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Oxford Instruments plc

Announcement of unaudited full-year results for the 12 months to 31 March 2023

Strong momentum driven by strategic positioning in structural growth markets places the Group well for further growth

Oxford Instruments plc, a leading provider of high technology products and systems for industry and research, today announces its unaudited preliminary results for the 12 months to 31 March 2023

Adjusted[1]	**Full year to 31 March 2023**	Full year to 31 March 2022	% change reported	% change constant currency[4]
Revenue	**£444.7m**	£367.3m	+21.1%	+14.0%
Adjusted operating profit	**£80.5m**	£66.3m	+21.4%	+13.4%
Adjusted operating profit margin	**18.1%**	18.1%	-	
Adjusted profit before taxation	**£82.0m**	£65.9m	+24.4%	
Adjusted basic earnings per share	**112.7p**	94.3p	+19.5%	
Cash conversion[2]	**88%**	84%		
Net cash[3]	**£100.2m**	£85.9m		

Statutory	**Full year to 31 March 2023**	Full year to 31 March 2022	% change reported
Revenue	**£444.7m**	£367.3m	+21.1%
Operating profit	**£72.4m**	£48.3m	+49.9%
Operating profit margin	**16.3%**	13.2%	+310bps
Profit before taxation	**£73.5m**	£47.6m	+54.4%
Basic earnings per share	**101.6p**	67.1p	+51.4%
Dividend per share for the year (total)	**19.5p**	18.1p	+7.7%

Financial highlights

- Strong growth in orders of 20.9% to £511.6m, 14.2% at constant currency
- Reported order book of £319.6m, growth of 19.2% at constant currency
- Revenue growth of 21.1%, 14.0% at constant currency, 70% driven by volume, partially constrained by supply chain disruption and export licence refusals
- Adjusted operating profit of £80.5m, growth of 21.4% (13.4% at constant currency) with currency tailwind supporting strong growth. Margin in line with the prior year, despite the inflationary environment, supply chain challenges and investment across the Group to support growth
- Net cash increased to £100.2m, with normalised cash conversion of 88%. Strong ROCE of 35%
- Growth in total dividend of 7.7% to 19.5p

Operational highlights

- Business model and strategy continues to drive strong order, revenue and profit growth, with positive momentum in the second half
- Strong growth in our end markets - life science, semiconductor, advanced materials, energy & environment, and quantum - each with long-term sustainable structural growth drivers
- Accelerated growth driven by our market intimacy, product leadership and successful product launches
- Strong uplift to performance in Materials & Characterisation and Service & Healthcare in the second half with easing of supply chain; Research & Discovery performance impacted by phasing of high value product installations and investment for future growth
- Increased focus on attractive North American and European markets driving enhanced growth in these regions; China saw strong order growth, with revenue in line with last year reflecting disruptions in the first half which eased as demand rose post Covid-19 lockdowns
- New 2045 net zero commitment announced, building on 23% in-year reduction in Scope 1 and 2 emissions per £m revenue

Summary and outlook

Ian Barkshire, Chief Executive of Oxford Instruments plc, said:

"The Group's continued positive momentum reflects our purpose-driven focus on structural growth markets that are enabling a greener, healthier, more connected advanced society. Our deep understanding of our customers' needs and the drivers of growth in our markets, combined with our product leadership, our relentless innovation, and our commitment to operational excellence - all key elements of our well-embedded Horizon strategy - have supported a strong set of results and underpinned continuing investment for future growth.

"We have delivered growth in orders, revenue and profit, as well as maintaining margin, with performance strengthened in the second half as we converted our order book and realised the benefits of new pricing structures.

"While mindful that the wider macroeconomic context remains challenging, our record order book and strong positions in attractive end markets underpin our confidence in the future growth of the Group. Our strong balance sheet positions us well to invest in people, infrastructure and innovation, and to make synergistic acquisitions to augment our organic growth. Full year outlook is in line with our expectations."

1. Adjusted items exclude the amortisation and impairment of acquired intangible assets, acquisition items, profit or loss on disposal of operations, other significant non recurring items, and the mark-to-market movement of financial derivatives. A full definition of adjusted numbers can be found in the finance review and Note 2
2. Cash conversion measures the percentage of adjusted cash from operations to adjusted operating profit, as set out in the finance review.
3. Net cash includes total borrowings, cash at bank and bank overdrafts but excludes IFRS 16 lease liabilities.
4. Constant currency numbers 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.

The financial information for the year ended 31 March 2023 as set out in this preliminary announcement does not constitute the statutory accounts of the Group for the relevant year within the meaning of section 435 of the Companies Act 2006. The financial statements for the year ended 31 March 2023 are unaudited. These accounts will be finalised on the basis of the financial information presented by the Directors in the preliminary announcement and will be delivered to the Registrar of Companies following the Company's annual general meeting. The Consolidated Income Statement, Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Equity and Consolidated Statement of Cash Flows for the year ended 31 March 2022 and the Consolidated Balance Sheet as at 31 March 2022 have been derived from the full Group accounts published in the Annual Report and Accounts 2022. These have been delivered to the Registrar of Companies and on which the report of the independent auditors was unqualified and did not contain a statement under section 498(2) or section 498(3) of the Companies Act 2006.

The financial information in this preliminary announcement has been prepared with regards to UK adopted international accounting standards. The Group has applied all accounting standards and interpretations issued relevant to its operations and effective for accounting periods beginning on 1 April 2022. The IFRS accounting policies have been applied consistently to all periods.

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Oxford Instruments management will present its full year results today in a webcast available for on-demand viewing from 08.00 UK today (Tuesday 13 June 2023) at www.oxinst.com/investors-content/financial-reports-and-presentations.

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Chief Executive's Review

As I reflect on the past 12 months - my last full year as Chief Executive - I am proud of the Group's performance, with record orders, accelerated organic revenue growth, strong profit growth and margins in line with the previous year despite the inflationary environment during the year, and the investment made to support future growth. This marks another year of strong progress.

Our continued success stems from the commitment, innovation and talent displayed daily by our people globally, combined with the clarity and focus brought by our Horizon strategy, which is thoroughly embedded across the Group, and in the way we work together and place customers at the heart of everything we do. This provides a solid foundation for future growth and margin expansion.

From helping academic customers to achieve Nobel prize-winning scientific breakthroughs, to supporting commercial customers' productivity and enabling them to develop and apply the disruptive technologies of tomorrow, we are making a positive impact on an ever-changing world, in line with our overarching purpose to enable a greener, healthier, more connected advanced society.

We provide market-leading differentiated technology and expertise in markets with long-term structural growth drivers - Healthcare & Life Science, Advanced Materials, Semiconductor, Energy & Environment, Quantum Technology, and Research & Fundamental Science - that provide a foundation for growth ahead of the market. As we develop our market and customer intimacy, and invest in the business, we are able to sell an increasing range of products to existing customers, as well as adapting our products and services for new and adjacent markets.

All these factors have contributed to our strong financial performance in the year, with double-digit growth in reported orders, revenue and adjusted operating profit, despite inflationary pressures, a lag in price increases taking effect, and supply chain challenges. With strong revenue growth and price increases beginning to work through the order book, this resulted in a positive second half weighting. Reported adjusted operating profit for the year increased by 21.4%, while reported adjusted operating margin was in line with the previous year at 18.1% (2022: 18.1%) and broadly maintained at constant currency. We ended the year with record order intake of £511.6m, with a book-to-bill ratio of 1.15 resulting in 22.8% growth in the order book to £319.6m at 31 March 2023 (2022: £260.2m). The strong performance was also reflected in adjusted EPS increasing by 19.5% to 112.7p (2022: £94.3m). With net cash of £100.2m at 31 March 2023 we are in a strong position to invest in future organic and inorganic growth.

Group	**Full year to 31 March 2023**	Reported growth	Constant currency growth
Orders	**£511.6m**	20.9%	14.2%
Revenue	**£444.7m**	21.1%	14.0%
Adjusted operating profit	**£80.5m**	21.4%	13.4%
Adjusted operating margin	**18.1%**	-	(10bps)

Our performance reflects increasing demand across our markets, with particularly strong growth from our Advanced Materials, Quantum Technology, Semiconductor and Healthcare & Life Science markets. This has resulted in strong constant currency revenue growth across each of our three sectors - Materials & Characterisation (19.2%), Research & Discovery (8.1%), and Service & Healthcare (9.6%). This was achieved despite significant global supply chain shortages and ongoing Covid-related disruption in China negatively impacting several of our businesses.

Supply chain issues eased through the second half, supporting stronger revenue as anticipated. Revenue into China was broadly in line with the prior year, with double digit order growth supported by increased funding as lockdown disruption eased. This growth rate also reflected an increase in UK Government export licence refusals to Chinese customers, particularly for quantum technology and astronomy applications, offset by our continued shift in focus to other growth markets within the country, such as life science and renewable battery technology, in which there are fewer export licence considerations. We also increased our focus on North America, Europe, and Japan, in line with the increased demand in several of our markets, including semiconductors and quantum. This was reflected by strong constant currency revenue growth in these regions (with the US up 35%, Europe up 16% and Japan up 25%).

Strategic progress

Our Horizon strategy continues to provide an important framework; delivering tangible value and positive outcomes for customers and stakeholders, and offering a blueprint for ongoing growth. Strategic progress in the year is as follows.

Market intimacy is integral to our success as we develop insights into the future of our markets, and how we can support customers in accelerating their roadmaps which, in turn, ensures our products are well positioned commercially. An example is the deep insight we have developed across our portfolio of materials analysis techniques to support the renewable battery market. This has resulted in significant growth in orders and revenue. In Healthcare & Life Science, our insight has resulted in the development of new microscopy products and tailored software for specialist markets.

