. Without this reduction our carbon footprint would have increased slightly.

1: Electric charging points on site

2: Tree planting to mark 60th anniversary

Legal compliance – Streamlined Energy and Carbon Reporting regulations

The Government closed the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) on 31 March 2019. This has been superseded by the Streamlined Energy and Carbon Reporting regulations (SECR) which came into force from 1 April 2019. The Company will no longer have to purchase carbon credits each year to cover carbon emissions. However, the cost of carbon compliance will be transferred to our energy bills as the Climate Change Levy, which is imposed on each kilowatt hour (kWh) of energy consumed, will be increased to give a similar cost burden.

Environmental Directives

The Group complies with all environmental legislation in countries where it operates. This includes European Directives such as:

- Waste Electronic and Electrical Equipment (WEEE) Directive – compliance achieved by membership of B2B Compliance – an authorised compliance body;
- Restriction on use of certain Hazardous Substances (RoHS) regulations – all products that were within scope and were sold into Europe since July 2017 complied. Some of our products are outside of the RoHS scope or are covered by an exemption; and
- Registration, Evaluation, Authorisation of Chemicals (REACh) Directive. All sites are working towards compliance via their supply chains.

Waste outputs

We aim to minimise our waste outputs and ensure that as little as possible goes to landfill. Several of our sites are now "zero waste to landfill" where waste is recycled either directly, e.g. cardboard, metals, wood and paper, or indirectly for non-recyclable general waste and food waste, which is sent to waste incinerator sites where it can be burned to produce energy.

Carbon reporting

As part of the UK Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013, Oxford Instruments has a mandatory duty to report greenhouse gas emissions as tonnes of carbon dioxide equivalent (tCO_2e). The Company's measure of carbon emissions is tonnes of carbon dioxide equivalent (tCO_2e) per £million of revenue. This year the global carbon emissions figure is 11.55 tCO_2e/£million revenue.

CORPORATE RESPONSIBILITY CONTINUED

The Group complies with all environmental legislation in countries where it operates.

Greenhouse gas (GHG) emissions

Oxford Instruments is a global business with operations in many parts of the world. Emissions from 14 Company sites are monitored and are reported below. Some small sales offices where energy consumption is less than 0.01% of the Group's total energy consumption are omitted. The recorded use of hydro-fluorocarbons is below 5kg and has therefore been excluded. Emissions from purchased electricity, fuel for heating or process purposes (gas and oil) and fugitive emissions from process gases are reported in tonnes of carbon dioxide equivalent (tCO_2e).

Intensity ratio

The Company's declared intensity ratio for greenhouse gas reporting is tonnes of CO_2 equivalent (tCO_2e) per £million of revenue. With revenues for the year at £333.6 million and the total emissions of carbon dioxide equivalent of 3835.57 tCO_2e, this gives an intensity ratio as follows:

$$\frac{\textbf{Carbon emissions}}{\textbf{Revenue}} = \frac{\textbf{11.50 } \mathbf{tCO_2e}}{\textbf{£million revenue}}$$

Region	Purchased electricity (tCO_2e)	Secondary fuel (tCO_2e)	Fugitive emissions (tCO_2e)	Total (tCO_2e)
UK	2212.18	324.05	0	2536.23
North America	1159.39	0	0	1159.39
Europe	22.40	0	0	22.40
Asia	117.55	0	0	117.55
Total	**3511.52**	**324.05**	**0**	**3835.57**

1: Lunchtime running group

2: Onsite team meeting

3: China technology forum

4: Founders Sir Martin and Lady Audrey Wood celebrate 60 years of Oxford Instruments

5: Half marathon charity team

Gender

Global Oxford Instruments	78%	22%
Plc Board	86%	14%
Management Board	86%	14%
Managers	79%	21%
Employees	78%	22%

Geographical spread of employees

UK **58%**

Americas **21%**

Asia **15%**

Europe **6%**

Signed on behalf of the Board

Ian Barkshire
Chief Executive

11 June 2019

GOVERNANCE

Governance is an important element of our Board environment. To support how we do business and how we serve our stakeholders it needs to be relevant, authentic and meaningful.

Leadership

See pages 61 to 66 of the Corporate Governance Report.

Effectiveness

See pages 67 to 70 of the Corporate Governance Report and the Nomination Committee Report on page 71 to 73.

Accountability

See the Audit and Risk Committee Report on pages 74 to 79, risk management disclosures on pages 43 and 79 and Financial Statements on pages 104 to 163.

Remuneration

See the Remuneration Report on pages 80 to 99.

Relations with Shareholders

See pages 100 and 101.

Report of the Directors

See pages 102 and 103.

Biological tissue grown from patient cells captured by an Andor Dragonfly microscopy system.

LEADERSHIP

CHAIRMAN'S INTRODUCTION

The Board is committed to conducting business responsibly and maintaining high standards of corporate governance. This commitment extends to driving the Group's long-term objectives and overseeing the Group's operations to ensure competent and prudent management, continuous leadership development and ongoing succession planning.

Dear Shareholders,

I am pleased to introduce the Group's Corporate Governance Report on behalf of the Board. The Corporate Governance Statement provides an insight into how the Board operated during the year. The Board is committed to conducting business responsibly and maintaining high standards of corporate governance and is collectively responsible for the long-term success of the Company. This will, when underpinned by our business strategy and close attention to operations, finance and risk, enhance performance and grow the business of Oxford Instruments. The Board remains committed to driving the Group's long-term objectives, overseeing the Group's operations to ensure competent and prudent management and continuous leadership development and succession planning. The approach to governance is set by the Board and the Management Board ensures that the approach is effectively implemented across Oxford Instruments' businesses around the world.

The main Group-wide governance documents are the Oxford Instruments Code of Business Conduct and Ethics together with the policies which sit within our statement on Corporate and Social Responsibility. These can be found on our website at **www.oxinst.com/investors-content/corporate-social-responsibility**. The ethics programme is managed by a cross-functional team, the CBCE Forum, which works with the Group's businesses to ensure that employee communications relating to the ethics programme is delivered in a consistent and engaging manner. There is a policy portal on the intranet which makes it easy for employees to access those policies and procedures that are relevant to them.

These policies and statements set out the values and standards that we expect our employees to meet. These documents, together with our policies, govern how we conduct our business and set the standards that drive performance. Compliance training and, in some areas, standard procedures, help to enforce this. Board oversight, reviews and audits form part of the monitoring and supervision process. Risk processes are embedded and reviewed on an ongoing basis across the organisation.

During the year, I agreed with the Board that we would carry out an internal evaluation of the Board which built on the external evaluation carried out last year by ICSA Board Evaluation. I am pleased to confirm that we continue to have a committed, engaged and effective Board. More details on the findings of the evaluation are outlined below.

In July 2018, we were saddened by the loss of Alan Thomson, who had led the Board since June 2016. The Board undertook a comprehensive search to identify an appropriate successor to Alan, resulting in my appointment in December 2018. Since 1 December I have been spending a significant amount of time with the CEO, Ian Barkshire, and have visited most of the facilities. I have found a very committed and enthusiastic group of senior managers alongside knowledgeable scientists that are leaders in their field. They have a strong new product pipeline and are fully committed to project Horizon and the advancement of the Oxford Instruments strategy. The Chief Executive's Review on pages 14 to 17 and the Operations Review on pages 26 to 35 give full details of the year's activities.

I encourage all Shareholders to attend the AGM which will be held at the Company's Head Office in Tubney Woods, Oxfordshire, on Tuesday 10 September 2019. This event provides an opportunity for Shareholders to meet the Executive and Non-Executive Directors.

Neil Carson
Chairman

11 June 2019

LEADERSHIP

BOARD OF DIRECTORS

Neil Carson (62)
Non-Executive Chairman

Appointed to the Board
December 2018

Appointed Chairman
December 2018

(N)(R)

Background
Over 30 years' experience of operations management in the UK and the US, technical innovation and strategic planning, culminating in ten years as Chief Executive at the FTSE 100 science/R&D based company, Johnson Matthey. In 2016 he was awarded an OBE for services to the chemical industry.

External appointments
Chairman:
TT Electronics plc

Non-Executive Director:
Royal Dutch Shell plc

Director:
The Goldsmiths' Company Charity

Honorary President:
SCI (the Society of Chemical Industry)

Previous experience
Deputy Chairman:
TI Fluid Systems plc

Non-Executive Director:
Paypoint plc
Amec Foster Wheeler plc

Founder Member:
Prince of Wales' Corporate Leaders Group on Climate Change

Chief Executive:
Johnson Matthey plc

Ian Barkshire (53)
Chief Executive

Appointed to the Board
November 2015

Appointed Chief Executive
May 2016

Background
Holds a BSc and DPhil in physics from the University of York, is a Chartered Physicist and a Member of the Institute of Physics. Ian has worked for Oxford Instruments since 1997 in a number of senior leadership roles, including NanoCharacterisation Divisional Head, Group Technical Director and Chief Operating Officer.

Previous experience
Senior Principal Scientist:
GEC Marconi Materials Technology

Research Fellow:
University of York

Gavin Hill (51)
Group Finance Director

Appointed to the Board
May 2016

Background
Holds a BA in economics and agricultural economics from the University of Exeter. Gavin is a Chartered Accountant and an Associate Member of the Association of Corporate Treasurers.

Previous experience
Group Finance Director:
Synergy Health plc

Director, Corporate Finance:
Serco Group plc

Senior finance positions:
Syngenta AG and AstraZeneca plc

Steve Blair (59)
Independent
Non-Executive Director and
Senior Independent Director

Appointed to the Board
July 2017

(A)(N)(R)

Background
Holds an engineering degree from the University of Sheffield. Extensive experience in established and high-growth emerging markets, strategic planning and portfolio development.

External appointments
Chief Executive:
Ordnance Survey

Previous experience
Chief Executive:
e2v

Director:
Spectris plc

Board diversity

Gender diversity

Male	Female
86%	14%

Tenure

1-2 years	3-4 years	5-6 years
29%	57%	14%

Mary Waldner (49)
Independent
Non-Executive Director

Appointed to the Board
February 2016

ANR

Background
Holds an MA in physics from the University of Oxford and is a Fellow of the Chartered Institute of Management Accountants. Mary started her career at Coopers & Lybrand Management Consultancy Services and then went on to hold senior financial positions in a number of major businesses.

External appointments
Chief Financial Officer:
Lloyd's Register

Previous experience
Group Finance Director:
Ultra Electronics plc

Director, Group Finance:
Qinetiq plc

Thomas Geitner (64)
Independent
Non-Executive Director

Appointed to the Board
January 2013

ANR

Background
A graduate of the Technische Universität München and holds an INSEAD MBA. Extensive international experience in the technology and engineering sectors, having spent over 30 years in businesses operating across the globe.

External appointments
Chairman:
Bibliotheca RFID Library Systems AG Switzerland

Previous experience
Executive Director:
Vodafone Group Plc
Henkel AG & Co. KGaA
RWE AG

Non-Executive Director:
BBC Worldwide Limited
Constantia Flexibles GmbH
Supervisory Board of
Haniel & Cie GmbH Duisburg

Professor Sir Richard Friend (66)
Independent
Non-Executive Director

Appointed to the Board
September 2014

ANR

Background
Richard's research encompasses the physics, materials science and engineering of semiconductor devices made with carbon-based semiconductors. He is a Fellow of the Royal Society and of the Royal Academy of Engineering and a Foreign Member of the US National Academy of Engineering.

External appointments
Cavendish Professor of Physics and a Fellow of St. John's College at the University of Cambridge

Non-Executive Director:
Eight19 Ltd
Heliochrome Limited

Previous experience
Council member:
The Engineering and Physical Sciences Research Council

Susan Johnson-Brett
Company Secretary

Committee membership
Secretary:
Audit and Risk
Nomination
Remuneration

Background
Holds a BA from the University of Keele and has previously worked in the Secretariats of St. Modwen Properties plc, Hydro Agri (UK) Limited and TSB Group plc.

Key to Committees

- A Audit and Risk
- N Nomination
- R Remuneration
- ● Chairman of Committee

LEADERSHIP

CORPORATE GOVERNANCE REPORT

Board priorities during the year

Strategic	• Annual strategy day and technology strategy session to consider progress and provide challenge on the Horizon strategy and next steps. • Reviewed, challenged and approved the strategic direction of the Group's medium-term plan. • Deep dive reviews into aspects of the strategic plan.
Operations	• Received regular operational updates through the Management Board. • Site visits to Group manufacturing sites. • Monitored performance and provided challenge in key areas of operations, such as health and safety, operational excellence, human resources, innovation and business development.
Leadership and people	• Appointed Chairman to the Board. • Continued the focus on organisation capability and succession planning within the senior leadership teams and more generally across the organisation.
Finance	• Monitored progress against the 2018/19 financial plan and considered and approved the 2019/20 financial plan. • Reviewed and approved the financial elements of the Group's medium-term plan. • Continued to monitor the progress of Project Connect (the new ERP system) and its implementation. • Updates on major tax matters. • Approved the Annual Report, half-year results and presentations to analysts. • Considered and approved the Group's going concern and viability statements. • Reviewed and recommended payment of the interim and final dividends.
Governance and ethics	• Induction of the new Chairman of the Board. • Carried out an internal Board evaluation, discussed the output openly and transparently and agreed opportunities for improvement. • Discussed ways to further develop employee engagement. • Reviewed feedback from institutional Shareholders. • Commenced review and consideration of new requirements introduced by the 2018 UK Corporate Governance Code. • Regular meetings of the Non-Executive Directors without management being present.

Compliance

The Board endorses the main and supporting principles and the provisions set out in the 2016 UK Corporate Governance Code ("the Governance Code") and considers that, throughout the period under review, the Group has complied with the provisions recommended in the Governance Code, save that Steve Blair was Interim Chairman whilst continuing as Senior Independent Director from July 2018 until Neil Carson was appointed Chairman of the Board in December 2018. In the exceptional circumstances following the death of Alan Thomson on 22 July 2018, it was considered proportionate for Steve Blair to fulfil both responsibilities whilst a new Chairman was being appointed.

Taken together with the reports of the Nomination Committee, Audit and Risk Committee, the reports on Remuneration and Corporate Responsibility, this Statement explains how Oxford Instruments has applied the principles of good corporate governance as set out in the Governance Code.

Resolutions for the election of all Directors will be put to Shareholders at the Company's forthcoming AGM. Once passed, this will continue to deliver a Board which meets the requirements of Provision B.1.2 of the Governance Code.

The UK Corporate Governance Code was reissued in July 2018 (the "Revised Code") and contains a number of new and amended provisions. The Board is reviewing the changes and identifying what it needs to do to comply with the Revised Code.

Preservation of value

The basis on which the Group generates and preserves value over the longer term and the strategy for delivering the objectives of the Group are to be found in the Strategic Report.

Board of Directors and management structure

Board of Directors

As at the date of this report, the Board comprises the Chairman, four Non-Executive Directors and two Executive Directors.
The Directors' biographies and details of length of service are shown on pages 62, 63 and 65. All the Directors have written letters of appointment that have been approved by the Board and which are available for inspection at the Company's Annual General-Meeting.

The Chairman is responsible for leadership of the Board and for ensuring its effectiveness on all aspects of its role. The division of responsibilities between the role of the Chairman and the Chief Executive has been agreed by the Board and documented in the Board Reference File.

The Board is responsible to Shareholders for good corporate governance, setting the Group's strategic objectives, values and standards, and ensuring the necessary resources are in place to achieve the objectives.

The Board has delegated Group responsibility for the management of health, safety and the environment to Ian Barkshire and he reports to the Board on these matters at each meeting.

Board members' length of service

Thomas Geitner	6 years
Richard Friend	4 years
Ian Barkshire	3 years
Mary Waldner	3 years
Gavin Hill	3 years
Steve Blair	2 years
Neil Carson	1 year

Management Board

The Board delegates management of the business to the Chief Executive. To assist in this, the Chief Executive has created a Management Board that consists of the Executive Directors, senior managers with Group-wide functional responsibilities and heads of the principal operating businesses.

The Management Board meets monthly, either in person or by video or telephone conference, and focuses on Group-wide performance, strategy and risk management.

Operation of the Board

The Board is responsible to Shareholders for delivering sustainable incremental Shareholder value through entrepreneurial leadership within a framework of controls for managing risk. The Board sets the Group's strategy and maintains the policy and decision-making framework in which this strategy is implemented. Further, it verifies that the necessary financial and human resources are in place to meet strategic aims, monitors performance against key financial and non-financial indicators, oversees the system of risk management and sets values and standards in governance matters.

The details of the way the Board operates, including a schedule of matters reserved to the Board for decision, are set out in the Board Reference File, which also includes the documented policies and procedures and sets out the roles and delegated authorities applying to the Directors, the Board and the Board Committees. The Board Reference File is reviewed annually as part of the annual governance review undertaken by the Chairman.

The Board retains control over strategy, investments and capital expenditure, and limits the decisions which can be taken by management in the areas of strategic and financial management and Shareholder reporting. The Board also decides on the Group's capital structure, corporate actions, mergers and acquisitions, major contracts and other commitments, litigation and regulatory proceedings, remuneration and share incentive plans.

Where the Board delegates authority to management it is on a structured basis, which requires that proper management oversight exists at the appropriate level. Compliance with the delegation of authorities is monitored by the Group's internal audit function.

The Board meets on a regular basis, at least seven times a year, and otherwise as required. Board meetings are held at a number of Group and other locations during the year. The Board holds one meeting specifically to discuss the Company's strategic direction during the year.

Board meetings involve reviews of financial and business performance against the plan approved by the Board. Risk management review, both at Group level and also for each of the Group's businesses, is embedded in the reporting system. On a rotating basis, the Board receives presentations from the businesses and key functional areas enabling it to explore specific issues in more detail. Matters requiring a decision by the Board are supported by a pre-circulated paper analysing all relevant aspects of the proposal and recommending a course of action.

Board papers are distributed in advance of the relevant meeting in sufficient time to allow the Directors to prepare for meetings. Minutes of Committee meetings are circulated to the relevant Directors. In the very few instances when a Director has not been able to attend Board or Committee meetings, his/her comments on the papers to be considered at the meeting are communicated in advance to the relevant Chairman.

The Non-Executive Directors meet without the Executive Directors at least annually, with the Chairman leading these meetings. The Non-Executive Directors also meet annually without the Chairman in attendance. The Senior Independent Director chairs these meetings.

The Company Secretary and the Company Secretary's office are responsible for implementing Board procedures and for advising the Board on corporate governance matters.

LEADERSHIP

CORPORATE GOVERNANCE REPORT CONTINUED

Board balance and independence

The Governance Code requires the Board to be of sufficient size that the balance of skills and experience is appropriate for the requirements of the business and that there is a balance of Executive and Non-Executive Directors such that no individual or small group of individuals can dominate the Board's decision-making. The Board is committed to promoting diversity and inclusiveness of all kinds, both on the Board and throughout the Group. The Board recognises that diversity, which should be construed in its broadest sense and includes gender, religious and ethnic diversity, background and age, is an important factor in Board and, indeed, operational effectiveness. The way in which the Board manages diversity within the Board is reported on more fully in the Nomination Committee Report on page 71 and diversity is more generally reported on pages 54 and 55 in the Corporate Responsibility Report. The composition of the Board and the combination of diverse backgrounds and expertise of the Non-Executive Directors meet these principles.

Neil Carson, Chairman, was appointed to the Board as Non-Executive Chairman in December 2018. Neil has a proven track record of delivering growth as a leader of Johnson Matthey, a FTSE 100 science/R&D based company, where he worked for over 30 years, gaining experience of operations management, technical innovation and strategic planning; all skills which are highly complementary to the Company's needs. He has also worked across a wide range of industry sectors, having served as a Non-Executive Director to a number of UK listed companies, on a number of Government bodies and has worked with the Corporate Leaders Group on Climate Change. Neil is also Chairman of the Nomination Committee and a member of the Remuneration Committee.

Steve Blair was appointed to the Board in July 2017. Prior to his appointment, he was Chief Executive of Teledyne e2v Limited (previously e2v technologies plc), a manufacturer of sensors, radio frequency generators and semiconductors and a listed company until its acquisition by Teledyne Technologies in March 2017. Previously he was Business Group Director for Spectris plc. He has broad operational experience and a breadth of experience covering established and high-growth emerging markets, strategic planning and portfolio development.

Steve is Senior Independent Director and also a member of the Audit and Risk, Remuneration and Nomination Committees.

Richard Friend was appointed to the Board as an independent Non-Executive Director in September 2014. Richard is a Fellow of the Royal Society and Fellow of the Royal Academy of Engineering. He is also Cavendish Professor of Physics and a Fellow of St. John's College at the University of Cambridge.

His research encompasses the physics, materials science and engineering of semiconductor devices made with carbon-based semiconductors. His research advances have shown that these materials have significant applications in LEDs, solar cells, lasers and electronics. He was knighted for services to physics in the Queen's Birthday Honours List in 2003. He has also been directly involved in the commercialisation of technology through several spin-off companies from the University of Cambridge.

Richard is a member of the Audit and Risk, Remuneration and Nomination Committees.

Thomas Geitner was appointed to the Board as an independent Non-Executive Director in January 2013. He is a graduate of the Technische Universität München and holds an INSEAD MBA.

Thomas has extensive international experience in the technology and engineering sectors, having spent more than 30 years in businesses operating across the globe. Having worked in a number of global companies he understands the importance of remuneration connecting with strategy to appropriately incentivise the executive team. The Board believes that his skills, experience and knowledge make Thomas well suited to chair the Remuneration Committee.

Thomas is Chairman of the Remuneration Committee and also a member of the Audit and Risk and Nomination Committees.

Mary Waldner was appointed to the Board as an independent Non-Executive Director in February 2016. She is Chief Financial Officer at Lloyd's Register. She has a Masters degree in physics from Oxford University and is a Fellow of the Chartered Institute of Management Accountants.

Mary has a broad range of financial experience in high technology companies that operate internationally and has worked in a number of senior financial roles within major public limited companies, including as Group Finance Director of Ultra Electronics plc. The Board believes that Mary's background gives her the various insights needed to make her a well qualified Chairman of the Audit and Risk Committee.

Mary is Chairman of the Audit and Risk Committee and also a member of the Remuneration and Nomination Committees.

Independence of Non-Executive Directors

In the opinion of the Board, Steve Blair, Richard Friend, Thomas Geitner and Mary Waldner are independent and Neil Carson, Chairman of the Board, was independent on appointment.

The Board considers that they are each independent in character and judgement and do not have relationships which are likely to affect their judgement. This opinion is based on current participation and performance on both the Board and Board Committees, including consideration of the length of service at Oxford Instruments plc.

Term of appointment of Non-Executive Directors

Each Non-Executive Director was appointed for an initial term of three years. In line with provision B.7.1 of the Governance Code, the Board has determined that all Directors of the Board are to be subject to annual re-election by Shareholders and, accordingly, the appropriate resolutions will be put to Shareholders at the Company's forthcoming AGM.

Composition of the Board

Independent	Non-independent
5	2

EFFECTIVENESS

CORPORATE GOVERNANCE REPORT

Board development and evaluation

Board development

On appointment, Directors undertake an induction process which is designed to develop knowledge and understanding of the Group's businesses through visits to various Group operating sites, discussion of relevant technology, as well as product demonstrations, briefings from management and familiarisation with investor perceptions of the Group. This induction is supported by briefing papers prepared by the Company Secretary. Since his appointment, Neil Carson has been through the induction process, which he has confirmed was effective at raising his knowledge and awareness of the Group, its technologies, businesses, markets and people.

The operating businesses' senior management teams and functional leaders present to the Board on a regular basis. Non-Executive Directors are encouraged to meet individual members of the senior management team and are invited to participate in relevant events. This they have done during the year under review.

Throughout the year, Non-Executive Directors attend Oxford Instruments events, exhibitions and award presentations.

The Company Secretary and her office act as advisers to the Board on matters concerning governance and ensure compliance with Board procedures. All Directors have access to this advice and a procedure also exists for Directors to take independent professional advice at the Group's expense. No such advice was sought during the year. The appointment and removal of the Company Secretary are matters for the Board as a whole.

Board evaluation

To comply with the provisions of Section B.6.2 of the Governance Code, the Board expects to carry out an externally facilitated review of Board effectiveness at least triennially. It underwent such an externally facilitated evaluation of the Board last year, in which ICSA Board Evaluation carried out a full evaluation of the performance of the Board of the Company. It concluded that the Board was performing well in all areas that were reviewed, that the Board comprised a strong team of Executive and Non-Executive Directors, that the Committees of the Board were effective and that the Board has adopted high governance standards throughout.

This year, the Chairman determined with the rest of the Board that the annual evaluation of the performance and effectiveness of the Board, its principal Committees and its Directors should be subject to an internal review. This exercise was under the control of the Chairman, using detailed questionnaires completed by all Directors in relation to the key areas of Board accountability and the arrangements in place to enable effective focus on these areas. Topics covered included Group strategy, performance, delegation and accountability, success, development and reward, Board and Committee composition and Committee effectiveness, Board induction and training, internal control and risk management. The output of the questionnaires was shared with all Directors. The Chairman had one-to-one discussions with each Director at which they discussed individual performance and the operation of the Board and its Committees in some detail. Each Committee Chairman held similar meetings with members of their Committees. The Senior Independent Director discussed with the Non-Executive Directors the effectiveness of the Chairman of the Board. The process culminated in a round table discussion, chaired by the Chairman, at which each Chairman reported on his/her findings and led to an open and frank discussion on the effectiveness of the operation of the Board and Committees. The Board came to a collective view around what worked well and where there were areas for improvement. The output of the process allowed the Chairman, with the Board, to objectively evaluate the overall balance and effectiveness of the Board and its Committees.

The Board concluded that it is operating in an open and transparent way with all Board members having freedom to express their opinions, which creates an appropriate environment to take effective decisions and provide appropriate challenge and support to the Executive Directors. The Board welcomed changes that the Chairman has introduced since his appointment in December 2018, which is creating a greater focus on supporting the development and challenge of strategy at its meetings. Each Committee was considered to be working well and meeting its legal obligations. In terms of possible areas of attention in the future, the evaluation process highlighted the need for: (i) additional informal sessions as part of the budget and strategy setting processes to give more opportunity for the Non-Executive Directors to explore and more fully understand the implications of factors, such as customer/competitor activities, the implications of investing in new sectors to better understand the reasons behind trade-offs and choices that are made when setting strategy and budgets; (ii) building better interactions between the Board and the senior leadership teams and employees more generally; (iii) continuing to evolve the way the Audit and Risk Committee oversees risk; and (iv) reviewing how to more effectively present some categories of information and data to the Board and Committees.

Overall, the Board concluded it and its Committees had performed satisfactorily in the year under review.

To complete the internal Board evaluation, the Chairman reviewed the performance of each Board member and has confirmed with the Nomination Committee that all Directors continue to perform effectively and demonstrate commitment to their roles. The Chief Executive, Ian Barkshire, was appraised by the Chairman and the Non-Executive Directors and the Group Finance Director, Gavin Hill, was appraised by the Chairman, the Non-Executive Directors and the Chief Executive in May 2019. Led by the Senior Independent Director, Steve Blair, the Non-Executive Directors carried out an evaluation of the Chairman's performance and concluded that they were satisfied with the Chairman's commitment and performance.

EFFECTIVENESS

CORPORATE GOVERNANCE REPORT CONTINUED

Attendance at meetings

Only the Committee Chairman and members are entitled to be present at a meeting of the Audit and Risk, Nomination or Remuneration Committees, but others may attend by invitation. No Director votes on matters where he or she has a conflict of interest. Further details of the individual Committees' activities are described below and in the Committee reports.

The following table sets out the frequency of, and attendance at, Board and principal Board Committee meetings for the year to 31 March 2019:

	Board	Audit and Risk Committee	Remuneration Committee	Nomination Committee
Number of meetings held	9	5	4	4
Neil Carson[1]	3[1]	1[1]	1[1]	—[1]
Alan Thomson[2]	2[2]	1[2]	2[2]	2[2]
Ian Barkshire	9	5[3]	3[3]	3[3]
Gavin Hill	9	5[3]	2[3]	1[3]
Steve Blair	9	5	4	4
Richard Friend	9	5	4	4
Thomas Geitner	9	5	4	4
Mary Waldner	9	5	4	4

1. Neil Carson has attended all meetings since his appointment to the Committee on 1 December 2018.
2. Apart from meetings held in July 2018, Alan Thomson attended all meetings held before his death on 22 July 2018.
3. Attended by invitation.

Board Committees

The Board has formed the following Committees: Audit and Risk, Nomination, Remuneration and Administration.

Membership of Board Committees, which is set out on pages 62 and 63 and above, is determined by the Board and is reviewed regularly. The written terms of reference of the Board Committees are reviewed annually by each Committee and the Board and are available on the Company's website at **www.oxinst.com/investors** and from the Company on request. They will be on display at the Annual General Meeting.

Detail on the operation of each of the Audit and Risk, Remuneration and Nomination Committees is to be found within the relevant Committees' reports.

Nomination Committee

The Nomination Committee comprises all the Non-Executive Directors, under the chairmanship of the Chairman of the Board. During the period following the death of Alan Thomson and the appointment of Neil Carson, Steve Blair was Interim Chairman of the Nomination Committee. The Nomination Committee is responsible for assisting the Board in the formal selection and appointment of Directors and considers succession planning for the Board, which it reviews annually.

Remuneration Committee

The Remuneration Committee comprises all the independent Non-Executive Directors and the Chairman of the Board. Thomas Geitner is the Chairman of the Committee. The Board considers that Thomas, with his experience of working at senior levels in global companies, including high technology companies, has an appropriate blend of skills to make a successful Chairman of the Remuneration Committee. The members of the Committee are appointed by the Board.

The Remuneration Committee is responsible for recommending to the Board the remuneration packages for Executive Directors and the bonus and share option strategy for the Group's executive management. Independent professional advice is sought when considered necessary. The Chairman and the Executive Directors are responsible for fixing the remuneration of the Non-Executive Directors and the Remuneration Committee is responsible for fixing the remuneration of the Chairman. No Director is involved in the process that sets his/her own remuneration.

The Chief Executive is invited to attend all or part of Remuneration Committee meetings as deemed appropriate, for example when consideration is being given to the performance of other Executive Directors and on significant Group-wide changes in salary structure and terms and conditions affecting other employees at senior executive level.

Audit and Risk Committee

The Audit and Risk Committee comprises all the independent Non-Executive Directors and its Chairman is Mary Waldner. Other members of the Board, senior management and the external auditor are invited to attend all or part of any meetings. The Board has determined that Mary, with her background in financial management, is the designated financial expert and is a well qualified Audit Committee Chairman.

The Audit and Risk Committee's main responsibilities are focused on financial reporting, external audit, internal audit, internal controls and risk management.

Full details of the operation and the work of the Audit and Risk Committee are included in the Audit and Risk Committee Report set out on pages 74 to 79.

Administration Committee

The Administration Committee consists of a minimum of two Directors and deals with items of a routine and administrative nature. At each of its meetings, the Board receives a summary outlining all matters decided by the Administration Committee since the previous Board Meeting.

Annual General Meeting (AGM)

The AGM is an opportunity for the Board to meet Shareholders. At its AGM, the Group complies with the provisions of the Governance Code relating to the disclosure of proxy votes, the separation of resolutions and the attendance of Committee Chairmen. The Group arranges for the Report and Financial Statements and related papers to be posted on its website and, where Shareholders have elected to receive paper copies, posted to Shareholders so as to allow at least 20 working days for consideration prior to the AGM.

The next AGM will be held on 10 September 2019 at the Group's offices in Tubney Woods, Oxfordshire.

Investor relations

The Group places considerable importance on regular communications with its Shareholders, with whom it has an ongoing programme of dialogue. All Shareholders are encouraged to participate in the AGM, at which the Chairman and Chief Executive present an overview of the Group's business, review the results and make comments on strategy and current business activity.

The Non-Executive Directors meet informally with Shareholders both before and after the AGM and respond to Shareholder queries and requests. The Chairman and the Senior Independent Director make themselves available to meet Shareholders as required.

All Group announcements are posted on the Group website, **www.oxinst.com/investors**, as soon as they are released. The Investor Relations section of the website provides financial and other information on the Group and the website itself carries additional information on the Group's products, services and markets.

Risk management

Within the Group there is an ongoing process for identifying, evaluating and managing the significant risks faced by the Group that is embedded in all business units. Day-to-day management of this process has been delegated by the Board to the Executive Directors. Details of the process are set out in the Audit and Risk Committee Report on pages 74 to 79. This process has been in place throughout the financial year and up to the date of approval of the Report and Financial Statements. It is regularly reviewed by the Board of Directors and accords with the principles of the Governance Code.

The Board has carried out a robust assessment of the principal risks facing the Group, including those which threaten its business model, future performance, solvency and liquidity. Details of all major risks identified, and the mitigating actions adopted, are reported to and reviewed by the Board and the Audit and Risk Committee on a quarterly basis. The principal risks set out on pages 43 to 47 provide an overview of the major risks and uncertainties faced by the Group. All operating businesses follow a standard process for risk identification and reporting. The process is further described on page 69. On a regular basis each business reviews and updates its risk register which is then reported to the Chief Executive. If a material risk changes or arises, the Managing Director of the business reports this to the Chief Executive, at which time there is a discussion on the adequacy of the mitigating actions taken. In addition, the Board and the Audit and Risk Committee consider risks to the Group's strategic objectives which arise at a Group level and develop appropriate actions to manage and mitigate these risks where possible.

Internal audit and assurance

The Group's internal audit function assesses the adequacy and effectiveness of the management of significant risk areas and provides oversight of operational management's front line and assurance activities. Further details of the scope of internal audit activities are set out in the Audit and Risk Committee Report on pages 74 to 79.

Internal control

The Board has accountability for reviewing and approving the adequacy and effectiveness of internal controls operated by the Group. This covers financial, operational and compliance controls and risk management. The management of each business is responsible for risk management and control within their business and, through the Management Board, implementing Board policies on risk and control.

The internal control framework includes central direction, oversight and risk management of the key activities within the Group. This framework includes a financial planning process which comprises a five-year planning model and a detailed annual budget which is subject to Board approval. All Group businesses' results are reported monthly and include variance analysis to budget and the prior year. Management also prepare monthly reforecasts.

Control activities include policies and procedures for appropriate authorisation and approval of transactions, the application of financial reporting standards and reviews of significant judgements and financial performance. Financial, regulatory and operational controls, procedures and risk activities across the Group are reviewed by the Group's assurance function.

The internal control framework has been designed to manage rather than eliminate material risks to the achievement of strategic and business objectives and can provide only reasonable, and not absolute, assurance against material misstatement or loss. Because of inherent limitations, internal controls over financial reporting may not prevent or detect all misstatements. There has been no material change to the Group's internal control framework during the period covered by this Report and Financial Statements.

The key components designed to provide effective internal control within the Group include the following:

- there is a formal schedule of matters reserved to the Board for decision; other than these matters, the Board delegates to the Chief Executive and reviews the delegation of authorities throughout the management structure;
- the Group's management structure is headed up by the Management Board. Its membership comprises the Executive Directors, senior managers with Group-wide functional responsibilities and the heads of the principal businesses of the Group's activities. Day-to-day responsibility for the management of the Group is delegated to the Management Board. The responsibility is based on the identification of separate businesses for each of the Group's activities for which there are clearly defined lines of management responsibilities at all levels up to and including the Group Board and the Group's accounting and reporting functions reflect this organisation;
- financial executives within Group businesses report to their own operational head but there is also a well-established and acknowledged functional reporting relationship through to the Group Finance Director;

EFFECTIVENESS

CORPORATE GOVERNANCE REPORT CONTINUED

Internal control continued

- the Board reviews strategic issues and options formally once a year during the annual strategic planning process and during the year as appropriate. In addition, the Executive Directors maintain a five-year planning model of the Group and its individual businesses;
- annual budgets are prepared for each of the Group's businesses which include monthly figures for turnover, profit, capital expenditure, cash flow and borrowings. The budgets are reviewed through the Group management structure and result in a Group financial budget which is considered and approved by the Board;
- the businesses prepare monthly management accounts which compare the actual operating result with both the budget and the prior year. The businesses also prepare rolling reforecasts for orders, turnover, operating profit and cash. Both are reviewed by the Board at each of its scheduled meetings;
- the Board approves all acquisition and divestment proposals and there are established procedures for the planning, approval and monitoring of capital expenditure;
- for all major investments, the performance of at least the first twelve months against the original proposal is reviewed by the Board;
- an internal audit is carried out through a system of regular reviews of the financial and non-financial internal controls at each site. This is further reported on in the Audit and Risk Committee Report on pages 74 to 79. These reviews are coordinated by the Group Internal Audit and Risk Manager;
- the Board receives regular updates on pensions, corporate responsibility, business ethics and health and safety and the Audit and Risk Committee receives regular updates on treasury, tax, insurance and litigation;
- authorisation limits are set at appropriate levels throughout the Group; compliance with these limits is monitored by the Group Finance Director and the Group Internal Audit and Risk Manager;
- there is a detailed and risk-based delegation of authority structure in place for sales contracts and managing commercial risks. Contracts with onerous terms and conditions (such as unlimited liability contracts) require approval by either the Chief Executive or Group Finance Director;
- the International Trade Committee monitors, considers action and makes recommendations around the management of key risks relating to international trade including sanctions, export controls and tariffs; and
- with respect to the UK pension scheme, the Group nominates half of the trustee directors of the corporate trustee to the pension scheme, involves as appropriate its own independent actuary to review actuarial assumptions, agrees the investment policy with the trustee, works with the trustee on its investment sub-committee to deal with day-to-day investment matters, ensures there is an independent actuarial valuation every three years and agrees funding levels to provide adequate funding to meet the benefit payments of the members as they fall due.

Susan Johnson-Brett
Company Secretary

11 June 2019

EFFECTIVENESS

NOMINATION COMMITTEE REPORT

The Committee's key objective is to ensure there is a formal, rigorous and transparent process for the appointment of new Directors to the Board and to ensure that effective succession planning processes are in place across the Group.

Key responsibilities

- The Committee is responsible for assisting the Board in the formal selection and appointment of Directors. It considers potential candidates and recommends appointments of new Directors to the Board.
- The Committee considers succession planning for the Board and the top level of senior management.
- Annual performance appraisal of the Chief Executive.
- Annual review of the Committee's terms of reference.

Attendance at meetings year ended 31 March 2019

	Nomination Committee	Date of appointment to Committee
Number of meetings held	4	
Number of meetings attended:		
Neil Carson[1] (Chairman from 1 December 2018)	—	1 December 2018
Alan Thomson[2] (Chairman to 22 July 2018)	2	1 June 2016
Steve Blair (Interim Chairman from 23 July 2018-30 November 2018)	4	1 July 2017
Richard Friend	4	1 September 2014
Thomas Geitner	4	15 January 2013
Mary Waldner	4	4 February 2016
Number of meetings in attendance:		
Ian Barkshire[3]	3	
Gavin Hill[3]	1	

1. Neil Carson was appointed to the Board on 1 December 2018. He has attended all meetings since his appointment.
2. Alan Thomson died on 22 July 2018. He attended all meetings until his death.
3. Attended by invitation.

Dear Shareholder,

I am pleased to introduce the Nomination Committee Report for 2018/19. The Committee's key objective is to support the Board in fulfilling its responsibilities to ensure there is a formal, rigorous and transparent process for the appointment of new Directors to the Board and to ensure that effective succession planning processes are in place across the Group.

I took over as Chairman of the Committee and the Board in December 2018. Prior to my appointment, the Committee, with Steve Blair acting as Interim Chairman of the Nomination Committee, carried out an executive search to identify potential candidates to succeed Alan Thomson as Chairman of the Board. The Committee, with the help of Russell Reynolds Associates, undertook such a search and met with a number of interested candidates. This culminated in a recommendation of appointment to the Board and my subsequent appointment on 1 December 2018 as Non-Executive Chairman of the Board and Chairman of the Nomination Committee.

The Committee will continue to focus on ensuring that the present and future composition of the Board is appropriate for the delivery of the Group's strategy and to maintain, and where applicable, broaden, the range of expertise, experience and diversity of those serving on the Board. The Committee will continue to work to ensure all relevant requirements in the UK Corporate Governance Code are met.

Neil Carson
Chairman of the Nomination Committee
11 June 2019

EFFECTIVENESS

NOMINATION COMMITTEE REPORT CONTINUED

The Nomination Committee

The Nomination Committee comprises all the Non-Executive Directors, under the chairmanship of the Chairman of the Board.

The composition of the Committee is therefore compliant with the UK Corporate Governance Code 2016 ("Governance Code"). Full details of the Committee's responsibilities are set out in its terms of reference, which can be found on our website at **www.oxinst.com/investors-content/advisers-and-company-secretary**, and include all matters required by the Governance Code. The main responsibilities of the Committee are summarised below:

- the Committee is responsible for assisting the Board in the formal selection and appointment of Directors. It considers potential candidates and recommends appointments of new Directors to the Board:
  - there is a formal, rigorous and transparent procedure for the appointment of new Directors to the Board, the prime responsibility for which is delegated to the Committee;
  - the purpose of the Committee's selection process is to identify the most suitably qualified candidates who will complement and balance the current skills, knowledge and experience of the Board:
    - recommendations for appointments seek to strengthen the Board by selecting the best candidate based on merit and against objective criteria, including time available and the commitment that will be required of the potential Director;
    - each appointment process begins with an evaluation of the balance of skills, knowledge, experience and diversity existing on the Board that is drawn up through a series of meetings between the Committee Chairman and Directors;
    - the Board recognises that diversity, construed in its broadest sense and including gender, religious and ethnic diversity, age, personality and background, is an important factor in Board and operational effectiveness;
    - in drawing up long and shortlists of potential candidates, the Committee considers not only relevant skills, experience and knowledge but also diversity;
    - the Committee actively considers diversity before making a recommendation to appoint to the Board;
  - the Committee takes external advice when considered appropriate and will 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;
- the Committee considers succession planning for the Board and the top level of senior management;
- annual performance appraisal of the Chief Executive; and
- annual review of the Committee's terms of reference.

Succession planning

- The Group HR Director and the Chief Executive presented the work that had been carried out within the business on succession planning, talent management, and leadership, including at Management Board and Executive Director level.
- The Committee discussed Board diversity and succession planning for Directors.

Performance review of Executive Directors

- The Committee also carried out its annual review of the performance of:
  - the Chief Executive;
  - with the help of the Chief Executive, the Group Finance Director; and
  - excluding the Chairman, reviewed the performance of the Chairman.

Other

- Annual review of the Nomination Committee's terms of reference.

Principal activities of the Committee during the year

Constitution of the Board

The Committee undertook a search for, and appointed, a Non-Executive Chairman of the Board.

This comprised a number of steps.

1

The Committee established a sub-committee comprising the Interim Chairman, CEO and Group HR Director.

2

Russell Reynolds Associates was appointed as adviser to the Committee on the appointment of Chairman. They spoke to each member of the Board to establish a clear specification of requirements. Taking the output of these discussions into consideration, the sub-committee, with the help of Russell Reynolds, drew up a description of the role and desired capabilities for candidates. Russell Reynolds was asked to consider diversity, including gender, religion, ethnicity, age, personality and background, when undertaking its search for potential candidates.

3

The search was focused on experienced Non-Executive Directors and chairmen, and former CEOs and CFOs. Candidates considered came from various backgrounds including engineering, manufacturing, technology and pharmaceuticals. They all brought a global outlook and good knowledge of plc environments.

4

Russell Reynolds then presented, and discussed in detail, a long list of candidates with the sub-committee, the output of which generated a shortlist of candidates who were interviewed by the sub-committee.

5

After interviews were completed, the sub-committee discussed with the Committee the shortlisted candidates. The Committee determined its final shortlist of two candidates. All members of the Committee met with, in person or by video conference, the two final candidates.

6

Appropriate references were taken up for the final shortlisted candidates and the Committee convened a meeting where it considered each Director's feedback and agreed its recommended candidate.

7

The Remuneration Committee convened a meeting to consider and agree the fees for the appointment.

8

The Board convened a meeting at which the Committee's recommended candidate was considered and approval was given to appoint the preferred candidate at the level of fees agreed by the Remuneration Committee.

9

Following successful completion of the search, on 1 December 2018 Neil Carson was appointed to the Board as Non-Executive Chairman.

10

All Directors of the Board are put forward for re-appointment by Shareholders each year at the AGM and this includes those appointed during the year. The Committee, taking into account the performance and value that each Director brings to the Board, has considered whether each of the Non-Executive and Executive Director appointments should be renewed for a further year and has confirmed that this is indeed the case. Accordingly, a resolution to re-appoint each Director will be put to Shareholders at the Company's forthcoming AGM.

ACCOUNTABILITY

AUDIT AND RISK COMMITTEE REPORT

The Committee retains its focus on a range of key financial and non-financial risk areas and has overseen improvements to the Group's risk management process.

Key responsibilities

- Financial reporting.
- External audit.
- Internal controls and risk management.
- Internal audit.
- Business malpractice.

Attendance at meetings year ended 31 March 2019

	Audit and Risk Committee	Date of appointment to Committee
Number of meetings held	5	
Number of meetings attended:		
Mary Waldner, Chairman	5	4 February 2016
Neil Carson[1]	1	1 December 2018
Alan Thomson[2]	1	1 June 2016
Steve Blair	5	1 July 2017
Richard Friend	5	1 September 2014
Thomas Geitner	5	15 January 2013
Number of meetings in attendance:		
Ian Barkshire[3]	5	
Gavin Hill[3]	5	

1. Neil Carson has attended all meetings since his appointment to the Committee on 1 December 2018.
2. Apart from meetings held in July 2018, Alan Thomson attended all meetings held before his death on 22 July 2018.
3. Attended by invitation.

Dear Shareholder,

The year ended 31 March 2019 has been a year of stability in the Group structure. In this period, the membership of the Audit and Risk Committee (the "Committee") has also remained stable, although it has continued to adapt its activities to ensure that it deals with the areas of most significant risk. From a governance perspective, the most significant change in the year relates to the creation by the Company of a new committee to assimilate the management of key risks relating to international trade such as sanctions, export controls and tariffs. The creation of the International Trade Committee is a welcome development in an area of key importance for a Group that derives such a significant proportion of revenue and profit from exporting.

The Committee's core activities have not changed significantly since last year, reflecting the stable corporate environment, although certain areas of risk have received greater attention, responding to changes in the external environment. At the same time, assurance over the adequacy of internal financial controls and oversight of activities in key risk areas such as new product innovation, cyber security and health and safety remain central to the Committee's remit. To fulfil its obligations under the UK Corporate Governance Code, the Committee performs reviews to assess the integrity of the Financial Statements, considers key areas of accounting judgement that are material to the Group's results and considers whether the Financial Statements are fair, balanced and understandable. It continues to monitor annually the effectiveness of internal audit and retains oversight of the external auditor independence and audit relationship. This extends to monitoring the provision of non-audit services.

The Committee has overseen improvements to the risk management process during the year, with more granular reporting required in relation to the most significant areas of risk across the Group. The internal audit programme retains a mix of work to provide assurance over the effective operation of key financial controls and other risk areas which are principally derived from the Group risk register. In the year ahead, this approach will continue and will include additional assurance work on key compliance risks relating to international trade and the ongoing implementation of the new ERP system.

A summary of the main areas of recurring work is set out below:

- review of the Financial Statements and the significant accounting judgements that were used in their compilation. (The significant accounting judgements relating to the 2019 Financial Statements are set out on page 117, section (b) of policies);

- review of the statement issued at the AGM and the statements relating to the half-year and full-year results;
- review of the Group's viability statement, including the supporting calculations and links to key risks and uncertainties;
- review of the Group risk register at each meeting of the Committee, including discussion of key risk areas and emerging risks;
- an annual review of treasury and tax matters;
- a bi-annual review of key litigation matters and risks;
- evaluation of the effectiveness of internal audit; and
- review of the effectiveness of the external audit process.

Further, the Committee has focused on the following specific subject areas during the last year:

- risks relating to international trade;
- Brexit-related risks;
- principal risks in the Andor and NanoScience business units;
- IT and cyber security risks; and
- the Group's delegation of authority and mechanisms for managing contractual risks.

The structure of the rest of the Committee's report is set out in the following sections:

- the composition and terms of reference of the Audit and Risk Committee;
- a summary of the Committee's role and responsibilities;
- a summary of activities by meeting over the course of the year;
- significant matters relating to the Financial Statements;
- the external auditor and auditor independence;
- internal audit, risk management and internal control; and
- whistle-blowing.

As in previous years, I will be attending the AGM in September. In the meantime, if you have any questions or comments I should be delighted to hear from you.

Mary Waldner
Audit and Risk Committee Chairman

11 June 2019

Composition and terms of reference

Mary Waldner, Sir Richard Friend, Steve Blair and Thomas Geitner have continued their service throughout the year, with Mary Waldner exercising the role of Chairman.

The Audit and Risk Committee's terms of reference require that at least one member of the Committee has recent and relevant financial experience. This is in line with the FRC's Guidance on Audit Committees. Mary Waldner is the current Chief Financial Officer of Lloyd's Register and has previously held senior financial roles at companies quoted on the London Stock Exchange. On this basis, the Board considers that Mary fulfils the requirement to have recent and relevant financial experience and is also independent. The other members bring valuable sector-specific experience and insight to the Committee.

To carry out its duties, the Committee receives reports, presentations and other information to assess the various areas within its remit. Information is generally provided to the Committee by internal and external audit, the Executive Directors and relevant subject matter experts. These include internal and external advisers on risk areas such as cyber security, intellectual property, health and safety, financial reporting, pensions and tax. During the last financial year, the external auditor attended three of the four Committee meetings and at each of those meetings met with the Committee without the presence of the Executive Directors.

Role and responsibilities

Full details of the Committee's responsibilities are set out in its terms of reference, which can be found on our website at **www.oxinst.com/investors-content/advisers-and-company-secretary**. The Committee periodically reviews its terms of reference and its effectiveness and recommends to the Board any changes required. Its main responsibilities are set out below:

Financial reporting

- The Committee performs a review of the Financial Statements and the results announcements at the half year and full year. As part of its remit, the Committee advises the Board whether the Report and Financial Statements, taken as a whole, are fair, balanced and understandable. It also considers whether there is sufficient information and disclosure for Shareholders to assess the Company's performance, business model, strategy and risks.
- The Committee's review of the Financial Statements includes a review of significant financial reporting judgements, the accounting policies that have been used, and compliance with accounting standards. The Committee's comments on the significant financial reporting judgements are set out on page 77 below. The review also includes an assessment as to whether all material matters have been taken into account and treated appropriately.
- The Committee monitors compliance with relevant statutory and listing requirements.

External audit

- The Committee has responsibility for overseeing the relationship with KPMG, the Company's external auditor.
- The Committee holds regular meetings with KPMG to discuss key matters related to the financial reporting process which include KPMG's audit strategy and planning, key areas of audit risk and financial reporting requirements.
- The annual audit plan is reviewed and approved by the Committee. It also reviews the key audit findings presented by KPMG at the full and half year.
- The Committee evaluates the effectiveness of the external audit process on an annual basis.
- The Committee oversees and evaluates the external auditor's independence and objectivity. It also exercises responsibility for the non-audit services policy and reviews the value and nature of all non-audit services provided.
- The Committee makes recommendations to the Board relating to the appointment or re-appointment of the external auditor.

ACCOUNTABILITY

AUDIT AND RISK COMMITTEE REPORT CONTINUED

Role and responsibilities continued
Internal controls and risk management
- Monitors the adequacy and effectiveness of the internal control environment.
- Reviews the Group's risk management processes and the Group's risk register that is reported every quarter.

Internal audit
- The Committee performs an annual evaluation of the effectiveness of the internal audit function.
- Approves the annual internal audit programme and reviews all financial and non-financial internal audit reports.

Business malpractice
- Evaluates the adequacy of the whistle-blowing arrangements in place at the Group and the Group's response to any reports received of business malpractice.
- Performs a review of the Group's procedures and controls relating to the prevention of fraud and the detection of bribery.

Reporting
- Produces a report on its activities, in accordance with the UK Corporate Governance Code.
- Reports to the Board on any matter it considers requires action or improvement.
- Advises the Board on Directors' responsibilities relating to the Financial Statements.

Activities of the Committee in respect of the financial year ended 31 March 2019
The Committee's work is principally based on a structured programme of recurring activities that has been developed from its terms of reference and designed to fulfil its responsibilities throughout the financial year. A summary of the items discussed at each meeting since the publication of last year's Report and Financial Statements is set out in the table below:

Agenda item	July 2018	September 2018	November 2018	January 2019	June 2019
Review the integrity of the draft Financial Statements, appropriateness of accounting policies and going concern assumption (reports received from management and KPMG)			•		•
Review and recommend for approval the half-year and year-end announcements, interim management and AGM statements and the Report and Financial Statements			•		•
Review of significant financial reporting issues and judgements			•		•
Review the viability statement					•
Assess the effectiveness of the external audit process		•			
Consider the independence and objectivity of the external auditor				•	•
Review internal management representation letters					•
Review and agree the internal audit plan				•	
Review the output of the internal audit work			•	•	•
Review the effectiveness of the Audit and Risk Committee					•
Detailed report on business-specific risk areas	•	•			
Review of cyber security		•			
Update on litigation			•		•
Evaluate the effectiveness of the internal audit function				•	
Review the internal control framework				•	
Review the risk management processes				•	
Review the Group risk register	•	•	•	•	•
Review of whistle-blowing arrangements				•	
Review systems and controls for detecting fraud and the prevention of bribery and corruption				•	
Annual review of insurance			•		
Annual review and approval of policy relating to non-audit services				•	
Annual review of tax arrangements				•	
Annual review of treasury arrangements				•	

The scope of the Committee's oversight includes a range of financial and non-financial matters which are particularly relevant to the Group's performance. Assurance programmes relating to New Product Innovation (NPI), and support functions such as IT and Health and Safety continue to feature on the Committee's agenda. Cyber security is subject to a recurring annual review by the Committee. Key findings from financial and health and safety audits are discussed at each meeting of the Committee. Other areas such as NPI, IT and HR are typically reviewed on an annual basis. The increased focus on international trade risks in the last financial year will continue in 2019/20. The Committee will continue to review the key risks faced by the Group to ensure that focus is appropriately directed.

The 2016 UK Corporate Governance Code, requires the Directors to prepare the Annual Report and Accounts and to state that they consider them, taken as a whole, to be fair, balanced and understandable and provide the information necessary for Shareholders to assess the Group's position and performance, business model and strategy. The Board requested that the Committee advise it as to whether the Annual Report meets those requirements. This work formed part of the review of the draft Financial Statements that was undertaken by the Committee in May and June 2019.

Significant matters relating to the Financial Statements

The Committee reviews all significant issues concerning the Financial Statements. The principal areas of significant accounting judgement considered in relation to the 2019 Financial Statements were:

Revenue recognition

As set out on page 116 the Group adopted IFRS 15 Revenue from Contracts with Customers and revenue is recognised in accordance with this standard. Revenue is recognised using principles-based criteria and the trigger point for recognition is when the performance conditions in the contract with the customer are met. The Group applies prescriptive rules relating to revenue recognition that are appropriate to both products and services.

As a result of the adoption of IFRS 15, revenue recognition is less subjective than in the past, although revenue cut-off remains an area of audit focus. In the reports received by the Committee, no significant errors in revenue recognition were reported.

UK defined benefit pension scheme

In accordance with the provisions of IAS 19, the Group is required to value its pension deficit at 31 March 2019 as the difference between the net present value of the defined benefit scheme's assets and liabilities.

IAS 19 also requires the Group to appoint an external actuary to advise on suitable assumptions to adopt in calculating the net present value of the scheme's liabilities at the balance sheet date. The Group has retained Aon Hewitt (the pension scheme's actuary) to undertake bi-annual valuations on its behalf for accounting purposes.

For the year-end accounts, Aon Hewitt recommended assumptions on a consistent basis with those adopted at the previous year end. Market conditions did not move significantly during the year and as a result the actual assumptions used were broadly the same as those used at 31 March 2018. Mortality assumptions were also updated to use the latest CMI 2018 tables. The valuation of the scheme assets was provided by River and Mercantile (the scheme's investment manager) in accordance with market practice for valuing investment assets.

As set out in Note 25 to the Financial Statements, the reported deficit for the UK scheme reduced from £12.5 million at 31 March 2018 to £3.5 million at 31 March 2019. This was largely due to improved investment performance relating to the scheme's assets and deficit recovery contributions of £7.3 million made by the Group during the year.

Provisions for intellectual property claims

The Group faces potential exposure to third-party claims in relation to potential intellectual property infringement. Management provide updates and analysis in relation to potential claims to the Audit and Risk Committee twice a year. The Committee has reviewed the information and explanations provided by management in support of the amounts recognised in the Financial Statements and has also received reports from KPMG on the matter. As at 31 March 2019, the value of the provisions recognised in the Financial Statements is not significant but, nonetheless, it remains an area of significant accounting judgement. The Committee has verified that the approach and calculations performed to estimate the level of provisions required is reasonable and consistent with the prior year. The Committee continues to recognise that the final outcome of each specific case is likely to vary from the amount provided. However, it takes the view that no adjustments to the provisions are required.

Adjusted profit and EPS

As explained in Note 1 to the Financial Statements, the Group applies adjustments to the statutory definition of profit and EPS to present adjusted profitability and earnings, as the Board believes they present a clearer picture of the financial performance of the Group. In the year ended 31 March 2019, adjustments to operating profit totalled £11.1 million. The principal adjusting item to profit before tax was the charge of £9.6 million relating to the amortisation of acquired intangible assets. The only other significant adjustment (in excess of £1.0 million) to operating results is the mark-to-market gain of £1.5 million relating to currency hedging contracts. Note 1 also shows £10.4 million of the taxation charge in the year as an adjusting item which arises from a change to corporation tax rates in the United States, and an interest charge of £0.9 million relating to the early repayment of loan notes. The Committee has considered a paper from management setting out all of the adjustments and concluded that the Group's definitions have been consistently applied year-on-year. The nature of these adjustments requires appropriate judgement to be exercised. The Committee is satisfied with the process adopted and the disclosure in the Financial Statements.

ACCOUNTABILITY

AUDIT AND RISK COMMITTEE REPORT CONTINUED

Misstatements

Group management reported to the Committee that they were not aware of any material misstatements or immaterial misstatements that had been made intentionally in order to achieve a particular presentation. The Committee also received a report from KPMG that set out its schedule of unadjusted audit differences. The schedule was discussed with both Group management and KPMG. On the basis of those discussions, the Committee concluded that the unadjusted differences were not material to the Financial Statements and therefore no adjustment was required. The Committee also concluded that the external auditor had fulfilled its duties with diligence and professional scepticism.

Having reviewed presentations and reports from management in conjunction with the information and reports received from KPMG, the Committee was satisfied that the Financial Statements appropriately addressed the key estimates and critical judgements, both in terms of quantum and the information disclosed. The Committee was also satisfied that the key assumptions adopted in determining the value of assets and liabilities reported in the Financial Statements had been subject to appropriate scrutiny and challenge.

External auditor

The Committee monitors the performance, objectivity and independence of the external auditor. It also recommends the appointment or re-appointment of the external auditor to the Board and is responsible for the approval of its fees.

The Audit and Risk Committee received KPMG's presentation on its audit strategy and planning memorandum at its January 2019 meeting. The audit strategy and planning memorandum set out the proposed audit methodology, scope and planned materiality for its audit of the Financial Statements for the year ended 31 March 2019. It also identified the principal areas of audit risk and how the audit would address them. The audit strategy was compiled following meetings with a number of relevant stakeholders including, but not limited to, the Chairman of the Audit and Risk Committee, the Chairman of the Board and the Group Finance Director. After due consideration, KPMG's audit strategy and planning memorandum were approved by the Committee.

The Committee is responsible for reviewing the effectiveness of the external audit process. This review is based on reports from KPMG at both the half year and year end and also on feedback from key members of the finance community within Oxford Instruments. The effectiveness of the process for the year ended 31 March 2019 will be evaluated by the Committee at its next meeting, which is scheduled to take place in September 2019.

KPMG was re-appointed as auditor following a tender process in 2014. In accordance with the rules for audit tendering and rotation implemented in June 2016, the Group shall be required to replace KPMG as auditor for the year ending 31 March 2022. In the meantime, the Committee shall monitor annually the continuing appointment of KPMG and will issue a call for tender for the external audit when it considers it is appropriate to do so.

Auditor independence

In order to assess auditor independence, the Committee obtains confirmation of any relationships between the Group and KPMG that may have a bearing on its independence. It also receives confirmation that KPMG is independent from the Group.

As mitigation to the risk that the external auditor firm's independence might become compromised, the Committee operates a strict policy that governs the engagement of the external auditor to provide non-audit services. Inter alia, the policy sets out a list of prohibited services and a series of authority levels for permitted services. All non-audit related engagements over £50,000 require formal approval by the Committee. Note 4 (page 128) to the Financial Statements sets out the value of audit fees for the year, together with fees for non-audit services. In the year ended 31 March 2019, audit fees paid to KPMG were £469,000 and non-audit fees were £42,000. This represents a non-audit to audit fee ratio of 0.09:1.

Internal audit and internal control

The Committee seeks assurance over the effective design and operation of internal controls from the internal audit function. The Committee approves internal audit's annual programme which includes audits that consider the effectiveness of internal financial controls. Internal audit performs financial controls audits on a rotational basis across operational business units and the principal Regional Offices. The internal audit programme also includes non-recurring, risk-based audit topics which are derived from the Group's risk register.

It is planned that the new ERP system will be implemented at several business units in 2019/20. Consequently, the internal audit plan for the year includes a greater focus on post implementation work to complement the core internal financial controls reviews. The overall strategy remained consistent with prior years and was developed to provide the assurance required by the Committee in relation to key risk areas. The internal audit plan for 2019/20 was approved by the Committee at its meeting in January 2019, having considered key areas of risk, other assurance activities and historical audit findings.

The head of internal audit has a direct reporting line to the Chairman of the Audit and Risk Committee and they meet regularly throughout the year. The head of internal audit also meets independently with the external auditor to discuss risk areas. All reports issued by internal audit are provided to the external auditor once finalised.

The Committee's evaluation of the effectiveness of the internal control environment is based on internal assurance reports across multiple areas of activity including operations, finance, NPI and IT, discussions with the head of internal audit at its meetings, and on external audit reports. The Committee reviewed the system of internal financial control on behalf of the Board and satisfied itself that the Group is meeting the required standards both for the year ended 31 March 2019 and up to the date of approval of this Report and Financial Statements. No concerns were raised with the Committee in the year about possible improprieties in matters of financial reporting.

Risk management

A summary of key risk management activities performed by the Group is set out on page 43. The Committee takes an active role in the risk management process. Inter alia, it reviews the Group risk register at every meeting and also receives more detailed presentations on key risks from a number of individual business units. As set out on page 75, the Committee has also played a role in shaping Group risk reporting during the year.

The Group's principal risks and uncertainties are set out on pages 43 to 47. Although the nature of the key risks has not changed in the last twelve months, the relative importance of certain risks has evolved. This is reflected in how they have been reported and also in the sensitivities used in the calculations supporting the viability statement, which is set out on pages 48 and 49. In the year ahead, the Committee will continue to work with the Board and senior management teams to ensure that there is appropriate focus on key risk areas and the mitigating actions that are taken.

Whistle-blowing

The Group operates a confidential reporting mechanism, operated by a third-party provider, which enables employees to raise concerns of malpractice, non-compliance or unethical conduct. Other reporting channels are also available, including to the Senior Independent Director. The options for raising concerns are widely communicated to employees. These channels are clearly set out in the Code of Business Conduct and Ethics. The Group's reporting policy and procedures set out the framework for protected disclosure and specify a formal protocol for the independent investigation of reports received through any reporting channel.

The Committee conducts an annual review of its Reporting a Business Malpractice Policy and the outcomes of the investigations into the reports received. This includes a review of the log of all matters reported through the independent reporting channel which is maintained by the head of internal audit and risk management. The latest review of findings took place in June 2019 and all matters raised in the year ended 31 March 2019 had been resolved. There were no significant matters arising.

Summary

The Committee has concluded that, as a result of its work during the year, it has acted in accordance with its terms of reference and fulfilled its responsibilities. I will be available at the AGM to answer any questions.

Mary Waldner
Audit and Risk Committee Chairman

11 June 2019

REMUNERATION

REMUNERATION REPORT

We are building a stronger Oxford Instruments, changing the way we operate, enhancing our commercial focus and core capabilities across the Group.

Key responsibilities

- Determining the Remuneration Policy for the Executive Directors.
- Determining the total Executive remuneration packages.
- Performance-related remuneration plans.
- Reviewing the Group's remuneration policy.
- Executive Policy for pension arrangements, service agreements, recruitment terms and termination payments.

Attendance at meetings year ended 31 March 2019

	Remuneration Committee	Date of appointment to Committee
Number of meetings held	4	
Number of meetings attended:		
Thomas Geitner, Chairman	4	15 January 2013
Neil Carson[1]	1	1 December 2018
Alan Thomson[2]	2	1 June 2016
Steve Blair	4	1 July 2017
Richard Friend	4	1 September 2014
Mary Waldner	4	4 February 2016
Number of meetings in attendance:		
Ian Barkshire[3]	3	
Gavin Hill[3]	2	

1. Neil Carson has attended all meetings since his appointment to the Committee.
2. Alan Thomson attended all meetings before his death on 22 July 2018.
3. Attended by invitation.

Executive Directors' remuneration at a glance

Total remuneration payable for 2018/19

	Base salary £'000	Benefits £'000	Pension £'000	Annual bonus £'000	LTIP £'000	Other £'000	**Total £'000**
Ian Barkshire	428	88	54	407	779	1	**1,757**
Gavin Hill	334	22	42	324	608	1	**1,331**

Remuneration performance scenarios for 2019/20

The chart illustrates how the composition of the Chief Executive's and Group Finance Director's remuneration could vary at different levels of performance under the Company's Remuneration Policy.

Company performance against annual bonus and PSP performance measures

Annual bonus	Performance conditions: Threshold	On target	Maximum	Actual Company performance
Adjusted PBT	£39m	£43.6m	£46m	£45.6m
Organic sales	£290m	£302m	£307m	£328.7m
Cash conversion	75%	80%	85%	102.8%
Strategic objectives	Targets based on a range of objectives			Strong

Performance Share Plan (three-year performance)	Threshold	Maximum	Actual Company performance
Earnings per share growth	7% p.a. CAGR	12% p.a. CAGR	17.1% CAGR
Total shareholder return (compared to FTSE 250)	50th percentile	75th percentile	70.2 percentile (+47.3% TSR)

Dear Shareholder,

It has been a year of strong performance for Oxford Instruments, with the Horizon strategy now well embedded across the Group.

We closed the year with a strong order book, revenue and profit growth, as the Horizon strategy delivers tangible improvements in business performance. By being clear about our long-term vision and goals, we have focused the business and transformed our operating processes and day-to-day activities, resulting in a return to growth and improved financial performance. Through Horizon we are building a stronger Oxford Instruments, positioned to deliver long-term sustainable growth and improved margins.

Work of the Committee during 2018/19

In addition to its usual annual agenda items, the Committee reviewed the changes to the UK Corporate Governance Code and Directors' Remuneration Reporting Regulations, considering the changes that are required to our remit as well as our current policy and procedures to ensure compliance. There has also been updated guidance from a number of investors and proxy voting agencies following the Corporate Governance Code changes and the Committee has reviewed and taken account of these in considering operation of its Remuneration Policy for FY20 but also noting their applicability to our forthcoming policy review. I refer to this in more detail below.

Corporate performance and annual bonus and PSP payments for 2018/19

The annual bonus for 2018/19 was determined by a combination of cash, sales and profit targets, and non-financial strategic targets.

As in previous years, the Committee set stretching performance targets which were clearly linked to the strategy and financial performance of the Group. Group financial performance, on which 85% of bonus was based, has been strong with profit up 12.3% and the bonus payable reflects this. The adjusted pre-tax profit target for maximum payment was almost reached and the organic sales and cash conversion elements of the bonus are payable at maximum.

REMUNERATION

REMUNERATION REPORT CONTINUED

Corporate performance and annual bonus and PSP payments for 2018/19 continued

This results in a bonus payable in respect of the financial elements of the bonus of 98.2% of the maximum payable. In relation to the strategic targets, set for 15% of the bonus, the Committee carefully reviewed performance against the objectives and scored the Chief Executive (CEO) and Group Finance Director (GFD) at 73.3% and 86.7% respectively, noting the strong performance of the Executive Directors in driving growth and improved financial performance with continued focus on the transformation of operational delivery throughout the Group. Full details of the annual bonus outturn for both the CEO and GFD of 94.4% and 96.4% of salary (and maximum) respectively (against a target level of 75% of salary) are set out in the Annual Report on Remuneration.

As both executives are relatively new to their role, this is the first year that the performance targets for their awards under the Performance Share Plan (PSP) were tested. The EPS performance condition, for the period ending 31 March 2019, was met in full with EPS growth of 17.1% per annum, resulting in 100% of this element vesting. The Company's TSR was 47.3% over the three-year performance period, ranking it at the 70.2 percentile of its comparative group and resulting in 85.6% of this element vesting. Accordingly, across both measures, 92.8% of the total award vests and delivers a substantial increase to total remuneration year to year.

Given the strong performance of the business over both 2018/19 and the longer three-year performance period of the PSP award, the Committee is comfortable that there has been a robust link between reward and performance and alignment with investor returns. Accordingly, the Committee has concluded that there are no circumstances arising where it would need to exercise its discretion to adjust any of the variable pay outcomes.

Review of Remuneration Policy

Shareholders are asked to approve our Directors' Remuneration Policy at least every three years. Our current Policy was approved in 2017 and re-approval is therefore required next year at our 2020 AGM.

The Remuneration Committee is comfortable that the current policy remains appropriate for the final year of the three-year policy period. A full review will be carried out during this year and a new policy will be brought to Shareholders for approval at our AGM in 2020.

During the year we considered carefully the impact of the changes to the UK Corporate Governance Code (the "2018 Code") and new secondary legislation on our Remuneration Policy for executives, the Remuneration Policy more widely throughout the Group and our current disclosure and reporting. It was agreed that many of the changes would be considered as part of the review of the Directors' Remuneration Policy which the Committee is due to consider in 2019/20 and which will be formally put forward for approval by Shareholders at 2020's AGM. In the meantime, to meet the more urgent requirements of the 2018 Code, the Committee determined that the remuneration offered to any new Executive Director appointments would include pension with a contribution rate aligned to those available to the workforce and that the recovery and withholding provisions in our annual bonus and PSP, as well as the discretion to adjust the formulaic outcome of incentive payments, would be aligned with the updated requirements of the Code.

Operation of Policy for 2019/20

Executive Directors

Effective from 1 July 2019, the Executive Directors' salaries will be increased by 2.75%, in line with general workforce increases. Annual bonus maximum and the PSP award level remain unchanged at 100% and 150% of salary respectively.

As explained in more detail in our strategy section on pages 22 and 23, our strategy focuses on improving the profitability of the Group, its capital efficiency and the business portfolio to develop higher margin and growth businesses. To this end, the performance measures for the annual bonus and PSP reflect these objectives.

As progress is made against the Horizon strategy, the Committee continues to review each year the most appropriate metrics to drive and reward performance over the short term. For 2019/20 the annual bonus will be determined by the same metrics and weighting as 2018/19 for profit before tax and cash. The Committee has, however, decided to replace the organic revenue metric with adjusted operating profit margin, reflecting the need to drive and reward margin improvement and profitable growth. The measures and weightings are thus profit before tax (30% salary at target/42.5% maximum), adjusted operating profit margin (15%/21.25%), cash conversion (15%/21.25%) and strategic objectives (15% at maximum).

The strategic targets will remain focused on continuing the strategic transformation to deliver long-term sustainable growth. Appropriately stretching sliding scales will be set for each financial measure, with full disclosure of targets and performance against them being made in next year's Annual Report on Remuneration. The bonus is payable fully in cash, recognising that the balance of the annual bonus and share-based PSP is weighted 60% in favour of the latter.

Our annual bonus is structured to start paying out at zero at threshold and pays out at 75% of maximum for target performance, with a sliding scale vesting in between and has done so for many years. The Committee sets stretching targets which support the relatively high level of payment at target, always reviews the formulaic outcome to ensure that payments are appropriate and does not consider that historically payments have been out of line with performance.

PSP awards will continue to be based 50% on ROCE and 50% on earnings per share. EPS will ensure a continued focus on growing profitability and the continued use of ROCE, which was introduced in 2017/18, provides a close link to the business strategy over the next few years to support and incentivise management to make the changes needed to our business portfolio by ensuring that there is efficient redeployment of our capital into higher margin and growth businesses. The Committee has considered carefully the target ranges for both measures and has increased the range for ROCE compared to those set for last year's awards. EPS targets will remain unchanged but the growth will be measured from an all-time-high EPS baseline.