Our focus is on nurturing existing markets, expanding into adjacent markets and landing new key accounts. To drive this, we have invested in the size and capabilities of regional sales and marketing teams, equipping them to develop an in-depth understanding of local markets.

Through the headwinds of the past few years, we have maintained our focus on **innovation and product development** to ensure we remain at the forefront of our markets. Our leading products are designed with customer productivity and ease-of-use at their core, and support our accelerating organic growth and improving gross margins.

The combination of our market intimacy and focused approach to product development has supported a three-year order CAGR of 15% to both commercial and academic customers.

Operational excellence is a key focus as we seek to boost our own productivity and shorten lead times to support the growing demand for our products. We have continued to strengthen relationships with strategic suppliers and further consolidate our supply chain, with a view to long-term resilience and environmental sustainability, and are investing to optimise production capacity.

Our investment in building regional teams is also a key element of our **customer service and support** strategy, enabling us to improve response times by being closer to customers and by training our service teams across a wider range of products. We are developing a broad range of increasingly advanced and tailored services which enhance our customers' capabilities and optimise productivity, strengthening customer demand for recurring service contracts. We also continue to invest in increasing digital and remote service capabilities. These drive benefits for customers, colleagues and the environment whilst improving our efficiency.

Investing for growth

Aligned with our Horizon strategy and future growth ambitions, we have invested significantly during the year to bring new products to market, and position ourselves to deliver process and cost efficiencies. This includes reinforcing and extending capabilities across the business, including investments in our teams, infrastructure and IT.

Research and development

Customer-centric, market-led research and development (R&D) is central to our success as it enables us to transform our customers' outcomes. Investment in the year increased 9.8% to £34.8m (2022: £31.7m), representing 7.8% (2022: 8.6%) of revenue. Our Vitality Index (which measures the percentage of revenue from products launched over the last three years) is 30% (2022: 34%). This represents positive uptake from our newly launched products and continued strong value across our portfolio as we expand our reach into adjacent markets.

During the year we have brought a number of exciting new, leading-edge products to market. These include:

- New processes and techniques for both compound and silicon semiconductor fabrication, including patented processes being deployed to manufacture higher-performing power devices used across commercial electronics and industrial applications
- A battery-specific edition of our Cypher atomic force microscope, advancing battery development through the direct observation of critical chemical processes during operation
- Our new large-scale cryogenic platforms which are advancing the performance of quantum computers
- A high-end extension to our optical microscopy portfolio, Dragonfly 600, which provides healthcare and life science customers with unprecedented imaging speed and quality.

People, productivity and infrastructure

We have made additional investment elsewhere to scale the business, to drive enhanced productivity and shorten lead times for our products. We have invested in enhanced IT systems, including a new integrated customer and service relationship management system. In response to our strong positive trajectory, and in anticipation of continuing growth, we have invested in people across the business, focusing on training and development as well as selectively increasing headcount, with a particular focus on production capacity, and regional sales and service.

Our purpose-built, state-of-the-art compound semiconductor facility in Bristol, UK, is set to double our production capacity in this important and growing market once it is fully operational, which is expected to be later in the current financial year. We are also making significant investment in extending our production capacity and footprint at our Belfast, UK facility to address growing demand for our range of advanced scientific cameras and microscopy products.

Inorganic growth

Our strong balance sheet, with net cash of £100.2m at 31 March 2023, positions us well to make further acquisitions to augment our strong organic growth. We maintain a pipeline of opportunities in a number of target areas, aligned with our strategy.

We have been delighted with the performance of our August 2021 acquisition WITec, which we acquired in August 2021 and which is part of Materials & Characterisation. In particular, WITec, which specialises in Raman microscopy, has benefited from increased sales due to our global channels to market and overlapping customer base. The business has continued to perform ahead of our expectations.

Inventory

We continue to maintain elevated inventory levels to mitigate ongoing supply chain issues, and to ensure competitive lead times.

A sustainable future

I am pleased to report strong progress in our longstanding work to embed sustainability as an integral part of our values, which influences not only day-to-day decisions within our own operations but also actions in relation to our wider impact and stakeholders, including supply chain partners. This year, our absolute Scope 1 and 2 emissions have reduced by 7%, while our emissions intensity per £million of revenue- a helpful measure for a growing organisation like ours - reduced by 23%. Since 2019 - our baseline year - we have achieved a 66% reduction in emissions intensity. Our absolute Scope 1 and 2 emissions have reduced by 55% over the same period. This figure reflects changes in our portfolio as well as energy saving and carbon reduction measures.

Our work continues, and we are delighted to announce our new, accelerated commitment to reach net zero carbon emissions by 2045. In addition, we have set shorter term targets to reduce our Scope 1 and 2 emissions by 50% and 70% respectively by 2030. Over the next year we will submit our targets and roadmap to the Science Based Targets initiative for formal validation. We will also continue the work already underway with our supply chain to model a robust reduction plan for Scope 3 emissions.

Supporting our employees also remains central to our values, and in recognition of the impact of global inflationary pressures on employee household budgets, we have taken action to support our people in relation to the cost-of-living crisis. Accordingly, we brought forward our Group-wide annual salary review from July to April 2022, and followed this up with a further one-off cost-of-living payment in October 2022 for employees most impacted.

We are also focused on fostering a strong talent pipeline, as well as investing in supporting and developing the talented people we already employ. This year, we are taking on an increased number of apprentices, across a broader range of disciplines. We have expanded our internal development programmes, including the development of future leaders, by increasing the number of participants in our Leadership Programme.

More broadly, we continue to build an inclusive and progressive culture, striving to be ahead of the curve in our equality, diversity and inclusion targets, listening to and engaging with our employees as we seek to create a culture where everyone feels able to be their authentic self at work. To this end, we have created a number of new employee impact groups in the year, with more planned for the coming year.

And of course, our contribution to sustainability goes far beyond the way in which we operate our business - indeed it is central to our purpose, to enable a greener, healthier, more connected advanced society. We help our customers to make a tangible positive impact on the world in all these areas. Using our products and services, customers are developing new materials and approaches to enable the critical energy transition which will directly impact everyone on the planet, as the world's governments and businesses pursue the goal of reaching net zero carbon emissions. In healthcare, our products are enabling medical researchers to understand the fundamental mechanisms of disease, accelerating their progress on new medicines and treatments. We are also instrumental in the drive towards a more connected future, where everyone, everywhere can access information whenever they need - with a particularly meaningful impact in the emerging economies where connectivity has been proven to improve lives and increase prosperity. Our aspiration is that everything we do can contribute to a more advanced society for all.

Supporting a smooth transition

In April 2023, I announced my intention to retire as Chief Executive. As my time in post nears its end, I want to thank all my colleagues, who have made the past 25 years so rewarding and fulfilling. Their warmth, talent, and spirit of relentless innovation have helped Oxford Instruments to become one of the most exciting technology companies operating today, consistently delivering positive impacts through disruptive change to the world. It has been a privilege and an honour to lead such talent over the past seven years, and I am delighted the company is in such a strong position as I prepare to hand the baton on to my successor, Richard Tyson. With a robust strategic foundation underpinning growth in all key areas, I look forward to supporting a smooth transition, and I wish Richard and the team every success in the future.

Summary and outlook

The Group's continued positive momentum reflects our purpose-driven focus on structural growth markets that are enabling a greener, healthier, more connected advanced society. Our deep understanding of our customers' needs and the drivers of growth in our markets, combined with our product leadership, our relentless innovation, and our commitment to operational excellence - all key elements of our well-embedded Horizon strategy - have supported a strong set of results and underpinned continuing investment for future growth.

We have delivered growth in orders, revenue and profit, as well as maintaining margin, with performance strengthened in the second half as we converted our order book and realised the benefits of new pricing structures.

While mindful that the wider macroeconomic context remains challenging, our record order book and strong positions in attractive end markets underpin our confidence in the future growth of the Group. Our strong balance sheet positions us well to invest in people infrastructure and innovation, and to make synergistic acquisitions to augment our organic growth. Full year outlook is in line with our expectations.

Ian Barkshire
Chief Executive

12 June 2023

Operations review

The Group performed strongly in the year, with orders, revenue and operating profit growing, and margin in line with the previous year. The Operations Review provides performance headlines at Group level, and more details regarding each of our three sectors: Materials & Characterisation, Research & Discovery, and Services & Healthcare.

Orders

Orders intake increased 20.9% to £511.6m (2022: £423.1m), representing 14.2% growth on a constant currency basis.

Growing demand supported double digit order growth from both academic institutions and commercial customers in the year, with strong growth across all three sectors.

There was double-digit order growth in Healthcare & Life Science, Advanced Materials, Semiconductor, Quantum Technology and Energy & Environment markets. Within Semiconductor, orders continued to be robust, with strong growth supported by our focus on compound semiconductor process equipment. Our portfolio also addresses every stage of the semiconductor cycle from research and applied R&D to manufacturing support, providing us with greater resilience, relative to traditional silicon production cycles. There was particularly strong growth in Quantum Technology supported by long-term governments funding programmes and our increasing reach into leading commercial companies.

In Research & Fundamental Science, orders were broadly in line with the previous year, as we continued to move away from delivering large, one-off bespoke systems. This market now represents just 3% of orders, due to our managed migration to higher value markets.

Healthy demand across our regional markets resulted in strong double-digit order growth in Europe and North America, with high single digit growth in Asia. Within Asia, China had double digit order growth, after the adverse impact of orders which received export licence refusals, with positive momentum in the fourth quarter as the country moved away from its lockdown strategy.

Revenue

Reported revenue grew by 21.1% to £444.7m (2022: £367.3m), representing growth of 14.0% at constant currency. At constant currency, there was growth of 19.2% in Materials & Characterisation, 8.1% in Research & Discovery, and 9.6% in Service & Healthcare, with ongoing supply chain issues tempering growth through the year.