Corporate Governance Code and regulatory changes

Because there were no changes to the Remuneration Policy, nor substantive changes to the operation of policy for FY19, the Committee has not consulted during the year with Shareholders regarding remuneration matters. The Committee has, however, kept up to date with new and updated remuneration guidance from investors and proxy voting agencies and considered the impact of this on policy and operation. Specific engagement with our Shareholders will however take place over the next twelve months as we move towards a policy vote on our new policy at our 2020 AGM.

The Committee values the opinions of its Shareholders and will continue to gather broader stakeholder input, as required by the revised UK Corporate Governance Code, including from its employees. As mentioned in our Governance Report, the Board will use and enhance its current approach to employee engagement to ensure compliance with the Code. Consideration is being given by the Committee with our Group HR Director on how to most effectively engage with employees to explain the alignment of our Executive Directors' remuneration to the wider Group policy and I will set out in next year's report our activities in carrying out this engagement.

In addition, the Committee has already taken certain steps to address the requirements of the new Code as follows:

- **Remuneration Committee remit**: the Committee's terms of reference are being updated to include the broader remit of the Committee to set the remuneration of our Executive Management Team as well as other matters required by the new Code;
- **workforce policies and practices**: the Committee already considers, and provides challenge as appropriate, to workforce policies and practices and takes these into account when setting the Executive Directors' Remuneration Policy and operation. The Committee will consider the breadth and depth of its review and broaden this as appropriate;
- **alignment with Shareholders and longer-term performance**: our long-term performance share awards already have a two-year post-vesting holding period in addition to a three-year vesting period and this continues post cessation of employment. As part of our policy review the Committee will consider the structure of the annual bonus and post-employment shareholding requirement;
- ***alignment of pension with the* workforce**: the Committee has agreed that the pension provision for new Director appointments will be aligned to those for the workforce and our policy will be updated with the requisite wording next year; and
- **recovery and withholding and *discretion to adjust formulaic variable* pay outcomes**: our variable pay plan rules and PSP award documentation and plan rules have been updated to cover the requirements of the Governance Code and the wording of our policy will be updated next year to reflect these changes.

The Committee has also agreed to incorporate some of the new Directors' Remuneration Reporting Requirements a year early, although we will not be reporting a CEO pay ratio this year.

Non-Executive Directors' fees

The Non-Executive Directors' basic Board fee will be increased by 2.75% from 1 July 2019, in line with the increases to the Executive Directors and workforce as a whole. The additional fees for the role of Senior Independent Director and chairing the Remuneration and Audit and Risk Committees remain at £7,500. As the Chairman was appointed during the year there will be no changes to his fee for 2019/20.

Conclusion

I hope you will be supportive of the annual advisory vote to approve the Annual Report on Remuneration, which sets out the remuneration outcomes for the year under review and how the policy will be operated for the year ahead. This resolution will be brought to Shareholders at our AGM to be held on 10 September 2019 and I will be in attendance to answer any questions you may have.

If you have any queries in the meantime, I will be pleased to engage with you and you may make contact through our Company Secretary.

Yours sincerely

Thomas Geitner
Chairman of the Remuneration Committee

11 June 2019

REMUNERATION

REMUNERATION REPORT CONTINUED

PART A: Directors' Remuneration Policy

This part of the Remuneration Report sets out the Group's Remuneration Policy for its Directors. The Policy was approved in a binding Shareholder vote at our AGM on 12 September 2017. The Policy took effect from that date and, unless changed with Shareholders' prior agreement, will stay in place until September 2020.

Policy overview

The Remuneration Policy promotes the delivery of the Group's strategy and seeks to align the interests of Directors and Shareholders. The Committee regularly reviews the link between its incentive structures and strategy to ensure that remuneration packages are appropriate to attract, motivate and retain the high calibre executives that are needed to deliver the Group's strategy.

The Company seeks to reward executives fairly and responsibly based on Group performance and their individual contribution. The Company has a strategy aimed at delivering significant, balanced and sustainable long-term growth and it is important for motivation and retention that the remuneration of the executives reflects this.

The Committee considers carefully the motivational effects of the incentive structure in order to ensure that it is effective and does not have any unintentionally negative impact on matters such as governance, environmental or social issues. More generally, the Committee ensures that the overall Remuneration Policy does not encourage inappropriate risk taking.

Other matters taken into consideration in determining policy

The Committee reviews the Executive Directors' packages periodically, taking account of the level of remuneration paid for comparable positions in similar companies. Comparative pay data is used carefully, recognising the potential for an upward ratchet in remuneration caused by over-reliance on such data.

In determining the remuneration of the Executive Directors, the Committee also takes into account the general trends in pay and conditions across the Group as a whole. The Committee seeks to ensure that the underlying principles which form the basis for decisions on Directors' pay are consistent with those on which pay decisions for the rest of the workforce are taken. Employees are not currently consulted on executive pay. However, the Committee will keep this under review.

The Committee considers feedback from Shareholders received at each AGM, together with any feedback from additional meetings, as part of any review of Executive Director remuneration. In addition, the Committee engages proactively with Shareholders where any material changes to the Remuneration Policy are proposed.

Remuneration Policy

Element of pay	Purpose and link to strategy	Operation	Maximum opportunity
Base salary	• To provide a competitive and appropriate level of basic fixed pay to recruit and retain superior talent and avoid excessive risk taking that might otherwise result from an over-reliance on variable remuneration. • Reflects the experience, performance and responsibilities of the individual.	• Reviewed annually with any increase usually effective 1 July. • Takes account of experience, performance and responsibilities as well as the performance of the Company, the complexity of the role within the Group and salary increases for employees generally. • Set with regard to market data for comparable positions in similar companies in terms of size, internationality, business model, structure and complexity, including within the industry.	• There is no minimum or maximum annual increase. • Higher increases than the average percentage for the workforce may be appropriate; for example, where an individual changes role, where the complexity of the Group changes, where an individual is materially below market comparators or is appointed on a below-market salary with the expectation that his/her salary will increase with experience and performance.

Benefits	• Provided on a market-competitive basis, aids retention and follows reward structure for all employees.	• Currently include, but are not limited to, the cost of:
		  • life assurance;
		  • private medical insurance;
		  • company car benefit (car, driver, car allowance); and/or
		  • overnight hotel accommodation where necessary to enable the executive to carry out his duties efficiently at the Head Office and other Company sites.
		• The benefits provided may be subject to amendment from time to time by the Committee within this Policy.
		• Relocation costs and other incidental expenses may be provided as necessary and reasonable.
		• Benefits are not part of pensionable earnings.
			• The value of benefits varies from year to year depending on the cost to the Company and is not subject to a specific cap. Benefit costs are monitored and controlled and represent a small element of total remuneration costs.

Element of pay	Purpose and link to strategy	Operation	Maximum opportunity
Pension	• To provide a market-competitive benefit for retirement.	• Company contributions to a money purchase pension scheme; or • Salary supplement where HMRC annual or lifetime allowances are exceeded.	• 14% of base salary.
Annual bonus	• Drives and rewards the successful achievement of annual targets set at the start of the year.	• Performance targets based on the key performance indicators and strategic objectives of the business. • At least 70% of the bonus is based on financial metrics and the balance on non-financial strategic metrics. • Clawback provisions apply for misstatement, error or misconduct.	• 75% of salary at year end payable at target performance. • 100% of salary at year end payable for maximum performance. • Bonuses start to be earned from 0% of salary for achieving threshold performance.
Long-term incentives	• To incentivise the executives and reward them for meeting stretching targets in the long term which accrue substantial value to and align the Directors' interests with Shareholders'. • Facilitates share ownership to provide further alignment with Shareholders.	• Annual awards under the 2014 Performance Share Plan of performance shares (or nil-cost options) with vesting subject to achievement of performance targets. Both the vesting and performance period will be over a minimum of three years. • The Committee will set targets each year based on long-term financial performance and/or a stock market based metric. • 25% of the awards will vest at threshold performance under each performance condition. • Clawback may be applied for misstatement, error or misconduct. • For PSP awards granted from 2017/18, vested awards must be held for a further two years before sale of the shares (other than to pay tax).	• The maximum normal award limit is 150% of salary. This limit may be exceeded in exceptional circumstances e.g. recruitment, up to the limit in the PSP rules of 250% of base salary. • Dividend equivalents may accrue on the PSP awards over the vesting period and for awards granted from 2018 to the end of the post vesting holding period and be paid out either as cash or as shares on vesting or at the end of the holding period as appropriate and in respect of the number of shares that have vested.
All-employee share schemes	• To encourage employee share participation.	• The Company may from time to time operate tax-approved share schemes (such as the HMRC-approved Share Incentive Plan (SIP)) for which Executive Directors could be eligible. • The SIP is open to all UK permanent staff employed for at least six months.	• The schemes are subject to the limits set by tax authorities.
Shareholding guideline	• To further align Executive Directors' interests with Shareholders'.	• The Committee has established shareholding guidelines which encourage the Executive Directors to build and retain a holding of Company shares equivalent to 150% of base salary. • Until the guideline is met in full, Executive Directors are expected to retain or acquire shares equivalent to the value of 50% of the net amount realised from exercise/vesting of share awards as appropriate after allowing for tax payable.	• Not applicable.
Non-Executive Director fees	• To remunerate the Chairman and Non-Executive Directors.	• Reviewed annually. • Determined and reviewed taking into account time commitment, experience, knowledge and responsibilities of the role as well as market data for similar roles in other companies of a similar size and/or business to Oxford Instruments. • Out-of-pocket expenses including travel may be reimbursed by the Company in accordance with the Company's expenses policy including tax thereon "grossed up" as appropriate.	• There is no prescribed maximum or maximum annual increase.

REMUNERATION

REMUNERATION REPORT CONTINUED

Differences in the Remuneration Policy of the Executive Directors and the general employees

There are no material differences in the structure of remuneration arrangements for the Executive Directors and senior management population, aside from quantum and participation levels in incentive schemes, which reflect the fact that a greater emphasis is placed on performance-related pay for Executive Directors and the most senior individuals in the management team. Outside the senior management team, the Company aims to provide remuneration structures for employees which reflect market norms.

Choice of performance measures and approach to setting targets

The Committee selects financial and strategic measures for the annual bonus that are key performance indicators for the business over the short term. For the long-term incentives, the Committee will select a combination of measures that provide a good focus on the outcomes of the Company strategy together with sustainable improvements in long-term profitability.

The Committee sets appropriate and demanding targets for variable pay in the context of the Company's trading environment and strategic objectives. The targets for the annual bonus plan will be set each year with reference to the Company's budget and business and strategic plan. The Committee will review the performance conditions and targets for awards under the PSP each year prior to awards being made, taking account of the Company's internal financial planning, market forecasts and the business environment.

Discretions retained by the Committee in operating its incentive plans

The Committee may adjust the formula-driven outturn for an annual bonus or PSP performance condition in the event that the Committee considers that the quantum would be inappropriate in light of wider Company performance or overall Shareholder experience. Any such use of discretion would be detailed in the Annual Report on Remuneration in Part B.

The Committee operates the Group's various incentive plans according to their respective rules and in accordance with HMRC rules where relevant. To ensure the efficient administration of these plans, the Committee may apply certain operational discretions. These include the following:

- selecting the participants in the plans;
- determining the timing of grants and/or payments;
- determining the quantum of grants and/or payments;
- determining the extent of vesting based on the assessment of performance;
- determining "good leaver" status and, where relevant, the extent of vesting in the case of the share-based plans;
- where relevant, determining the extent of vesting in the case of share-based plans in the event of a change of control;
- making the appropriate adjustments required in certain circumstances (e.g. rights issues, corporate restructuring events, variation of capital and special dividends); and
- the annual review of weighting of performance measures and setting targets for annual bonus plan and discretionary share plans from year to year.

The Committee may adjust the targets and/or set different measures and alter weightings for existing annual bonus plans and share-based awards only if an event occurs which causes the Committee to reasonably consider that the performance conditions would not without alteration achieve its original purpose and the varied conditions are no less difficult to satisfy than the original conditions. Any changes, and the rationale for those changes, will be set out clearly in the Annual Report on Remuneration in respect of the year in which they are made.

Legacy arrangements

In approving this Directors' Remuneration Policy, authority is given to the Company to honour any commitments entered into with current or former Directors (such as the payment of a pension or the vesting or exercise of past share awards) that have been disclosed to and approved by Shareholders in previous remuneration reports. Details of any payments to former Directors will be set out in the Annual Report on Remuneration as they arise.

Remuneration scenarios for Executive Directors

The charts below show the level of remuneration potentially payable to Executive Directors under different performance scenarios for the financial year 2019/20 (see notes for assumptions):

Remuneration scenarios:

Assumptions for charts above:

1. Fixed pay comprises salary levels as at 1 July 2019, pension contribution of 14% and the value of benefits received in 2018/19.
2. The on-target level of bonus is 75% of the maximum opportunity, i.e. 75% of salary.
3. The on-target level of vesting under the annual PSP is taken to be 50% of the face value of the award at grant, i.e. 75% of salary.
4. The maximum level of bonus and vesting under the PSP is 100% of the bonus opportunity and 100% of the face value of the PSP award at grant, i.e.100% and 150% of salary respectively.
5. Share price growth is shown in the maximum scenario of 50% of the PSP award value at the date of grant. For simplicity, SIP awards, as well as dividend equivalents, are excluded.

Recruitment and promotion policy for Executive Directors

In setting total remuneration levels and in considering quantum for each element of the package for a new Executive Director, the Committee takes into account the skills and experience of the individual, the market rate for a candidate of that experience and the importance of securing the relevant individual.

The Company seeks to align the remuneration package with the Remuneration Policy approved by Shareholders, including the maximum plan limit for the long-term incentives and an annual bonus entitlement in line with that of the other Executive Directors. Salary is provided at such a level as required to secure the most appropriate candidate. For new appointments, base salary and total remuneration may be set initially at below normal market rates on the basis that it may be increased once expertise and performance has been proven and sustained.

Specific variable remuneration performance targets can be introduced for an individual where necessary for the first year of appointment if it is appropriate to do so to reflect the individual's responsibilities and the point in the year in which he or she joined the Board.

Flexibility is retained to offer additional cash and/or share-based payments on appointment in respect of deferred remuneration or benefit arrangements forfeited on leaving a previous employer. The Committee would look to replicate the arrangements being forfeited as closely as possible and, in doing so, will take account of relevant factors including the nature of the deferred remuneration, performance conditions, attributed expected value and the time over which they would have vested or been paid. Such awards may be made under the terms of the PSP or as permitted under the Listing Rules.

For an internal appointment, any variable pay element awarded in respect of the prior role may be allowed to pay out according to its terms, adjusted as relevant to take into account the appointment. In addition, any other ongoing remuneration obligations existing prior to appointment may continue.

For external and internal appointments, the Committee may agree that the Company will meet certain relocation, legal and any other incidental expenses as appropriate.

REMUNERATION

REMUNERATION REPORT CONTINUED

Executive Directors' service contracts and policy on cessation

Details of the service contracts of the Executive Directors, available for inspection at the Company's registered office and at the Company's AGM, are as follows:

	Contract date	Unexpired term of contract
Ian Barkshire	11 May 2016	Rolling contract
Gavin Hill	9 February 2016	Rolling contract

Details of contractual terms and the policy on cessation of employment are summarised in the table below:

Contractual provision	Detailed terms
Notice period	Twelve months by the Company or by the Director.
Termination payment	A Director's service contract may be terminated without notice and without any further payment or compensation, except for sums accrued up to the date of termination, in the event of gross misconduct. For termination in other circumstances, the Company has a right to pay salary in lieu of the notice period (or part thereof) if it so determines. In addition, any statutory entitlements in connection with the termination would be paid as necessary, and, at the Committee's discretion if deemed necessary and appropriate, outplacement, legal fees and settlement of claims or potential compensation claims.
Remuneration entitlements	Pro-rata bonus may also become payable for the period of active service along with vesting for outstanding share awards (in certain circumstances – see below).
Change of control	No Executive Director's contract contains additional provisions in respect of a change of control.

Any share-based entitlements granted to an Executive Director under the Company's share plans will be determined based on the relevant plan rules. The default treatment for existing awards is that any unvested awards lapse on cessation of employment. However, in certain prescribed circumstances, such as death, injury, ill health, disability, retirement or other circumstances at the discretion of the Committee, "good leaver" status may be applied. For good leavers, under the ESOS, awards will vest at cessation to the extent the performance condition is satisfied, but with the Committee having discretion to vest on the normal vesting date if appropriate and to waive the performance condition. Under the 2014 PSP, awards to good leavers will vest on the normal vesting date, subject to the satisfaction of the relevant performance conditions at that time and be scaled back to reflect the proportion of the normal vesting period actually served. The Committee has discretion in exceptional circumstances to disapply time pro-rating and/or to measure performance to and vest awards at the date of cessation. Vesting at cessation would be the default position where a participant dies.

In the event of a takeover, awards vest to the extent the performance condition is satisfied and are scaled back to reflect the actual period of service, with the Committee having the discretion, acting fairly and reasonably, not to scale back.

External appointments

The Board encourages Executive Directors to accept appropriate external non-executive appointments provided the aggregate commitment is compatible with their duties as Executive Directors. The Executive Director concerned may retain fees paid for these services, which will be subject to approval by the Board. Currently, the Executive Directors do not hold any outside directorships.

Non-Executive Directors

For the appointment of a new Chairman or Non-Executive Director, the fee arrangement would be in accordance with the approved Remuneration Policy in place at the time.

Non-Executive Directors do not have service contracts but are appointed under letters of appointment for an initial period of three years with subsequent reviews. Non-Executive Director appointments are now renewed for periods of one year, terminating at the next AGM. Their appointment can be terminated without notice and with no compensation payable on termination, other than accrued fees and expenses.

	Date of last appointment	Notice period
Neil Carson	1 December 2018	Six months
Richard Friend	1 September 2014	None
Thomas Geitner	13 March 2017	None
Mary Waldner	4 February 2016	None
Steve Blair	1 July 2017	None

PART B: Annual Report on Remuneration

The financial information in this part of the report has been audited where indicated.

The Remuneration Committee (unaudited)

The Remuneration Committee (the "Committee") is responsible for recommending to the Board the remuneration packages for Executive Directors and has oversight of the pay, bonus and share incentive strategy for the Group's executive management. The Chairman and the Executive Directors are responsible for determining the remuneration of the Non-Executive Directors, and the Remuneration Committee, in the absence of the Chairman, is responsible for determining the remuneration of the Chairman.

The role of the Committee includes:

- considering and determining the Remuneration Policy for the Executive Directors;
- within this agreed policy, considering and determining the various elements and total remuneration packages of each Executive Director of the Company;
- approving the structure and targets for all performance-related remuneration plans for executives as well as the overall payments made under such plans;
- reviewing and noting remuneration policy and trends across the Group and considering the Executive Directors' remuneration within this context; and
- determining the policy for pension arrangements, service agreements, recruitment terms and termination payments to Executive Directors.

The members of the Committee are appointed by the Board and currently comprise all the independent Non-Executive Directors: Thomas Geitner, Steve Blair, Richard Friend, Mary Waldner, and the Chairman of the Board, Neil Carson. Thomas Geitner is the Chairman of the Committee. All members served throughout the year except for Neil Carson, who joined the Board and the Committee on 1 December 2018, and Alan Thomson, who served until 22 July 2018.

The Chief Executive, the Group HR Director and other executives are invited to attend Committee meetings as deemed appropriate. For example, the Chief Executive is able to make a significant contribution when considering the performance of other Executive Directors and to discuss the wider Group Remuneration Policy affecting employees. However, no Executive Director is present when the Committee is determining his or her own remuneration.

The Committee acts within its agreed written terms of reference (which are published on the Company's website: **www.oxinst.com/investors**) and complies with the provisions of the 2016 UK Corporate Governance Code regarding remuneration.

The performance of the Committee is reviewed at least once a year as part of the Board evaluation process.

During the year the Committee fulfilled its duties, as laid down in the Committee's terms of reference.

Korn Ferry (KF) was the Committee's independent remuneration consultant during the year and continues with this appointment in 2019/20. KF is appointed by the Committee to provide advice on all aspects of executive remuneration as required by the Committee.

During the year KF also provided executive search related services to the Company through a separate part of the business. The Committee was comfortable that the controls in place at KF do not result in the potential for any conflicts of interest to arise.

KF is a signatory to the Remuneration Consultants' Code of Conduct and has confirmed to the Committee that it adheres to the Code. During the year, KF had discussions with the Committee Chairman on remuneration matters relevant to the Company and on how best their team can work with the Committee to meet the Company's needs.

Fees are charged predominately on a "time spent" basis. The total fees paid to KF for the advice provided to the Committee during the year were £36,648.

REMUNERATION

REMUNERATION REPORT CONTINUED

Directors' remuneration (audited)

The remuneration paid to the Directors during the year under review and the previous year is summarised in the tables below:

Executive		Salary and fees £'000	Benefits[1] £'000	Pension[2] £'000	Annual bonus[3] £'000	Long-term incentive awards[4] £'000	Other[5] £'000	Total £'000
Ian Barkshire	**2019**	**428**	**88**	**54**	**407**	**779**	**1**	**1,757**
	2018	418	51	53	268	—	1	791
Gavin Hill	**2019**	**334**	**22**	**42**	**324**	**608**	**1**	**1,331**
	2018	326	18	41	209	—	1	595
Total	**2019**	**762**	**110**	**96**	**726**	**1,387**	**2**	**3,088**
	2018	744	69	94	477	—	2	1,386

1. "Benefits" comprise provision of a car or car allowance, health insurance, life assurance, overnight hotel accommodation where necessary to carry out duties at the Head Office of the Company and, from August 2017 for Ian Barkshire, provision of a driver to allow him to make best use of his commuting time. For the year to 31 March 2019, provision of a driver accounted for £67,687 (August 2017-March 2018: £29,667) of the total benefits for Ian Barkshire.
2. Contractually, each Executive Director is entitled to receive a contribution to a money purchase pension scheme worth 14% of salary. Where the contractual pension contribution exceeds the annual allowance, any balancing payment is made by the Company as a cash allowance which, in line with the policy for all UK employees, is paid net of employer's national insurance contributions.
3. "Annual bonus" represents the full annual bonus, payable in cash, payable for the year to 31 March 2019 and paid in the July 2019 payroll.
4. "Long-term incentive awards" are those awards where the vesting is determined by performance periods ending in the year under report and therefore reports the value of the PSP award granted on 21 June 2016. The value has been determined using the average share price over the three months to 31 March 2019, £9.62. Further details of how these sums are arrived at are set out on pages 93 and 94. The share price used on grant of the 2016 PSP award was £7.375 and the total face value at grant of the vested number of shares is £570,721 for the CEO and £445,441 for the GFD. On vesting (based on an average share price for the last three months of the financial year) the share price was £9.62, giving a total vested award value of £744,443 for the CEO and £581,028 for the GFD. Dividend equivalents have been added to arrive at the total figure included in the table above.
5. The Company operates a Share Incentive Plan (SIP) which is open to all UK permanent staff employed for at least six months. "Other" is the value of matching SIP shares attributable to the year. In 2018/19 Ian Barkshire and Gavin Hill participated in the SIP up to the maximum extent permitted by HMRC. The Company offers a 1:5 match for partnership shares purchased by employees and this amounted to £360 each of matching shares for Ian Barkshire and Gavin Hill.

Non-Executive		Fees £'000	Benefits £'000	Pension £'000	Annual bonus £'000	Long-term incentive awards £'000	Total £'000
Neil Carson[1]	**2019**	**60**	—	—	—	—	**60**
	2018	—	—	—	—	—	—
Alan Thomson[3]	**2019**	**57**	—	—	—	—	**57**
	2018	168	—	—	—	—	168
Steve Blair[2]	**2019**	**82**	—	—	—	—	**82**
	2018	41	—	—	—	—	41
Richard Friend	**2019**	**48**	—	—	—	—	**48**
	2018	47	—	—	—	—	47
Thomas Geitner	**2019**	**56**	—	—	—	—	**56**
	2018	54	—	—	—	—	54
Mary Waldner	**2019**	**56**	—	—	—	—	**56**
	2018	54	—	—	—	—	54
Total	**2019**	**359**	—	—	—	—	**359**
	2018	364	—	—	—	—	364

1. Neil Carson was appointed Non-Executive Director and Chairman of the Board on 1 December 2018.
2. Steve Blair was appointed Non-Executive Director and Senior Independent Director on 1 July 2017. He was Interim Chairman of the Board from 23 July 2018 until 30 November 2018. His fees were uplifted to £130,000 per annum for this period.
3. Alan Thomson, Chairman of the Board, passed away on 22 July 2018.

External appointments (unaudited)

The Board encourages Executive Directors to accept appropriate external commercial non-executive appointments provided the aggregate commitment is compatible with their duties as Executive Directors. The Executive Director concerned may retain fees paid for these services, which will be subject to approval by the Board. There were no such appointments during the year.

Details of annual bonus earned in year (audited)

The CEO and GFD have made good progress this year with the implementation of the Horizon strategy, delivering both growth and improved profitability. The Group's results and resulting incentive payments demonstrate the positive impact that the Horizon transformation programme is having on our performance as we focus on market intimacy, innovation and product development, customer services and operational excellence. The Group is making good progress in its transition from being product focused to becoming a customer-centric, market-driven Group, increasing value for existing customers. We create value for our customers by helping them to accelerate their applied R&D, increase their productivity in high tech manufacturing and make ground-breaking discoveries. By building on our innovative technology and targeting attractive markets, the Group will continue to deliver long-term sustainable growth and margin improvements.

As in previous years, the Committee set stretching performance targets for the annual bonus which are clearly linked to the strategy and financial performance of the Group. As explained in the Finance Review on pages 36 to 42, reported revenue rose to £336.6 million, up 12.4% on the prior year, increased volumes and improved commercial focus drove adjusted profit before tax from continuing operations, up by 12.3% to £47.5 million and £56.3 million cash was generated from operations delivering a cash conversion rate of 102.8%, significantly better than the prior year.

When the Remuneration Committee set the adjusted profit before tax and organic sales targets for FY19 it took into account expected currency headwinds but retained the discretion to adjust the targets or formulaic outturn of the bonus, if considered appropriate, based on actual exchange rates. In determining the bonus payment, the Committee has adjusted the reported adjusted profit before tax and organic sales (downwards) to take account of the difference in actual exchange rates compared to those anticipated and on which the targets were set. The table below shows the adjusted profit before tax and organic sales outturn after adjustment for actual exchange rates. The impact of the adjustment reduces the amount payable on the adjusted profit before tax from 100% to 95% of the maximum payable for this metric. The organic sales outturn continued to exceed the maximum target set.

	Percentage of salary payable			Targets				
Measure	Threshold CEO/GFD	On target CEO/GFD	Maximum CEO/GFD	Threshold £m	On target £m	Maximum £m	Actual[1] £m	Payout % of maximum
Adjusted PBT	0%	30%	42.5%	39.0	43.6	46.0	45.7	96%
Organic sales	0%	15%	21.25%	290.0	302.0	307.0	328.7	100%
Cash conversion	0%	15%	21.25%	75%	80%	85%	102.8%	100%
Strategic objectives	0%	—	15%	—	—	—	See page 92	CEO:73.3% GFD:86.7%

1. The actual numbers reported for adjusted PBT and organic sales are adjusted for the impact of currency as described above.

The non-financial strategic objectives were set at the start of the year. Performance against them is set out on page 92. The Committee in its review noted the exceptional performance in achieving the Horizon strategy objectives, laying the foundations for future growth and agreed that, when taking into account all the circumstances, a bonus of 11% out of the total 15% of salary available was appropriate for Ian Barkshire and 13% out of the total 15% of salary available was appropriate for Gavin Hill.

REMUNERATION

REMUNERATION REPORT CONTINUED

Details of annual bonus earned in year (audited) continued

CEO objectives	Weighting	Achievements towards objectives/performance
Build people capability across the Group, closing core leadership, commercial, operational and technical capability gaps.	1/3	• Good appointments in business unit senior leadership and technical teams, including internal appointment of Chief Technical Officer. • Invested in the development of clearly defined capabilities across the Group's businesses. 3 out of 5
Define and progress an active portfolio of opportunities to deliver organic and/or inorganic growth in line with the Horizon strategy.	1/3	• Inorganic growth opportunities identified and targeted. • Good organic growth delivered progress through new product introduction and extension of addressable markets. 4 out of 5
Deliver significant financial benefits through the implementation of sustainable operational efficiencies and a stronger commercial focus.	1/3	• Facilitated an accelerated programme of operational and procurement improvements delivering in-year results and will deliver continuing benefits in years to come. • Built internal capabilities to sustain the improvements made. • Created stronger commercial focus by embedding sales excellence and market intimacy practices and capabilities across all businesses and regions. 4 out of 5
Total	**100%**	**73.3%**

GFD objectives	Weighting	Achievements towards objectives/performance
Drive the implementation of Connect (Group-wide ERP system), ensuring that at least 40% of revenue from the Group is achieved by business units using Connect and an accelerated and costed plan is completed for specified non-UK locations.	1/3	• Good progress against this objective taking into account a decision within the year to divert essential resources onto a key, strategic operational improvement programme. • Ensured operational improvement programmes developed processes that would be implementable in Connect. • Successfully rolled out Connect in three units. Revised and accelerated plan now in progress. 3 out of 5
Deliver a step change in the way the Group manages working capital through greater transparency and active management of working capital across the Group.	1/3	• £3 million improvement in working capital. • Changed the way working capital is managed, developing a stronger focus on active management of working capital in finance teams across all businesses. Transparent reporting throughout the organisation. • Brought in disciplines to maintain and continue to improve working capital best practice. 5 out of 5
Deliver profit growth from Healthcare in accordance with the Group plan and agree the plan for smooth transition of leadership.	1/3	• Delivered profitable growth with profits increasing by more than £1 million in FY19. • Transitioned to a consolidated and focused leadership team to drive business improvement. 5 out of 5
Total	**100%**	**86.7%**

The on-target and maximum bonus potentials for the Executive Directors, as well as the amounts actually payable for the year ended 31 March 2019, are set out below.

	On-target bonus[2] (% of salary)	Maximum bonus (% of salary)	Actual bonus payable for 2018/19 (% of salary)[1]	Actual bonus payable[1] for 2018/19 (£'000)
Ian Barkshire	75%	100%	94.44%	407
Gavin Hill	75%	100%	96.44%	324

1. Bonus is calculated on salary as at 31 March 2019.
2. Target bonus is set at 75% of maximum. The Committee is comfortable with target payment at 75% of maximum taking into account the maximum bonus opportunity of 100% of salary and the level of stretch in the bonus targets evidenced by historic levels of payment. The Committee will review the target level of bonus payment as part of the policy review during FY20.

Long-Term Incentive Plans (audited)

The performance targets, performance against them and the resulting payment in respect of the long-term incentive awards where vesting is determined by a performance period ending in 2018/19 are as follows:

Performance Share Plan (PSP)

The performance targets which applied to the awards made on 21 June 2016 for the performance period ending in the year under review and actual performance achieved against them were as follows:

50% of the award is based on EPS measured over a three-year performance period starting 1 April 2016:

Performance level	EPS growth required	% of award that will vest
Below threshold	Less than 7% per annum over three years	0%
Threshold	7% per annum over three years	25%
Between threshold and maximum	7% to 12% per annum over three years	25%-100%
Maximum	12% per annum and above over three years	100%
Actual EPS	64.9p	
Actual achieved over the period[1]	**17.1%**	**100%**

1. The starting EPS for FY16 has been restated from the FY16 reported adjusted EPS of 49.2 pence to 40.4 pence on a continuing operations basis using disclosures as set out in the 2018 Financial Statements by adjusting for disposals of the superconducting wire business in November 2016 and the Industrial Analysis business in July 2017.

50% of the award is based on total shareholder return (TSR) being measured for the final year of the three-year performance period starting 1 April 2016:

Performance level	TSR relative to FTSE 250 (excluding certain sectors)[1]	% of award that will vest
Below threshold	Below median	0%
Threshold	Median	25%
Between threshold and maximum	Between median and upper quartile	25%-100%
Maximum	Upper quartile and above	100%
Results over performance period:		
Median TSR	26%	
Upper quartile TSR	60%	
Actual achieved over the period	**47.3%**	**85.6%**

1. Sectors excluded within the FTSE Industry classification of "Financials" (namely, banks, equity investment instruments, financial services, life insurance, non-life insurance, real estate investment trusts and real estate investment services sectors).

Based on the performance against targets as set out above, the PSP awards will vest on 21 June 2019 as follows:

	Date award granted	Total number of shares granted	Percentage of award vesting	Number of shares vesting	Value[1] of shares vesting (£'000)	Number of shares awarded as dividend equivalent	Value[1] of shares vesting including dividend equivalent (£'000)
Ian Barkshire	21 June 2016	83,390	92.8%	77,385	744	3,588	779
Gavin Hill	21 June 2016	65,085	92.8%	60,398	581	2,800	608

1. As the awards vest after the date of this report, value has been calculated using the average mid-market closing price of the Company's shares over the three-month period ending 31 March 2019, £9.62. This will be restated for the actual value on vesting next year.

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REMUNERATION REPORT CONTINUED

Long-Term Incentive Plans (audited) continued

Performance Share Plan awards made in the year and outstanding share incentive awards (audited)

Awards made under the PSP on 3 July 2018 were as follows:

	Total number of shares granted	Percentage of salary	Share price on day before award date	Vesting date
Ian Barkshire	64,613	150%	£10.00	3 July 2021
Gavin Hill	50,430	150%	£10.00	3 July 2021

The awards are subject to two performance conditions measured over a three-year period commencing 1 April 2018. One half of each award is subject to a performance condition based on the Company's compound annualised earnings per share (EPS) growth. The other half of each award is subject to a performance condition based on the Company's return on capital employed in the final year of the performance period.

Vesting of 50% of the award is based on EPS measured over a three-year performance period starting 1 April 2018 as follows:

Performance level	EPS growth required	% of award that will vest
Below threshold	Less than 4% per annum over three years	0%
Threshold	4% per annum over three years	25%
Between threshold and maximum	4% to 12% per annum over three years	25%-100%
Maximum	12% per annum and above over three years	100%

Vesting of the other 50% of the award is based on return on capital employed (ROCE) for the final year of the three-year performance period starting 1 April 2018:

Performance level	ROCE[1] for the final year of the performance period	% of award that will vest
Below threshold	Less than 16%	0%
Threshold	16%	25%
Between threshold and maximum	Between 16% and 20%	25%-100%
Maximum	20% per annum and above	100%

1. ROCE is calculated as EBIT/average capital employed where EBIT is adjusted operating profit less amortisation of acquired intangibles, acquisition-related costs and changes in the mark-to-market values of financial instruments, and capital employed is the sum of net working capital and net book value of fixed assets, goodwill, intangible assets, investments in associates and excluding cash.

As at 31 March 2019, the outstanding options for Ian Barkshire and Gavin Hill under the Executive Share Option Scheme (ESOS) and the PSP[1] were as follows:

Name	Scheme	March 2019	Movements during the year: Granted	Exercised	Lapsed	March 2018	Exercise price	Share price on date of grant	Date of grant	Earliest exercise	Latest exercise
Ian Barkshire[2]	ESOS	**37,549**				37,549	£10.28	£10.31	15/06/15	15/06/18	14/06/25
	ESOS	**15,000**				15,000	£9.90	£9.87	14/12/11	14/12/14	13/12/21
	PSP	**83,390**				83,390	Nil	£7.34	21/06/16	21/06/19	20/06/26
	PSP	**65,630**				65,630	Nil	£9.58	25/09/17	25/09/20	24/09/27
	PSP	**64,613**	64,613			—	Nil	£10.10	03/07/18	03/07/21	02/07/28
Gavin Hill	PSP	**65,085**				65,085	Nil	£7.34	21/06/16	21/06/19	20/06/26
	PSP	**51,223**				51,223	Nil	£9.58	25/09/17	25/09/20	24/09/27
	PSP	**50,430**	50,430			—	Nil	£10.10	03/07/18	03/07/21	02/07/28

1. Dividend equivalents are payable on PSP shares vesting, for the period to vesting, in respect of the actual number of shares vesting.
2. Ian Barkshire was appointed to the Board on 10 November 2015. His ESOS options were granted to him as an employee of the Company prior to his appointment to the Board.

The market price of the shares at 31 March 2019 was £9.77 (2018: £7.41) and the range during the year was £7.41-£10.96 (2018: £6.76-£11.38).