The strong order growth across our end markets supported 10.0% constant currency revenue growth in Healthcare & Life Science, 24.1% in Quantum Technology, 15.6% in Energy & Environment and 25.2% in Advanced Materials. Within Semiconductor, supply chain challenges limited the number of compound semiconductor processing systems shipped, resulting in 8.9% constant currency growth - with a book to bill of 1.21 in the year. Research & Fundamental Science was 16.3% lower, as we focus away from this market, with it now representing only 4% of Group revenue.

Profitability

The strong revenue performance in the second half of the year, with supply chains easing, and price rises beginning to flow through, supported an increase in full-year adjusted operating profits to £80.5m, representing 13.4% growth on a constant currency basis. Reported adjusted operating margin of 18.1% was in line with the previous year, despite the inflationary environment, supply chain challenges and our continued investment across the Group for future growth.

End market	**Revenue**	**% constant currency[1] growth vs full year to 31 March 2022**	**% of Group revenue full year to 31 March 2023**
Advanced Materials	£140.2m	25.2%	32%
Semiconductor & Communications	£122.0m	8.9%	27%
Healthcare & Life Science	£85.2m	10.0%	19%
Energy & Environment	£43.0m	15.6%	10%
Quantum Technology	£35.3m	24.1%	8%
Research & Fundamental Science	£19.0m	(16.3%)	4%

Sector review

Materials & Characterisation

The Materials & Characterisation sector has a broad customer base across a wide range of applications for:

- **The imaging and analysis of materials down to the atomic level (across our Asylum Research, NanoAnalysis, Magnetic Resonance and WITec businesses), where our leading product performance, ease of use and advanced analytics enhance our customers' capabilities, provide actionable insights and increase their productivity. Our portfolio of materials analysis solutions (including X-ray, electron and magnetic resonance analysis systems and atomic force and Raman microscopes) enable the measurement of the structures, composition and critical properties that define the modern world.**
- **The fabrication of semiconductor devices and structures, where our Plasma Technology business' portfolio of advanced etch and deposition process systems enables our customers to create and manipulate materials with atomic scale accuracy to manufacture advanced compound semiconductor devices.**

With a strong focus on accelerating our customers' applied R&D, our products and services in this sector enable the development of new devices and next generation higher performing materials, as well as enhancing productivity in advanced manufacturing, quality assurance (QA) and quality control (QC).

Key highlights

	Full year to 31 March 2023	Full year to 31 March 2022	% reported growth	% constant currency[1] growth
Orders	**£272.8m**	£219.2m	+24.5%	+18.3%
Revenue	**£234.5m**	£185.5m	+26.4%	+19.2%
Adjusted[2] operating profit	**£40.5m**	£26.1m	+55.2%	+45.2%
Adjusted[2] operating margin	**17.3%**	14.1%		
Statutory operating profit	**£35.7m**	£20.8m		
Statutory operating margin	**15.2%**	11.2%		

1. For definition refer to note on page 2.
2. Details of adjusting items can be found in Note 2 to the full year financial statements.

The Materials & Characterisation sector delivered strong constant currency order growth of 18.3% to £272.8m (2022: £219.2m), with constant currency revenue increasing 19.2% to £234.5m (2022: £185.5m). This was underpinned by strong customer demand across our markets, aligned with the leading-edge technology and ease of use features within our portfolio. There was particularly strong growth into our largest markets - advanced materials, semiconductor and energy & environment - which together accounted for 90% of the sector's revenue. We also saw growth into our healthcare and quantum markets within Materials & Characterisation, albeit the majority of our activity in these markets stems from our Research & Discovery sector. As a result of the strong order intake, our Materials & Characterisation order book increased by 34.5% to £156.0m at the year-end (2022: £116.0m), representing growth on a constant currency basis of 29.6%.

Our strong revenue growth, combined with leveraging efficiencies across our teams and portfolio, resulted in significant growth in adjusted operating profit, which increased by 45.2% at constant currency to £40.5m (2022: £26.1m). This was supported by price rises flowing through into second half deliveries, better compensating for the inflationary pressures in the year. There was a 320bps increase in the adjusted operating margin to 17.3% (2022: 14.1%) despite continued investment for future growth.

Operational, strategic and regional progress

During the year, we have continued to maximise synergies across our portfolio of materials analysis solutions by leveraging our market insights and in-depth knowledge of customers' workflows. This enables us to offer an ever-broader range of tailored solutions to existing customers, as well as expanding into larger, faster growing markets. We increasingly see both existing and new customers deploying a range of our products and techniques to accelerate their progress and manage the quality of their output at every stage from R&D to manufacturing. This approach has enabled us to support the growth of WITec, extending its reach into new geographies and markets, while in turn, WITec's ability to measure the structural chemistry of materials has complemented our existing portfolio, enabling us to provide solutions that fully characterise the critical parameters of materials, systems and devices at the nanoscale.

Our investment in regional sales teams and heightened application focus through our nurture, expand and land strategy has driven particularly strong growth in North America and Europe, as well as growth in Asia. Within China, we had strong order growth, and revenue growth of 6% in the year was supported by the easing of Covid-related lockdowns in the second half of the year, despite ongoing delays in receiving export licences and an increased number of refusals.

We have delivered continued growth to both academic and commercial customers, with commercial customers representing 58% of revenue in the year (2022: 57%). Strong growth into academia was supported by increased government funding into our markets as they prioritise the development of semiconductor infrastructure, invest in greener technologies, and advance their national quantum programmes.

Our own production capacity to support the growing compound semiconductor market will significantly increase with the move of our Plasma Technology business, based in Bristol, UK, into purpose-built, larger premises, later in the current financial year. Comprising a state-of-the-art manufacturing area, with increased clean-room space and advanced laboratories, it will support further development of our leading-edge technologies in the surging compound semiconductor market.

With good positions in a number of our end markets, the most notable developments for Materials & Characterisation in year are in the following:

Semiconductor & Communications *(42% of revenue)*

Semiconductor & Communications has delivered strong growth in both orders and revenue. We have a broad reach across both the emerging compound semiconductor market (representing c. 65% of our semiconductor revenue in the year) with its strong environmental and critical communication growth drivers, and the more established silicon chip and electronic device market. Within these markets, we provide solutions to support fundamental developments, applied R&D and, increasingly, solutions for manufacturing-related applications. This breadth of application provides us with a level of protection from the cyclicality of the semiconductor market, as, for example, R&D investment typically increases during periods of lower production.

With governments including the US, Europe and Japan committing tens of billions of pounds across the semiconductor market over a five- to 10-year period, and significant investment by companies, we have seen increased growth into research facilities and specialist clean rooms, as they seek to enhance their regional capabilities and safeguard security of supply. This has led to growth across our portfolio in these regions.

In the compound semiconductor market, we are seeing increasing demand driven by a number of factors, including the rise in digital data flow, increasing requirements from hyperscale data centres, surging demand for connectivity, the requirement for more energy-efficient devices and the increased deployment of human-machine interfaces such as facial recognition.

Supported by targeted new developments and product launches across our portfolio, our systems are enabling the significant increases in performance and yield, and the reductions in production cost needed to make the transition to compound semiconductors economically viable. For example, in gallium nitride devices for improved power efficiency, our solution enables etch control to a uniformity of half a nanometre - just a few atoms thick. This results in a four-fold improvement in manufacturing volumes, together with enhanced performance.

With proprietary expertise across a wide range of compound semiconductors, including indium phosphide and silicon carbide as well as gallium nitride, our systems are being used in a broad range of important applications:

- supporting the delivery of 5G connectivity to everyone, everywhere in the world, via communication networks and data communications centres - for example, scaling up to support the processing needs of autonomous cars, which are expected to require up to 20 terabytes of data an hour;
- augmented reality applications, including micro LEDs and 3D sensors, which are increasingly being deployed across phones, cameras and cars;
- proximity sensors in smartphones, in applications such as facial recognition and contactless payment, where premium performance is key; and
- critical yield and performance in power semiconductors for consumer electronics, such as USB-C fast chargers and truly wireless charging.

Alongside growth in our compound semiconductor portfolio, we saw growth in our imaging and analysis products. These are being used extensively across the silicon semiconductor chip industry, supporting production and development of next generation devices which deliver unparalleled performance and productivity. Through the year we have seen a reduction in orders and revenue for our equipment and techniques used directly in manufacturing defect review for consumer electronics. However, due to our leading analytical performance, combined with manufacturers ramping up to develop the next generation of chips - including 1- to 3-nanometre nodes - we have seen a significant increase in orders and revenue for applied R&D applications, demonstrating the resilience afforded by our positioning across the technology lifecycle. This has been supported by product launches of dedicated solutions for our semiconductor customers for advanced characterisation at the nanoscale for increasingly complex architecture - which is ever more important as chips and devices continue to shrink in size.

In addition, our imaging and analysis products are deployed across the broader electronics market including the development and production of printed circuit boards and standard electronic components such as resistors and capacitors.

Advanced Materials *(34% of revenue)*

Advanced materials play an increasingly important role in our daily lives, enabling everything from the screens we watch and the cars we drive to the structural materials that build our cities. We have delivered very strong double-digit order and revenue growth in this market, as both academic and commercial customers use our equipment and techniques to develop and deploy higher performing and more sustainable materials, products and modes of transport, in pursuit of a greener future. We have seen particularly strong growth into service laboratories and core facilities, where the capabilities, versatility, and ease of use of our equipment and software lend themselves to a wide range of applications.

With nearly all materials and products undergoing some form of analysis, this continues to drive increasing demand across our imaging and analysis systems. Our systems allow our customers to measure down to the nanoscale, optimising the performance and production of lighter, stronger, higher functioning materials from early-stage research through to design and production.