Performance conditions for outstanding awards are described below:

PSP	50% of award	50% of award
21 June 2016[3]	EPS growth – 7% p.a. (25% vesting) to 12% p.a. (100% vesting)	TSR v FTSE 250 (excluding financial companies[1]) – median (25% vesting) to upper quartile (100% vesting)
25 September 2017[3]	EPS growth – 4% p.a. (25% vesting) to 10% p.a. (100% vesting)	ROCE[2] in the final year of the performance period – 13% (25% vesting) to 15.5% (100% vesting)
3 July 2018[3]	EPS growth – 4% p.a. (25% vesting) to 12% p.a. (100% vesting)	ROCE[2] in the final year of the performance period – 16% (25% vesting) to 20% (100% vesting)

1. Sectors excluded within the FTSE Industry classification of "Financials" (namely, banks, equity investment instruments, financial services, life insurance, non-life insurance, real estate investment trusts and real estate investment services sectors).
2. ROCE is calculated as EBIT/average capital employed where EBIT is adjusted operating profit less amortisation of acquired intangibles, acquisition-related costs and changes in the mark-to-market values of financial instruments, and capital employed is the sum of net working capital and net book value of fixed assets, goodwill, intangible assets, investments in associates and excluding cash.
3. Three-year performance period commencing 1 April prior to date of grant.

Achievement of performance conditions (unaudited)

The calculation of TSR performance is independently measured. EPS and ROCE performance targets are tested using the audited accounts of the Company. Performance against targets and the resulting level of vesting is then verified by the Remuneration Committee.

Dilution limits (unaudited)

The Company's share plans provide that overall dilution through the issuance of new shares for employee share schemes should not exceed an amount equivalent to 10% of the Company's issued share capital over a ten-year period. The SIP scheme only uses market-purchased shares.

The Committee monitors the position prior to the making of any award under these share schemes to ensure that the Company remains within this limit. As at the date of this report, the Company's headroom position remains within the 10% limit at 3.8%.

Shareholding requirements (audited)

The Executive Directors are required to build and retain a shareholding in the Company equivalent in value to 150% of basic salary. Until the requirement is met, the Executive Directors are expected to retain or purchase shares equivalent to the value of 50% of the net amount realised on exercise of long-term incentive awards after allowing for tax payable.

Executive Directors' shareholdings as at 31 March 2019 are shown in the table below.

	Legally owned	Percentage of salary held in shares under shareholding guideline[1]	Guideline met as at 31 March 2019	ESOS options vested but unexercised	Subject to performance conditions under the PSP unvested
Ian Barkshire[2]	12,388	28%	No	52,549	213,633
Gavin Hill	5,906	17%	No	—	166,738

1. Shares valued using the market price of the shares on 31 March 2019: £9.77.
2. Ian Barkshire was appointed to the Board on 10 November 2015. Shares acquired on exercise of the share option award granted to him in June 2015 (prior to his appointment to the Board) are only required to be retained if the executive holds less than 50% of salary in shares. All awards granted after the date of his appointment are subject to the shareholding requirement as detailed above of 150% of salary.

REMUNERATION

REMUNERATION REPORT CONTINUED

Pension arrangements

Executive Director pension arrangements (audited)

Under the terms of their service contracts, Executive Directors can ask the Company to contribute to a pension plan of their choice. The Company contributes a maximum of 14% of base salary. Only base salary is pensionable and contributions are not included in the calculation of bonus and share award entitlements. Where the Company's pension contribution exceeds the annual allowance, a balancing payment is paid by the Company to the Director, which is taxed as income. In line with the policy for all UK employees, this cash payment is reduced by 12.1% to cover employer's national insurance costs.

During the year, the Company contributed £10,000 (2018: £9,973) into the Company's Group Personal Pension Plan in respect of Ian Barkshire and £10,000 (2018: £9,950) into a personal defined contribution plan in respect of Gavin Hill. Balancing payments to 14% of base salary (net of employer's national insurance contributions) were paid as cash.

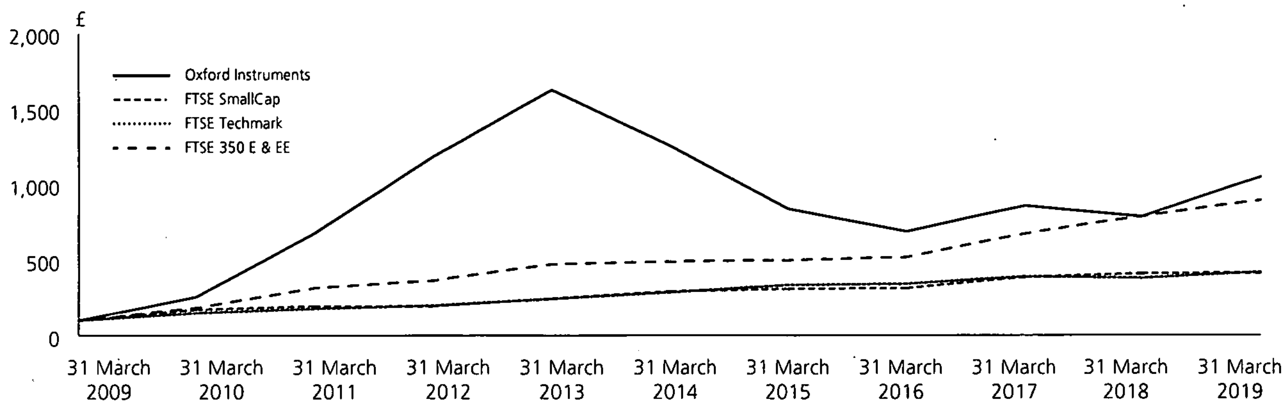
Ian Barkshire is a deferred member of the defined benefit scheme and is no longer accruing benefits in the scheme. In accordance with the rules of the scheme his deferred benefits are subject to increases in line with statutory revaluation. The transfer value of his accrued benefits at 31 March 2019 was £788,549 (2018: £599,835).

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

There were no payments to Directors for loss of office.

Performance graph and CEO's remuneration (unaudited)

The graph below shows for the ten years ended 31 March 2019 the total shareholder return (TSR) on a holding of the Company's ordinary shares compared with a hypothetical holding of shares made up of shares of the same kind and number as those by reference to which the FTSE SmallCap, FTSE Techmark and FTSE 350 Electronic and Electrical Equipment indices are calculated. These indices have been chosen as they are considered to be the most appropriate comparator groups for the Company. TSR has been calculated by reference to the relevant share price for each constituent company assuming dividends are reinvested.



This graph shows the value, by 31 March 2019, of £100 invested in Oxford Instruments plc on 31 March 2009 compared with the value of £100 invested in the FTSE SmallCap, FTSE Techmark and FTSE 350 Electronic and Electrical Equipment indices. The other points plotted are the values at intervening financial year ends.

The total remuneration of the CEO over the last ten years is shown in the table below. The annual bonus payout and PSP vesting level as a percentage of the maximum opportunity is also shown.

Year ending 31 March	2010	2011	2012	2013	2014	2015	2016	2017[1] DJF	2017[1] IRB	2018	**2019**
Total remuneration (£'000)	939	2,596	3,464	2,348	1,179	579	743	64	620	791	**1,754**
Annual bonus outcome (%)	100%	100%	100%	69.1%	15.0%	7.5%	38.6%	0%	56.3%	63.7%	**94.4%**
ESOS[2] vesting (%)	100%	100%	100%	100%	100%	0%	0%	0%	N/A	N/A	**N/A**
SELTIS/PSP[2] vesting (%)	50%	50%	100%	100%	100%	0%	0%	0%	N/A	N/A	**92.8%**

1. 2016/17 financial year: remuneration shown separately for Jonathan Flint (DJF) who was CEO from 1 April to 11 May 2016 and Ian Barkshire (IRB) who was CEO from 12 May 2016 to 31 March 2017.
2. Executive Directors were last granted ESOS (market value share options) and SELTIS (nil cost options) in June 2014. PSP awards have been granted after June 2014 as the sole long-term incentive.

Percentage change in the remuneration of the Chief Executive (unaudited)

The table below shows the percentage change in each of the CEO's salary, taxable benefits and annual bonus earned between 2017/18 and 2018/19, compared to that for the average UK-based employee of the Group (on a per capita full-time equivalent basis).

£'000	CEO 2018/19	CEO 2017/18	CEO % change	Average employee[1] 2018/19	Average employee[1] 2017/18	Average employee[1] % change
Salary[2]	**428.1**	417.7	2.5%	**41.0**	41.9	-2.1%
Benefits[3]	**88.5**	51.0	73.5%	**1.9**	1.7	11.8%
Bonus[4]	**406.8**	267.9	51.8%	**2.6**	1.7	51.4%

1. Average employee includes all UK employees in service on 1 April 2017 and 31 March 2019 but excludes those who were on maternity leave, long-term sick leave and those who started or ended employment within the period.
2. Change in average employee salary reflects restructuring at the top of the business. The average pay increase across all employees in the UK in 2018/19 was 2.4%.
3. *In August 2017, the CEO was provided with a driver. The cost of this benefit for 2018/19 was £67,687 (2017/18: £29,667).*
4. The value of the average employee bonus for the year ended 31 March 2019 (to be paid in July 2019) was not known at the time the Report and Financial Statements were approved and has been subsequently included.

Relative importance of the spend on pay

The following table shows the Group's employee costs relative to dividends and share buybacks:

	Year ended 31 March 2019	Year ended 31 March 2018	% change
Employee costs (£m)	**98.9**	96.6	2.4%
Dividends (£m)	**7.6**	7.5	1.3%
Share buybacks (£m)	**0.0**	0.0	0%

Statement of Shareholder voting (unaudited)

At last year's AGM, the resolution to approve the Annual Report on Remuneration received the following votes from Shareholders:

Resolution	Votes for	Votes against	% for	% against	Votes marked as abstain
To approve the Annual Report on Remuneration	48,326,065	564,647	98.8	1.2	15,835

The resolution to approve the Remuneration Policy was passed at the AGM held in 2017 and received the following votes from Shareholders:

Resolution	Votes for	Votes against	% for	% against	Votes marked as abstain
To approve the Directors' Remuneration Policy	48,991,763	548,614	98.9	1.1	19,533

REMUNERATION

REMUNERATION REPORT CONTINUED

How the policy will be applied in 2019/20 (unaudited)

Base salaries

In line with the general workforce, the Executive Directors will receive salary increases of 2.75% for 2019/20 effective from 1 July 2019. The CEO's salary as a result of the increase will be £442,600 (from £430,750) and the GFD's £345,450 (from £336,200).

Benefits and pension

These will be awarded in accordance with the approved Policy. Benefits will be in line with those received in 2018/19.

Annual bonus

The maximum opportunity under the annual bonus plan for 2019/20 will be 100% of base salary for both the CEO and GFD, payable in cash.

A combination of financial (85%) and non-financial strategic (15%) metrics will be used to determine the level of payment under the annual bonus for the CEO and GFD and as detailed in the table below:

	Weighting as a % of opportunity	
Measure	On target	Maximum
Adjusted operating profit margin (%)	15%	21.25%
Profit (£m)	30%	42.5%
Cash generation (%)	15%	21.25%
Strategic objectives	Up to 15%	

1. Target bonus is set at 75% of maximum. The Committee is comfortable with the target payment at 75% of maximum taking into account the maximum bonus opportunity of 100% of salary and the level of stretch in the bonus targets evidenced by historic levels of payment. The Committee will review the target level of bonus payment as part of the policy review during FY20.

Non-financial strategic objectives have been agreed and are linked to the development and implementation of the Horizon strategy. For the CEO these objectives focus on leadership culture and people capabilities across the Group and Shareholder engagement. For the GFD these objectives focus on the successful implementation of Connect (ERP) and building on and sustaining operational efficiencies.

The Committee has chosen not to disclose, in advance, the performance targets for the forthcoming year as these include matters which the Committee considers commercially sensitive. Retrospective disclosure of the performance against them will be made in next year's Annual Report on Remuneration.

Long-term incentives in respect of the 2019/20 financial year

The 2019/20 PSP awards will be over shares with a market value at grant of 150% of salary for the CEO and GFD. Vesting will be subject to the performance conditions as set out below measured over a three-year performance period commencing 1 April 2018. The range for the ROCE measure has been increased from that set for last year's awards.

Half of the award	Half of the award
EPS growth – 4% p.a. (25% vesting) to 12% p.a. (100% vesting) over three financial years commencing with the 2019/20 financial year.	ROCE – 20.5% in the final year of the performance period (2021/22 financial year) (25% vesting) to 23.4% (100% vesting).

Non-Executive Directors' fees

The Committee and the Board, as appropriate, have reviewed the fees for the Chairman and Non-Executive Directors. In line with the general workforce, the basic fees for the Non-Executive Directors will increase by 2.75% for 2019/20, effective from 1 July 2019. There will be no increase to fees for the Chairman for 2019/20.

	2018/19[1]	2019/20[1]	% increase
Board Chairman[2]	£180,000	£180,000	0%
Additional fee for Deputy Chairman	£5,000	£5,000	0%
Basic fee	£48,700	£50,040	2.75%
Additional fee for Senior Independent Director	£7,500	£7,500	0%
Additional fee for Committee Chairman	£7,500	£7,500	0%

1. The fees shown for 2018/19 and 2019/20 are the annual rates as at 1 July 2018 and 1 July 2019 respectively.
2. 2018/19 fee for the Board Chairman is shown as at date of appointment, 1 December 2018.

Approval

This report was approved by the Committee on 11 June 2019 and has been approved subsequently by the Board for submission to Shareholders at the Annual General Meeting to be held on 10 September 2019.

Thomas Geitner
Chairman of the Remuneration Committee

11 June 2019

RELATIONS WITH SHAREHOLDERS

Financial calendar

28 February 2019	Ordinary shares quoted ex-dividend
1 March 2019	Record date for interim dividend
15 March 2019	Dividend reinvestment (DRIP) last date for election
31 March 2019	Financial year end
8 April 2019	Payment of interim dividend
11 June 2019	Announcement of preliminary results
11 June 2019	Announcement of final dividend
End July 2019	Publication of Annual Report
10 September 2019	Annual General Meeting
12 September 2019	Ordinary shares quoted ex-dividend
13 September 2019	Record date for final dividend
27 September 2019	DRIP date
18 October 2019	Payment of final dividend
12 November 2019	Announcement of half-year results
March 2020	Ordinary shares quoted ex-dividend
March 2020	DRIP last date for election
March 2020	Record date for interim dividend
31 March 2020	Financial year end

Investor publications

The Group website provides up-to-date information on corporate and investor news, as well as a wide range of additional supporting documentation.

The Company's Annual and Interim Reports are available to download from the website, alongside recent recordings of the City results presentations.

Find out more online
www.oxinst.com/investors

Administrative enquiries concerning shareholdings

You may view your shareholding and dividend history, register to receive your dividends direct to your bank account or elect to re-invest your dividends and register a change of address online at www.signalshares.com. To register to use this facility you will need your Investor Code (IVC), which can be found on your share certificate, dividend confirmation statement or proxy card.

Administrative enquiries concerning shareholdings in Oxford Instruments plc, such as the loss of a share certificate, dividend payments, or a change of address should be directed, in the first instance, to the Registrar, Link Asset Services, The Registry, 34 Beckenham Road, Beckenham, Kent BR3 4TU.

Tel: +44 (0)871 664 0300 (calls cost 12 pence per minute plus your phone company's access charge. Calls outside the United Kingdom will be charged at the applicable international rate. Lines are open between 09:00-17:30, Monday to Friday excluding public holidays in England and Wales).

Email: shareholder.enquiries@linkgroup.co.uk

Website: **www.signalshares.com**

Correspondence should refer to Oxford Instruments plc and state clearly the registered name and address of the Shareholder. Please notify the Registrar promptly of any change of address.

Dividend bank mandates

If you wish dividends to be paid directly into a bank or building society account and notification to be sent to your Shareholder register address, please contact the Company's Registrar at the address given above for a dividend mandate form. Overseas holders can also choose to receive payment directly into their bank account, or can be sent a draft in local currency. Further details on international payments are available from Link Asset Services at the contact details below.

Tel: +44 (0)871 664 0300 (calls cost 12 pence per minute plus your phone company's access charge. Calls outside the United Kingdom will be charged at the applicable international rate. Lines are open between 09:00-17:30, Monday to Friday excluding public holidays in England and Wales).

Website: **www.signalshares.com**

Duplicate share register accounts

If you are receiving more than one copy of our report, it may be that your shares are registered in two or more accounts on our register of members. If that was not your intention you might consider merging them into one single entry. Please contact Link Asset Services, who will be pleased to carry out your instructions.

Shareholder communications

Unless you have elected to continue to receive Shareholder communications by post, you will be notified by post or, where you have given us an email address for electronic notification, by email that Shareholder communications are available for viewing on the Company's website at **www.oxinst.com/investors**. The Company reserves the right to distribute any communication in hard copy if it deems this necessary.

Shareholder enquiries

Shareholders who have questions relating to the Group's business or who wish to have additional copies of the Report and Financial Statements should apply to:

Company Secretary
Oxford Instruments plc, Tubney Woods, Abingdon, Oxfordshire OX13 5QX
Tel: 01865 393200 Fax: 01865 393442
Email: info.oiplc@oxinst.com
Website: **www.oxinst.com**

Company registration
Registered office: Tubney Woods, Abingdon Oxfordshire OX13 5QX
Registered in England number: 775598
Website: **www.oxinst.com**

Oxford Instruments has an extensive website which gives details of all its products and services, contact information, vacancies and latest news announcements. An interactive investor relations section gives information on recent trading reports, share price data and forthcoming events.

Link Share Dealing Services

A quick and easy share dealing service to either sell or buy shares in many leading UK companies is provided by Link Share Dealing Services. An online and telephone facility is available, providing our Shareholders with an easy-to-access and simple-to-use service. There's no need to pre-register and there are no complicated forms to fill in. The online and telephone dealing service allows you to trade "real time" at a known price which will be given to you at the time you give your instruction. To deal online or by telephone all you need is your surname, Investor Code (IVC) reference number, full postcode, your date of birth and National Client Identifier. Your Investor Code can be found on a recent share certificate, statement or tax voucher. Should you not be able to locate your IVC number, please contact Link Asset Services on +44 (0)871 664 0300 (calls cost 12 pence per minute plus your phone company's access charge. Calls outside the United Kingdom will be charged at the applicable international rate. Lines are open between 09:00-17:30, Monday to Friday excluding public holidays in England and Wales). Please have the appropriate documents to hand when you log on or call, as this information will be needed before you can buy or sell shares.

For further information on this service, or to buy and sell shares, please contact **www.linksharedeal.com** (online dealing) or +44 (0)371 664 0445 (telephone dealing). Calls are charged at the standard geographic rate and will vary by provider. Calls outside the United Kingdom will be charged at the applicable international rate. Lines are open between 09:00-17:30, Monday to Friday excluding public holidays in England and Wales). Full terms, conditions and risks apply and are available on request or by visiting www.linksharedeal.com.

This is not a recommendation to buy or sell shares. Remember the price of shares can go down as well as up, and you are not guaranteed to get back the amount that you originally invested.

Analysis of Shareholders as at 31 March 2019

Size of shareholding	Number of holders	% of total	Total holding	% of total
Up to 5,000 shares	1,869	87.71	1,078,294	1.88
5,001 to 50,000 shares	144	6.76	2,675,279	4.66
50,001 to 200,000 shares	38	1.78	2,792,286	4.87
Over 200,000 shares	80	3.75	50,829,745	88.59
Total	**2,131**	**100%**	**57,375,604**	**100%**

REPORT OF THE DIRECTORS

The Directors present their Report and the Financial Statements of Oxford Instruments plc for the year ended 31 March 2019.

Principal activity and business reviews

The Company is the ultimate holding company of a group of subsidiary undertakings (the "Group") engaged in the research, development, manufacture, rental, sale and service of high technology tools and systems. The Company is required to set out in this report a true and fair view of the business of the Group during the financial year ended 31 March 2019, the position of the Group at the end of the financial year and a description of the principal risks and uncertainties facing the Group. The information which fulfils these requirements includes the Operations and Finance Review on pages 36 to 42 and the report on Corporate Responsibility on pages 50 to 59, which are incorporated in this report by reference. The operations, the strategic review, the Research and Development activities and likely future prospects of the Group are reviewed in the Strategic Report on pages 2 to 59.

Results and dividends

The results for the year are shown in the Consolidated Statement of Income on page 110. The Directors recommend a final dividend of 10.6 pence per ordinary share, which together with the interim dividend of 3.8 pence per ordinary share makes a total of 14.4 pence per ordinary share for the year (2018: 13.3 pence). Subject to Shareholder approval, the final dividend will be paid on 18 October 2019 to Shareholders registered at close of business on 13 September 2019.

Risks and uncertainties

The Board exercises proper and appropriate corporate governance for the Group. It ensures that there are effective systems of internal controls in place to manage Shareholders' interests and the Group's assets, including the assessment and the management of the risks to which the businesses are exposed, and to monitor and manage the compliance with all the legal requirements that affect the Group's worldwide business activities. However, such systems are designed to manage rather than eliminate the risk of failure to achieve business objectives and can provide only reasonable and not absolute assurance against material misstatement or loss.

The Executive Directors report to the Board on changes in the business and in the external environment which may affect the risks which the Group faces. The Executive Directors also provide the Board with monthly financial information. Key performance indicators are reviewed periodically.

There are a number of risks and uncertainties which may have a material effect on the Oxford Instruments Group. These are described in Principal Risks on pages 43 to 47.

Directors

Biographies of all the Directors at the date of this report, including the Non-Executive Directors, appear on pages 62 and 63. During the year, on 22 July 2018, Alan Thompson sadly passed away. Neil Carson was appointed Non-Executive Chairman on 1 December 2018. Steve Blair acted as Interim Chairman from 23 July 2018 until 30 November 2018.

Directors' conflicts of interest

The Companies Act 2006 allows Directors of public companies to authorise conflicts and potential conflicts of interest, where appropriate. Only Directors with no interest in the matter under consideration may participate in the relevant decision and in doing so they must act in a way which they consider in good faith will be most likely to promote the Company's success. A conflicts policy has been drawn up, which is reviewed annually, and a register of conflicts and potential conflicts is maintained.

Directors' interests

The beneficial interests of the Directors in the Company's share capital, all in fully paid up shares at 31 March 2019, are shown below.

Details of share options for the Executive Directors are shown in the Remuneration Report on pages 80 to 99.

	31 March 2019 Shares	31 March 2018 Shares
Ian Barkshire	**12,388**	11,982
Steve Blair	—	—
Neil Carson	—	—
Richard Friend	—	—
Thomas Geitner	—	—
Gavin Hill	**5,906**	5,500
Mary Waldner	**1,000**	1,000

No Director was beneficially interested in the shares of any subsidiary company at any time during the year.

In the year to 31 March 2019, no Director had a material interest in any contract of significance with the Company or any of its subsidiaries. Since the year end, there have been no changes to the above shareholdings apart from for Ian Barkshire and Gavin Hill, who each participate in the Oxford Instruments Share Incentive Plan and since the year end have each increased their beneficial holding by 28 shares.

Insurance cover and Directors' indemnities

For a number of years, the Group has purchased insurance to cover its Directors and Officers against their costs in defending themselves in legal proceedings taken against them in that capacity and in respect of damages resulting from the unsuccessful defence of any proceedings. In addition, to the extent permitted by UK law, the Group indemnifies its Directors and Officers for liabilities arising from such proceedings.

Neither the insurance nor the indemnity provides cover for situations where the Director has acted fraudulently or dishonestly.

Share capital

The Company only has one class of share capital which comprises ordinary shares of 5 pence each. All shares forming part of the ordinary share capital have the same rights and carry one vote each. There are no unusual restrictions on the transfer of a share. The full rights and obligations attaching to the Company's ordinary shares, as well as the powers of the Directors, are set out in the Company's Articles of Association, a copy of which is available on the Company's website. These can also be obtained from Companies House or by writing to the Company Secretary.

During the year to 31 March 2019 the Board issued no new shares (2018: 59,688) following the exercise of options under the Company's share option schemes. At 31 March 2019, the issued share capital of the Company was 57,375,604 ordinary shares of 5 pence each. In connection with the Company's equity incentive plans, a separately administered trust held 152,710 ordinary shares at 31 March 2019 (representing 0.27% of the total issued share capital of the Company). No shares in the Company were acquired by the Company during the year (2018: nil). Details of the share capital and options outstanding as at 31 March 2019 are set out in Notes 23 and 12 respectively to the Financial Statements.

At this year's Annual General Meeting, the Directors propose to renew the authorities granted to them at last year's AGM to:

- allot ordinary shares up to an aggregate nominal value of one-third of the Company's issued share capital and, where full pre-emption rights are applied, up to an aggregate nominal value of two-thirds of the Company's issued share capital;
- allot ordinary shares up to an aggregate nominal value of 10% of the Company's issued share capital without first offering them to existing Shareholders; and
- buy back up to 10% of the Company's issued share capital.

Shareholders will be requested to renew these authorities at the AGM, details of which are set out in the Notice of the Meeting.

Substantial shareholdings

The following are beneficial interests of 3% or more (where the holding is direct), or of 5% or more (where the holding is indirect), which have been notified to the Directors of the Company, in accordance with Chapter 5 of the Disclosure and Transparency Rules, of the Company's issued ordinary share capital, the only class of voting capital, at 5 June 2019:

	Direct/ indirect	Shares '000	% of total
Ameriprise Financial	Indirect/ direct	8,080,361	14.1
BlackRock Investment Management (UK) Limited	Indirect	3,225,962	5.6
Sir MF and Lady KA Wood	Direct	3,045,530	5.3
Baillie Gifford & Co	Indirect	2,917,516	5.1
T Rowe Price	Indirect	2,911,012	5.1
Artemis Investment Management LLP	Indirect	2,894,989	5.0

Payment of suppliers

The Group does not follow a standard payment practice but agrees terms and conditions for its business transactions with each of its suppliers. Payment is then made in accordance with these terms.
At 31 March 2019 trade creditors of the Company and the Group's UK subsidiaries were equivalent to 35 days (2018: 45) and 47 days (2018: 67) of purchases respectively, based on the amounts invoiced by suppliers during the year and the amounts owed to trade creditors at the end of the year.

Charitable donations

During the year, the Group made charitable donations of £3,441 (2018: £5,068). There have been no political donations during the year.

Fixed assets

Whilst the market value of some fixed assets may differ from book value, the Directors believe that the differences are not material.

Disclosure of information to auditor

Pursuant to Section 418(2) of the Companies Act 2006, the Directors who held office at the date of approval of this Directors' Report confirm that, so far as they are each aware, there is no relevant audit information of which the Company's auditor is unaware; and each Director has taken all the steps that he or she might reasonably have been expected to have taken as a Director to make himself or herself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

Annual General Meeting

The Notice of the Annual General Meeting to be held on 10 September 2019 is set out in a letter to Shareholders together with explanatory notes relating to the resolutions.

A resolution to re-appoint KPMG LLP as auditor and to authorise the Directors to set their remuneration will be proposed at the Annual General Meeting.

Change of control arrangements

There are a number of agreements that take effect, alter or terminate upon a change of control of the Company following a takeover, such as banking agreements and Company share plans. On a change of control, the Company's committed credit facilities may be cancelled by lenders by giving not less than three days' notice. It is also possible that pension plan funding arrangements would need to be changed following a change of control if that resulted in a weakening of the employer covenant.

Corporate governance

The Board reviews its work on corporate governance in the Corporate Governance Report on pages 64 to 70.

Financial risk management

Details of the Group's financial risk management objectives and policies, including the exposure to price, credit and liquidity risk, are set out in Note 21 to the Financial Statements.

Diversity and inclusion

The Board recognises that its employees are fundamental to the Group's success. The Group's aim is to ensure there are equal opportunities for all employees and that there is an inclusive culture where differences are valued and people are given the environment in which they can do their best work. Corporate Responsibility on pages 50 to 59 further describes how diversity and inclusion is managed within Oxford Instruments.

Greenhouse gas emissions

To meet the requirements of the Companies Act 2006 (Strategic and Directors' Report) Regulations 2013, CO_2 emissions are reported on as part of our reporting on greenhouse gas emissions in Corporate Responsibility on pages 50 to 59.

Material events

There were no material events since the year end to report.

By order of the Board

Susan Johnson-Brett
Company Secretary

11 June 2019

DIRECTORS' RESPONSIBILITIES

IN RELATION TO THE REPORT AND FINANCIAL STATEMENTS

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

Company law requires the Directors to prepare Group and Parent Company Financial Statements for each financial year. Under that law they are required to prepare the Group Financial Statements in accordance with International Financial Reporting Standards as adopted by the European Union ("IFRSs as adopted by the EU") and applicable law and have 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 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 suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable, relevant, reliable and prudent;
- for the Group Financial Statements, state whether they have been prepared in accordance with IFRSs 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;
- assess the Group and Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Parent 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 are responsible for such internal control as they determine is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error, and 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 complies 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.

Responsibility statement of the Directors in respect of the annual financial report

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; and
- the Strategic Report/Directors' Report includes a fair review of the development and performance of the business and the position of the issuer and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

We consider the 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 position and performance, business model and strategy.

Signed on behalf of the Board

Ian Barkshire
Chief Executive

Gavin Hill
Group Finance Director

11 June 2019

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF OXFORD INSTRUMENTS PLC

1. Our opinion is unmodified

We have audited the financial statements of Oxford Instruments plc ("the Company") for the year ended 31 March 2019 which comprise the Consolidated Statement of Income, Consolidated Statement of Comprehensive Income, Consolidated Statement of Financial Position, Consolidated Statement of Changes in Equity, Consolidated Statement of Cash Flows, Company Statement of Financial Position, Company Statement of Changes in Equity, and the related notes, including the accounting policies set out on pages 116 to 122.

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 March 2019 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 as adopted by the European Union (IFRSs as adopted by the EU);
- the parent Company financial statements have been properly prepared in accordance with UK accounting standards, including FRS 101 Reduced Disclosure Framework; 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.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities are described below. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion. Our audit opinion is consistent with our report to the audit committee.

We were first appointed as auditor by the Company before 1984. The period of total uninterrupted engagement is for the 36 financial years ended 31 March 2019. We have fulfilled our ethical responsibilities under, and we remain independent of the Group in accordance with, UK ethical requirements including the FRC Ethical Standard as applied to listed public interest entities. No non-audit services prohibited by that standard were provided.

Overview

Materiality: Group financial statements as a whole	£1.5m (2018:£1.5m) 4.0% (2018: 4.8%) of Group normalised profit before tax from continuing operations	
Coverage	81% (2018: 91%) of absolute Group profit before tax[1]	
Key audit matters		**vs 2018**
New risks:	The impact of uncertainties due to the UK exiting the European Union, on our audit	**New**
Recurring risks:	Completeness and accuracy of provisions in respect of intellectual property claims	◀▶
	Parent company: Valuation of investments held by the parent company	◀▶

1. This is the profit and losses as a percentage of total profits and losses that made up the Group profit before tax

2. Key audit matters: including our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgment, were of most significance in the audit of the financial statements and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including 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. We summarise below the key audit matters in arriving at our audit opinion above, together with our key audit procedures to address those matters and, as required for public interest entities, our results from those procedures. These matters were addressed, and our results are based on procedures undertaken, in the context of, and solely for the purpose of, our audit of the financial statements as a whole, and in forming our opinion thereon, and consequently are incidental to that opinion, and we do not provide a separate opinion on these matters.

INDEPENDENT AUDITOR'S REPORT CONTINUED

TO THE MEMBERS OF OXFORD INSTRUMENTS PLC

2. Key audit matters: including our assessment of risks of material misstatement continued

	The risk	Our response
The impact of uncertainties due to the UK exiting the European Union, on our audit Refer to page 45 (principal risks), pages 48 and 49 (viability statement) and page 75 (Audit Committee Report).	**Unprecedented level of uncertainty:** All audits assess and challenge the reasonableness of estimates, in particular as described under completeness and accuracy of provisions in respect of intellectual property claims and related disclosures and the appropriateness of the going concern basis of preparation of the financial statements. All of these depend on assessments of the future economic environment and the Group's future prospects and performance. In addition, we are required to consider the other information presented in the Annual Report including the principal risks disclosure and the viability statement and to consider the directors' statement that 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 position and performance, business model and strategy. Brexit is one of the most significant economic events for the UK and at the date of this report its effects are subject to unprecedented levels of uncertainty of outcomes, with the full range of possible effects unknown.	We developed a standardised firm-wide approach to the consideration of the uncertainties arising from Brexit in planning and performing our audits. Our procedures included: **Our Brexit knowledge:** We considered the directors' assessment of Brexit-related sources of risk for the group's business and financial resources compared with our own understanding of the risks. We considered the directors' plans to take action to mitigate the risks; **Sensitivity analysis:** When addressing areas that depend on forecasts, we compared the directors' analysis to our assessment of the full range of reasonably possible scenarios resulting from Brexit uncertainty and, where forecast cash flows are required to be discounted, considered adjustments to discount rates for the level of remaining uncertainty; and **Assessing transparency:** As well as assessing individual disclosures as part of our procedures on the completeness and accuracy of provisions in respect of intellectual property claims, we considered all of the Brexit related disclosures together, including those in the strategic report, comparing the overall picture against our understanding of the risks. **Our results** As reported under completeness and accuracy of provisions in respect of intellectual property claims, we found the resulting estimates and related disclosures of the above and disclosures in relation to going concern to be acceptable. However, no audit should be expected to predict the unknowable factors or all possible future implications for a company and this is particularly the case in relation to Brexit.
Completeness and accuracy of provisions in respect of intellectual property claims (£1.8 million; 2018: £3.2million) Refer to page 75 (Audit Committee Report), page 117 (accounting policy) and page 149 (financial disclosures).	**Subjective estimate:** The estimation of any provision required for intellectual property claims is inherently subjective based on the wide range of potential outcomes due to differing settlement methods and royalty rates. The effect of these matters is that, as part of our risk assessment, we determined that provisions in respect of intellectual property claims has a high degree of estimation uncertainty, with a potential range of reasonable outcomes greater than our materiality for the financial statements as a whole.	**Our procedures included:** **Our sector experience:** Challenging the reasonableness of the key assumptions made by the Group, such as potential royalty rates payable in respect of intellectual property claims and likelihood of an outflow of resources against our own expectations based on our historical knowledge, experience and understanding and our review of correspondence with competitors. **Enquiry of Lawyers:** Enquiring with the Group's external legal advisers, having assessed their experience and competence, in respect of open matters of litigation regarding the likelihood of an outflow of resources. **Personnel interviews:** Evaluating assumptions through discussion of claims with Group's internal legal counsel and relevant business unit managers. **Assessing transparency:** Assessing whether the Group's disclosures regarding the range of possible outcomes appropriately reflect the risks identified. **Our results** We found the level of provisions in respect of intellectual property claims to be acceptable (2018: acceptable).
Valuation of investments held by the parent company (£321.1 million; 2018: £320.9 million) Refer to page 158 (accounting policy) and page 160 (financial disclosures).	**Low risk/high value:** The carrying amount of the parent company's investments in subsidiaries represents 83% (2018: 92%) of the company's total assets. Their recoverability is not at a high risk of significant misstatement or subject to significant judgement. However, due to their materiality in the context of the parent company financial statements, this is considered to be the area that had the greatest effect on our overall parent company audit.	**Our procedures included:** **Tests of detail:** Comparing the carrying amount of 100% of investments with the relevant subsidiaries' draft balance sheet to identify whether their net assets, being an approximation of their minimum recoverable amount, were in excess of their carrying amount and assessing whether those subsidiaries have historically been profit-making. **Assessing subsidiary audits:** Assessing the work performed by the subsidiary audit team for a sample of subsidiaries and considering the results of that work, on those subsidiaries' profits and net assets. **Our sector experience:** For the investments where the carrying amount exceeded the net asset value, comparing the carrying amount of the investment with the expected value of the business based on a suitable multiple of profit. **Our results** We found the group's assessment of the recoverability of the investment in subsidiaries to be acceptable (2018: acceptable).

We continue to perform procedures over revenue recognition. However, recognition of revenue is not inherently subjective or complex. We have not assessed this risk as being one of the most significant risks in our current year audit and therefore it is not separately identified in our report this year.

3. Our application of materiality and an overview of the scope of our audit

Materiality for the group financial statements as a whole was set at £1.5m (2018: £1.5m), determined with reference to a benchmark of profit before tax from continuing operations normalised to exclude restructuring costs, share of impairment reversal recognised by associate, past service costs, loan note make-whole payment and mark to market movements in respect of derivative financial instruments as disclosed in Note 1 (2018: with reference to a benchmark of profit before tax from continuing operations normalised to exclude restructuring costs, net profit on disposal of buildings, share of impairment recognised by associate and mark to market gains in respect of derivative financial instruments as disclosed in Note 1). Total profits and losses that made up normalised Group profit before tax from continuing operations is calculated as £37.9m (2018: £31.4m) of which materiality represents 4.0% (2018: 4.8%).