In the year, we have seen strong growth in the analysis of structural materials such as steel and concrete which together account for around 15% of global CO_2 emissions. Here, we are accelerating our customers' progress as they address the vital challenge of making greener alternatives without compromising the performance of the material. Examples include the development of low-emission concrete recipes and self-healing concretes which can repair cracking automatically. In metals, our products support the development of new, low-carbon steels, and the recycling of valuable materials such as aluminium for use in high-end applications including aerospace, as part of the global push towards a circular economy.

In addition, we have seen related growth into automotive and aerospace applications, as structures evolve to facilitate renewable power sources such as the large, heavy battery packs currently needed in EVs.

The precision of our equipment also enables our products to support the development and characterisation of so-called 2D materials such as graphene, which are just one atom thick and have unprecedented performance properties. Graphene is starting to make its way into mainstream products including smartphones and wearable devices as scientists and researchers learn how to harness its capabilities. Other 2D materials are being used in areas such as battery research, displays and next generation semiconductors, where their electrical properties are being explored for their potential to enhance performance.

Our products - particularly our atomic force microscopes - also play a crucial role in helping scientists understand the properties of polymers, including viscosity, adhesion, strength and hardness. The integral role polymers play in a multitude of products used in daily life, from tyres to fabrics and medical implants, underpins our growth in this area.

Energy & Environment *(14% of revenue)*

From battery research to water quality, our systems play a critical part in the development of a greener future as governments, universities and commercial customers all over the world seek to reduce negative environmental impacts and drive positive change.

A particular area of strength for us is the battery market, which has a key role to play in the transition from fossil fuels, enabling sustainable travel and providing efficient and affordable storage to complement renewable energy generation. With our increasingly tailored solutions, which extend across our materials and analysis portfolio, we enable our customers to address challenges in every stage of the battery life cycle, from raw materials and R&D through to quality control and failure analysis, and end-of-life recycling. An example of this is our recently launched Cypher Battery Edition atomic force microscope, configured to enable the safe direct observation of battery chemistry during operation.

With the active elements of a battery operating at the nanoscale, our products help researchers better understand the fundamental chemistry and mechanisms that affect battery capacity, charging rate and lifetime. Our solutions are also adopted to ensure quality control, including particle analysis to detect potentially harmful contamination within raw materials.

Our analysis solutions are also playing an increasing role in the quest for a cleaner, less polluted environment. Customers, including a major European marine science institute, are using our systems to map the type and volume of microplastics across the oceans - crucial in helping our understanding of the impact of these pollutants on the wider ecosystem. Here, our leading Raman microscopy system, combined with our Particle Scout software, enables the categorisation and counting of microplastics and industrial waste.

Elsewhere in our portfolio, our benchtop Magnetic Resonance analysers provide a user-friendly interface to assess the levels of fats, oils and grease in wastewater, helping to prevent the fatbergs and pollution incidents which can occur when these build up in sewer networks.

Healthcare & Life Science *(6% revenue)*

Healthcare & Life Science has delivered good growth through the year. Customers are using our atomic force and Raman microscopy equipment to explore biological systems, with applications in cancer and heart disease, among many others. This includes the imaging of living cells to measure their elasticity, structure and the dynamics of DNA, which are used to discriminate between healthy and diseased tissue.

Quantum Technology *(3% of revenue)*

With strong customer relationships across the quantum market, and expertise in semiconductor processing and characterisation, we are seeing increasing demand to support fabrication of the qubits which form the basis of quantum computers. Our systems are supporting the roadmap to develop quantum computers with higher numbers of qubits, and greatly reduced defects. This will be critical for the advancement of these transformational devices.

Research & Discovery

The sector comprises our Andor Technology, NanoScience and X-Ray Technology businesses. It provides advanced solutions and unique environments that enable imaging and analytical measurements down to the atomic and molecular level, as well as ultra-low temperature and high magnetic field environments. These are used across scientific research and applied R&D, and commercial applications. Our leading-edge technologies have a key role to play across a range of fields, from accelerating developments in medicine and material science to facilitating the growing commercialisation of quantum technology.

Key highlights

	Full year to 31 March 2023	Full year to 31 March 2022	% reported growth	% constant currency[1] growth
Orders	**£160.4m**	£133.9m	+19.8%	+11.6%
Revenue	**£139.4m**	£120.3m	+15.9%	+8.1%
Adjusted[2] operating profit	**£18.0m**	£21.3m	(15.5%)	(21.1%)
Adjusted[2] operating margin	**12.9%**	17.7%		
Statutory operating profit	**£11.3m**	£15.0m		
Statutory operating margin	**8.1%**	12.5%		

1. For definition refer to note on page 2.
2. Details of adjusting items can be found in Note 2 to the full year financial statements.

Increasing demand for our key enabling technologies, particularly across our Quantum Technology and Healthcare & Life Science markets, drove strong order growth of 19.8% to £160.4m (2022: £133.9m), with momentum building through the second half of the year. In addition, there was strong revenue growth of 15.9% to £139.4m (2022: £120.3m). In scientific camera and microscopy products, this was aided by the easing of supply chain pressures and relaxation of China's lockdown restrictions in the second half. However, for our high-value cryogenic and magnet systems, unfavourable phasing of installations (the point at which revenue is recognised for these products) resulted in lower revenue in the year, despite higher production volumes and strong order growth.

Adjusted operating profit at £18.0m (2022: £21.3m) was lower than last year. This was due to increased investment in people and processes in our scientific camera and microscopy business as we increase production capacity and operational effectiveness. In addition, profit was impacted by the lower revenue in the cryogenics and magnets business as well as an unfavourable mix in this business from the installation of the last of the legacy complex bespoke systems. The lower adjusted operating margin of 12.9% (2022: 17.7%) reflected these factors.

Solid progress in the year

In the period we continued to focus on the key markets for the sector, namely Healthcare & Life Science, Advanced Materials and the evolving Quantum Technology market. The sector has a high profile within the research-intensive academic market, with a high proportion of sales made to academic customers. However, sales to commercial customers represent a growing proportion of revenue, at 33% (2022: 26%), as we develop application-specific, easy-to-use solutions based on our high-end, research-oriented platforms. In addition to selling directly to end customers, where we have a strong brand presence, we also access a broad range of other end markets by providing key technologies to a growing portfolio of strategic original equipment manufacturer (OEM) partners.

Supply chain challenges, lockdowns in China and extended delays in obtaining UK export licences had a disproportionate impact on the sector in the first half. However, the easing of supply chain constraints and the lifting of Covid restrictions in China supported a strong second half, resulting in double digit order and revenue growth. This included significant order growth across our cryogenic platforms for quantum computing and our optical microscopy Healthcare & Life Science portfolio, underpinned by increased demand and new product launches in the year. This resulted in an increased orderbook of £119.2m (2022: £108.7m), up 9.7%, and a book to bill of 1.15.

Investment from government and commercial customers in Europe and the US has more than offset a significant reduction in academic orders from China related to the Quantum and Astronomy markets, as we move our focus towards markets with fewer export licence restrictions. China now represents a smaller proportion of revenue for the sector at 18% (2022: 25%), with significant growth into North America, which now represents 37% (2022: 33%) of revenue.

The sector has good positions in a number of end markets, and developments are as follows:

Healthcare and Life Science *(39% of revenue)*

We have seen continued strong momentum throughout the year for our advanced microscopy solutions and dedicated analytical software. We have enabled academic researchers, scientists and pharmaceutical companies to accelerate progress towards a healthier society, delivering improved treatments for neurological diseases and cancers, and towards the eradication of diseases such as malaria and polio. The significant progress in these fields is being enabled by our advanced microscopy solutions which support the improved understanding of fundamental disease mechanisms. With our enhanced product range of advanced microscopy products, we now enable fast, repeatable imaging of large molecular and cellular samples with the highest possible resolution for the ultimate research capability, whilst expanding the addressable market by bringing research-grade capability to broader and much larger markets through our disruptive, easy-to-use benchtop platform. This has supported double-digit order growth, with enthusiastic market acceptance of our new BC43 benchtop microscope, frequently bought by core imaging facilities as a user-friendly, space-saving workhorse to increase productivity at an attractive price point. It has shown strong growth in cancer research and neuroscience applications, such as studies into Alzheimer's disease and other forms of dementia, enabling researchers and pharmaceutical companies to look at the impact of new medicines and treatments. We also received our first OEM order for multiple BC43 systems for incorporation into a high throughput gene sequencing instrument.

We have also seen significant order growth for our high-end Dragonfly microscopy system, supported by the launch of a new model with super spatial resolution capability. Dragonfly is being used in areas including spatial genomics, a method for mapping cancer markers rapidly to accelerate therapeutic breakthroughs, with its high speed a particular benefit to researchers.

Our proprietary AI-powered analytical software packages can be used across our portfolio, and with other manufacturers' equipment. These enable the automated analysis and interpretation of increasingly rich data sets, with sales of tailored packages for neuroscience, cancer research and cell biology applications growing strongly in the year. In addition to our microscopy portfolio, we continued to see increasing demand and strong revenue growth for our scientific cameras and laser modules through OEM partners in fields including drug discovery and gene sequencing.

Advanced Materials *(28% of revenue)*

Demand for our material characterisation technologies - such as our advanced measurement systems which integrate our superconducting magnets and cryogenic systems, as well as our portfolio of scientific cameras and optical spectrometers - continues to be driven by interest in new material discoveries aligned to global mega trends. Despite supply chain issues which eased in the second half, we continue to see significant growth in sales for technologies which enable fundamental material characterisation.

Research & Fundamental Science *(10% of revenue)*

We continue to see long-term customer interest in our high-end scientific cameras and specialised cryogenic and superconducting magnet systems across a broad range of research themes including astronomy, chemistry and physics research. In fluids and plasma dynamics, our scientific cameras and spectrometers, with their highly sensitive and ultrafast detectors, enable customers to analyse phenomena on timescales as low as a billionth of a second. These are being used to study the efficiency of combustion processes in jet engines as new environmental fuels are developed, as well as exploring the critical behaviour of plasmas used to generate nuclear fusion, the ultimate solution to clean and sustainable energy. Our products continue to support the leading edge of science, with customers of our Andor camera and microscopy equipment named as winners of the 2022 Nobel prizes for chemistry and physics.

We are increasingly focusing on larger and more profitable markets, with a reduced focus on bespoke, one-off complex systems, particularly to academia. As a result of a controlled move away from these systems, orders and revenue in research & fundamental science were down in the year.

Quantum Technology *(18% of revenue)*

Oxford Instruments is at the heart of global research and development in this dynamic and growing market, which is receiving increased funding as both governments and commercial players seek to deliver the vast potential of quantum technology.

During the year, all major governments announced quantum technology funding programmes - with the UK government, for example, committing to a £2.5 billion investment over the next 10 years. In addition, global technology and communication companies, and a range of innovative smaller players, are breaking new boundaries as they create ever-more powerful quantum computers which are starting to move out of the laboratory and into mainstream applications.

We are collaborating with many of the sector's key academic and, increasingly, commercial institutions to accelerate progress towards the adoption of quantum computers as a mainstream tool. Quantum has the potential to transform our ability to solve incredibly complex problems which are beyond today's capabilities, disrupting existing markets such as finance, logistics, drug discovery and chemistry. Our technology and service capabilities are supporting these customers as they transition from the research laboratory into commercial data centres, enabling the transformation of established end markets as datacentres start to provide quantum computing services direct to customers, undertaking application trials on real world data.

With multiple quantum computing technologies still in trial, the superconducting techniques which require cryogenic technologies still dominate the use cases. Over the course of the year, we have seen significant orders from tier 1 quantum providers, investing in our cryogenic products as they increase their engineering programmes to build 1,000 qubit-plus systems. However, our unique position, supporting both cryogenic quantum environments and optics-based quantum communication, through our scientific cameras, puts us at the heart of multiple strands of this rapidly growing market. Our highly sensitive, photon-counting camera remains the leading imaging solution in quantum optics experiments involving trapped ion and quantum entanglement measurements.

Within our Semiconductor & Communications and Energy & Environment end markets (together representing 6% of revenue), we continued to see strong demand for our key technologies, with revenue broadly in line with the previous year.

Service & Healthcare

The Service & Healthcare sector comprises the Group's service and support related to Oxford Instruments' own products, and the support and service of third-party MRI scanners in Japan. We offer tailored support packages for all our products, delivered by a global network of product experts, application experts and service engineers, both in person and via digital channels, including online training, webinars and remote service support.

Key highlights

	Full year to 31 March 2023	Full year to 31 March 2022	% reported growth	% constant currency growth
Orders	**£78.4m**	£70.0m	+12.0%	+6.4%
Revenue	**£70.8m**	£61.5m	+15.1%	+9.6%
Adjusted[2] operating profit	**£22.0m**	£18.9m	+16.4%	+8.5%
Adjusted[2] operating margin	**31.1%**	30.7%		
Statutory operating profit	**£22.4m**	£18.9m		
Statutory operating margin	**31.6%**	30.7%		

1. For definition refer to note on page 2.

2. Details of adjusting items can be found in Note 2 to the full year financial statements.

There was good growth in orders which increased 6.4% at constant currency to £78.4m (2022: £70.0m). Revenue growth was strong, increasing by 9.6% at constant currency to £70.8m (2022: £61.5m). Growth in orders and revenue in North America and Europe was strong but slightly lower than the prior year in Asia, which was adversely impacted by first half Covid-related restrictions in the region. There was strong growth momentum in the second half, as restrictions eased.

Adjusted operating profit increased 8.5% at constant currency to £22.0m (2022: £18.9m) reflecting the increased revenue, but partially offset by the investment in expanding our global service teams and lower revenues from Asia. This investment in the Service & Healthcare offering resulted in the adjusted operating margin decreasing by 30bps to 31.1% (2022: 30.7%).

Operational and strategic progress

Our service and support strategy, underpinned by Horizon, is focused on three key pillars:

- increased tailoring of our service offerings to specific end applications and customer types;
- the delivery of seamless customer service at every stage of the product life cycle;
- the development of global processes which can be delivered via a hybrid approach, both in region and digitally.

As we increase our portfolio and the scope of our services, we are offering a range of support packages to match the needs and budgets of our customers. This allows our customers to maximise their capabilities, enhance their productivity and receive immediate help and support when needed throughout the lifetime of our systems. We use our market intimacy to develop products appropriate to each end application and customer type. These include tailored offerings across our life science microscopy portfolio, where we are increasingly securing point of sale service contracts for our benchtop systems. We are also seeing strong growth in our Imaris life science analytical software, with packages focused on cancer research, cell biology, neuroscience and core facilities available on annual licences.

As the quantum market evolves into the commercial arena, we have secured a number of contracts from commercial customers to provide 24/7 service capability and uptime to quantum computers situated in hyperscale datacentres. This requires a dedicated team and approach building on our experience in providing similar service capability to MRI imaging systems and provides a good growth opportunity going forward.

In pursuit of seamless customer service, we have continued to invest in extending our regional teams and spares capacity to ensure short lead times for in-person support and training visits, as well as continuing to develop our digital and remote support offerings. We are increasingly able to diagnose and resolve issues within a few hours, using virtual reality as part of our digital toolkit, and in many cases removing the need for engineers to make site visits. Together, these developments result in greater flexibility and convenience for customers and a more sustainable offering, helping to limit our carbon footprint from business travel.

We have also continued to focus on the third element of our strategy, developing standard techniques and processes globally which are implemented locally through our combined regional teams, with teams increasingly trained to service multiple products. The benefits of this approach include cost efficiencies from best-practice procedures, deeper local customer intimacy and improved response times.

The ongoing transformation of our approach to customer service and support has increased the proportion of revenue from commercial customers, who now represent 58% of our customer base in this sector. Regionally, our increased investment in local teams in North America and Europe has supported strong growth in both orders and revenue to these geographies.

Our servicing of third-party MRI imaging equipment in Japan continues to deliver excellent levels of service and support to our customer base and revenue was broadly in line with the previous year.

The Service & Healthcare sector remains on a strong upward trajectory, with significant ongoing opportunities to support revenue growth and margin expansion.

Finance Review

We delivered a strong financial performance with growth in orders, revenue and underlying cash flow. We continue to invest in resources and infrastructure across the business to support future growth. Our balance sheet has been strengthened further to support organic and non-organic growth opportunities.

Summary

Oxford Instruments uses certain alternative performance measures to help it effectively monitor the performance of the Group as management believes that these represent a more consistent measure of underlying performance. Adjusted measures exclude the amortisation and impairment of acquired intangible assets; other significant non-recurring items; and the mark to market movement of financial derivatives. All of these are included in the statutory figures. Note 1 provides further analysis of the adjusting items in reaching adjusted profit measures. Definitions of the Group's material alternative performance measures along with reconciliation to their equivalent IFRS measure are included within the Finance Review.

The Group trades in many currencies and makes reference to constant currency numbers to remove the impact of currency effects in the year. 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.

Reported orders received increased by 20.9% to £511.6m (2022: £423.1m), an increase of 14.2% at constant currency. 60% of orders growth was volume driven, with the remainder from price increases. At the end of the year, the Group's order book had increased to £319.6m (31 March 2022: £260.2m), up 22.8% on a reported basis and 19.2% at constant currency.

Reported revenue increased by 21.1% to £444.7m (2022: £367.3m). Revenue, excluding currency effects, increased by 14.0%, with the movement in average currency exchange rates over the year increasing reported revenue by £26.1m. This strong growth was primarily volume driven, with 70% of the growth from volume and 30% from price.

Adjusted operating profit increased by 21.4% to £80.5m (2022: £66.3m). Adjusted operating profit, excluding currency effects, increased by 13.4%, with a currency tailwind in the year of £5.3m. Adjusted operating margin was held at 18.1% (2022: 18.1%) as the business invested to support growth; excluding currency effects, adjusted operating margin decreased by 10 basis points to 18.0%.

Statutory operating profit of £72.4m (2022: £48.3m) includes the amortisation of acquired intangibles of £9.3m (2022: £9.5m) and a credit of £3.0m (2022: charge of £6.4m) relating to the movement in the mark-to-market valuation of uncrystallised currency hedges for future years. Other adjusting non-recurring items totalled £1.8m (2022: £2.1m).

Adjusted profit before tax grew by 24.4% to £82.0m (2022: £65.9m), representing a margin of 18.4% (2022: 17.9%).

Statutory profit before tax increased by 54.4% to £73.5m (2022: £47.6m), following the growth in operating profit and favourable impact from the non-cash uncrystallised credit on currency hedges. This represents a margin of 16.5% (2022: 13.0%).

Adjusted basic earnings per share grew by 19.5% to 112.7p (2022: 94.3p). Basic earnings per share were 101.6p (2022: 67.1p), an increase of 51.4%.

Cash from operations of £72.9m (2022: £58.4m) represents 58% (2022: 72%) cash conversion. During the year, we incurred expenditure of £24.7m on the construction of our new semiconductor facility near Bristol and a facility expansion in High Wycombe; cash conversion on a normalised basis that excludes this expenditure was 88%. Net cash after borrowings increased from £85.9m on 31 March 2022 to £100.2m on 31 March 2023.

At the end of March, our revolving credit facility remained undrawn, leaving approximately £108m of committed facilities. This represents total headroom of just under £210m.

Income Statement

The Group's Income Statement is summarised below.