Materiality for the parent company financial statements as a whole was set at £1.0m (2018: £1.0m), determined with reference to a benchmark of company total assets, of which it represents 0.3% (2018: 0.3%).

We agreed to report to the Audit and Risk Committee any corrected or uncorrected identified misstatements exceeding £75,000 (2018: £75,000), in addition to other identified misstatements that warranted reporting on qualitative grounds.

Of the group's 74 (2018: 72) reporting components, we subjected 11 (2018: 14) to full scope audits for group purposes and 3 (2018: 3) to specified risk-focused audit procedures. The latter were not individually financially significant enough to require a full scope audit for group purposes, but did present specific individual risks that needed to be addressed.

The group team performed procedures on the items excluded from normalised group profit before tax.

The components within the scope of our work accounted for the percentages indicated opposite.

The remaining 12% (2018: 6%) of total group revenue, 19% (2018: 9%) of total profits and losses that made up group profit before tax from continuing operations and 11% (2018: 8%) of total group assets is represented by 60 (2018: 55) reporting components, none of which individually represented more than 6% (2018: 2%) of any of total group revenue, group profit before tax or total group assets. For these residual components, we performed analysis at an aggregated group level to re-examine our assessment that there were no significant risks of material misstatement within these.

The Group team instructed component auditors as to the significant areas to be covered, including the relevant risks detailed above and the information to be reported back. The Group team approved the component materialities, which ranged from £0.5m to £1.0m (2018: £0.1m to £1.0m), having regard to the mix of size and risk profile of the Group across the components. The work on 7 of the 14 components (2018: 8 of the 17 components) was performed by component auditors and the rest, including the audit of the parent company, was performed by the Group team.

The Group team visited 1 (2018: 2) component location in the UK (2018: UK and Sweden) to confirm appropriate execution of the audit strategy & plan and inspect their findings. Telephone conference meetings were also held with these component auditors and all others that were not physically visited. At these visits and meetings, the findings reported to the Group team were discussed in more detail, and any further work required by the Group team was then performed by the component auditor.

INDEPENDENT AUDITOR'S REPORT CONTINUED

TO THE MEMBERS OF OXFORD INSTRUMENTS PLC

4. We have nothing to report on going concern

The Directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the Company or the Group or to cease their operations, and as they have concluded that the Company's and the Group's financial position means that this is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over their ability to continue as a going concern for at least a year from the date of approval of the financial statements ("the going concern period").

Our responsibility is to conclude on the appropriateness of the Directors' conclusions and, had there been a material uncertainty related to going concern, to make reference to that in this audit report. However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the absence of reference to a material uncertainty in this auditor's report is not a guarantee that the Group and the Company will continue in operation.

In our evaluation of the Directors' conclusions, we considered the inherent risks to the Group's and Company's business model and analysed how those risks might affect the Group's and Company's financial resources or ability to continue operations over the going concern period. The risks that we considered most likely to adversely affect the Group's and Company's available financial resources over this period were:

- The impact of Brexit on the Group's supply chain.

As these were risks that could potentially cast significant doubt on the Group's and the Company's ability to continue as a going concern, we considered sensitivities over the level of available financial resources indicated by the Group's financial forecasts taking account of reasonably possible (but not unrealistic) adverse effects that could arise from these risks individually and collectively and evaluated the achievability of the actions the Directors consider they would take to improve the position should the risks materialise. We also considered less predictable but realistic second order impacts, such as macroeconomic uncertainty including the impact of Brexit and the erosion of customer or supplier confidence, which could result in a rapid reduction of available financial resources.

Based on this work, we are required to report to you if:

- we have anything material to add or draw attention to in relation to the directors' statement in Note 1 to the financial statements on the use of the going concern basis of accounting with no material uncertainties that may cast significant doubt over the Group and Company's use of that basis for a period of at least twelve months from the date of approval of the financial statements; or
- if the related statement under the Listing Rules set out on page 42 is materially inconsistent with our audit knowledge.

We have nothing to report in these respects, and we did not identify going concern as a key audit matter.

5. We have nothing to report on the other information in the Annual Report

The directors are responsible for the other information presented in the Annual Report together with the financial statements. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work we have not identified material misstatements in the other information.

Strategic report and directors' report

Based solely on our work on the other information:

- we have not identified material misstatements in the strategic report and the directors' report;
- in our opinion the information given in those reports for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

Directors' remuneration report

In our opinion the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

Disclosures of principal risks and longer-term viability

Based on the knowledge we acquired during our financial statements audit, we have nothing material to add or draw attention to in relation to:

- the directors' confirmation within the viability statement on pages 48 and 49 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 and liquidity;
- the Principal Risks disclosures describing these risks and explaining how they are being managed and mitigated; and
- the directors' explanation in the viability statement of how they have assessed the prospects of the Group, over what period they have done so and why they considered 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.

Under the Listing Rules we are required to review the viability statement. We have nothing to report in this respect.

Our work is limited to assessing these matters in the context of only the knowledge acquired during our financial statements audit. As we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgments that were reasonable at the time they were made, the absence of anything to report on these statements is not a guarantee as to the Group's and Company's longer-term viability.

Corporate governance disclosures

We are required to report to you if:

- we have identified material inconsistencies between the knowledge we acquired during our financial statements audit and the directors' statement that they consider that 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 position and performance, business model and strategy; or
- the section of the annual report describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.

We are required to report to you if the Corporate Governance Statement does not properly disclose a departure from the eleven provisions of the UK Corporate Governance Code specified by the Listing Rules for our review.

We have nothing to report in these respects.

6. We have nothing to report on the other matters on which we are required to report by exception

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

- adequate accounting records have not been kept by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in these respects.

7. Respective responsibilities

Directors' responsibilities

As explained more fully in their statement set out on page 104, the directors are responsible for: the preparation of the financial statements including being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Group and parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

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 other irregularities (see below), or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud, other irregularities or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A fuller description of our responsibilities is provided on the FRC's website at **www.frc.org.uk/auditorsresponsibilities**.

Irregularities – ability to detect

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience, through discussion with the directors and other management (as required by auditing standards), and from inspection of the group's regulatory and legal correspondence and discussed with the directors and other management the policies and procedures regarding compliance with laws and regulations.

We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit. This included communication from the group to component audit teams of relevant laws and regulations identified at group level.

The potential effect of these laws and regulations on the financial statements varies considerably.

Firstly, the Group is subject to laws and regulations that directly affect the financial statements including financial reporting legislation (including related companies legislation), distributable profits legislation and taxation legislation and we assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

Secondly, the Group is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements, for instance through the imposition of fines or litigation. We identified the following areas as those most likely to have such an effect: international trading regulations, health and safety, anti-bribery and employment law recognising the nature of the group's activities. Auditing standards limit the required audit procedures to identify non-compliance with these laws and regulations to enquiry of the directors and inspection of regulatory and legal correspondence, if any. Through these procedures, we became aware of actual or suspected non-compliance and considered the effect as part of our procedures on the related financial statement items. The identified actual or suspected non-compliance was not sufficiently significant to our audit to result in our response being identified as a key audit matter.

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it.

In addition, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

8. The purpose of our audit work and to whom we owe our responsibilities

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.

Mike Barradell (Senior Statutory Auditor)
for and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
15 Canada Square
London E14 5GL

11 June 2019

CONSOLIDATED STATEMENT OF INCOME

YEAR ENDED 31 MARCH 2019

		2019			2018		
	Notes	Adjusted[1] £m	Adjusting items[1] £m	Total £m	Adjusted[1] £m	Adjusting items[1] £m	Total £m
Revenue	3	**333.6**	**—**	**333.6**	296.9	—	296.9
Cost of sales		**(156.6)**	**—**	**(156.6)**	(146.0)	—	(146.0)
Gross profit		**177.0**	**—**	**177.0**	150.9	—	150.9
Research and Development	5	**(25.4)**	**—**	**(25.4)**	(23.4)	—	(23.4)
Selling and marketing		**(61.3)**	**—**	**(61.3)**	(53.9)	—	(53.9)
Administration and shared services		**(39.6)**	**(9.9)**	**(49.5)**	(28.5)	(12.1)	(40.6)
Share of profit/(loss) of associate, net of tax	6	**0.2**	**0.3**	**0.5**	0.5	(2.4)	(1.9)
Other operating income		**—**	**—**	**—**	—	3.3	3.3
Foreign exchange		**(1.2)**	**(1.5)**	**(2.7)**	0.9	3.1	4.0
Operating profit/(loss)		**49.7**	**(11.1)**	**38.6**	46.5	(8.1)	38.4
Other financial income	8	**0.3**	**—**	**0.3**	0.3	—	0.3
Financial income		**0.3**	**—**	**0.3**	0.3	—	0.3
Interest charge on pension scheme net liabilities	25	**(0.3)**	**—**	**(0.3)**	(0.6)	—	(0.6)
Other financial expenditure	9	**(2.2)**	**(0.9)**	**(3.1)**	(3.9)	—	(3.9)
Financial expenditure		**(2.5)**	**(0.9)**	**(3.4)**	(4.5)	—	(4.5)
Profit/(loss) before income tax from continuing operations		**47.5**	**(12.0)**	**35.5**	42.3	(8.1)	34.2
Income tax (expense)/credit	13	**(10.4)**	**3.6**	**(6.8)**	(10.1)	(4.5)	(14.6)
Profit/(loss) for the year from continuing operations		**37.1**	**(8.4)**	**28.7**	32.2	(12.6)	19.6
Profit/(loss) from discontinued operations after tax	7	**—**	**1.3**	**1.3**	(0.4)	46.3	45.9
Profit/(loss) for the year attributable to equity Shareholders of the parent		**37.1**	**(7.1)**	**30.0**	31.8	33.7	65.5

		pence	pence	pence	pence
Earnings per share					
Basic earnings per share	2				
From continuing operations		**64.9**	**50.1**	56.3	34.3
From discontinued operations		**—**	**2.3**	(0.7)	80.2
From profit for the year		**64.9**	**52.4**	55.6	114.5
Diluted earnings per share	2				
From continuing operations		**64.3**	**49.7**	56.1	34.1
From discontinued operations		**—**	**2.3**	(0.7)	80.0
From profit for the year		**64.3**	**52.0**	55.4	114.1
Dividends per share					
Dividends paid	14		**13.3**		13.0
Dividends proposed	14		**14.4**		13.3

1. Adjusted numbers are stated to give a better understanding of the underlying business performance. Details of adjusting items can be found in Note 1 to the Financial Statements.

The attached notes form part of the Financial Statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

YEAR ENDED 31 MARCH 2019

	Notes	2019 £m	2018 £m
Profit for the year		**30.0**	65.5
Other comprehensive income/(expense):			
Items that may be reclassified subsequently to profit or loss			
Foreign exchange translation differences		**4.2**	(8.8)
Net cumulative foreign exchange gain on disposal of subsidiaries recycled to the Income Statement		**—**	(4.8)
Items that will not be reclassified subsequently to profit or loss			
Remeasurement gain in respect of post-retirement benefits	25	**2.5**	2.2
Tax on items that will not be reclassified to profit or loss	13	**(0.5)**	(0.9)
Total other comprehensive income/(expense)		**6.2**	(12.3)
Total comprehensive income for the year attributable to equity Shareholders of the parent		**36.2**	53.2

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

AS AT 31 MARCH 2019

	Notes	2019 £m	2018 £m
Assets			
Non-current assets			
Property, plant and equipment	15	**24.2**	22.8
Right of use assets	28	**8.8**	—
Intangible assets	16	**152.5**	158.7
Investment in associate	6	**4.6**	4.1
Long-term receivables	19	**0.3**	1.4
Deferred tax assets	17	**15.3**	13.4
		205.7	200.4
Current assets			
Inventories	18	**60.8**	45.9
Trade and other receivables	19	**78.3**	73.3
Current income tax recoverable		**2.4**	2.5
Derivative financial instruments	22	**1.1**	2.4
Cash and cash equivalents	20	**35.2**	20.7
		177.8	144.8
Total assets		**383.5**	345.2
Equity			
Capital and reserves attributable to the Company's equity Shareholders			
Share capital	23	**2.9**	2.9
Share premium		**61.7**	61.7
Other reserves		**0.2**	0.2
Translation reserve		**13.4**	9.2
Retained earnings		**124.0**	105.6
		202.2	179.6
Liabilities			
Non-current liabilities			
Bank loans	24	**27.9**	39.4
Lease payables	28	**6.0**	—
Retirement benefit obligations	25	**6.5**	15.3
Provisions	27	**1.1**	1.7
Deferred tax liabilities	17	**6.3**	6.1
		47.8	62.5
Current liabilities			
Bank loans and overdrafts	24	**0.6**	1.0
Trade and other payables	26	**116.9**	85.5
Lease payables	28	**3.0**	—
Current income tax payables		**4.3**	6.2
Derivative financial instruments	22	**1.1**	0.4
Provisions	27	**7.6**	10.0
		133.5	103.1
Total liabilities		**181.3**	165.6
Total liabilities and equity		**383.5**	345.2

The Financial Statements were approved by the Board of Directors on 11 June 2019 and signed on its behalf by:

Ian Barkshire
Director

Gavin Hill
Director

Company number: 775598

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

YEAR ENDED 31 MARCH 2019

2019	Share capital £m	Share premium account £m	Other reserves £m	Foreign exchange translation reserve £m	Retained earnings £m	Total £m
Balance at 1 April 2018	2.9	61.7	0.2	9.2	105.6	179.6
Impact of adoption of IFRS 15	—	—	—	—	(7.2)	(7.2)
	2.9	61.7	0.2	9.2	98.4	172.4
Total comprehensive income/(expense):						
Profit for the year	—	—	—	—	**30.0**	**30.0**
Other comprehensive income:						
– Foreign exchange translation differences	—	—	—	**4.2**	—	**4.2**
– Remeasurement gain in respect of post-retirement benefits	—	—	—	—	**2.5**	**2.5**
– Tax on items recognised directly in other comprehensive income	—	—	—	—	**(0.5)**	**(0.5)**
Total comprehensive income/(expense) attributable to equity Shareholders of the parent	—	—	—	**4.2**	**32.0**	**36.2**
Transactions with owners recorded directly in equity:						
– Proceeds from exercise of share options	—	—	—	—	**0.2**	**0.2**
– Charge in respect of employee service costs settled by award of share options	—	—	—	—	**0.8**	**0.8**
– Tax on items recognised directly in equity	—	—	—	—	**0.2**	**0.2**
– Dividends paid	—	—	—	—	**(7.6)**	**(7.6)**
Total transactions with owners recorded directly in equity	—	—	—	—	**(6.4)**	**(6.4)**
Balance at 31 March 2019	**2.9**	**61.7**	**0.2**	**13.4**	**124.0**	**202.2**

2018	Share capital £m	Share premium account £m	Other reserves £m	Foreign exchange translation reserve £m	Retained earnings £m	Total £m
Balance at 1 April 2017	2.9	61.5	0.2	22.8	45.1	132.5
Total comprehensive income/(expense):						
Profit for the year	—	—	—	—	65.5	65.5
Other comprehensive income:						
– Foreign exchange translation differences	—	—	—	(8.8)	—	(8.8)
– Net foreign exchange gain on disposal of subsidiaries recycled to the Income Statement	—	—	—	(4.8)	—	(4.8)
– Remeasurement gain in respect of post-retirement benefits	—	—	—	—	2.2	2.2
– Tax on items recognised directly in other comprehensive income	—	—	—	—	(0.9)	(0.9)
Total comprehensive (expense)/income attributable to equity Shareholders of the parent	—	—	—	(13.6)	66.8	53.2
Transactions with owners recorded directly in equity:						
– Proceeds from issue of shares	—	0.2	—	—	—	0.2
– Charge in respect of employee service costs settled by award of share options	—	—	—	—	1.1	1.1
– Dividends paid	—	—	—	—	(7.4)	(7.4)
Total transactions with owners recorded directly in equity	—	0.2	—	—	(6.3)	(6.1)
Balance at 31 March 2018	2.9	61.7	0.2	9.2	105.6	179.6

Other reserves comprise the capital redemption reserve, which represents the nominal value of shares repurchased and then cancelled during the year ended 31 March 1999, and the hedging reserve in respect of the effective portion of changes in value of commodity contracts.

The foreign exchange translation reserve comprises all foreign exchange differences arising since 1 April 2004 from the translation of the Group's net investments in foreign subsidiaries into Sterling.

The Group holds 152,710 (2018: 183,145) of its own shares in an employee benefit trust. The cost of these shares is included within retained earnings.

CONSOLIDATED STATEMENT OF CASH FLOWS

YEAR ENDED 31 MARCH 2019

	Notes	2019 £m	2018 £m
Profit for the year		**30.0**	65.5
Profit for the year from discontinued operations	7	**(1.3)**	(45.9)
Profit for the year from continuing operations		**28.7**	19.6
Adjustments for:			
Income tax expense	13	**6.8**	14.6
Net financial expense		**3.1**	4.2
Fair value movement on financial derivatives		**1.5**	(3.1)
Restructuring costs		**—**	1.2
Restructuring costs – relating to associate		**0.3**	0.4
Past service cost on defined benefit pension scheme		**0.3**	—
Net profit on disposal of buildings		**—**	(3.3)
Share of impairment recognised by associate		**(0.6)**	2.0
Amortisation and impairment of acquired intangibles	16	**9.6**	10.9
Depreciation of property, plant and equipment	15	**3.9**	4.7
Depreciation of right of use assets	28	**3.3**	—
Amortisation and impairment of capitalised development costs	16	**3.5**	4.4
Amortisation and impairment of capitalised software costs	16	**0.3**	—
Adjusted earnings before interest, tax, depreciation and amortisation		**60.7**	55.6
Loss on disposal of property, plant and equipment		**0.2**	0.3
Cost of equity settled employee share schemes	12	**0.8**	1.1
Share of profit from associate		**(0.2)**	(0.5)
Restructuring costs paid		**(0.7)**	(1.3)
Cash payments to the pension scheme more than the charge to operating profit		**(7.1)**	(7.9)
Operating cash flows before movements in working capital		**53.7**	47.3
Increase in inventories		**(4.0)**	(4.5)
Increase in receivables		**(3.5)**	(14.4)
Increase in payables and provisions		**4.1**	2.8
Increase in customer deposits		**7.1**	2.9
Purchase of rental assets held for subsequent sale		**(1.1)**	(0.7)
Cash generated from continuing operations		**56.3**	33.4
Interest paid		**(3.5)**	(2.1)
Income taxes paid		**(8.7)**	(3.8)
Net cash from operating activities – continuing operations		**44.1**	27.5
Net cash from operating activities – discontinued operations		**—**	3.0
Net cash flow from operating activities		**44.1**	30.5

	Notes	2019 £m	2018 £m
Cash flows from investing activities			
Proceeds from sale of property, plant and equipment		**—**	9.3
Acquisition of property, plant and equipment		**(4.1)**	(4.3)
Acquisition of intangible assets		**(2.2)**	(0.5)
Net cash flow on disposal of businesses	7	**—**	71.2
Capitalised development expenditure		**(3.5)**	(5.8)
Increase in investment in associate		**—**	(2.1)
Decrease in long-term receivables		**1.1**	0.9
Interest received		**0.3**	—
Net cash (used in)/generated from investing activities – continuing operations		**(8.4)**	68.7
Net cash used in investing activities – discontinued operations		**—**	—
Net cash (used in)/generated from investing activities		**(8.4)**	68.7
Cash flows from financing activities			
Proceeds from issue of share capital		**—**	0.2
Proceeds from exercise of share options		**0.2**	—
Payments made in respect of lease liabilities	28	**(3.2)**	—
Repayment of borrowings	24	**(11.5)**	(96.8)
Dividends paid		**(7.6)**	(7.4)
Net cash used in financing activities		**(22.1)**	(104.0)
Net increase/(decrease) in cash and cash equivalents		**13.6**	(4.8)
Cash and cash equivalents at beginning of the year		**20.7**	26.5
Effect of foreign exchange rate changes on cash and cash equivalents		**0.9**	(1.0)
Cash and cash equivalents at end of the year	20	**35.2**	20.7

ACCOUNTING POLICIES

Oxford Instruments plc (the "Company") is a company incorporated and domiciled in the UK.

The Group Financial Statements have been prepared and approved by the Directors in accordance with International Financial Reporting Standards as adopted by the EU ("Adopted IFRS"). The Company has elected to prepare its Parent Company Financial Statements in accordance with FRS 101; these are presented on pages 153 to 163.

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these Group Financial Statements.

The Financial Statements have been prepared on a going concern basis based on the Directors' opinion, after making reasonable enquiries, that the Group has adequate resources to continue in operational existence for the foreseeable future.

The Group's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Strategy section on pages 22 and 23. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Finance Review on pages 36 to 42.

The relatively diverse nature of the Group, together with its current financial strength, provides a solid foundation. The Directors have reviewed the Group's forecasts and flexed them to incorporate a number of potential scenarios relating to changes in trading performance and believe that the Group will be able to operate within its existing debt facilities which expire between March 2021 and June 2023. This review also considered hedging arrangements in place. As a consequence, the Directors believe that the Group is well placed to manage its business risks successfully. Further information can be found in the Viability Statement on pages 48 and 49.

The Financial Statements were authorised for issuance on 11 June 2019.

(a) New accounting standards

The following standards and interpretations have been adopted by the Group for the year ended 31 March 2019:

- IFRS 9 Financial Instruments
  The Group adopted IFRS 9 on 1 April 2018. IFRS 9 addresses the classification, measurement and derecognition of financial instruments, introduces a new impairment model for financial assets and new rules for hedge accounting. It replaces IAS 39 Financial Instruments guidance, and comprehensive updates have been made to IFRS 7 Financial Instruments: Disclosure and IAS 32 Financial Instruments: Presentation. The adoption of IFRS 9 has had no material impact on the Group's results;
- IFRS 15 Revenue from Contracts with Customers
  The Group adopted IFRS 15 using the modified retrospective approach on 1 April 2018, which means that the cumulative impact on adoption has been recognised in retained earnings as of 1 April 2018. Comparative information has not been restated. IFRS 15 provides a single, principles-based, five-step model to be applied to all sales contracts, based on the transfer of goods and services to customers, and it replaces the separate model for goods and services of IAS 18 Revenue. The impact on adoption of IFRS 15 was a decrease in retained earnings of £7.2m, net of tax; an increase in inventory of £11.0m; an increase in customer deposits of £19.0m; an increase in deferred income of £1.0m; a reduction in current tax payable of £0.9m and an increase in deferred tax assets of £0.9m; and
- IFRS 16 Leases
  The Group adopted IFRS 16 using the modified retrospective approach on 1 April 2018. IFRS 16 provides a single model for lessees which recognises a right of use asset and lease liability for all leases that are longer than one year or that are not classified as low value. The impact on adoption of IFRS 16 was the recognition of right of use assets totalling £10.7m on the balance sheet and corresponding lease liabilities of £10.7m.

The table below summarises the effect of the adoption of IFRS 15 and IFRS 16 on the Group Income Statement during the year to 31 March 2019:

Continuing operations – adjusted	Pre IFRS 15 & IFRS 16 £m	IFRS 15 adjustment £m	IFRS 16 adjustment £m	**As reported £m**
Revenue	326.6	7.0	—	**333.6**
Cost of sales	(152.5)	(4.1)	—	**(156.6)**
Gross profit	174.1	2.9	—	**177.0**
Operating profit	46.9	2.9	(0.1)	**49.7**
Net finance expense	(2.0)	—	(0.2)	**(2.2)**
Profit before tax	44.9	2.9	(0.3)	**47.5**
Tax charge	(9.8)	(0.6)	—	**(10.4)**
Profit after tax	35.1	2.3	(0.3)	**37.1**

(b) Significant estimates and judgements

The preparation of Financial Statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Significant judgements

In the opinion of the Group there are no judgements made in the preparation of the Financial Statements in respect of which taking a different view would have a material impact on the Financial Statements.

Significant estimates

Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods. The key areas where estimates have been used and assumptions applied are as follows.

Measurement of defined benefit scheme liabilities

The Group recognises and measures costs relating to defined benefit pension schemes in accordance with IAS 19 (Revised) Employee Benefits. In applying IAS 19 (Revised) the costs are assessed in accordance with the advice of independent qualified actuaries. This requires certain estimates and assumptions in relation to future changes in salaries and inflation, as well as mortality rates, expected returns on plan assets and the selection of suitable discount rates. The factors affecting these assumptions are influenced by wider macroeconomic factors that are largely outside of the Group's control. A sensitivity analysis is set out in Note 25.

Provisions for IP-related claims

Provisions for IP-related claims are recognised in the period when it becomes probable that there will be a future outflow of funds resulting from past expectations or events which can be reasonably estimated. The timing of recognition requires the application of judgement to existing facts and circumstances which can be subject to change. Amounts provided represent the Group's best estimate of exposure based on currently available information.

Key assumptions surrounding estimation uncertainty relate to estimating potential royalty or profit sharing rates surrounding any product-related intellectual property claims (see Note 27).

(c) Basis of preparation and consolidation

The Financial Statements are presented in Sterling, rounded to the nearest £0.1m and are prepared on the historical cost basis except as described on page 118 under the heading "Financial instruments".

The Group Financial Statements include the accounts of Oxford Instruments plc and its subsidiary companies adjusted to eliminate intra-Group balances and any unrealised gains and losses or income and expenses arising from intra-Group transactions.

Subsidiaries are entities controlled by the Group. Control exists when the Group is exposed to or has rights to variable returns from its investment with the investee and has the ability to affect those returns through its power over the investee. In assessing control, potential voting rights that are currently exercisable or convertible are taken into account. The results of subsidiary companies are included in the consolidated Financial Statements from the date that control commences until the date that control ceases. The acquisition method is used to account for the acquisition of subsidiaries.

Associates are those entities in which the Group holds more than 20% of the shares and voting rights and has significant influence, but not control, over the financial and operating policies.

The Group financial information includes the Group's share of the total comprehensive income of the associate on an equity accounted basis, from the date that significant influence commences until the date that significant influence ceases. When the Group's share of losses exceeds its interest in associate, the Group's carrying amount is reduced to £nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of an associate.

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on consolidation, are translated into Sterling at exchange rates ruling at the end of the reporting period. Income statements and cash flows of foreign operations are translated into Sterling at average monthly exchange rates which approximate foreign exchange rates at the date of the transaction. Foreign exchange differences arising on retranslation are recognised through the Statement of Comprehensive Income.

(d) Foreign currency

An individual entity's transactions in foreign currencies are translated at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in profit or loss. Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

ACCOUNTING POLICIES CONTINUED

(e) Financial instruments

Financial assets and liabilities are recognised in the Group's Consolidated Statement of Financial Position when the Group becomes a party to the contractual provisions of the instrument. Derivative financial instruments of the Group are used to hedge its exposure to interest rate, foreign currency and commodity pricing risks arising from operational, financing and investment activities. The Group does not hold or issue derivative financial instruments for trading purposes. All derivatives are initially recognised at fair value; attributable transaction costs are recognised in profit or loss as incurred. Derivatives comprising interest rate swaps, foreign exchange contracts and options and metal futures contracts are classified as "fair value through profit and loss" under IFRS 9, unless designated as hedges. Subsequent to initial recognition, derivatives are measured at fair value and gains or losses on the settlement of such derivatives are recognised in operating expenses. Where such derivatives relate to the following year's exposure, any gains or losses resulting from the change in fair value are recognised as an adjusting item in operating expenses.

Changes in the fair value of the derivative hedging instruments designated as cash flow hedges are recognised in equity to the extent that the hedge is effective. To the extent that the hedge is ineffective, changes in fair value are recognised in the Consolidated Statement of Income. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, then hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognised in equity remains there until the forecast transaction occurs. When the hedged item is a non-financial asset, the amount recognised in equity is transferred to the carrying amount of the asset when it is recognised. In other cases the amount recognised in equity is transferred to the Consolidated Statement of Income in the same period that the hedged item affects profit or loss.

The fair value of interest rate swaps is based on broker quotes. Those quotes are tested for reasonableness by discounting estimated future cash flows based on the terms and maturity of each contract and using market interest rates for a similar instrument at the measurement date.

The fair value of forward exchange contracts is their market price at the Consolidated Statement of Financial Position date, being the present value of the forward price. The gain or loss on remeasurement to fair value of forward exchange contracts is recognised immediately in the Consolidated Statement of Income.

Contingent purchase consideration is measured at fair value at the date of acquisition and subsequently carried at fair value, with movements recognised in the Income Statement.

Interest-bearing borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost with any difference between cost and redemption value being recognised in profit or loss over the period of the borrowing on an effective interest basis.

(f) Property, plant and equipment

Property, plant and equipment is stated at historical cost less provisions for impairment (see accounting policy k) and depreciation which, with the exception of freehold land which is not depreciated and rental assets (see below), is provided on a straight-line basis over each asset's estimated economic life. Depreciation is provided based on historical cost less estimated residual value. The principal estimated economic lives used for this purpose are:

• Freehold buildings, long leasehold land and buildings	50 years
• Furniture and fittings	10 years
• Machinery and other equipment	5 to 10 years
• Computer equipment	4 years
• Vehicles	4 years

For leasehold improvements, where the length of the lease is less than the principal estimated economic lives noted above, the length of the lease is used.

Fixed assets held for rental as part of the Group's service business are depreciated using the reducing balance method at a rate of 3% per month.

Proceeds on disposal of rental assets which have been refurbished by the Group are recorded as revenue with associated costs recorded in cost of sales. Otherwise gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognised in the Income Statement.

(g) Intangible assets

(i) Goodwill

All business combinations are accounted for by applying the acquisition method. Goodwill represents amounts arising on acquisition of subsidiaries. In respect of business acquisitions that have occurred since 31 March 2004, goodwill represents the difference between the cost of the acquisition and the fair value of the assets, liabilities and contingent liabilities acquired. In respect of acquisitions prior to this date, goodwill is included on the basis of its deemed cost, which represents the amount recorded under previous GAAP.

The Group expenses transaction costs associated with its acquisitions and movements in liabilities relating to contingent consideration within the Income Statement in conformity with IFRS 3.

Goodwill arising on acquisitions is stated at cost less any accumulated impairment losses and allocated to cash generating units that are anticipated to benefit from the combination. It is not amortised but is tested annually for impairment (see accounting policy k), or more frequently when there is an indicator that the unit may be impaired.

(ii) Development costs

Research and Development costs are charged to the Consolidated Statement of Income in the year in which they are incurred unless development expenditure is applied to a plan or design for the production of new or substantially improved products, in which case they are capitalised. The criteria for capitalisation include demonstration of the technical feasibility of completing a new intangible asset that will be available for sale and that the asset will generate probable future economic benefits. Where expenditure meets the criteria, development costs are capitalised and amortised through the Consolidated Statement of Income over their useful economic lives.

(iii) Acquired intangible assets

An intangible asset acquired with a subsidiary undertaking is recognised as an intangible asset if it is separable from the acquired business or arises from contractual or legal rights, is expected to generate future economic benefits and its fair value can be reliably measured. The asset is amortised through the Consolidated Statement of Income over it useful economic life.

(iv) Amortisation

Amortisation of intangible assets is charged to the Consolidated Statement of Income on a systematic basis in proportion to the use of the assets over their estimated useful economic lives as follows:

- Capitalised development costs 3 to 5 years
- Technology related acquired intangibles 5 to 12 years
- Customer related intangibles 6 months to 15 years
- Development costs acquired intangibles 10 years
- Software 10 years

(h) Trade and other receivables

Trade and other receivables are initially recognised at fair value and subsequently stated at their amortised cost less appropriate provision for impairment. The provision for impairment of receivables is based on lifetime expected credit losses. Lifetime expected credit losses are calculated by assessing historic credit loss experience. The movement in the provision is recognised in the Consolidated Income Statement.

(i) Inventories

Inventories are stated at the lower of cost and net realisable value. Cost includes materials, direct labour, an attributable proportion of production overheads based on normal operating capacity and all other expenditure incurred in acquiring the inventories and bringing them to their existing location and condition. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

Provision is made for obsolete, slow-moving and defective stock where appropriate in light of recent usage, expected future requirements, new product introduction plans and likely realisable values.

(j) Cash and cash equivalents

Cash and cash equivalents are carried in the Statement of Financial Position at amortised cost.

Cash and cash equivalents comprise cash balances and call deposits and are carried at amortised cost. 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 and cash equivalents for the purpose of the Statement of Cash Flows.

(k) Impairment of non-current assets

All non-current assets are tested for impairment whenever events or circumstances indicate that their carrying value may be impaired. Additionally, goodwill is subject to an annual impairment review.

For the purposes of impairment testing, assets are grouped together into the smallest group of assets that generates cash flows from continuing use that are largely independent of the cash inflows from other groups of assets.

An impairment loss is recognised in the Consolidated Statement of Income as under the administration and shared services heading, to the extent that an asset's carrying value, or a cash generating unit's carrying value, exceeds its recoverable amount, which represents the higher of its net realisable value and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset or from the cash generating unit to which it relates. The present value is calculated using a discount rate that reflects the current market assessment of the time value of money and the risks specific to the asset concerned.

Impairment losses recognised in previous periods for an asset other than goodwill are reversed if there has been a change in estimates used to determine the asset's recoverable amount, but only to the extent that the carrying amount of the asset does not exceed its carrying amount had the impairment loss not been recognised in previous periods. Impairment losses in respect of goodwill are not reversed.

Impairment losses recognised in respect of cash generating units are allocated first to reduce the carrying amount of any goodwill allocated to cash generating units and then to reduce the carrying amount of the other assets in the unit.

ACCOUNTING POLICIES CONTINUED

(l) Employee benefits
The Group operates a number of defined benefit and defined contribution plans which require contributions to be made to independent trustee-administered funds.

(i) Defined contribution plans
Obligations for contributions to defined contribution pension plans are recognised as an expense in the Consolidated Statement of Income as incurred.

(ii) Defined benefit plans
The Group's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that current and past employees have earned in return for their service in prior periods. That benefit is discounted to determine its present value and the fair value of any plan assets is deducted. The calculation is performed by a qualified actuary using the projected unit credit method.

All actuarial gains and losses in calculating the Group's net obligation are recognised in the Consolidated Statement of Comprehensive Income in the year.

The charge to the Consolidated Statement of Income reflects the current service cost. The interest expense or income is calculated on the net defined benefit liability by applying the discount rate to the net defined benefit liability, and is included within financial expenditure or financial income in the Consolidated Statement of Income respectively.

(iii) Share-based payment transactions
The fair value of equity settled share option programmes is measured at grant date and charged to the Consolidated Statement of Income, with a corresponding increase in equity, on a straight-line basis over the period during which the employees become unconditionally entitled to the options. The fair value of the options granted is measured using an option valuation model, taking into account the terms and conditions upon which the options were granted.

The amount recognised as an expense is adjusted to reflect the actual number of share options that vest, except where forfeiture is only due to market performance conditions not being met.

(m) 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 economic benefits will be required to settle the obligation.
A provision for warranty and product related liability is recognised when the underlying products are sold. A provision for restructuring is recognised when the Group has approved a detailed and formal restructuring plan and the restructuring has either commenced or has been announced publicly. A provision for onerous contracts is recognised when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting its obligations under the contract. A provision for a claim or dispute is made when it is considered probable that an adverse outcome will occur and the amount of the loss can be reasonably estimated.

Contractual and other provisions represent the Directors' best estimate of the cost of settling future obligations where the Directors, taking into account professional advice received, assess that it is more likely than not that such proceedings may be successful.

If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liabilities.

(n) Trade and other payables
Trade and other payables are initially recognised at their fair value and subsequently stated at amortised cost.

(o) Government grants
Grants from governments are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to costs are deferred and recognised in the Income Statement over the period necessary to match them with the costs they are intended to compensate. Government grants relating to property, plant and equipment are included in other current liabilities and are credited to the Income Statement on a straight-line basis over the expected useful economic lives of the related assets.

(p) Interest-bearing borrowings
Interest-bearing borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost with any difference between cost and redemption value being recognised in the Income Statement over the period of the borrowings on an effective interest basis.

(q) Revenue

The Group has applied IFRS 15 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 18. The impact of the changes is disclosed in policy (a).

Under IFRS 15 revenue is recognised in the Consolidated Statement of Income when the performance conditions in the contract with the customer are met.

In most cases where the contract includes the sale of both a product and installation then the sale of the product and the related installation are treated as two separate performance conditions. This is because the Group considers that the customer is able to benefit from the product even if the Group does not supply installation i.e. it would be possible for them to arrange installation by a third party. Revenue in respect of the product is recognised when control passes to the customer, which is normally upon shipment of the product. Revenue in respect of installation is recognised when the customer confirms acceptance of the installation.