	Year ended 31 March 2023 £m	Year ended 31 March 2022 £m	Change
Revenue	**444.7**	367.3	+21.1%
Adjusted operating profit	**80.5**	66.3	+21.4%
Amortisation of acquired intangible assets	**(9.3)**	(9.5)	
Non-recurring items	**(1.8)**	(2.1)	
Mark-to-market of currency hedges	**3.0**	(6.4)	

Mark to market of currency hedges	[illegible]	[illegible]	
Statutory operating profit	**72.4**	48.3	+49.9%
Net finance income/(cost)[1]	**1.1**	(0.7)	
Adjusted profit before taxation	**82.0**	65.9	+24.4%
Statutory profit before taxation	**73.5**	47.6	+54.4%
Adjusted effective tax rate	**20.7%**	17.8%	
Effective tax rate	**20.3%**	18.9%	
Adjusted earnings per share - basic	**112.7p**	94.3p	+19.5%
Earnings per share - basic	**101.6p**	67.1p	+51.4%
Dividend per share (total)	**19.5p**	18.1p	+7.7%

2. Net finance costs for 2023 include a non-recurring charge of £0.4m (2022: £0.3m) against the unwind of discount on WITec contingent consideration.

Revenue and orders

Total reported orders grew by 20.9% (+14.2% at constant currency) to £511.6m. In Materials & Characterisation, reported orders grew by 24.5% (+18.3% at constant currency), with good growth across the portfolio of electron microscope analysers, semiconductor processing systems, atomic force microscopes and Raman systems. In Research & Discovery, we saw good growth of 19.8% (+11.6% at constant currency) in orders for our optical imaging and microscopy systems, assisted by some large orders for our cryogenic systems. Service & Healthcare increased by 12.0% (+6.4% at constant currency).

Reported revenue of £444.7m (2022: £367.3m) increased by 21.1% (+14.0% at constant currency).

Reported revenue grew by 26.4% for Materials & Characterisation (+19.2% at constant currency), with strong growth for our electron microscope analysers and atomic force microscopes. We saw growth in our semiconductor processing tools, though this was tempered in the year by supply chain challenges and an increase in export licence refusals.

Research & Discovery reported revenue growth of 15.9% (+8.1% at constant currency) was supported by improved second half production of our optical imaging and microscopy products, although there was lower revenue from the unfavourable phasing in installations of our cryogenic and magnet systems, in addition to the impact from UK export licence constraints to China, particularly to the quantum market.

Revenue growth from service of our own products, supported by good growth in maintenance revenue from Life Science software and products, has more than offset an expected small decline in revenue from our MRI service business in Japan, resulting in reported growth of 15.1% (+9.6% at constant currency) for Service & Healthcare.

The book-to-bill ratio (orders received to goods and services billed in the period) for the year was 1.15 (2022: 1.15).

On a geographical basis, revenue grew by 17.9% in Europe (+15.5% at constant currency), supported by additional deliveries of our electron analysers, optical and microscopy products and cryogenic systems.

Revenue for North America increased by 53.5% on a reported basis and by 36.3% at constant currency; with all businesses recording good growth, and especially high demand for our semiconductor processing systems.

Asia remains our largest region by revenue, with China constituting 54% of regional revenue and 24% of total Group revenue. Asia delivered revenue growth of 6.7% (+1.9% at constant currency), with strong demand for our electron microscope analysers and atomic force microscopes, offset by fewer deliveries of our semiconductor processing systems due to supply chain challenges and UK export licence rejections, and a pivot away from quantum-related cryogenic systems caused by export licence constraints. Revenue in China fell 4% on a constant currency basis.

Geographic revenue growth

£m	**2022/23 £m**	**2022/23 % of total**	2021/22 £m	2021/22 % of total	**Change £m**	**% growth**	**% growth at constant currency**
Europe	**104.9**	**24%**	89.0	24%	**+15.9**	**17.9%**	**15.5%**
North America	**130.3**	**29%**	84.9	23%	**+45.4**	**53.5%**	**36.3%**
Asia	**201.2**	**45%**	188.6	51%	**+12.6**	**6.7%**	**1.9%**
Rest of World	**8.3**	**2%**	4.8	2%	**+3.5**	**72.9%**	**66.7%**
	444.7		367.3		**+77.4**	**21.1%**	**14.0%**

The total reported order book grew by 22.8% (+19.2% at constant currency). The order book, at constant currency, compared to 31 March 2022, increased by 29.5% for Materials & Characterisation, with strong growth across all constituent businesses. Research & Discovery grew by 7.7% at constant currency, with strong demand for our imaging and microscopy products. We also received a large commercial order for cryogenic systems. However, the removal of previous years' orders due to UK export licence rejections to China within the quantum sector depressed the growth rate. Continued focus on own product service resulted in growth of 25.3% (+21.0% at constant currency) from Service & Healthcare.

£m	Materials & Characterisation	Research & Discovery	Service & Healthcare	Total
Revenue: 2021/22	185.5	120.3	61.5	367.3
Constant currency growth	35.6	9.8	5.9	51.3
Currency	13.4	9.3	3.4	26.1
Revenue: 2022/23	**234.5**	**139.4**	**70.8**	**444.7**
Revenue growth: reported	26.4%	15.9%	15.1%	21.1%
Revenue growth: constant currency	19.2%	8.1%	9.6%	14.0%

Gross profit

Gross profit grew by 22.6% to £230.2m (2022: £187.8m), representing a gross profit margin of 51.8%, an increase of 70 basis points over last year. The business has been able to offset the effects of cost inflation within costs of sales over the year.

Adjusted operating profit and margin

Adjusted operating profit increased by 21.4% to £80.5m (2022: £66.3m), representing an adjusted operating profit margin of 18.1% (2022: 18.1%). At constant currency, the adjusted operating profit margin was 18.0%, a reduction of 10 basis points. In order to support future growth ambitions and position ourselves to deliver process and cost efficiencies we must invest across the business, including in infrastructure, IT, and engineering and operational capabilities. As a result, overhead growth tracks revenue growth and offsets short-term pass through margin enhancement.

Reported Materials & Characterisation adjusted operating profit increased by 55.0% (+45.2% at constant currency) with reported margin increasing by 320 basis points to 17.3% (2022: 14.1%). We have seen a high level of demand for our electron microscope analysers and atomic force microscopes, driving an improvement in profitability. In addition, the WITec business has now been fully integrated into the Group, with combined sales teams driving an improvement in demand.

Within Research & Discovery, our imaging and microscopy business has had a strong second half of the year, despite a large increase in UK export licence rejections. The business has seen strong demand, supported by our new benchtop microscope for the Life Science market. Investment in resources, IT systems and infrastructure is being made to support the capture and delivery of growth opportunities. Operational throughput of our standard cryogenic and magnet systems has been constrained by a diversion of resources towards completing the withdrawal from more complex bespoke systems, which now make up a much smaller component of the business. Difficulties in obtaining UK export licences for cryogenic systems for quantum research in China has negatively impacted year-on-year growth. These issues have resulted in a fall in constant currency profit of 21.1% and a 480-basis point reduction in adjusted operating margin to 12.9% for the segment. Good order growth for our cryogenic systems, especially from North America and Europe, is expected to contribute to an improved trading performance for the 2023/24 financial year.

Service & Healthcare margin increased by 40 basis points to 31.1% (2022: 30.7%). At constant currency, the margin was 30.4%, a decrease of 30 basis points.

Transaction and translation currency effects (including the impact of transactional currency hedging) have increased reported adjusted operating profit by £5.3m when compared to blended hedged exchange rates for the prior period.

£m	Materials & Characterisation	Research & Discovery	Service & Healthcare	Total
Adjusted operating profit: 2021/22	26.1	21.3	18.9	66.3
Constant currency growth	11.8	(4.5)	1.6	8.9
Currency	2.6	1.2	1.5	5.3
Adjusted operating profit: 2022/23	**40.5**	**18.0**	**22.0**	**80.5**
Adjusted operating margin[1]: 2021/22	14.1%	17.7%	30.7%	18.1%
Adjusted operating margin[1]: 2022/23	17.3%	12.9%	31.1%	18.1%
Adjusted operating margin[1] (constant currency): 2022/23	17.1%	12.9%	30.4%	18.0%

3. Adjusted margin is calculated as adjusted operating profit divided by revenue. Adjusted margin at constant currency is defined as adjusted operating profit at constant currency divided by revenue at constant currency.

Statutory operating profit and margin

Statutory operating profit grew by 49.9% to £72.4m (2022: £48.3m), representing an operating profit margin of 16.3% (2022: 13.2%). Statutory operating profit is after the amortisation and impairment of acquired intangible assets; other significant non-recurring items; and the mark-to-market of financial derivatives. The growth was driven by a strong trading performance, supported by currency, along with a credit on the fair value movement of forward currency contracts.

Adjusting items

Amortisation of acquired intangibles of £9.3m (2022: £9.5m) relates to intangible assets recognised on acquisitions, being the value of technology, customer relationships and brands.

Non-recurring items within operating profit total £1.8m. This comprises a release of a property dilapidations provision of £0.4m relating to the previously disposed OI Healthcare business, offset by a charge of £0.5m that eliminates the profit arising in the acquired WITec business from revaluing their inventories to fair value, in accordance with accounting standards. We have also incurred legal costs of £0.5m on protection of our IP due to a third-party infringement, and restructuring costs of £0.4m relating to the transfer of a business to a new location. An impairment of capitalised development costs of £0.8m relates to two small projects in our Plasma Technology business where the development has been superseded by a new platform and the market opportunity turned out to be smaller than forecast. We also recorded in financial expenditure a non-recurring charge of £0.4m against the unwind of discount on WITec contingent consideration.