Revenue is allocated between the product and installation based on the margin expected for each component. In general, a higher margin will be applied to the product since the greater value add to the customer is in the design and manufacture of the product. In the NanoScience business, certain contracts for the sale of more complex systems are deemed to comprise just one performance condition which is met when the customer confirms acceptance of the installed product at their premises. Accordingly, revenue is recognised in its entirety on completion of installation.

In the Service & Healthcare segment, revenue for maintenance and support is recognised on a pro-rata basis over the length of the contract period. Revenue relating to the rental of machinery is recognised on a straight-line basis over the life of the lease. Where the Service & Healthcare segment makes asset sales, similar considerations as those set out for the Materials & Characterisation and Research & Discovery segments are applied.

Revenue excludes value added tax and similar sales-based taxes and is stated before commission payable to agents.

(r) Income tax

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in profit or loss except to the extent that it relates to items recognised directly in equity, in which case it is recognised 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 reporting date, and any adjustment to tax payable in respect of previous years. Tax positions are reviewed to assess whether a provision should be made based on prevailing circumstances. Tax provisions are included within current taxation liabilities.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The following temporary differences are not provided for: the initial recognition of a deferred tax liability in respect of goodwill arising on a business combination; the initial recognition of assets or liabilities that affect neither accounting nor taxable profit; and differences relating to investments in subsidiaries to the extent that they will probably not reverse in the future.

The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the Statement of Financial Position 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. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Additional income taxes that arise from the distribution of dividends are recognised at the same time as the liability to pay the related dividend.

ACCOUNTING POLICIES CONTINUED

(s) Leases

The Group has applied IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4. The impact of the changes is disclosed in policy (a).

Leases under which the Group acts as lessee

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

The right of use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right of use asset or the end of the lease term. The estimated useful lives of right of use assets are determined on the same basis as those of property and equipment. In addition, the right of use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise fixed payments.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right of use asset, or is recorded in profit or loss if the carrying amount of the right of use asset has been reduced to zero.

Short-term leases and leases of low-value assets

The Group has elected not to recognise right of use assets and lease liabilities for short-term leases of machinery that have a lease term of twelve months or less and leases of low-value assets, including IT equipment. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Under IAS 17

In the comparative period the Group did not have any leases which were classified as finance leases under IAS 17. All leased assets were classified as operating leases and were not recognised in the Group's statement of financial position. Payments made under operating leases were recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received were recognised as an integral part of the total lease expense, over the term of the lease.

Leases under which the Group acts as lessor

When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease. To classify each lease, the Group makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

The Group recognises lease payments received under operating leases as income on a straight-line basis over the lease term as part of revenue.

The accounting policies applicable to the Group as a lessor in the comparative period were not different from IFRS 16.

(t) Segment reporting

An operating segment is a distinguishable component of the Group that engages in business activities from which it may earn revenues and incur expenses, including any revenues and expenses that relate to transactions with any of the Group's other components. Operating components are combined into aggregated operating segments to the extent that they have similar economic characteristics. Aggregated operating segments' operating results are reviewed regularly by the Group's Board of Directors to make decisions about resources to be allocated to the segment and to assess its performance, for which discrete financial information is available. Segment results that are reported to the Board include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

A reportable segment is an aggregated operating segment in respect of which revenue or profit exceeds 10% of the Group total. Discrete financial information is disclosed for each reportable segment.

(u) Dividends

Interim and final dividends are recognised as a liability when they are no longer at the discretion of the Company.

(v) New standards and interpretations not yet adopted

There are no standards that are not yet effective and that would be expected to have a material impact on the Group in the current or future reporting periods and on foreseeable future transactions.

NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED 31 MARCH 2019

1 Non-GAAP measures

In the preparation of adjusted numbers, the Directors exclude certain items in order to assist with comparability between peers and to give what they consider to be a better indication of the underlying performance of the business. These adjusting items are excluded in the calculation of adjusted operating profit, adjusted profit before income tax, adjusted profit for the year from continuing operations, adjusted EBITDA, adjusted EPS, adjusted cash conversion, and adjusted effective tax rate. Details of adjusting items are given below.

Adjusted EBITDA is calculated by adding back depreciation of property, plant and equipment and right of use assets and amortisation of intangible assets to adjusted operating profit and can be found in the Consolidated Statement of Cash Flows. Calculation of adjusted EPS can be found in Note 2. Adjusted effective tax rate is calculated by dividing the share of tax attributable to adjusted profit before tax by adjusted profit before tax. Definitions of cash conversion and return on capital employed are set out in the KPI section.

Reconciliation between profit before income tax and adjusted profit from continuing operations

	2019		2018	
	Operating profit £m	**Profit before income tax £m**	Operating profit £m	Profit before income tax £m
Statutory measure from continuing operations	**38.6**	**35.5**	38.4	34.2
Restructuring costs	**—**	**—**	1.2	1.2
Restructuring costs – relating to associate	**0.3**	**0.3**	0.4	0.4
Net profit on disposal of buildings	**—**	**—**	(3.3)	(3.3)
Business reorganisation items	**0.3**	**0.3**	(1.7)	(1.7)
Past service cost on defined benefit pension scheme	**0.3**	**0.3**	—	—
Share of impairment recognised by associate	**(0.6)**	**(0.6)**	2.0	2.0
Amortisation and impairment of acquired intangibles	**9.6**	**9.6**	10.9	10.9
Mark-to-market loss/(gain) in respect of derivative financial instruments	**1.5**	**1.5**	(3.1)	(3.1)
Loan note make-whole payable	**—**	**0.9**	—	—
Total non-GAAP adjustments	**11.1**	**12.0**	8.1	8.1
Adjusted measure from continuing operations	**49.7**	**47.5**	46.5	42.3
Share of taxation		**(10.4)**		(10.1)
Adjusted profit for the year from continuing operations		**37.1**		32.2
Adjusted effective tax rate		**21.9%**		23.9%

Restructuring costs

Restructuring costs of £1.2m incurred in the prior year primarily relate to our US Healthcare business and include £0.5m to successfully defend a legal claim relating to a prior acquisition.

Restructuring costs – relating to associate

These represent the Group's shares of mergers and acquisition costs and other one-off items incurred by the associate.

Net profit on disposal of buildings

The Group recorded a net profit on disposal of £3.3m during the prior year, following the disposal of two buildings previously held under property, plant and equipment. The effect of the disposal on the Group's balance sheet position is shown in Note 15.

Past service cost on defined benefit pension scheme

As at 31 March 2019, the IAS 19 defined benefit pension balance sheet liability includes an allowance of £0.3m for the expected cost of equalising Guaranteed Minimum Pension (GMP) between males and females.

GMP is a portion of pension that was accrued by individuals who were contracted out of the UK State Second Pension prior to 6 April 1997. Historically, there was an inequality of benefits between male and female members who have GMP. A High Court case concluded on 26 October 2018 and confirmed that GMPs need to be equalised.

The effect on the Group's defined benefit pension liability is shown in Note 25.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

1 Non-GAAP measures continued

Reconciliation between profit before income tax and adjusted profit from continuing operations continued

Share of impairment recognised by associate

During the prior year the Group's equity accounted associate recognised an impairment relating to the disposal of its Vacgen subsidiary. The Group's share of this impairment was £2.0m. Following the completion and finalisation of the transaction, £0.6m of the impairment has been reversed.

Amortisation of acquired intangibles

Adjusted profit excludes the non-cash amortisation and impairment of acquired intangible assets and goodwill.

Mark-to-market movements in respect of derivative financial instruments

Under IFRS 9, all derivative financial instruments are recognised initially at fair value. Subsequent to initial recognition, they are also measured at fair value. In respect of instruments used to hedge foreign exchange risk and interest rate risk, the Group does not take advantage of the hedge accounting rules provided for in IFRS 9 since that standard requires certain stringent criteria to be met in order to hedge account, which, in the particular circumstances of the Group, are considered by the Board not to bring any significant economic benefit. Accordingly, the Group accounts for these derivative financial instruments at fair value through profit or loss. To the extent that instruments are hedges of future transactions, adjusted profit for the year is stated before changes in the valuation of these instruments so that the underlying performance of the Group can be more clearly seen.

Loan note make-whole payable

During the year to 31 March 2019 the Group repaid £11.6m of the principal outstanding on its loan notes. This payment was necessary due to material changes to the Group's structure following the disposal of its Industrial Analysis business during July 2017. The costs of £0.9m relate to the make-whole balance payable upon settlement of the £11.6m principal.

Share of taxation

Adjusting items include the income tax on each of the items described above. In addition, during the prior year the tax rate in the United States reduced from 35% to 21%. As a result, this reduced the Group's deferred tax asset by £5.4m. This was excluded from the calculation of share of taxation attributable to adjusted profit before tax.

Reconciliation of changes in cash and cash equivalents to movement in net cash/(debt)

	2019 £m	2018 £m
Net increase/(decrease) in cash and cash equivalents	**13.6**	(4.8)
Effect of foreign exchange rate changes on cash and cash equivalents	**0.9**	(1.0)
	14.5	(5.8)
Repayment of borrowings	**11.5**	96.8
Movement in accrued interest	**0.4**	(1.0)
Amortisation of prepaid issuance fees	**—**	(0.4)
Movement in net debt in the year	**26.4**	89.6
Net debt at start of the year	**(19.7)**	(109.3)
Net cash/(debt) at the end of the year	**6.7**	(19.7)

Reconciliation of net cash/(debt) to Statement of Financial Position

	Note	2019 £m	2018 £m
Loan notes – unsecured	24	**(28.5)**	(40.4)
Cash and cash equivalents	20	**35.2**	20.7
Net cash/(debt) at the end of the year		**6.7**	(19.7)

2 Earnings per share

Basic and diluted EPS from continuing operations are based on the result for the year from continuing operations, as reported in the Group Income Statement. Basic and diluted EPS from total operations are based on the result for the year attributable to equity Shareholders of the parent. Adjusted and diluted adjusted EPS are based on adjusted profit for the year from continuing operations. The profit measures noted above are divided by the weighted average number of ordinary shares outstanding during the year, excluding shares held by the Employee Share Ownership Trust. The table below reconciles these different profit measures.

	Continuing operations £m	Discontinued operations £m	2019 total £m	Continuing operations £m	Discontinued operations £m	2018 total £m
Profit for the year attributable to equity Shareholders of the parent	**28.7**	**1.3**	**30.0**	19.6	45.9	65.5
Adjusting items:						
Business reorganisation items	**0.3**			(1.7)		
Past service cost on defined benefit pension scheme	**0.3**			—		
Share of impairment recognised by associate	**(0.6)**			2.0		
Amortisation and impairment of acquired intangibles	**9.6**			10.9		
Mark-to-market loss/(gain) in respect of derivative financial instruments	**1.5**			(3.1)		
Loan note make-whole payable	**0.9**			—		
Income tax (credit)/charge	**(3.6)**			4.5		
Adjusted profit for the year from continuing operations	**37.1**			32.2		

The weighted average number of shares used in the calculation excludes shares held by the Employee Share Ownership Trust, as follows:

	2019 Shares million	2018 Shares million
Weighted average number of shares outstanding	**57.4**	57.4
Less shares held by Employee Share Ownership Trust	**(0.2)**	(0.2)
Weighted average number of shares used in calculation of basic earnings per share	**57.2**	57.2

The following table shows the effect of share options on the calculation of diluted earnings per share:

	2019 Shares million	2018 Shares million
Weighted average number of ordinary shares per basic earnings per share calculations	**57.2**	57.2
Effect of shares under option	**0.5**	0.2
Weighted average number of ordinary shares per diluted earnings per share calculations	**57.7**	57.4

For the purposes of calculating diluted and diluted adjusted EPS, the weighted average number of ordinary shares is adjusted to include the weighted average number of ordinary shares that would be issued on the conversion of all potentially dilutive ordinary shares expected to vest, relating to the Company's share-based payment plans. Potential ordinary shares are only treated as dilutive when their conversion to ordinary shares would decrease EPS or increase loss per share.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

3 Segment information

The Group has ten operating segments. These operating segments have been combined into three aggregated operating segments to the extent that they have similar economic characteristics, with relevance to products and services, type and class of customer, methods of sale and distribution and the regulatory environment in which they operate. Each of these three aggregated operating segments is a reportable segment.

Following the disposal of the Industrial Analysis business and the introduction of the Horizon strategy in 2017, the Group now reports under a revised segment structure. The aggregated operating segments are as follows:

- the Materials & Characterisation segment comprises a group of businesses focusing on applied R&D and commercial customers, enabling the fabrication and characterisation of materials and devices down to the atomic scale;
- the Research & Discovery segment comprises a group of businesses providing advanced solutions that create unique environments and enable measurements down to the molecular and atomic level which are used in fundamental research; and
- the Service & Healthcare segment provides customer service and support for the Group's products and the service, sale and rental of third-party healthcare imaging systems.

The Group's internal management structure and financial reporting systems have been amended to differentiate the three aggregated operating segments on the basis of the economic characteristics discussed above.

Reportable segment results include items directly attributable to a segment as well as those which can be allocated on a reasonable basis. Inter-segment pricing is determined on an arm's length basis. The operating results of each are regularly reviewed by the Chief Operating Decision Maker, which is deemed to be the Board of Directors. Discrete financial information is available for each segment and used by the Board of Directors for decisions on resource allocation and to assess performance. No asset information is presented below as this information is not presented in reporting to the Group's Board of Directors.

a) Analysis by business

Results from continuing operations Year to 31 March 2019	**Materials & Characterisation £m**	**Research & Discovery £m**	**Service & Healthcare £m**	**Total £m**
External revenue	**137.9**	**125.2**	**70.5**	**333.6**
Inter-segment revenue	**—**	**—**	**—**	
Total segment revenue	**137.9**	**125.2**	**70.5**	
Segment adjusted operating profit from continuing operations	**22.1**	**12.7**	**14.9**	**49.7**

Results from continuing operations Year to 31 March 2018	Materials & Characterisation £m	Research & Discovery £m	Service & Healthcare £m	Total £m
External revenue	118.1	112.0	66.8	296.9
Inter-segment revenue	—	0.1	—	
Total segment revenue	118.1	112.1	66.8	
Segment adjusted operating profit from continuing operations	20.1	13.8	12.6	46.5

The adjusted profit after tax of £0.2m (2018: £0.5m) from the Group's associate is reported within the Research & Discovery segment.

Revenue in the Materials & Characterisation and Research & Discovery segments represents the sale of products. Revenue in the Service & Healthcare segment relates to service income, with the exception of leasing of mobile MRIs of £6.4m (2018: £6.1m) and equipment sales of £3.6m (2018: £3.3m).

As at 31 March 2019 the Group had unfulfilled performance obligations under IFRS 15 of £172.5m.

Reconciliation of reportable segment profit

Year to 31 March 2019	Materials & Characterisation £m	Research & Discovery £m	Service & Healthcare £m	Unallocated Group items £m	Total £m
Adjusted profit for reportable segments from continuing operations	**22.1**	**12.7**	**14.9**	—	**49.7**
Restructuring costs – relating to associate	—	**(0.3)**	—	—	**(0.3)**
Past service cost on defined benefit pension scheme	—	—	—	**(0.3)**	**(0.3)**
Share of impairment recognised by associate	—	**0.6**	—	—	**0.6**
Amortisation of acquired intangibles	**(2.4)**	**(6.4)**	**(0.8)**	—	**(9.6)**
Fair value movement on financial derivatives	—	—	—	**(1.5)**	**(1.5)**
Financial income	—	—	—	**0.3**	**0.3**
Financial expenditure	—	—	—	**(3.4)**	**(3.4)**
Profit/(loss) before income tax on continuing operations	**19.7**	**6.6**	**14.1**	**(4.9)**	**35.5**

Year to 31 March 2018	Materials & Characterisation £m	Research & Discovery £m	Service & Healthcare £m	Unallocated Group items £m	Total £m
Adjusted profit for reportable segments from continuing operations	20.1	13.8	12.6	—	46.5
Restructuring costs	(0.3)	—	(0.9)	—	(1.2)
Restructuring costs – relating to associate	—	(0.4)	—	—	(0.4)
Net profit on disposal of buildings	—	—	—	3.3	3.3
Share of impairment recognised by associate	—	(2.0)	—	—	(2.0)
Amortisation of acquired intangibles	(2.5)	(7.3)	(1.1)	—	(10.9)
Fair value movement on financial derivatives	—	—	—	3.1	3.1
Financial income	—	—	—	0.3	0.3
Financial expenditure	—	—	—	(4.5)	(4.5)
Profit before income tax on continuing operations	17.3	4.1	10.6	2.2	34.2

Depreciation, capital expenditure, amortisation and impairment of intangibles and capitalised development costs arise in the following segments:

	2019		2018	
	Depreciation £m	Capital expenditure £m	Depreciation £m	Capital expenditure £m
Materials & Characterisation	**2.5**	**4.5**	1.5	2.8
Research & Discovery	**1.3**	**1.1**	0.8	0.8
Service & Healthcare	**2.0**	**0.5**	1.8	1.0
Unallocated Group items	**1.4**	**1.3**	0.6	0.9
Total	**7.2**	**7.4**	4.7	5.5

	2019		2018	
	Amortisation and impairment £m	Capitalised development costs £m	Amortisation and impairment £m	Capitalised development costs £m
Materials & Characterisation	**4.6**	**2.7**	5.8	4.8
Research & Discovery	**7.7**	**0.8**	8.4	1.0
Service & Healthcare	**0.8**	—	1.1	—
Unallocated Group items	**0.3**	—	—	—
Total	**13.4**	**3.5**	15.3	5.8

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

3 Segment information continued

b) Geographical analysis

The Group's reportable segments are located across a number of geographical locations and make sales to customers in countries across the world.

The analysis below shows revenue and non-current assets (excluding deferred tax) for individual countries or regions that represent more than 5% of revenue.

Revenue from continuing operations from external customers by destination

	2019 £m	2018 £m
USA	**99.8**	89.5
Rest of Europe	**38.7**	35.9
Rest of Asia	**34.4**	31.9
UK	**14.2**	18.1
Japan	**38.7**	34.9
China	**70.0**	53.5
Germany	**28.3**	24.8
Rest of World	**9.5**	8.3
Total	**333.6**	296.9

Non-current assets (excluding deferred tax)

	2019 £m	2018 £m
UK	**157.4**	160.4
Germany	**3.9**	3.3
USA	**15.4**	11.3
Japan	**1.7**	0.5
China	**0.5**	0.2
Rest of Europe	**9.4**	9.6
Rest of Asia	**0.4**	—
Rest of World	**1.7**	1.7
Total	**190.4**	187.0

4 Auditor's remuneration

	2019 £'000	2018 £'000
Audit of these Financial Statements	**199**	140
Amounts received by the auditor and its associates in respect of:		
– Audit of Financial Statements of subsidiaries pursuant to legislation	**270**	255
– Taxation compliance services	**10**	14
– Audit-related assurance services	**26**	25
– Other assurance services	**6**	—
Total fees paid to the auditor and its associates	**511**	434

5 Research and Development (R&D)

The total R&D spend by the Group as part of continuing operations is as follows:

	2019			2018		
	Materials & Characterisation £m	Research & Discovery £m	Total £m	Materials & Characterisation £m	Research & Discovery £m	Total £m
R&D expense charged to the Consolidated Statement of Income	**14.6**	**10.8**	**25.4**	12.3	11.1	23.4
Less: depreciation of R&D-related fixed assets	**(0.1)**	**—**	**(0.1)**	(0.1)	—	(0.1)
Add: amounts capitalised as fixed assets	**—**	**0.1**	**0.1**	—	0.1	0.1
Less: amortisation and impairment of R&D costs previously capitalised as intangibles	**(2.2)**	**(1.3)**	**(3.5)**	(3.2)	(1.2)	(4.4)
Add: amounts capitalised as intangible assets	**2.7**	**0.8**	**3.5**	4.8	1.0	5.8
Total cash spent on R&D during the year	**15.0**	**10.4**	**25.4**	13.8	11.0	24.8

6 Investment in associate

The Group holds a 47% interest in the ordinary share capital of Scienta Scientific AB. Scienta Scientific AB is registered and has its principal place of business in Sweden. The investment has been accounted for as an associate taking into account the following factors:

- the Group holds substantial, but minority, voting rights (47%). All other rights are controlled by a single shareholder;
- the Group has a minority number of non-executive Board seats (two of five), with the remaining seats held by representatives of the other shareholder; and
- whilst the Group has certain veto rights in respect of certain decisions, it cannot unilaterally direct the activities of the Scienta Scientific AB Group.

During the prior year the Group invested a further £2.1m in its equity accounted associate.

The Group's share of profit in its equity accounted associate for the year was £0.5m (2018: loss of £1.9m). The Group did not receive any dividends from the associate in either period.

	2019 £m	2018 £m
Carrying value at 1 April 2018	**4.1**	3.9
Addition	**—**	2.1
Share of profit/(loss) of associate (net of tax)	**0.5**	(1.9)
Dividends received	**—**	—
Carrying value at 31 March 2019	**4.6**	4.1

Summary financial information for the equity accounted associate is as follows:

	2019 £m	2018 £m
Non-current assets	**0.9**	2.3
Current assets	**25.2**	23.7
Total assets	**26.1**	26.0
Current liabilities	**(20.5)**	(12.1)
Non-current liabilities	**(1.8)**	(9.2)
Total liabilities	**(22.3)**	(21.3)
Net assets	**3.8**	4.7
Income	**36.5**	51.0
Expenses	**(35.4)**	(55.0)
Profit/(loss) for the year	**1.1**	(4.0)
Group's share of net assets	**1.8**	2.2
Group's share of profit/(loss)	**0.5**	(1.9)

According to the terms of the transaction, no dividend could be paid by the associate until 27 May 2017. Following that date, any dividend paid must be agreed by both Oxford Instruments plc and the other shareholder, up to a maximum of 50% of the previous year's profit after tax. At the date of signing these Financial Statements no dividend has been declared or paid.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

7 Disposal of subsidiary and discontinued operations

In the prior year, on 3 July 2017, the Group disposed of its Industrial Analysis business for a final consideration of £82.8m.

Effect of disposal on the financial position of the Group

	Industrial Analysis 2018 £m
Goodwill	(4.3)
Acquired intangible assets	(0.1)
Other intangible assets	(4.7)
Property, plant and equipment	(2.4)
Inventory	(11.5)
Trade and other receivables	(9.8)
Cash and cash equivalents	(6.0)
Trade and other payables	8.6
Provisions	0.8
Tax balances	(0.4)
Net assets divested	(29.8)
Consideration receivable	82.8
Deferred consideration	—
Consideration received, satisfied in cash	82.8
Cash disposed of	(6.0)
Transaction expenses	(5.6)
Net cash inflow	71.2
Carrying value of net assets disposed of (excluding cash and cash equivalents)	(23.8)
Deferred consideration	—
Recognition of provision on disposal	(2.1)
Currency translation differences transferred from translation reserve	4.8
Gain on disposal	50.1
Tax (charge)/credit on gain on disposal	(2.3)
Gain on disposal net of tax	47.8

The recognition of provisions on disposal primarily relate to onerous lease contracts. These have been recognised in the Income Statement under discontinued operations.

Discontinued operations

In the year to 31 March 2018 the Group's Industrial Analysis business was classified as a discontinued operation. The Industrial Analysis business was considered a major class of business on the basis that it was previously an operating segment and referred to in the Group Strategic Report.

On 24 May 2019 a further £1.6m was received by the Group in relation to the finalisation of tax affairs outstanding upon disposal.

Results of discontinued operations

	2019 £m	2018 £m
Revenue	—	16.8
Expenses	—	(16.3)
Adjusted profit before tax	—	0.5
Income tax charge	—	(0.9)
Adjusted loss after tax	—	(0.4)
Adjusting items:		
Amortisation of acquired intangibles	—	(0.1)
One-off costs arising as a result of disposal	—	(2.2)
Income tax on adjusting items	—	0.8
Loss after tax	—	(1.9)
Gain on disposal	**1.6**	50.1
Tax on gain on disposal	**(0.3)**	(2.3)
Profit from discontinued operations after tax	**1.3**	45.9

Earnings per share from discontinued operations

	2019 pence	2018 pence
Adjusted basic result/(loss) per share	—	(0.7)
Adjusted diluted result/(loss) per share	—	(0.7)
Total basic earnings per share	**2.3**	80.2
Total diluted earnings per share	**2.3**	80.0

Cash flows from discontinued operations

	2019 £m	2018 £m
Net cash generated from operating activities	—	3.0
Net cash generated from investing activities	—	71.2
Net cash used in financing activities	—	—

8 Financial income

	2019 £m	2018 £m
Interest receivable	**0.3**	0.3
	0.3	0.3

9 Financial expenditure

	2019 £m	2018 £m
Interest payable	**2.2**	3.9
Interest charge on pension scheme net liabilities	**0.3**	0.6
Loan note make-whole payable	**0.9**	—
	3.4	4.5

10 Personnel costs

	2019 £m	2018 £m
Wages and salaries	**84.5**	82.5
Social security costs	**10.3**	9.7
Contributions to defined contribution pension plans	**3.3**	3.3
Charge in respect of employee share options	**0.8**	1.1
	98.9	96.6

Directors' emoluments are disclosed in the Remuneration Report on pages 80 to 99 of this Report and Financial Statements.

Included in the total above is £nil (2018: £4.6m) relating to discontinued operations.

11 Employees

The average number of people employed by the Group (including Directors and temporary employees) during the year was as follows:

	2019 Number	2018 Number
Production	**620**	592
Sales and marketing	**386**	431
Research and Development	**355**	375
Administration and shared services	**218**	244
Total average number of employees	**1,579**	1,642

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

12 Share option schemes

The Group operates three share option schemes:

All-employee Share Incentive Plan (SIP)

All UK employees are eligible to participate in the Group's HM Revenue and Customs-approved SIP. Participating employees make a cash contribution to the plan each month. The Group contributes a further amount equal to 20% of the employee's contribution. Independent trustees then purchase matching shares in the market on behalf of the employees. The matching shares vest on the completion by the participating employee of a further three years' service and can be withdrawn from the plan tax-free after five years' service.

Medium-Term Incentive Plan Scheme (MTIP)

Options awarded under the Medium-Term Incentive Plan are made annually to certain senior managers. The exercise prices are £nil. Options have a life of ten years and a vesting period of three years.

Performance Share Plan Scheme (PSP)

Under the Performance Share Plan awards of performance shares (or nil-cost options) are made annually to certain senior managers. Awards have a life of ten years with vesting subject to achievement of performance targets and a vesting period of a minimum of three years (but may be up to five years).

Share option schemes that have been discontinued but for which options were outstanding at the year end include the following:

Executive Share Option Scheme (ESO)

Options awarded under the Executive Share Option Scheme were made annually to certain senior managers. The exercise prices were determined according to the mid-market closing share price on the day before the date of grant. Options have a life of ten years and a vesting period of three years.

The ESO, MTIP and PSP schemes are subject to performance conditions which can be found in the Remuneration Report on pages 80 to 99.

Administrative expenses include a charge of £0.8m (2018: £1.1m) in respect of the cost of providing share-based remuneration. The cost of share options is calculated by estimating the fair value of the option at grant date and spreading that amount over the vesting period after adjusting for an expectation of non-vesting.

Fair values are determined using an internal valuation model based on a modified Black-Scholes model. Expected volatility has been based on historical volatility over a period of time of the same length as the expected option life and ending on the grant date. Some of the ESO and PSP options use total shareholder return (TSR) as a performance condition. As TSR is a market-based performance condition, the accounting treatment differs from that for options subject to non-market performance conditions. This means that the TSR performance conditions have been incorporated into the calculation of the fair value as a discount in calculating the fair value.

For options granted in the years ended 31 March 2019 and 2018, the fair value per option granted and the assumptions used in the calculation are as follows:

	Medium-Term Incentive Plan Scheme July 2018	Performance Share Plan Scheme July 2018	Medium-Term Incentive Plan Scheme September 2017	Performance Share Plan Scheme September 2017
Fair value at measurement date	£3.68	£3.04	£3.38	£2.96
Share price at grant date	£10.10	£10.10	£9.59	£9.59
Exercise price	£nil	£nil	£nil	£nil
Expected volatility	42.7%	46.9%	41.8%	48.6%
Expected option life (expressed as weighted average life used in the modelling)	6 years	3 years	6 years	3 years
Expected dividend yield	1.3%	1.3%	1.4%	1.4%
Risk-free interest rate	1.0%	1.0%	0.9%	0.9%

The options existing at the year end were as follows:

	2019			2018
	Number of shares	Exercise price	Period when exercisable	Number of shares
Options subsisting at the year end on unissued ordinary shares:				
Executive Share Option Schemes				
December 2008	**—**	**£1.35**	**16/12/11-15/12/18**	7,500
December 2009	**1,500**	**£2.04**	**17/12/12-16/12/19**	3,500
January 2011	**13,726**	**£7.05**	**07/01/14-06/01/21**	35,126
December 2011	**97,500**	**£9.90**	**14/12/14-13/12/21**	140,250
June 2015	**347,729**	**£10.28**	**15/06/18-14/06/25**	454,588
June 2016	**18,000**	**£7.38**	**21/06/19-20/06/26**	36,000
November 2016	**142,071**	**£6.27**	**29/11/19-28/11/26**	158,321
Total options subsisting on existing ordinary shares	**620,526**			835,285
Percentage of issued share capital	**1.1%**			1.5%
Medium-Term Incentive Plan				
September 2017	**107,982**	**£nil**	**25/09/20-24/09/27**	116,542
July 2018	**101,720**	**£nil**	**03/07/21-02/07/28**	—
Total options subsisting on existing ordinary shares	**209,702**			116,542
Percentage of issued share capital	**0.4%**			0.2%
Performance Share Plan				
June 2016	**148,475**	**£nil**	**21/06/19-20/06/26**	148,475
September 2017	**116,853**	**£nil**	**25/09/20-24/09/27**	116,853
July 2018	**115,043**	**£nil**	**03/07/21-02/07/28**	—
Total options subsisting on existing ordinary shares	**380,371**			265,328
Percentage of issued share capital	**0.7%**			0.5%

The number and weighted average exercise prices of those options are as follows:

	2019		2018	
	Weighted average exercise price	Number of options	Weighted exercise average price	Number of options
Outstanding at the beginning of the period	**£7.69**	**1,217,155**	£7.91	1,177,322
Granted during the year	**£nil**	**218,558**	£nil	233,395
Forfeited during the year	**£5.62**	**(38,805)**	£9.35	(21,600)
Exercised during the year	**£8.15**	**(93,120)**	£4.37	(59,688)
Lapsed during the year	**£10.14**	**(93,189)**	£9.49	(112,274)
Outstanding at the year end	**£6.14**	**1,210,599**	£7.69	1,217,155
Exercisable at the year end	**£10.08**	**460,455**	£8.87	186,376

The weighted average share price at the time of exercise of the options was £10.01 (2018: £10.17).

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

13 Income tax expense

Recognised in the Consolidated Statement of Income

	2019 £m	2018 £m
Current tax expense		
Current year	**8.1**	7.3
Adjustment in respect of prior years	**(0.7)**	(1.7)
	7.4	5.6
Deferred tax expense		
Origination and reversal of temporary differences	**(0.9)**	7.3
Adjustment in respect of prior years	**0.3**	1.7
	(0.6)	9.0
Total tax expense	**6.8**	14.6
Reconciliation of effective tax rate		
Profit before income tax	**35.5**	34.2
Income tax using the weighted average statutory tax rate of 22% (2018: 22%)	**7.8**	7.5
Effect of:		
Tax rates other than the weighted average statutory rate	**(0.1)**	0.3
Change in rate at which deferred tax recognised	**(1.2)**	5.3
Transaction costs, deferred consideration and impairments not deductible for tax	**0.6**	1.2
Non-taxable income and expenses	**—**	—
Tax incentives not recognised in the Consolidated Statement of Income	**—**	(0.7)
Current period losses not available for carry forward	**—**	0.4
Movement in unrecognised deferred tax	**0.1**	0.6
Adjustment in respect of prior years	**(0.4)**	—
Total tax expense	**6.8**	14.6
Taxation charge recognised in other comprehensive income		
Deferred tax – relating to employee benefits	**0.5**	0.9
	0.5	0.9
Taxation (credit) recognised directly in equity		
Current tax on adoption of IFRS 15	**(0.9)**	—
Deferred tax on adoption of IFRS 15	**(0.9)**	—
Deferred tax – relating to share options	**(0.2)**	—

Reductions in the UK corporation tax rate from 20% to 19% (effective from 1 April 2017) and to 18% (effective from 1 April 2020) were substantively enacted on 26 October 2015, and an additional reduction to 17% (effective from 1 April 2020) was substantively enacted on 6 September 2016. This will reduce the Company's future current tax charge accordingly. The UK deferred tax liability at 31 March 2019 has been calculated based on those rates. The Group carries tax provisions in relation to uncertain tax positions arising from the possible outcome of negotiations with tax authorities. Such provisions are a reflection of the geographical spread of the Group's operations and the variety of jurisdictions in which it carries out its activities.

Effective 1 January 2018 the rate of federal tax in the US was reduced from 35% to 21% and, as a result, in the prior year deferred tax assets were reduced by £5.4m.

On 2 April 2019 the EU Commission announced that it believes that in certain circumstances the UK's Controlled Foreign Company (CFC) regime (introduced in 2013) for certain finance income constituted State Aid. The Commission instructed the UK Government to recover any such aid from affected parties. The Group has claimed the benefit of this exemption, and therefore may be required to repay State Aid. The maximum amount of State Aid repayable as at 31 March 2019 was £1.2m in respect of tax and £0.1m in respect of interest, unless the decision is 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.

14 Dividends per share

The following dividends per share were paid by the Group:

	2019 pence	2018 pence
Previous year interim dividend	**3.7**	3.7
Previous year final dividend	**9.6**	9.3
	13.3	13.0

The following dividends per share were proposed by the Group in respect of each accounting year presented:

	2019 pence	2018 pence
Interim dividend	**3.8**	3.7
Final dividend	**10.6**	9.6
	14.4	13.3

The interim dividend was not provided for at the year end and was paid on 8 April 2019. The final proposed dividend of 10.6 pence per share (2018: 9.6 pence) was not provided at the year end and will be paid on 18 October 2019, subject to authorisation by the Shareholders at the forthcoming Annual General Meeting.

15 Property, plant and equipment

	Land and buildings £m	Plant and equipment £m	Fixtures and fittings £m	Total £m
Cost				
Balance at 1 April 2017	27.0	53.7	10.6	91.3
Additions – other	0.1	4.5	0.4	5.0
Disposals	(12.0)	(10.9)	(1.0)	(23.9)
Transfer to intangibles	—	(0.6)	—	(0.6)
Effect of movements in foreign exchange rates	(0.5)	(1.4)	(0.1)	(2.0)
Balance at 31 March 2018	14.6	45.3	9.9	69.8
Balance at 1 April 2018	14.6	45.3	9.9	69.8
Additions – other	**0.2**	**4.8**	**0.2**	**5.2**
Disposals	**—**	**(1.8)**	**(0.3)**	**(2.1)**
Effect of movements in foreign exchange rates	**0.1**	**0.8**	**0.1**	**1.0**
Balance at 31 March 2019	**14.9**	**49.1**	**9.9**	**73.9**
Depreciation and impairment losses				
Balance at 1 April 2017	9.5	41.2	8.1	58.8
Depreciation charge for the year	0.5	3.8	0.4	4.7
Disposals	(4.8)	(9.6)	(0.7)	(15.1)
Effect of movements in foreign exchange rates	(0.5)	(1.0)	0.1	(1.4)
Balance at 31 March 2018	4.7	34.4	7.9	47.0
Balance at 1 April 2018	4.7	34.4	7.9	47.0
Depreciation charge for the year	**0.4**	**3.2**	**0.3**	**3.9**
Disposals	**—**	**(1.7)**	**(0.2)**	**(1.9)**
Effect of movements in foreign exchange rates	**—**	**0.7**	**—**	**0.7**
Balance at 31 March 2019	**5.1**	**36.6**	**8.0**	**49.7**
Carrying amounts				
At 1 April 2017	17.5	12.5	2.5	32.5
At 31 March 2017 and 1 April 2018	9.9	10.9	2.0	22.8
At 31 March 2019	**9.8**	**12.5**	**1.9**	**24.2**

At 31 March 2019, the net book value of plant and equipment included £1.6m (2018: £0.9m) of assets under construction and £2.4m (2018: £3.2m) of assets subject to leases.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

16 Intangible assets

	Goodwill £m	Customer-related acquired intangibles £m	Technology-related acquired intangibles £m	Development costs acquired intangibles £m	Development costs internally generated £m	Software £m	Total £m
Cost							
Balance at 1 April 2017	114.5	56.6	118.5	1.8	66.3	2.2	359.9
Additions – internally generated	—	—	—	—	6.1	0.5	6.6
Disposals	(5.6)	(3.7)	(24.0)	—	(26.4)	—	(59.7)
Transfer from PPE	—	—	—	—	—	0.6	0.6
Effect of movements in foreign exchange rates	(1.8)	(4.0)	(3.5)	—	(0.2)	—	(9.5)
Balance at 31 March 2018	107.1	48.9	91.0	1.8	45.8	3.3	297.9
Balance at 1 April 2018	107.1	48.9	91.0	1.8	45.8	3.3	297.9
Additions – external	**—**	**1.3**	**—**	**—**	**—**	**—**	**1.3**
Additions – internally generated	**—**	**—**	**—**	**—**	**3.5**	**0.9**	**4.4**
Effect of movements in foreign exchange rates	**1.2**	**2.4**	**2.5**	**—**	**—**	**—**	**6.1**
Balance at 31 March 2019	**108.3**	**52.6**	**93.5**	**1.8**	**49.3**	**4.2**	**309.7**
Amortisation and impairment losses							
Balance at 1 April 2017	30.0	41.9	58.2	0.6	46.0	2.2	178.9
Amortisation charge for the year	—	2.7	8.0	0.1	3.5	0.1	14.4
Impairment charge for the year	—	—	—	—	3.2	—	3.2
Disposals	(1.2)	(3.7)	(24.0)	—	(21.8)	—	(50.7)
Effect of movements in foreign exchange rates	(2.0)	(3.3)	(1.1)	—	(0.2)	—	(6.6)
Balance at 31 March 2018	26.8	37.6	41.1	0.7	30.7	2.3	139.2
Balance at 1 April 2018	26.8	37.6	41.1	0.7	30.7	2.3	139.2
Amortisation and impairment charge for the year	**—**	**1.7**	**7.7**	**0.2**	**3.5**	**0.3**	**13.4**
Effect of movements in foreign exchange rates	**1.2**	**2.2**	**1.2**	**—**	**—**	**—**	**4.6**
Balance at 31 March 2019	**28.0**	**41.5**	**50.0**	**0.9**	**34.2**	**2.6**	**157.2**
Carrying amounts							
At 1 April 2017	84.5	14.7	60.3	1.2	20.3	—	181.0
At 31 March 2017 and 1 April 2018	80.3	11.3	49.9	1.1	15.1	1.0	158.7
At 31 March 2019	**80.3**	**11.1**	**43.5**	**0.9**	**15.1**	**1.6**	**152.5**

The £1.3m addition to customer-related acquired intangible assets relates to the acquisition by the Group of a customer list from a third party during the year.

The following intangible assets are considered material by the Directors as they represent 91% (2018: 91%) of total acquired intangible assets:

	2019			2018
	£m	Amortisation period Years	Remaining amortisation period Years	£m
Trademarks – Andor	**8.0**	**15.0**	**9.8**	8.7
Technology, know-how and patents – Andor:				
– Product related	**28.9**	**12.0**	**6.8**	33.1
– Software related	**5.3**	**10.0**	**4.8**	6.0
Technology, know-how and patents – Asylum	**8.3**	**12.0**	**5.7**	9.1

Goodwill acquired in a business combination is allocated, at acquisition, to the cash generating units (CGUs) that are expected to benefit from that business combination. The carrying amount of goodwill was allocated to individual CGUs as follows:

	2019 £m	2018 £m
Materials & Characterisation		
NanoAnalysis	**10.0**	10.0
Research & Discovery		
Andor	**61.3**	61.2
NanoScience	**6.7**	6.8
Magnetic Resonance	**2.3**	2.3
	80.3	80.3

The Group tests goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired.

Accounting standards require an impairment test to be carried out by determining the recoverable amount of each CGU which contains goodwill. The recoverable amount is calculated as the higher of the fair value less costs to sell or the value in use of the CGU. In the Group's case, the recoverable amount is based on value in use calculations. Value in use is calculated by discounting expected future cash flows and in particular (except as noted below) Board-approved five-year cash flow forecasts, prepared by the management of each CGU and reviewed and amended by Group management as necessary, are used together with 3.0% per annum growth for the subsequent 20 years. These rates are considered to be at or below long-term market trends for the Group's businesses.

During the prior year the Group made impairments in respect of intangible assets as follows:

- £1.4m in respect of a development project which has experienced delays and cost overruns; and
- £1.8m in respect of a development project that was discontinued as a result of the sale of the Industrial Analysis division.

During the prior year an R&D project in the Materials & Characterisation segment fell significantly behind the original development timetable with costs being ahead of budget. On review, management felt that some of the early work on the project had brought no value and those early costs of £1.4m were consequently derecognised as an intangible asset. A review was undertaken and a remediation plan put in place. The remainder of the project was still considered to have commercial value.

The £1.8m impairment of capitalised development costs related to an entire project that was discontinued as a result of the sale of the Industrial Analysis division. The impaired capitalised costs were held in the Research & Development segment.

Key assumptions

The key assumptions are those regarding discount rates and growth rates.

The growth rates are at or below the Group's view on long-term trends within its markets. Changes in selling prices and direct costs are based on past practices and expectations of future changes in the market.

The pre-tax weighted average costs of capital used for Materials & Characterisation and Research & Discovery in impairment testing are 12.6% (2018: 14.1%) and 12.2%-12.6% (2018: 14.1%-14.9%) respectively, in line with the risk associated with each of the business segments. Management has estimated these discount rates by reference to past experience and an industry average weighted cost of capital as adjusted for appropriate risk factors reflecting current economic circumstances and the risk profiles of each CGU.

Sensitivity analysis

The Group's estimates of impairments are most sensitive to changes in the discount rate and forecast growth rate. Sensitivity analysis has been carried out by reference to both of these assumptions. This demonstrated that an 800 basis point increase in the discount rate would be required in order to eliminate current headroom of £76.9m and result in an impairment in the Andor business. Similarly, a reduction in the growth rate to nil would be required in order to result in an impairment in the OI Healthcare business.

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17 Deferred tax

Movements in deferred tax assets and liabilities were as follows:

	Property, plant and equipment £m	Inventory £m	Employee benefits £m	Intangible assets £m	Tax losses £m	Other £m	Total £m
Balance at 31 March 2017	0.9	3.0	7.1	(0.1)	5.0	4.5	20.4
Reclassification							
Recognised in income	0.7	(0.6)	(1.7)	(4.8)	(1.9)	(0.7)	(9.0)
Recognised in other comprehensive income	—	—	(0.9)	—	—	—	(0.9)
Recognised directly in equity	—	—	—	—	—	—	—
Acquisitions	—	—	—	—	—	—	—
Disposals	(0.2)	(0.6)	(0.3)	0.7	(0.5)	(0.8)	(1.7)
Foreign exchange	—	(0.2)	(0.2)	(0.9)	0.1	(0.3)	(1.5)
Balance at 31 March 2018	1.4	1.6	4.0	(5.1)	2.7	2.7	7.3
Reclassification							
Recognised in income	**(0.2)**	**0.4**	**(1.0)**	**1.8**	**0.7**	**(1.1)**	**0.6**
Recognised in other comprehensive income	**—**	**—**	**(0.5)**	**—**	**—**	**—**	**(0.5)**
Recognised directly in equity	**—**	**(1.2)**	**0.2**	**—**	**—**	**2.1**	**1.1**
Acquisitions	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Disposals	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Foreign exchange	**—**	**0.1**	**—**	**0.3**	**—**	**0.1**	**0.5**
Balance at 31 March 2019	**1.2**	**0.9**	**2.7**	**(3.0)**	**3.4**	**3.8**	**9.0**

Certain deferred tax assets and liabilities have been offset as follows:

	Assets		Liabilities		Net	
	2019 £m	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Gross assets/(liabilities)	**19.3**	18.7	**(10.3)**	(11.4)	**9.0**	7.3
Offset	**(4.0)**	(5.3)	**4.0**	5.3	**—**	—
Net assets/(liabilities)	**15.3**	13.4	**(6.3)**	(6.1)	**9.0**	7.3

Deferred tax assets have not been recognised in respect of the following items:

	2019 £m	2018 £m
Deductible temporary differences	**3.1**	12.6
Tax losses	**1.3**	3.5
	4.4	16.1

The tax losses and the deductible temporary differences do not expire under current tax legislation. Deferred tax assets have not been recognised in respect of these items as it is not probable that future taxable profits will be available in the subsidiaries concerned against which the Group can utilise the brought forward tax losses.

No deferred tax liability has been recognised in respect of £58.2m (2018: £74.6m) of undistributed earnings of overseas subsidiaries since the majority of such distributions would not be taxable. In other cases the Group considers that it is able to control the timing of remittances so that any tax is not expected to arise in the foreseeable future.

18 Inventories

	2019 £m	2018 £m
Raw materials and consumables	**19.9**	17.1
Work in progress	**19.1**	14.8
Finished goods	**21.8**	14.0
	60.8	45.9

The amount of inventory recognised as an expense was £138.5m (2018: £128.7m). In the ordinary course of business, the Group makes impairment provisions for slow-moving, excess and obsolete inventory as appropriate. Inventory is stated after charging impairments of £2.0m in the current period (2018: £0.4m). In the current year, £nil (2018: £nil) was reversed relating to previous impairments. Impairments are included within gross profit.

Inventory carried at net realisable value is £0.4m (2018: £0.6m).

19 Trade and other receivables

	2019 £m	2018 £m
Trade receivables	**67.4**	62.8
Less provision for impairment of receivables	**(2.7)**	(1.4)
Net trade receivables	**64.7**	61.4
Prepayments	**3.6**	3.7
Accrued income	**2.4**	2.3
Other receivables	**7.6**	5.9
	78.3	73.3

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.

Other receivables includes £1.1m (2018: £1.2m) due from the Group's associated undertaking.

The maximum exposure to credit risk for trade and other receivables by geographic region was:

	2019 £m	2018 £m
UK	**4.8**	8.5
China	**13.4**	14.0
Japan	**12.8**	9.6
USA	**20.6**	14.9
Germany	**5.2**	3.5
Rest of Europe	**11.6**	12.1
Rest of Asia	**4.7**	6.1
Rest of World	**1.9**	2.3
Total	**75.0**	71.0

The ageing of financial assets comprising net trade receivables and other receivables at the reporting date was:

	2019 £m	2018 £m
Current (not overdue)	**49.4**	46.9
Less than 31 days overdue	**13.8**	12.6
More than 30 days but less than 91 days overdue	**6.6**	7.2
More than 90 days overdue	**5.2**	4.3
	75.0	71.0

In both periods presented, the entire provision against trade receivables relates to balances more than 90 days overdue.

The movement in the allowance for impairment of trade receivables during the year was as follows:

	2019 £m	2018 £m
Balance at start of year	**1.4**	2.4
Increase/(decrease) in allowance	**1.3**	(1.0)
Balance at end of year	**2.7**	1.4

Valuation allowances are used to record provisions for credit losses. The valuation allowance is reduced and the asset impaired when the customer is in liquidation.

Long-term receivables of £0.3m (2018: £1.4m) relate to amounts due from the Group's associated undertaking.

20 Cash and cash equivalents

	2019 £m	2018 £m
Cash balances	**35.2**	20.7
Cash and cash equivalents in the Consolidated Statement of Cash Flows	**35.2**	20.7

All cash and cash equivalents are available for use by the Group.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

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21 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, commodity risk and credit risk. Financial risk management policies are set by the Board of Directors. These policies are implemented by a central treasury function that has formal procedures to manage foreign exchange risk, interest rate risk and liquidity risk, including, where appropriate, the use of derivative financial instruments. Commodity risk is managed locally by the operating businesses. The Group has clearly defined authority and approval limits.

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 Group uses derivative financial instruments to hedge its exposure to fluctuations in foreign exchange rates.

In common with a number of other companies, the Group has decided that the additional costs of meeting the extensive documentation requirements of IFRS 9 to apply hedge accounting to derivative financial instruments used for hedging exposure to foreign currency and interest rate volatility cannot be justified. Accordingly, the Group does not use hedge accounting for such derivatives.

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, the Euro and the Japanese Yen. To reduce uncertainty, the Group maintains a rolling hedge of forward contracts equivalent to 80% (2018: 80%) of the exposure expected to arise over the following twelve months. The remaining 20% is sold on the spot market. The fair value of outstanding currency contracts recognised as a liability as at 31 March 2019 amount to £1.1m (2018: £0.4m) and those recognised as an asset amount to £1.1m (2018: £2.4m).

Movements in the fair value of derivative financial instruments are recognised in the Consolidated Statement of Income immediately. However, in order to facilitate a more meaningful comparison of the Group's performance year-on-year, the elements of these movements that relate to hedges in respect of future sales are treated as an adjusting item in the calculation of adjusted earnings (Note 1).

The Group's translational exposures to foreign currency risks can relate both to the Consolidated Statement of Income and net assets of overseas subsidiaries. The Group's policy is not to hedge the translational exposure that arises on consolidation of the Consolidated Statements of Income of overseas subsidiaries.

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. The Group's policy is to use a mixture of revolving short and medium-term floating rate debt underpinned by longer-term fixed rate debt. The short and medium-term floating rate debt provides flexibility to reduce debt levels as appropriate. The longer-term fixed rate debt provides stability and cost certainty to the Group's financing structure.

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 by maintaining adequate committed lines of funding from high quality lenders. The facilities committed to the Group as at 31 March 2019 are set out in Note 24.

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, trade and other receivables. The Group's credit risk is primarily attributable to its trade receivables and cash balances. 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 prior experience and their assessment of the current economic environment. Trade receivables are subject to credit limits and control and approval procedures in the operating companies.

Due to its large geographic base and number of customers, the Group is not exposed to material concentrations of credit risk on its trade receivables. Credit risk associated with cash balances and derivative financial instruments is managed by transacting with financial institutions with high quality credit ratings. In particular, a Board-approved policy sets out guidelines for which categories of institutions may be used and the maximum amount which may be invested with each institution within a particular category. 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, in the Group Consolidated Statement of Financial Position.

Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at 31 March 2019 was £111.3m (2018: £94.1m).

	2019 £m	2018 £m
Long-term receivables	**0.3**	1.4
Trade receivables	**64.7**	61.4
Other receivables	**10.0**	8.2
Cash and cash equivalents	**35.2**	20.7
Forward exchange contracts	**1.1**	2.4
	111.3	94.1

The maximum exposure to credit risk for trade receivables is discussed in Note 19.

Other receivables include £3.3m (2018: £2.9m) in respect of VAT and similar taxes which are not past due date.

Capital management

The Board considers capital to comprise share capital, reserves and the net cash or net debt position of the Company. The Company was in a net cash position at the year end. Total capital at the end of the current year totalled £195.5m (2018: £199.3m).

The Board's long-term objective is to have an efficient capital structure by maintaining a balance between the higher returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position. This is monitored by reference to the ratio of net debt to earnings before interest, tax, depreciation and amortisation (EBITDA) and the Board has set itself internal limits, which are well inside any covenants the Group has with lenders. The Group maintains the right to purchase its own shares in the market; the timing of these purchases would depend on market prices. Buy and sell decisions are made on a specific transaction basis by the Board.

Each year the Board carefully considers the appropriate level of dividend payments. In doing this, the Board looks to increase dividends in line with underlying earnings, although the Board will also take into account other considerations in their decision-making process. The Board does not have a policy to pay a fixed dividend yield or to maintain a fixed rate of dividend cover but assesses both of these metrics in line with sustained earnings growth.

As set out in the Chief Executive's Review, the Group will actively manage its portfolio of businesses and products, selecting those markets with long-term growth drivers where we can maintain or grow leading positions. We will focus on those markets where nanotechnology has the potential to address some of the world's most complex and pressing challenges and where we can deliver unique solutions and service excellence. In line with the objective of maintaining a balance between borrowings and equity, the Group would seek to finance organic growth (e.g. through investment in Research and Development) and smaller "bolt-on" acquisitions from operating cash flow, thus maintaining balance sheet efficiency. Larger acquisitions would be financed either by equity or a mixture of equity and debt so as to ensure the Group has a manageable ratio of net debt to EBITDA.

The Board encourages employees to hold shares in the Company. As well as various share option plans (full details of which are given in Note 12), from April 2008 all UK employees have been offered the opportunity to take part in a Share Incentive Plan (SIP). Under this plan, employees are able to invest up to £1,500 each tax year in shares in the Company. The Company awards one additional free share (a matching share) for every five shares bought by each employee.

There were no changes to the Group's approach to capital management during the year. Neither the Company nor any of its subsidiaries are subject to externally imposed capital requirements.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

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22 Financial instruments

Fair values of financial assets and liabilities

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy. It does not include fair value information for financial assets and financial liabilities not measured at fair value if the carrying amount is a reasonable approximation of fair value.

		2019		2018	
	Fair value hierarchy	Carrying amount £m	Fair value £m	Carrying amount £m	Fair value £m
Assets carried at amortised cost					
Long-term receivables		**0.3**		1.4	
Trade receivables		**64.7**		61.4	
Other receivables		**10.0**		8.2	
Cash and cash equivalents		**35.2**		20.7	
Assets carried at fair value					
Derivative financial instruments:					
– Foreign currency contracts	2	**1.1**	**1.1**	2.4	2.4
Liabilities carried at fair value					
Derivative financial instruments:					
– Foreign currency contracts	2	**(1.1)**	**(1.1)**	(0.4)	(0.4)
Liabilities carried at amortised cost					
Trade and other payables		**(65.7)**		(58.1)	
Borrowings		**(28.5)**		(40.4)	
Lease payables		**(9.0)**		—	

The following summarises the major methods and assumptions used in estimating the fair values of financial instruments reflected in the above table.

Derivative financial instruments

Derivative financial instruments are marked-to-market using market prices.

Fixed and floating rate borrowings

The fair value of fixed and floating rate borrowings is estimated by discounting the future contracted principal and interest cash flows using the market rate of interest at the reporting date.

Trade and other receivables/payables

For receivables/payables with a remaining life of less than one year, the carrying amount is deemed to reflect the fair value. All other receivables/ payables are discounted to determine their fair value. Advances received are excluded from other payables above as these are not considered to be financial liabilities.

Lease payables

The lease liability is measured at amortised cost using the effective interest method.

Fair value hierarchy

The table above gives details of the valuation method used in arriving at the fair value of financial instruments. The different levels have been identified as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets and liabilities;
- 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 the asset or liability that are not based on observable market data.

There have been no transfers between levels during the year.

Maturity of financial liabilities

31 March 2019	Carrying amount £m	Contractual cash flows £m	Due within one year £m	Due one to five years £m	Due more than five years £m
Trade and other payables	**65.7**	**65.7**	**65.7**	—	—
Foreign exchange contracts	**1.1**	**1.1**	**1.1**	—	—
Borrowings	**28.5**	**28.5**	**0.6**	**27.9**	—
Lease payables	**9.0**	**9.6**	**3.4**	**5.9**	**0.3**
	104.3	**104.9**	**70.8**	**33.8**	**0.3**

31 March 2018	Carrying amount £m	Contractual cash flows £m	Due within one year £m	Due one to five years £m
Trade and other payables	58.1	58.1	58.1	—
Foreign exchange contracts	0.4	0.4	0.4	—
Borrowings	40.4	40.5	1.0	39.5
	98.9	99.0	59.5	39.5

At the reporting date the interest rate profile of the Group's interest-bearing financial instruments was:

	Carrying amount 2019 £m	Carrying amount 2018 £m
Variable rate instruments		
Financial assets	**35.2**	20.7
Financial liabilities	—	—
Fixed rate instruments		
Financial assets	**1.4**	2.6
Financial liabilities	**(28.5)**	(40.4)

Sensitivity analysis

The Group has estimated the impact on the Consolidated Statement of Income and on equity of the following changes in market conditions at the balance sheet date:

- one percentage point increase in interest rates;
- ten percentage point weakening in the value of Sterling against all currencies; and
- ten percentage point strengthening in the value of Sterling against all currencies.

The sensitivities above represent the Directors' view of reasonably possible changes in each risk variable, not worst case scenarios or stress tests. The outputs from the sensitivity analysis are estimates of the impact of market risk assuming that the specified changes occur at the year end and are applied to the risk exposures at that date. Accordingly, they show the impact on the balance sheet of an instantaneous shock. The calculations include all hedges in place at the year end.

Actual results in the future may differ materially from these estimates due to commercial actions taken to mitigate any potential losses from such rate movements, to the interaction of more than one sensitivity occurring and to further developments in global financial markets. As such, this table should not be considered as a projection of likely future gains and losses.

	1% increase in interest rates £m	10% weakening in Sterling[1] £m	10% strengthening in Sterling[1] £m
At 31 March 2019			
Impact on Consolidated Statement of Income	—	**(7.0)**	**7.0**
Impact on equity	—	**5.0**	**(4.9)**
At 31 March 2018			
Impact on Consolidated Statement of Income	—	(9.1)	9.1
Impact on equity	—	1.8	(1.8)

1. Of the effect on the Consolidated Statement of Income, £8.0m (2018: £6.1m) would have been recognised on the "mark-to-market" line (Note 1).

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23 Called up share capital
Issued and fully paid ordinary shares:

	2019 Number of shares	2018 Number of shares
At the beginning of the year	**57,375,604**	57,315,916
Issued for cash	**—**	59,688
At the end of the year	**57,375,604**	57,375,604

	2019 Number of shares	**2019 £m**	2018 Number of shares	2018 £m
Allotted, called up and fully paid				
Ordinary shares of 5p each	**57,375,604**	**2.9**	57,375,604	2.9

The total consideration received from exercise of share options in the year was £0.2m (2018: £0.2m).

The holders of the ordinary shares are entitled to receive dividends as declared, a proportionate amount of capital on a winding up of the Company and one vote per share at meetings of the Company.

24 Borrowings

Current	Effective interest rate	Earlier of repricing date or maturity date	**2019 £m**	2018 £m
Loan Notes – unsecured	4.36%	March 2021	**0.6**	1.0
			0.6	1.0

Non-current	Effective interest rate	Earlier of repricing date or maturity date	**2019 £m**	2018 £m
Loan Notes – unsecured	4.36%	March 2021	**27.9**	39.4
			27.9	39.4

The Group's undrawn committed facilities available at 31 March 2019 were £104.5m, comprising the undrawn portion of the Group's £104.5m revolving credit facility. This facility expires on 29 June 2023.

The Group's uncommitted facilities at 31 March 2019 were £20.3m.

The £0.6m (2018: £1.0m) current Loan Notes balance as at 31 March 2019 represents accrued interest due for payment during April 2019.

A reconciliation of the Group's borrowings balances is shown below.

	Total £m
Balance at 1 April 2018	40.4
Repayment of borrowings (cash flow from financing activities)	(11.5)
Interest charged	1.4
Interest paid	(1.8)
Balance at 31 March 2019	**28.5**

25 Retirement benefit obligations

The Group operates defined benefit plans in the UK and the USA; both offer pensions in retirement and death in service benefit to members. Pension benefits are related to members' final salary at retirement and their length of service. Both schemes have been closed to new members since 2001 and closed to future accrual since 2010.

The amounts recognised in the Consolidated Statement of Financial Position are:

	2019			2018		
	UK £m	USA £m	Total £m	UK £m	USA £m	Total £m
Present value of funded obligations	**309.8**	**8.1**	**317.9**	297.4	7.4	304.8
Fair value of plan assets	**(306.3)**	**(5.1)**	**(311.4)**	(284.9)	(4.6)	(289.5)
Recognised liability for defined benefit obligations	**3.5**	**3.0**	**6.5**	12.5	2.8	15.3

Reconciliation of the opening and closing balances of the present value of the defined benefit obligation

	2019			2018		
	UK £m	USA £m	Total £m	UK £m	USA £m	Total £m
Benefit obligation at the beginning of the year	**297.4**	**7.4**	**304.8**	304.0	9.0	313.0
Past service cost	**0.3**	**—**	**0.3**	(0.9)	—	(0.9)
Interest on defined benefit obligation	**7.9**	**0.3**	**8.2**	8.1	0.3	8.4
Benefits paid	**(10.1)**	**(0.4)**	**(10.5)**	(10.7)	(1.1)	(11.8)
Remeasurement loss/(gain) on obligation	**14.3**	**0.3**	**14.6**	(3.1)	0.1	(3.0)
Exchange rate adjustment	**—**	**0.5**	**0.5**	—	(0.9)	(0.9)
Benefit obligation at the end of the year	**309.8**	**8.1**	**317.9**	297.4	7.4	304.8

Reconciliation of the opening and closing balances of the fair value of plan assets

	2019			2018		
	UK £m	USA £m	Total £m	UK £m	USA £m	Total £m
Fair value of plan assets at the beginning of the year	**284.9**	**4.6**	**289.5**	282.5	5.4	287.9
Interest on plan assets	**7.7**	**0.2**	**7.9**	7.6	0.2	7.8
Contributions by employers	**7.3**	**0.5**	**7.8**	7.1	0.5	7.6
Benefits paid	**(10.1)**	**(0.4)**	**(10.5)**	(10.7)	(1.1)	(11.8)
Administrative expenses	**(0.5)**	**(0.2)**	**(0.7)**	(0.5)	(0.1)	(0.6)
Actual return on assets excluding interest income	**17.0**	**0.1**	**17.1**	(1.1)	0.3	(0.8)
Exchange rate adjustment	**—**	**0.3**	**0.3**	—	(0.6)	(0.6)
Fair value of plan assets at the end of the year	**306.3**	**5.1**	**311.4**	284.9	4.6	289.5

Expense recognised in the Consolidated Statement of Income

	2019 £m	2018 £m
Total – defined benefit expense	**1.0**	0.6
Contributions to defined contribution schemes	**3.3**	3.3
	4.3	3.9

The Group has agreed a basis for deficit recovery payments with the trustees of the UK pension scheme. The annual deficit recovery payment to the UK scheme was £7.3m (2018: £7.1m) for the financial year, payable through to and including 2026. For the years up to and including 2026, the payment will rise by approximately 3% per annum. The weighted average durations of the UK and US defined benefit obligations at 31 March 2019 were 18 years and 14 years respectively (2018: 18 years and 16 years).

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25 Retirement benefit obligations continued

Expense recognised in the Consolidated Statement of Income continued

The IAS 19 defined benefit pension balance sheet liability includes an allowance of £0.3m for the expected cost of equalising Guaranteed Minimum Pension (GMP) between males and females.

GMP is a portion of pension that was accrued by individuals who were contracted out of the UK State Second Pension prior to 6 April 1997. Historically, there was an inequality of benefits between male and female members who have GMP. A High Court case concluded on 26 October 2018 and confirmed that GMPs need to be equalised.

In the prior year, the trustees of the UK defined benefit scheme, in consultation with the Company, reduced its exposure to on-risk assets (a portfolio of market-focused asset classes, the majority being equities) with a corresponding increase in its liability-driven investments, with the objective of steering a more stable journey to being fully funded. The pension fund's gross exposure to on-risk assets fell from 85% to 45%; the majority of transactions required to make this change were completed in February 2018. As a result, the level of risk inherent in the investment strategy is now significantly lower than previously, in addition to a substantial reduction in funding level volatility.

The Group has considered the requirements of IFRIC 14. The terms of the scheme give the Group the right to recover any surplus assets on the scheme upon wind-up and therefore management has concluded that there is no impact on the amounts recognised in respect of retirement benefit obligations.

The Group expects to contribute approximately £7.5m to the UK defined benefit plan in the next financial year. The Group is considering, but has not yet made a final decision on, the closure of the US defined benefit scheme. In the event the scheme is closed, the Group contribution to the plan in the next financial year is expected to be £3.1m.

The pension costs are recorded in the following lines of the Consolidated Statement of Income:

	2019 £m	2018 £m
Cost of sales	**0.9**	0.8
Selling and marketing costs	**0.8**	0.7
Administration and shared services	**1.4**	0.8
Research and Development	**0.9**	1.0
Financial expenditure	**0.3**	0.6
	4.3	3.9

Remeasurement gains and losses shown in the Consolidated Statement of Comprehensive Income

	2019 £m	2018 £m
Actual return on assets excluding interest income	**17.1**	(0.8)
Experience loss on scheme obligations	**(4.1)**	(2.8)
Changes in assumptions underlying the present value of scheme obligations:		
– Financial	**(14.4)**	4.0
– Demographic	**3.9**	1.8

Cumulative actuarial losses reported in the Consolidated Statement of Comprehensive Income since 1 April 2004, the transition date to IFRS, are £26.8m (2018: £29.3m cumulative actuarial losses).

Sensitivity analysis

The table below shows the sensitivity of the Consolidated Statement of Financial Position to changes in the significant pension assumptions:

	Balance at 31 March 2019 £m	Discount rate (-0.1% p.a.) £m	Inflation rate (+0.1% p.a.) £m	Life expectancy (+one year) £m
Present value of funded obligations	**309.8**	315.3	314.8	322.7
Fair value of plan assets	**(306.3)**	(306.3)	(306.3)	(306.3)
Deficit	**3.5**	9.0	8.5	16.4

The valuation of defined benefit liabilities is most sensitive to changes in the discount rate, inflation rate and mortality rate. The sensitivities have been calculated by running the liability calculations in full using the alternative assumptions. In each case, only the indicated assumption has changed by the amount stated. For the inflation sensitivity, the impact on the assumptions that are based on RPI inflation, such as CPI inflation and the inflation-linked pension increases, has been included.

Defined benefit scheme – UK

A full actuarial valuation of the UK plan was carried out as at 31 March 2018 and has been updated to 31 March 2019 by a qualified independent actuary. The major assumptions used by the actuary for the purposes of IAS 19 were (in nominal terms):

	As at 31 March 2019 %	As at 31 March 2018 %
Discount rate	**2.5%**	2.7%
Rate of increase in pensions in payment ("3LPI")	**2.5%**	2.5%
Rate of increase in pensions in payment ("5LPI")	**3.1%**	3.0%
Rate of inflation ("CPI")	**2.1%**	2.0%
Mortality – pre and post-retirement – males and females	**91% of S2PA tables (93% for females) future improvement in line with CMI 2018 with 1.25% long-term trend**	93% of S2PA tables (96% for females) future improvement in line with CMI 2017 with 1.25% long-term trend

The mortality assumptions imply the following expected future lifetime from age 65:

	2019 years	2018 years
Pre-retirement – males	**23.5**	23.9
Pre-retirement – females	**25.4**	25.7
Post-retirement – males	**22.2**	22.5
Post-retirement – females	**23.9**	24.1

The assumptions have been chosen by the Directors from a range of possible actuarial assumptions, which, due to the timescales covered, may not be borne out in practice.

The assets in the plan were:

	Value at 31 March 2019 £m	Value at 31 March 2018 £m
Equities	**65.2**	90.8
Corporate and Emerging Market Bonds	**14.3**	—
Gilts	**156.5**	123.3
Property	**9.7**	6.0
Insurance-linked funds	**23.0**	24.1
Credit and global loan funds	**0.3**	2.1
Hedge funds	**26.7**	26.6
Absolute return fixed income fund	**—**	5.8
Liability hedge overlay	**4.3**	2.5
Cash	**6.3**	3.7
	306.3	284.9

Where assets have no observable market price a valuation will be provided by the fund manager. The scheme's investment manager will accept that valuation if it is within the expected range of performance. Otherwise, the investment manager will query the valuation with the fund manager. Complex financial instruments are valued by the scheme's investment manager who uses financial models which take as their input the characteristics of the instrument and observable market data such as swap rates.

The UK pension scheme implements a liability hedge strategy which is designed to protect the scheme's funding level from changes in gilt yields and inflation expectations. The liability hedge strategy consists of a portfolio of gilts, gilt derivatives, interest rate and inflation swaps. At 31 March 2019, the liability hedge strategy fully covered the scheme's liabilities from changes in gilt yields and inflation expectations. However, this is not a precise match for the IAS 19 defined benefit obligation, which is based on corporate bond yields rather than gilt yields.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

25 Retirement benefit obligations continued

Defined benefit scheme – USA

A full actuarial valuation of the USA plan was carried out as at 31 December 2014, which for reporting purposes has been updated to 31 March 2019 by a qualified independent actuary. The major assumptions used by the actuary for the purposes of IAS 19 were (in nominal terms):

	As at 31 March 2019 %	As at 31 March 2018 %
Discount rate	**3.70%**	3.95%
Rate of increase to pensions in payment	**0.00%**	0.00%
Rate of inflation	**2.25%**	2.00%
Mortality – pre and post-retirement	**RP-2014 with projection Scale MP-2018 (fully generational), male and female**	RP-2014 with projection Scale MP-2017 (fully generational), male and female

The assets in the plan were:

	Value at 31 March 2019 £m	Value at 31 March 2018 £m
Equities	**2.2**	2.0
Bonds	**2.8**	2.3
Other	**0.1**	0.3
	5.1	4.6

Defined contribution schemes

In the UK, employees are offered participation in the defined contribution Oxford Instruments Stakeholder Plan. The Company contribution rate and employee contribution rate varies between grades and whether the individual had previously been in the defined benefit scheme. The Company contribution ranges between 4% and 14% of base salary. The Group also operates a 401k defined distribution plan in the USA. Details of pension schemes contributions made in respect of Directors can be found in the Remuneration Report on pages 80 to 99.

26 Trade and other payables

	2019 £m	2018 £m
Trade payables	**26.1**	25.0
Customer deposits	**38.5**	15.0
Social security and other taxes	**2.6**	2.9
Accrued expenses and deferred income	**43.7**	38.1
Other payables	**6.0**	4.5
	116.9	85.5

27 Provisions for other liabilities and charges

	Warranties £m	IP-related claims £m	Other £m	Total £m
Balance at 1 April 2018	4.1	3.2	4.4	11.7
Provisions made during the year	**1.5**	**0.1**	**0.6**	**2.2**
Provisions used during the year	**(1.4)**	**—**	**(1.8)**	**(3.2)**
Provisions released during the year	**(0.5)**	**(1.5)**	**(0.3)**	**(2.3)**
Effect of movement in foreign exchange	**0.1**	**—**	**0.2**	**0.3**
Balance at 31 March 2019	**3.8**	**1.8**	**3.1**	**8.7**
Amounts falling due after more than one year	—	—	1.1	1.1
Amounts falling due before one year	3.8	1.8	2.0	7.6

Warranty provisions
Product warranty provisions reflect commitments made to customers on the sale of goods in the ordinary course of business and included within the Group companies' standard terms and conditions. Warranty commitments typically apply for a twelve-month period. The provision represents the Directors' best estimate of the Group's liability based on past experience.

Intellectual Property-related claims
The Company has on occasion been required to take legal or other actions 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 the Directors' best estimate of the 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 future obligations and reflect the Directors' assessment of the likely settlement method, which may change over time. However, no provision is made for proceedings which have been, or might be, brought by other parties against Group companies unless the Directors, taking into account professional advice received, assess that it is more likely than not that such proceedings may be successful. The Group's expectation is that the other provisions are likely to be utilised within a twelve-month period. In respect of the provision for IP-related claims the range of possible outcomes is between £nil and £2.1m. As such, there could be a material effect on the Financial Statements in the next twelve months should the outcome be different from management's estimate.

Other provisions
Other provisions relate to various obligations including obligations in respect of onerous leases, onerous contracts and dilapidation provisions.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

28 Leases

Leases under which the Group acts as lessee

The Group leases assets including land and buildings, vehicles and machinery. Information about leases for which the Group is a lessee is presented below.