The Group uses derivative products to hedge its short-term exposure to fluctuations in foreign exchange rates. Our hedging policy allows for forward contracts to be entered into up to 24 months forward from the end of the next reporting period. The Group policy is to have in place at the beginning of the financial year hedging instruments to cover up to 80% of its forecast transactional exposure for the following 12 months and, subject to pricing, up to 20% of exposures for the next six months. 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 mark-to-market derivatives in respect of transactional currency exposures of the Group in future periods are disclosed in the Consolidated Statement of Income as foreign exchange and excluded from our calculation of adjusted profit before tax. In the year this amounted to a credit of £3.0m (2022: charge of £6.4m). The movement to a small net asset for derivative financial instruments over the year reflects: (i) the crystallisation of forward contracts that were hedging the 2022/23 financial year, which are recognised in adjusted operating profit; and an uncrystallised increase in the mark-to-market valuation of forward contracts from a rise in the value of sterling at the balance sheet date against a blended rate achieved on US dollar contracts that will mature over the next 12 months.

Net finance costs

The Group recorded adjusted net interest income of £1.5m (2022: net cost of £0.4m) due to an increase in the interest credit on pension scheme net assets and a rise in interest income on our net cash balance. In addition, we recorded in financial expenditure a non-recurring charge of £0.4m against the unwind of discount on WITec contingent consideration.

Adjusted profit before tax and margin

Adjusted profit before tax increased by 24.4% to £82.0m (2022: £65.9m). The adjusted profit before tax margin of 18.4% (2022: 17.9%) was above last year due to an increase in net finance income.

Reconciliation of statutory profit before tax to adjusted profit before tax	**Year ended 31 March 2023 £m**	Year ended 31 March 2022 £m
Statutory profit before tax	**73.5**	47.6
Add back:		
Amortisation and impairment of acquired intangible assets	**9.3**	9.5
Non-recurring items in operating profit (Note 1)	**2.2**	2.4
Mark-to-market of currency hedges	**(3.0)**	6.4
Adjusted profit before tax	**82.0**	65.9

Statutory profit before tax and margin

Statutory profit before tax increased by 54.4% to £73.5m (2022: £47.6m). Statutory profit before tax is after the amortisation and impairment of acquired intangible assets; other significant non-recurring items; and the mark-to-market of financial derivatives. The statutory profit before tax margin of 16.5% (2022: 13.0%) was above last year principally due to the credit from the mark-to market valuation movement on financial derivatives.

Taxation

The adjusted tax charge of £17.0m (2022: £11.7m) represents an effective tax rate of 20.7% (2022: 17.8%). The tax charge of £14.9m (2022: £9.0m) represents an effective tax rate of 20.3% (2022: 18.9%). The increase reflects prior year tax credits, primarily relating to exercise of share options, as well as a greater mix of profits from jurisdictions with higher tax rates than our average. We expect the effective tax rate to rise in 2023/24 owing to the increase in the UK corporation tax rate.

Earnings per share

Adjusted basic earnings per share increased by 19.5% to 112.7p (2022: 94.3p); adjusted diluted earnings per share grew by 19.7% to 111.3p (2022: 93.0p). Basic earnings per share increased by 51.4% to 101.6p (2022: 67.1p); diluted earnings per share increased by 51.5% to 100.3p (2022: 66.2p).

The number of undiluted weighted average shares increased to 57.7m (2022: 57.5m).

Currency

The Group faces transactional and translational currency exposure, most notably against the US dollar, euro and Japanese yen. For the year, approximately 16% of Group revenue was denominated in sterling, 53% in US dollars, 19% in euros, 10% 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's translation and transaction foreign currency exposure for the full year is summarised below.

£m (equivalent)	Revenue	Adjusted operating profit
Sterling	72.3	(97.9)
US dollar	233.8	105.8
Euro	85.8	37.4
Japanese yen	43.5	34.4
Chinese renminbi	6.2	(0.2)
Other	3.1	1.0
	444.7	**80.5**

The Group maintains a hedging programme against its net transactional exposure using internal projections of currency trading transactions expected to arise over a period extending from 12 to 24 months. As at 31 March 2023, the Group had currency hedges in place extending up to 12 months forward.

For the full year 2023/24, our assessment of the currency impact is, based on hedges currently in place and current currency rates, a headwind to revenue and profit of £15m and £0.6m respectively. Current currency rates on unhedged positions for the year are GBP:USD 1.26; GBP:EUR 1.17; GBP:JPY 176.All currency impacts are prior to mitigating pricing and cost actions. Uncertain volume and timing of shipments and acceptances, currency mix and rate volatility may significantly affect full-year currency forecast effects.

Looking further ahead to the financial year 2024/25, based on current currency rates, we would expect currency effects to have a neutral impact to revenue and a £4.2m headwind to profit, owing to an unwind of hedges crystalising in the previous financial year at more favourable rates.

Acquisition of WITec

On 31 August 2021, the Group completed the purchase of 100% of the share capital in WITec for an initial consideration of €37.0m. Additional consideration of €5m was paid in December 2022 as a consequence of specific conditions on trading performance being met.

Dividend

The Group's policy on the dividend takes into account changes to underlying earnings, dividend cover, movements in currency and demands on our cash. After a good year of trading, supported by favourable currency movements, the Board is recommending a final dividend of 14.9p (2022: 13.7p) per share. This would result in a total dividend of 19.5p (2022: 18.1p) per share, growth of 7.7%. An interim dividend of 4.6p per share was paid on 13 January 2023. The final dividend will be paid, subject to shareholder approval, on 22 August 2023 to shareholders on the register as at 14 July 2023.

Cash flow

The Group cash flow is summarised below.

	Year ended 31 March 2023 £m	Year ended 31 March 2022 £m
Adjusted operating profit	**80.5**	66.3
Depreciation and amortisation	**10.8**	9.4
Adjusted[1] EBITDA	**91.3**	75.7
Working capital movement	**(9.1)**	(11.8)
Equity settled share schemes	**2.4**	2.1
Pension scheme payments above charge to operating profit	**(11.7)**	(7.6)
Cash from operations	**72.9**	58.4
Interest	**0.4**	(0.5)
Tax	**(5.7)**	(8.8)
Capitalised development expenditure	**(0.6)**	(0.7)
Net expenditure on tangible and intangible assets	**(32.1)**	(13.9)
Acquisition of subsidiaries, net of cash acquired	**(4.8)**	(30.6)
Acquisition-related costs	**-**	(0.4)
Dividends paid	**(10.6)**	(12.3)
Proceeds from issue of share capital and exercise of share options	**0.1**	0.1
Payments made in respect of lease liabilities	**(5.6)**	(3.4)
Decrease in borrowings	**(0.5)**	(0.1)

Net increase/(decrease) in cash and cash equivalents from continuing operations	**13.5**	(12.2)

4. Adjusted EBITDA is defined as Adjusted operating profit before depreciation and amortisation of capitalised development costs. The Consolidated Statement of Cash Flows provides further analysis of the definition of Adjusted EBITDA.

Cash from operations

Cash from operations of £72.9m (2022: £58.4m) represents 58% (2022: 72%) cash conversion. Cash conversion on a normalised basis was 88% once we exclude capital expenditure relating to our new semiconductor facility and a small facility expansion in High Wycombe for a Materials & Characterisation business line. Cash conversion is defined as cash from operations before business reorganisation costs and pension scheme payments above charge to operating profit, less capitalised development expenditure, capital expenditure and payments made in respect of lease liabilities, divided by adjusted operating profit.

Reconciliation of cash generated from operations to adjusted operating cash flow	**Year ended 31 March 2023 £m**	Year ended 31 March 2022 £m
Cash from operations	**72.9**	58.4
Add back/(Deduct):		
Pension scheme payments above charge to operating profit	**11.7**	7.6
Capitalised development expenditure	**(0.6)**	(0.7)
Net expenditure on tangible and intangible assets	**(32.1)**	(13.9)
Payments made in respect of lease liabilities	**(5.6)**	(3.4)
Adjusted cash from operations	**46.3**	48.0
Cash conversion % (adjusted cash from operations/adjusted operating profit)	**58%**	72%
Cash conversion % (normalised[1])	**88%**	84%

5. Cash conversion calculated on a normalised basis excludes expenditure in the year of £24.7m (2022: £7.4m) on the new semiconductor facility and the Materials & Characterisation facility expansion in High Wycombe.

Working capital increased by £9.1m. Inventories increased by £15.6m as we prioritised securing component supplies in the face of continued supply chain disruption and uncertainty. Receivables increased by £21.5m, reflecting the high number of orders, shipments and acceptances in the final month of the year compared to last year, particularly with reference to high-value semiconductor process systems, resulting in an increase in invoicing against customer deposits, installation and acceptances. This was offset by an increase in payables and customer deposits of £28.0m.

Interest

Net interest received was £0.4m (2022: £0.5m paid), the improvement reflecting the higher interest income received on our net cash balance.

Tax

Tax paid was £5.7m (2022: £8.8m). The Group benefitted from accelerated capital allowances on the new semiconductor facility currently under construction, partly contributing to cash tax being lower than the accounting charge.

Investment in Research and Development (R&D)

Total cash spend on R&D in the year was £34.8m, equivalent to 7.8% of sales (2022: £31.7m, 8.6% of sales). A reconciliation between the adjusted amounts charged to the Consolidated Statement of Income and the cash spent is given below:

	Year ended 31 March 2023 £m	Year ended 31 March 2022 £m
R&D expense charged to the Consolidated Statement of Income	**36.7**	32.8
Depreciation of R&D-related fixed assets	**(0.3)**	(0.2)
Amounts capitalised as fixed assets	**-**	0.3
Amortisation and impairment of R&D costs previously capitalised as intangibles	**(2.2)**	(1.9)
Amounts capitalised as intangible assets	**0.6**	0.7
Total cash spent on R&D during the year	**34.8**	31.7

Net cash and funding

Net cash

Cash from operations in the year was partially offset by an increase in capital expenditure and payment of deferred consideration for the acquired WITec business, resulting in an increase in the Group's net cash position after borrowings at 31 March 2023 to £100.2m (31 March 2022: £85.9m). The Group invested in tangible and intangible assets of £32.3m, of which £23.1m relates to payments associated with the new semiconductor facility under construction.