Right of use assets

	Property leases £m	Other leases £m	Total £m
Cost			
Balance on adoption of IFRS 16 at 1 April 2018	9.8	0.9	10.7
Additions	**0.6**	**0.3**	**0.9**
Effect of movements in foreign exchange rates	**0.5**	**—**	**0.5**
Balance at 31 March 2019	**10.9**	**1.2**	**12.1**
Depreciation and impairment losses			
Balance on adoption of IFRS 16 at 1 April 2018	—	—	—
Depreciation charge for the year	**2.9**	**0.4**	**3.3**
Balance at 31 March 2019	**2.9**	**0.4**	**3.3**
Carrying amounts			
At 1 April 2018	9.8	0.9	10.7
At 31 March 2019	**8.0**	**0.8**	**8.8**

Lease liabilities

	Total £m
Balance on adoption of IFRS 16 at 1 April 2018	10.7
Additions	**0.9**
Payments made (cash flows from financing activities)	**(3.2)**
Interest charge	**0.2**
Effect of movement in foreign exchange rates	**0.4**
Balance at 31 March 2019	**9.0**
Amounts falling due after more than one year	**6.0**
Amounts falling due before one year	**3.0**

The maturity analysis of contractual undiscounted cash flows relating to lease liabilities is presented below:

	2019 £m
Less than one year	**3.4**
One to five years	**5.9**
More than five years	**0.3**
Total undiscounted lease liabilities at 31 March 2019	**9.6**
Lease liabilities included in the Statement of Financial Position at 31 March 2019	**9.0**
Amounts falling due after more than one year	**6.0**
Amounts falling due before one year	**3.0**

Amounts recognised in profit or loss

	2019 £m
Interest on lease liabilities	**(0.2)**
Expenses on short-term leases not capitalised	**(0.1)**
Expenses on low-value asset leases not capitalised	—
Income from sub-letting right of use assets	—

Amounts recognised in Statement of Cash Flows

	2019 £m
Payments made in respect of lease liabilities	**(3.2)**

Leases under which the Group acts as lessor

Lease income from lease contracts in which the Group acts as a lessor is as below:

	2019 £m
Operating lease income	**6.4**

Operating leases under which the Group acts as lessor relate to medical imaging equipment available for rent on typically short-term agreements. The following table sets out a maturity analysis of lease payments, showing the undiscounted lease payments to be received after the reporting date.

	2019 £m	2018 £m
Within one year	**1.9**	2.2
Between one and five years	**0.5**	0.3
Over five years	**—**	—
	2.4	2.5

29 Capital commitments

During the year ended 31 March 2019, the Group entered into contracts to purchase property, plant and equipment which are expected to be settled in the following financial year for £0.2m (2018: £nil).

30 Contingent liabilities

In an international group of companies liabilities may arise from time to time as a result of a variety of legal claims and/or fines and penalties resulting from failure to comply with laws and regulations in areas such as employment, taxation, health and safety, environmental and international trade (e.g. export control). In particular, whilst reviewing export control compliance across the Group, the Board has become aware of a specific area of non-compliance. Management are in the process of investigating this matter, including seeking external legal advice on potential remedial actions which may include financial penalties. At this stage it is too early to determine whether a settlement is probable and to accurately quantify it. However, early indications are that if a financial settlement is required it is unlikely to exceed £0.5m.

31 Related parties

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

During the current year, members of the Group's Management Board have taken on new responsibilities following the introduction of the Horizon strategy. As a result of this, Management Board members are now considered to be key management personnel and their remuneration is included in the table below.

The remuneration of key management personnel is as follows:

	2019 £m	2018 £m
Short-term employee benefits	**3.3**	3.4
Post-employment benefit	**0.2**	0.2
Share-based payment charge	**0.5**	0.4
Total	**4.0**	4.0

Short-term employee benefits comprise salary and benefits earned during the year and bonuses awarded for the year.

During the year, the Group supplied services and materials to, and purchased services and materials from, its associate on an arm's length basis. It had the following transactions with its associate during the year:

2019	**Revenue £m**	**Purchases £m**	**Receivables £m**	**Payables £m**
ScientaOmicron GmbH	**—**	**0.7**	**1.4**	**—**

2018	Revenue £m	Purchases £m	Receivables £m	Payables £m
ScientaOmicron GmbH	0.6	—	3.0	—

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

32 Subsequent events

The interim dividend of 3.8 pence per share (total cost £2.2m) was paid after the year end. In addition, on 11 June 2019, the Directors proposed a final dividend of 10.6 pence per ordinary share (total cost £6.1m). The total amount of £6.1m has not been provided for and there are no income tax consequences.

In April 2019 the UK Tax Tribunal adjudicated on a historical loan arrangement structure. The decision went against the Group and, as a result, a payment of £4.0m was made to HMRC during April 2019. The liability was covered by historical provisions and one-off credits.

On 24 May 2019, a further £1.6m was received by the Group in relation to the finalisation of tax affairs outstanding upon the disposal of its Industrial Analysis division in the prior year. The impact of this receipt on the results of the Group during the current year is disclosed in Note 7.

33 Exchange rates

The principal exchange rates to Sterling used were:

Year-end rates	2019	2018
US Dollar	**1.30**	1.40
Euro	**1.16**	1.14
Yen	**144**	149

Average translation rates 2019	US Dollar	Euro	Yen
April	**1.39**	**1.14**	**150**
May	**1.36**	**1.14**	**148**
June	**1.33**	**1.14**	**146**
July	**1.32**	**1.13**	**146**
August	**1.30**	**1.12**	**144**
September	**1.29**	**1.11**	**146**
October	**1.29**	**1.13**	**145**
November	**1.28**	**1.13**	**144**
December	**1.28**	**1.12**	**142**
January	**1.30**	**1.13**	**142**
February	**1.31**	**1.15**	**145**
March	**1.30**	**1.16**	**144**

Average translation rates 2018	US Dollar	Euro	Yen
April	1.27	1.18	142
May	1.29	1.17	143
June	1.29	1.14	144
July	1.31	1.13	146
August	1.30	1.10	143
September	1.31	1.11	146
October	1.33	1.13	150
November	1.32	1.13	149
December	1.34	1.12	151
January	1.39	1.13	153
February	1.41	1.14	151
March	1.40	1.14	149

PARENT COMPANY STATEMENT OF FINANCIAL POSITION

AS AT 31 MARCH 2019

	Notes	2019 £m	2018 £m
Assets			
Non-current assets			
Intangible assets	d	**1.6**	1.0
Tangible assets	c	**0.6**	0.6
Right of use assets		**0.1**	—
Investments in subsidiary undertakings	e	**321.1**	320.9
Debtors	f	**0.3**	1.4
Deferred tax assets	h	**1.5**	1.5
		325.2	325.4
Current assets			
Debtors	f	**47.9**	19.5
Current income tax recoverable		**—**	0.3
Cash at bank and in hand		**15.8**	3.6
		63.7	23.4
Total assets		**388.9**	348.8
Equity			
Capital and reserves attributable to the Company's equity Shareholders			
Share capital		**2.9**	2.9
Share premium account		**61.7**	61.7
Capital redemption reserve		**0.1**	0.1
Other reserves		**7.6**	7.6
Profit and loss account		**118.9**	99.7
		191.2	172.0
Liabilities			
Non-current liabilities			
Long-term loans		**27.9**	39.4
Retirement benefit obligations	i	**0.8**	2.9
Provisions for liabilities	h	**—**	0.4
		28.7	42.7
Current liabilities			
Bank loans and overdrafts		**29.9**	32.8
Other creditors	g	**139.1**	101.3
		169.0	134.1
Total liabilities		**197.7**	176.8
Total liabilities and equity		**388.9**	348.8

The Financial Statements were approved by the Board of Directors on 11 June 2019 and signed on its behalf by:

Ian Barkshire
Director

Gavin Hill
Director

Company number: 775598

PARENT COMPANY STATEMENT OF CHANGES IN EQUITY

YEAR ENDED 31 MARCH 2019

	Share capital £m	Share premium account £m	Capital redemption reserve £m	Other reserves £m	Profit and loss account £m	Total £m
Balance at 31 March 2017	2.9	61.5	0.1	7.6	114.3	186.4
Loss for the year	—	—	—	—	(8.7)	(8.7)
Other comprehensive income:						
Remeasurement of defined benefit liability, net of tax	—	—	—	—	0.4	0.4
Total comprehensive income for the year	—	—	—	—	(8.3)	(8.3)
Proceeds from shares issued	—	0.2	—	—	—	0.2
Share options awarded to employees	—	—	—	—	0.7	0.7
Share options awarded to employees of subsidiaries	—	—	—	—	0.4	0.4
Dividends paid	—	—	—	—	(7.4)	(7.4)
Balance at 31 March 2018	2.9	61.7	0.1	7.6	99.7	172.0
Profit for the year	**—**	**—**	**—**	**—**	**25.2**	**25.2**
Other comprehensive income:						
Remeasurement of defined benefit liability, net of tax	**—**	**—**	**—**	**—**	**0.6**	**0.6**
Total comprehensive income for the year	**—**	**—**	**—**	**—**	**25.8**	**25.8**
Proceeds from shares issued	**—**	**—**	**—**	**—**	**0.2**	**0.2**
Share options awarded to employees	**—**	**—**	**—**	**—**	**0.6**	**0.6**
Share options awarded to employees of subsidiaries	**—**	**—**	**—**	**—**	**0.2**	**0.2**
Dividends paid	**—**	**—**	**—**	**—**	**(7.6)**	**(7.6)**
Balance at 31 March 2019	**2.9**	**61.7**	**0.1**	**7.6**	**118.9**	**191.2**

Details of issued, authorised and allotted share capital are included in Note 23 to the Group Financial Statements.

Details of treasury shares held by the Company are included as a Note to the Consolidated Statement of Changes in Equity.

Details of the Group's share option schemes are included in Note 12 to the Group Financial Statements.

Details of the Group's defined benefit pension scheme are included in Note 25 to the Group Financial Statements.

Details of dividends paid are included in Note 14 to the Group Financial Statements.

Other reserves relates to premium on shares issued as part of acquisitions made in the year to 31 March 1987.

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

YEAR ENDED 31 MARCH 2019

(a) Accounting policies

Oxford Instruments plc is a company incorporated and domiciled in the UK.

These Financial Statements were prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework (FRS 101). The amendments to FRS 101 (2013/14 Cycle) issued in July 2015 and effective immediately have been applied.

In preparing these Financial Statements, the Company applies the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU ("Adopted IFRS"), but makes amendments where necessary in order to comply with the Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions has been taken.

In these Financial Statements, 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, intangible assets and investment properties;
- disclosures in respect of transactions with wholly owned subsidiaries;
- disclosures in respect of capital management;
- the effects of new but not yet effective IFRS; and
- disclosures in respect of the compensation of key management personnel.

As the consolidated Financial Statements of Oxford Instruments plc 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; and
- certain disclosures required by IFRS 13 Fair Value Measurement and the disclosures required by IFRS 7 Financial Instrument Disclosures.

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these Financial Statements.

Measurement convention

The Financial Statements are prepared on the historical cost basis except that the following assets and liabilities are stated at their fair value: derivative financial instruments.

Going concern

The Financial Statements have been prepared on a going concern basis, based on the Directors' opinion, after making reasonable enquiries, that the Company has adequate resources to continue in operational existence for the foreseeable future.

Taxation

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in profit or loss except to the extent that it relates to items recognised directly in equity, in which case it is recognised 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 reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The following temporary differences are not provided for: the initial recognition of goodwill; the initial recognition of assets or liabilities that affect neither accounting nor taxable profit; and differences relating to investments in subsidiaries to the extent that they will probably not reverse in the future.

The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using 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. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Additional income taxes that arise from the distribution of dividends are recognised at the same time as the liability to pay the related dividend.

Non-derivative financial instruments

Non-derivative financial instruments comprise trade and other debtors, cash and cash equivalents, loans and borrowings, and trade and other creditors.

Trade and other debtors

Trade and other debtors are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method, less any impairment losses.

Trade and other creditors

Trade and other creditors are recognised initially at fair value. Subsequent to initial recognition they are measured at amortised cost using the effective interest method.

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

(a) Accounting policies continued

Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits.

Interest-bearing borrowings

Interest-bearing borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost using the effective interest method, less any impairment losses. Details of the Group's interest-bearing borrowings are included in Note 24 to the Group Financial Statements.

Intra-Group lending

The Company has lent funds to and from its UK subsidiaries on interest-free terms. These amounts are repayable on demand. They are stated at cost less any impairment losses.

Derivative financial instruments

The Company's accounting policies for financial instruments are the same as the Group's accounting policies under IFRS, namely IAS 32 Financial Instruments: Presentation, IFRS 9 Financial Instruments and IFRS 7 Financial Instruments: Disclosures. These policies are set out in accounting policy "(e) Financial instruments" in the Group accounting policies, on page 118.

Tangible fixed assets

Tangible fixed assets are stated at cost less accumulated depreciation and accumulated impairment losses.

Where parts of an item of tangible fixed assets have different useful lives, they are accounted for as separate items of tangible fixed assets.

Depreciation is charged to the profit and loss account on a straight-line basis over the estimated useful lives of each part of an item of tangible fixed assets. The estimated useful lives are as follows:

- Computer equipment 4 years
- Motor vehicles 4 years

Depreciation methods, useful lives and residual values are reviewed at each Balance Sheet date.

Intangible assets

Intangible assets represents internally developed software. Amortisation is charged to the profit and loss account on a straight-line basis over the estimated useful lives of intangible assets unless such lives are indefinite. Intangible assets are amortised from the date they are available for use. The estimated useful lives are as follows:

- Computer software 10 years

Impairment excluding deferred tax assets

Financial assets (including trade and other debtors)

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.

Non-financial assets

The carrying amounts of the Company's non-financial assets, other than deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

The recoverable amount of an asset or cash generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash generating unit" or "CGU").

An impairment loss is recognised if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the units, and then to reduce the carrying amounts of the other assets in the unit (group of units) on a pro-rata basis.

Impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

Employee benefits

Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which the Company 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 as an expense in the profit and loss account in the periods during which services are rendered by employees.

Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Company's net obligation in respect of defined benefit pension plans is calculated by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any plan assets (at bid price) are deducted. The Company determines the net interest on the net defined benefit liability/(asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the net defined benefit liability/(asset).

The discount rate is the yield at the reporting date on bonds that have a credit rating of at least AA that have maturity dates approximating the terms of the Company's obligations and that are denominated in the currency in which the benefits are expected to be paid.

Remeasurements arising from defined benefit plans comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest). The Company recognises them immediately in other comprehensive income and all other expenses related to defined benefit plans in employee benefit expenses in profit or loss.

The calculation of the defined benefit obligations is performed by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Company, the recognised asset is limited to the present value of benefits available in the form of any future refunds from the plan or reductions in future contributions and takes into account the adverse effect of any minimum funding requirements.

The Company is the sponsoring employer of a Group-wide defined benefit pension plan. The net defined benefit cost of the plans is charged to participating entities on the basis of the proportion of scheme membership attributable to each legal entity at the reporting date. The contributions payable by the participating entities are determined using an agreed ratio which has been in place for approximately ten years.

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 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.

Termination benefits

Termination benefits are recognised as an expense when the Company is demonstrably committed, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognised as an expense if the Company has made an offer of voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably. If benefits are payable more than twelve months after the reporting date, then they are discounted to their present value.

Share-based payment transactions

The grant date fair value of share-based payments awards granted to employees is recognised as an employee expense, with a corresponding increase in equity, over the period in which the employees become unconditionally entitled to the awards. The fair value of the awards granted is measured using an option valuation model, taking into account the terms and conditions upon which the awards were granted. The amount recognised as an expense is adjusted to reflect the actual number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognised as an expense is based on the number of awards that do meet the related service and non-market performance conditions at the vesting date. For share-based payment awards with non-vesting conditions, the grant date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

Where the Company grants options over its own shares to the employees of its subsidiaries it recognises, in its individual Financial Statements, an increase in the cost of investment in its subsidiaries equivalent to the equity settled share-based payment charge recognised in its consolidated Financial Statements with the corresponding credit being recognised directly in equity. Amounts recharged to the subsidiary are recognised as a reduction in the cost of investment in subsidiary. If the amount recharged exceeds the increase in the cost of investment the excess is recognised as a dividend.

Own shares held by ESOP trust

Transactions of the Company-sponsored ESOP trust are treated as being those of the Company and are therefore reflected in the Company Financial Statements. In particular, the trust's purchases and sales of shares in the Company are debited and credited directly to equity.

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

(a) Accounting policies continued

Provisions

A provision is recognised in the Balance Sheet when the Company has a present legal or constructive obligation as a result of a past event, that can be reliably measured and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects risks specific to the liability. The timing of the recognition requires the application of judgement to existing facts and circumstances which can be subject to change. Amounts provided represent the Group's best estimate of exposure based on currently available information.

Leases

The Company has applied IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4.

Leases under which the Company acts as lessee

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

The right of use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right of use asset or the end of the lease term. The estimated useful lives of right of use assets are determined on the same basis as those of property and equipment. In addition, the right of use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise fixed payments.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right of use asset, or is recorded in profit or loss if the carrying amount of the right of use asset has been reduced to zero.

Short-term leases and leases of low-value assets

The Company has elected not to recognise right of use assets and lease liabilities for short-term leases of machinery that have a lease term of twelve months or less and leases of low-value assets, including IT equipment. The Company recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Under IAS 17

In the comparative period the Company did not have any leases which were classified as finance leases under IAS 17. All leased assets were classified as operating leases and were not recognised in the Company's Statement of Financial Position. Payments made under operating leases were recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received were recognised as an integral part of the total lease expense, over the term of the lease.

Foreign currencies

The Company enters into forward exchange contracts and options to mitigate the currency exposures that arise on sales and purchases denominated in foreign currencies. Transactions in foreign currencies are converted into Sterling at the rate ruling on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the rates ruling at the Balance Sheet date or at the appropriate forward contract rates. Exchange profits and losses arising from the above are dealt with in the profit and loss account.

Investments

Investments in subsidiaries are stated at cost, less any provision for impairment, where appropriate.

Dividends on shares presented within Shareholders' funds

Dividends unpaid at the Balance Sheet date are only recognised as a liability at that date to the extent that they are appropriately authorised and are no longer at the discretion of the Company. Unpaid dividends that do not meet these criteria are disclosed in the notes to the Financial Statements.

Financial guarantee contracts

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 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.

(b) Profit for the year

The Company's profit for the financial year was £25.2m (2018: loss of £8.7m). Other comprehensive income in the year was £0.5m (2018: £0.4m). The expense will not subsequently be reclassified to profit or loss.

The auditor's remuneration comprised £199,000 (2018: £140,000) for the statutory audit.

The average number of people employed by the Company (including Directors) during the year was 46 (2018: 47). All of these individuals were involved in administration.

The aggregate payroll costs (including Directors) of these people were as follows:

	2019 £m	2018 £m
Wages and salaries	**5.0**	3.9
Social security costs	**0.9**	0.6
Other pension costs	**0.2**	0.1
	6.1	4.6

The share-based payment charge was £0.6m (2018: charge of £0.7m). Details of the Group's share option schemes are included in Note 12 to the Group Financial Statements.

Full details of the emoluments paid to Directors can be found in the Remuneration Report on pages 80 to 99.

(c) Tangible fixed assets

	Computer equipment £m	Total £m
Cost		
Balance at 1 April 2018	2.0	2.0
Additions	0.3	0.3
Balance at 31 March 2019	**2.3**	**2.3**
Depreciation		
Balance at 1 April 2018	1.4	1.4
Charge for year	0.3	0.3
Balance at 31 March 2019	**1.7**	**1.7**
Net book value		
At 31 March 2018	0.6	0.6
At 31 March 2019	**0.6**	**0.6**

(d) Intangible assets

	Software £m
Cost	
Balance at 1 April 2018	3.3
Additions	0.9
Balance at 31 March 2019	**4.2**
Depreciation and impairment losses	
Balance at 1 April 2018	2.3
Charge for year	0.3
Balance at 31 March 2019	**2.6**
Net book value	
At 31 March 2018	1.0
At 31 March 2019	**1.6**

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

(e) Investments

	Investments in subsidiary undertakings £m
Cost or valuation	
Balance at 1 April 2018	339.6
Expense in respect of share options transferred to subsidiary undertakings	0.2
Balance at 31 March 2019	**339.8**
Impairment	
Balance at 1 April 2018 and 31 March 2019	**18.7**
Net book value	
At 31 March 2018	320.9
At 31 March 2019	**321.1**

The following is a full list of the subsidiaries and associates and their country of registration as at 31 March 2019. This information is provided in accordance with Section 409 of the Companies Act 2006.

Unless otherwise stated, entities listed below are wholly owned by either the Company or a subsidiary of the Company.

Subsidiaries	Registered office address	Country of incorporation
NanoTechnology Tools Limited[5]	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments Industrial Products Holdings Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments Industrial Products Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
RMG Technology Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments NanoAnalysis Limited[5]	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments NanoTechnology Tools Holdings Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Andor Technology Limited	7 Millennium Way, Springvale Business Park, Belfast, NI, BT12 7AL	UK
Andor U.S. Holdings, Inc	425 Sullivan Avenue, Suite 3, South Windsor, CT 06074	USA
Andor Technology Inc.[1]	300 Baker Avenue, Suite 150, Concord MA 01742	USA
Andor Technology KK[2]	IS Building, 3-32-42 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002	Japan
Bitplane AG	Badenerstrasse 682, 8048, Zürich	Switzerland
Bitplane Inc	425 Sullivan Avenue, Suite 3, South Windsor, CT 06074	USA
Spectral Applied Research Inc	199 Bay Street, Suite 5300, Commerce Court West, Toronto ON M5L 1B9	Canada
Oxford Instruments Molecular Biotools Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments NanoTechnology Tools Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments AFM Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments Plasma Technology Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments Overseas Holdings Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments Technology (Shanghai) Co. Limited	Floor 1, Building 60, 461 Hongcao Road, Xuhui District, Shanghai	China
Oxford Instruments Technologies Oy	Technopolis Innopoli 1, Tekniikantie12, Espoo, 02150	Finland
Oxford Instruments Holdings 2013 Inc	300 Baker Avenue, Suite 150, Concord MA 01742	USA
Oxford Instruments America Inc	300 Baker Avenue, Suite 150, Concord MA 01742	USA
Oxford Instruments Service LLC	300 Baker Avenue, Suite 150, Concord MA 01742	USA
Oxford Instruments Asylum Research Inc	6310 Hollister Avenue, Santa Barbara, CA 93117	USA
Asylum Research UK Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments KK	IS Building, 3-32-42 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002	Japan
Oxford Instruments Overseas Marketing Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments X-Ray Technology Inc	360 El Pueblo Road, Scotts Valley, CA 95066	USA
Oxford Instruments Holdings Europe Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK

Subsidiaries	Registered office address	Country of incorporation
Oxford Instruments Holdings GmbH	Borsigstraße 15a, 65205, Wiesbaden	Germany
Oxford Instruments GmbH	Borsigstraße 15a, 65205, Wiesbaden	Germany
Oxford Instruments Nordiska Ab	Arenavägen 41, 10th Floor, 121 77 Johanneshov	Sweden
Oxford Instruments Overseas Holdings 2008 Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments UK 2013 Limited	Tubney Woods, Abingdon, Oxon, OX13 5QX	UK
Oxford Instruments Funding Ltd	Frances House, Sir William Place, St Peter Port, GY1 4HQ	Guernsey[3]
Oxford Instruments Private Limited	Messrs Tan Rajah & Cheah, 80 Raffles Place, #58-01 UOB Plaza 1, Singapore, 048624	Singapore
Oxford Instruments India Private Limited	Unit No.11, Marwah's Complex, Krishanlal Marwah Marg, Andheri East, Mumbai, Maharashtra, 400 072	India
Oxford Instruments SAS	77 ZA de Montvoisin, 91400 Gometz la Ville	France
Associates		
Scienta Scientific AB[4]	Vallongata 1, 752 28, Uppsala	Sweden
ScientaOmicron GmbH[4]	Limburger Straße 75, 65232 Taunusstein	Germany
Omicron Nanotechnology Japan, Inc.[4]	No. 20 Shimokawa Building, 5-30-15, Ota-ku, Tokyo	Japan
Omicron Nanotechnology Limited[4]	St James House, Kensington Square, London W8 5HD	UK
ScientaOmicron Inc.[4]	240 Saint Paul St, Suite 301, Denver CO 80238	USA
Societe Omicron Nanotechnology EURL[4]	Le Plan d'Aigues, RN 7, 1370 St. Cannat	France

1. Incorporated 11 March 2019.
2. Incorporated 25 December 2018. Merged with Oxford Instruments KK on 1 April 2019.
3. UK tax resident.
4. Year end is 31 December. The Group has a 47% shareholding in these entities.
5. Dissolved 2 April 2019.

Equity owned by the Company represents issued ordinary share capital. All subsidiaries are consolidated in the Group accounts.

(f) Debtors

	2019 £m	2018 £m
Amounts falling due after one year:		
Amounts owed by associate undertakings	**0.3**	1.4
Amounts falling due within one year:		
Amounts owed by subsidiary undertakings	**43.9**	15.2
Amounts owed by associate undertakings	**1.1**	1.2
Other debtors	**2.1**	2.8
Prepayments and accrued income	**0.8**	0.3
	48.2	20.9

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS CONTINUED

YEAR ENDED 31 MARCH 2019

(g) Creditors

	2019 £m	2018 £m
Trade creditors	**0.7**	0.4
Amounts owed to subsidiary undertakings	**131.8**	95.4
Tax, social security and sales-related taxes	**1.2**	1.6
Other financial liabilities	**1.3**	1.4
Accruals and deferred income	**4.1**	2.5
	139.1	101.3

(h) Provisions for liabilities

	Restructuring provision
Balance at 1 April 2018	0.4
Provisions used during the year	(0.4)
Balance at 31 March 2019	—

Deferred tax asset

	2019 £m	2018 £m
Balance at 1 April	**1.5**	1.7
Profit and loss (debit)/credit	**—**	(0.1)
Other comprehensive income debit	**—**	(0.1)
Balance at 31 March	**1.5**	1.5

The amounts of deferred tax assets are as follows:

	Recognised	
	2019 £m	2018 £m
Excess of depreciation over corresponding capital allowances	**0.5**	0.6
Tax losses	**—**	—
Provisions	**0.1**	—
Employee benefits – pension and share schemes	**0.9**	0.9
	1.5	1.5

The Company recognises deferred tax assets only to the extent that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred tax assets have not been recognised in respect of the following items:

	2019 £m	2018 £m
Tax losses	**—**	0.5
	—	0.5

A reduction in the UK corporation tax rate from 21% to 20% (effective from 1 April 2015) was substantively enacted on 2 July 2013. Further reductions to 19% (effective from 1 April 2017) and to 18% (effective from 1 April 2020) were substantively enacted on 26 October 2015, and an additional reduction to 17% (effective from 1 April 2020) was substantively enacted on 6 September 2016. This will reduce the Company's future current tax charge accordingly. The UK deferred asset liability at 31 March 2019 has been calculated based on those rates.

(i) Pension commitments

Defined benefit scheme

The Company and its employees contribute to the Oxford Instruments Pension Scheme ("the Scheme"), a defined benefit scheme, which offers pensions in retirement and death in service benefit to members. Pension benefits are related to members' final salary at retirement and their length of service.

The Scheme was closed to new members from 1 April 2001. Since this date, new employees have been invited to join the Oxford Instruments Stakeholder Plan, a defined contribution scheme. The Scheme is also closed to future accrual.

The Oxford Instruments Group policy for charging net defined benefit costs to participating entities states that member costs are charged directly to a participating company if that member is also an employee of said participating company. The costs of scheme members that are no longer employees of any participating company or directly affiliated with a Group company are allocated on the basis of the participating company's scheme members as a percentage of the total scheme members that are also employees of participating companies.

The policy for determining contributions to be paid by participating companies is the same as that for charging net defined benefit costs.

Details of the scheme, its most recent actuarial valuation and its funding can be found in Note 25 to the Group Financial Statements.
The contributions paid by the Company to the Oxford Instruments Pension Scheme were £1.7m (2018: £1.6m).

Stakeholder pension scheme

The Company makes contributions to a stakeholder pension scheme. The pension costs charge for the year represents contributions payable by the Company to the scheme. These amounted to £0.2m (2018: £0.1m). There were no outstanding contributions at the end of the financial year (2018: £nil).

(j) Guarantees

The Company has given a guarantee to the pension scheme in respect of the liability of its UK subsidiaries to the pension scheme. The guarantee is for the excess of 105% of the liabilities of the scheme, calculated on the basis of Section 179 of the Pensions Act 2004, over the assets of the scheme.

The Company and its UK subsidiaries have entered into a cross-guarantee for £10.0m (2018: £10.0m) in respect of overdraft facilities, of which £nil (2018: £nil) was drawn at the year end.

(k) Commitments

At 31 March 2019, capital commitments contracted were £nil (2018: £nil) and authorised were £nil (2018: £nil).

(l) Subsequent events

See Note 32 to the Group Financial Statements for details of dividends paid or declared after the Balance Sheet date.

(m) Related party transactions

The Company has a related party relationship with its Directors and Executive Officers and with its wholly owned subsidiary companies.

Transactions with key management personnel are disclosed in the Remuneration Report on pages 80 to 99. There were no other significant transactions with key management personnel in either the current or preceding year.

HISTORICAL FINANCIAL SUMMARY

AS AT 31 MARCH 2019

	2015 £m	2016 £m	2017 £m	2018 £m	**2019 £m**
Consolidated Statement of Income					
Revenue from continuing operations	282.4	270.3	300.2	296.9	**333.6**
Adjusted operating profit from continuing operations	36.4	38.0	38.0	46.5	**49.7**
Other operating income	—	—	—	3.3	—
Contingent consideration deemed no longer payable	—	4.9	—	—	—
Reversal of acquisition-related fair value adjustments	(0.2)	(1.0)	—	—	—
Acquisition-related costs	(2.2)	(2.5)	(0.3)	—	—
Loss on disposal of subsidiary undertakings	—	(0.9)	(0.4)	—	—
Contingent consideration – further amount deemed payable	(6.8)	—	—	—	—
Restructuring costs	(8.7)	(2.9)	(0.4)	(1.2)	—
Restructuring costs – relating to associate	—	(1.3)	(0.4)	(0.4)	**(0.3)**
Past service cost on defined benefit pension scheme	—	—	—	—	**(0.3)**
Impairment of investment in associate	—	—	(8.0)	—	—
Share of impairment recognised by associate	—	—	—	(2.0)	**0.6**
Impairment of internally generated intangible assets	—	—	(2.9)	—	—
Impairment of acquired intangibles	—	—	(33.8)	—	—
Amortisation of acquired intangibles	(17.1)	(12.7)	(12.5)	(10.9)	**(9.6)**
Fair value movement on financial derivatives	(4.8)	(2.7)	1.2	3.1	**(1.5)**
Operating (loss)/profit from continuing operations	(3.4)	18.9	(19.5)	38.4	**38.6**
Net financing costs	(8.2)	(8.4)	(6.7)	(4.2)	**(3.1)**
(Loss)/profit before taxation from continuing operations	(11.6)	10.5	(26.2)	34.2	**35.5**
Income tax credit/(expense)	4.9	(2.9)	0.7	(14.6)	**(8.0)**
(Loss)/profit for the year from continuing operations	(6.7)	7.6	(25.5)	19.6	**27.5**
Adjusted profit before tax from continuing operations	29.2	30.4	31.5	42.3	**47.5**
Consolidated Statement of Financial Position					
Property, plant and equipment	33.1	35.2	32.5	22.8	**24.2**
Right of use assets	—	—	—	—	**8.8**
Intangible assets	231.3	220.8	181.0	158.7	**152.5**
Investment in associate	—	13.1	3.9	4.1	**4.6**
Long-term receivables	—	3.4	3.6	1.4	**0.3**
Deferred and current tax	14.6	13.9	18.1	3.6	**6.4**
Inventories	70.8	61.1	53.9	45.9	**60.8**
Trade and other receivables	90.7	79.0	81.7	73.9	**74.7**
Trade and other payables	(126.5)	(108.2)	(98.0)	(84.1)	**(115.1)**
Lease payables	—	—	—	—	**(3.0)**
Net assets excluding net cash	314.0	318.3	276.7	226.3	**214.2**
Cash and cash equivalents	25.1	21.8	27.2	20.7	**35.2**
Bank overdrafts	—	(1.4)	(0.7)	—	—
Bank borrowings	(144.0)	(148.6)	(135.8)	(40.4)	**(28.5)**
Net (debt)/cash	(118.9)	(128.2)	(109.3)	(19.7)	**6.7**
Lease payables	—	—	—	—	**(6.0)**
Provisions	(16.1)	(12.1)	(9.8)	(11.7)	**(8.7)**
Retirement benefit obligations	(53.5)	(35.0)	(25.1)	(15.3)	**(6.5)**
Net assets employed/capital and reserves attributable to the Company's equity holders	125.5	143.0	132.5	179.6	**199.7**

	2015 £m	2016 £m	2017 £m	2018 £m	**2019 £m**
Cash flows from continuing operations					
Net cash from operating activities	17.9	34.4	27.4	27.5	**44.1**
Net cash (used in)/generated from investing activities	(11.7)	(35.2)	(6.6)	68.7	**(8.4)**
Net cash used in financing activities	(19.8)	(6.0)	(20.2)	(104.0)	**(22.1)**
Net (decrease)/increase in cash equivalents from continuing operations	(13.6)	(6.8)	0.6	(7.8)	**13.6**

	pence	pence	pence	pence	**pence**
Per ordinary share					
Earnings – continuing	(11.7)	13.1	(44.7)	34.3	**48.1**
Adjusted earnings[1]	41.2	41.0	41.5	56.3	**64.9**
Dividends	13.0	13.0	13.0	13.3	**14.4**
Employees					
Average number of employees	2,420	2,077	1,974	1,642	**1,578**

1. Adjusted numbers are stated to give a better understanding of the underlying business performance. Details of adjusting items can be found in Note 1 to the Group Financial Statements.

OXFORD INSTRUMENTS DIRECTORY

Company/address		Country	Telephone	Fax	Email
Oxford Instruments Head Office					
Tubney Woods, Abingdon, Oxfordshire OX13 5QX, UK		UK	+44 (0)1865 393200	+44 (0)1865 393333	info.oiplc@oxinst.com
Materials & Characterisation					
Oxford Instruments NanoAnalysis					
Halifax Road, High Wycombe, Buckinghamshire HP12 3SE, UK	Systems for materials analysis at the nanoscale	UK	+44 (0)1494 442255	+44 (0)1494 524129	nanoanalysis@oxinst.com
Arenavägen 41, 10th floor, 121 7 Johanneshov, Sweden	Systems for materials analysis at the nanoscale	Sweden	+46 8 5448 1550	+46 8 5448 1558	nordiska@oxinst.com
Asylum Research					
6310 Hollister Ave, Santa Barbara, CA 93117 USA	Systems for materials analysis at the nanoscale	USA	+1 (805) 696 6466	+1 (805) 696 6444	sba.sales@oxinst.com
Borsigstraße 15A, 65205 Wiesbaden, Germany		Germany	+49 6122 9370	+49 621 762117 11	sba.de.sales@oxinst.com
Room 304, Building 52, No. 195, Section 4, ZhongXing Road, ZhuDong Township, XinZhu County, 310 Taiwan		Taiwan	+886 3 5788696	+886 2 2794 2757	sba.tw.sales@oxinst.com
Halifax Road, High Wycombe, Buckinghamshire HP12 3SE, UK		UK	+44 (0)1494 442255	+44 (0)1494 524129	sba.uk.sales@oxinst.com
Oxford Instruments Plasma Technology					
North End, Yatton, Bristol BS49 4AP, UK	Tools for nanotechnology fabrication	UK	+44 (0)1934 837000	+44 (0)1934 837001	plasma@oxinst.com
Research & Discovery					
Andor/Bitplane/Spectral					
7 Millennium Way, Springvale Business Park, Belfast, BT12 7AL, UK	Scientific imaging cameras, spectroscopy solutions and microscopy systems	UK	+44 (0)28 9023 7126	+44 (0)28 9031 0792	info@andor.com
Badenerstrasse 682, CH-8048 Zürich		Switzerland	+41 44 430 11 00	+41 44 430 11 01	info@bitplane.com
2 East Beaver Creek Road, Building 2, Richmond Hill, ON L3B 2N3, Canada		Canada	+1 (905) 326 5040	+1 (905) 326 5041	info@spectral.ca
Oxford Instruments NanoScience & Magnetic Resonance					
Tubney Woods, Abingdon, Oxfordshire OX13 5QX, UK	Advanced tools for applied research	UK	+44 (0)1865 393200	+44 (0)1865 393333	nanoscience@oxinst.com magres@oxinst.com
Oxford X-Ray Technology					
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Company number
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Audit and Risk
Mary Waldner, Chairman
Steve Blair
Richard Friend
Thomas Geitner

Nomination
Neil Carson[1], Chairman
Steve Blair
Richard Friend
Thomas Geitner
Mary Waldner

Remuneration
Thomas Geitner, Chairman
Steve Blair
Neil Carson[1]
Richard Friend
Mary Waldner

Administration
Any two Directors

Auditor
KPMG LLP

Principal bankers
HSBC Bank plc
Santander plc

Stockbroker
JPMorgan Cazenove

UK solicitors
Ashurst LLP

US counsel
Wilmer Hale LLP

1. Neil Carson was appointed on 1 December 2018.

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