To 31 March 2023, we had incurred costs of £31.3m on the new semiconductor facility under construction. For the financial year ended 31 March 2024, we expect additional payments of approximately £10m to complete the facility. We are also planning to expand our operations in Belfast over the next 18 months to support the growth of our imaging and microscopy business, particularly into Life Science markets.

Movement in net cash	£m
Net cash after borrowings as at 31 March 2022	85.9
Cash generated from operations	72.9
Interest	0.4
Tax	(5.7)
Capitalised development expenditure	(0.6)
Capital expenditure on tangible and intangible assets	(9.2)
Capital expenditure on new semiconductor facility	(23.1)
Acquisition of subsidiaries	(4.8)
Dividend paid	(10.6)
Payments made in respect of lease liabilities	(5.6)

Other items	0.6
Net cash after borrowings as at 31 March 2023	100.2

Net cash including lease liabilities	**Year ended 31 March 2023 £m**	Year ended 31 March 2022 £m
Net cash after borrowings	**100.2**	85.9
Lease liabilities	**(31.4)**	(18.4)
Net cash and lease liabilities after borrowings	**68.8**	67.5

Return on capital employed (ROCE)

ROCE measures effective management of capital employed relative to the profitability of the business. ROCE is calculated as adjusted operating profit less amortisation of intangible assets divided by average capital employed. Capital employed is defined as assets (excluding cash, pension, tax and derivative assets) less liabilities (excluding tax, debt and derivative liabilities). Average capital employed is defined as the average of the closing balance at the current and prior year end. ROCE has risen to 35.2%, (2022: 34.7%), with the change principally reflecting a higher level of earnings, partially offset by the investment in the new semiconductor facility in Bristol which has increased property, plant and equipment, and right of use assets.

Return on capital employed	**Year ended 31 March 2023 £m**	Year ended 31 March 2022 £m
Adjusted operating profit	**80.5**	66.3
Amortisation of acquired intangible assets	**(9.3)**	(9.5)
Adjusted operating profit after amortisation of acquired intangible assets	**71.2**	56.8
Property, plant and equipment	**59.3**	31.7
Right-of-use assets	**31.4**	17.9
Intangible assets	**132.1**	140.7
Long-term receivables	**0.5**	-
Inventories	**81.4**	65.3
Trade and other receivables	**125.0**	104.7
Non-current lease payables	**(26.2)**	(14.9)
Non-current provisions	**-**	(0.1)
Trade and other payables	**(171.2)**	(149.5)
Current lease payables	**(5.2)**	(3.5)
Current provisions	**(7.6)**	(7.7)
Capital employed	**219.5**	184.6
Average capital employed	**202.1**	163.5
Return on capital employed (ROCE)	**35.2%**	34.7%

Return on invested capital (ROIC)

ROIC measures the after-tax return on the total capital invested in the business. It is calculated as adjusted operating profit after tax divided by average invested capital. Invested capital is total equity less net cash, including lease liabilities. Average invested capital is defined as the average of the closing balance at the current and prior year end. Oxford Instruments aims to deliver high returns, measured by a return on capital in excess of our weighted average cost of capital. ROIC fell slightly on the previous year due to an increase in property assets and leases offsetting the positive effect of growth in adjusted operating profit after taxation.

Return on invested capital	**Year ended 31 March 2023 £m**	Year ended 31 March 2022 £m
Adjusted operating profit	**80.5**	66.3
Adjusted taxation	**(17.0)**	(11.7)
Adjusted operating profit after taxation	**63.5**	54.6
Total equity	**344.0**	316.4
Net cash after borrowings (including lease liabilities)	**(68.8)**	(67.5)
Invested capital	**275.2**	248.9
Average invested capital	**261.2**	212.5
Return on invested capital (ROIC)	**24.3%**	25.7%

Funding

On 2 July 2018, the Group entered into an unsecured multi-currency revolving facility agreement, which is committed until June 2025. The facility has been entered into with two banks and comprises a euro-denominated multi-currency facility of €50.0m (£44m) and a US dollar-denominated multi-currency facility of $80.0m (£64.0m).

Debt covenants are net debt to EBITDA of less than 3.0 times and EBITDA to interest greater than 4.0 times. As at 31 March 2023 the business had net cash.

Pensions

The Group has a defined benefit pension scheme in the UK. This has been closed to new entrants since 2001 and closed to future accrual from 2010.

On an IAS 19 basis, the surplus arising from our defined benefit pension scheme obligations on 31 March 2023 was £26.4m (2022: £51.7m). The value of scheme assets fell to £251.5m (2021: £351.7m) due to a fall in value of the scheme's gilt holdings and other liability matching assets. Scheme liabilities decreased to £225.1m (£300.0m), principally due to an increase in the discount rate and a decrease in the inflation-linked assumptions.

Pension recovery payments above charge to operating profit total £11.7m (2022: £7.6m). During the year, an advance payment of £4.0m was made to allow the Trustees to meet collateral calls to swap counterparties under the Liability Driven Investment scheme. These funds were not required and while the company has the right to recover this advance through making reduced payments in the future, it is not expected to do so.

The scheme's actuarial valuation review, rather than the accounting basis, determines our cash payments into the scheme. The Liability

Driven investment strategy is working as intended, with the actuarial deficit falling during the year, in line with expectations. The cash contributions into the scheme are expected to continue until 2025/26, at which point we expect, based on current assumptions, for the scheme to achieve self-sufficiency. The scheme rules provide that in the event of a surplus remaining after settling contractual obligations to members, the Group may determine how the surplus is utilised.

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 Highlights, Chief Executive's Review and Operations Review sections of this Report. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Finance Review.

Trading for the Group has been strong during the year. The Group has prepared and reviewed a number of scenarios for the Group based on key risks noted for the business and the potential impact on orders, trading and cash flow performance. In addition, the Group has overlaid the risk of long-term adverse movements in currency rates to our cash flow forecasts. The Board is satisfied, having considered the sensitivity analysis, as well as its funding facilities, 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
Chief Financial Officer

12 June 2023

CONSOLIDATED STATEMENT OF INCOME

Year ended 31 March 2023

	2023			2022		
	Adjusted £m	**Adjusting items(1) £m**	**Total £m**	Adjusted £m	Adjusting items(1) £m	Total £m
Revenue	444.7	-	444.7	367.3	-	367.3
Cost of sales	(214.5)	-	(214.5)	(179.5)	-	(179.5)
Gross profit	230.2	-	230.2	187.8	-	187.8
Research and development	(35.9)	(0.8)	(36.7)	(32.8)	-	(32.8)
Selling and marketing	(65.4)	-	(65.4)	(52.5)	-	(52.5)
Administration and shared services	(52.9)	(10.3)	(63.2)	(42.2)	(11.6)	(53.8)
Foreign exchange gain/(loss)	4.5	3.0	7.5	6.0	(6.4)	(0.4)
Operating profit	80.5	(8.1)	72.4	66.3	(18.0)	48.3
Financial income	2.7	-	2.7	0.5	-	0.5
Financial expenditure	(1.2)	(0.4)	(1.6)	(0.9)	(0.3)	(1.2)
Profit/(loss) before income tax	82.0	(8.5)	73.5	65.9	(18.3)	47.6
Income tax (expense)/credit	(17.0)	2.1	(14.9)	(11.7)	2.7	(9.0)
Profit/(loss) for the year attributable to equity shareholders of the parent	65.0	(6.4)	58.6	54.2	(15.6)	38.6
Earnings per share	pence		pence	pence		pence
Basic earnings per share						
From profit for the year	112.7		101.6	94.3		67.1
Diluted earnings per share						
From profit for the year	111.3		100.3	93.0		66.2

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.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Year ended 31 March 2023

	2023 £m	2022 £m
Profit for the year	**58.6**	38.6
Other comprehensive income/(expense):		
Items that may be reclassified subsequently to Consolidated Statement of Income		
Foreign exchange translation differences	**5.3**	1.0
Items that will not be reclassified to Consolidated Statement of Income		
Remeasurement (loss)/gain in respect of post-retirement benefits	**(38.6)**	27.3
Tax credit/(charge) on items that will not be reclassified to Consolidated Statement of Income	**9.7**	(6.8)
Total other comprehensive (expense)/income	**(23.6)**	21.5
Total comprehensive income for the year attributable to equity shareholders of the parent	**35.0**	60.1

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 March 2023

	2023 £m	2022 £m
Assets		
Non-current assets		
Property, plant and equipment	**59.3**	31.7
Right-of-use assets	**31.4**	17.9
Intangible assets	**132.1**	140.7
Long-term receivables	**0.5**	-
Derivative financial instruments	**0.4**	-
Retirement benefit asset	**26.4**	51.7
Deferred tax assets	**12.5**	13.7
	262.6	255.7
Current assets		
Inventories	**81.4**	65.3
Trade and other receivables	**125.0**	104.7
Current income tax receivable	**0.5**	0.8
Derivative financial instruments	**1.6**	1.0
Cash and cash equivalents	**112.7**	96.4
	321.2	268.2
Total assets	**583.8**	523.9
Equity		
Capital and reserves attributable to the company's equity shareholders		
Share capital	**2.9**	2.9
Share premium	**62.6**	62.5
Other reserves	**0.2**	0.2
Translation reserve	**12.9**	7.6
Retained earnings	**265.4**	243.2
	344.0	316.4
Liabilities		
Non-current liabilities		
Bank loans	**0.9**	1.3
Lease payables	**26.2**	14.9
Derivative financial instruments	**-**	0.3
Provisions	**-**	0.1
Deferred tax liabilities	**7.8**	15.4
	34.9	32.0
Current liabilities		
Bank loans and overdrafts	**11.6**	9.2
Trade and other payables	**171.2**	149.5
Lease payables	**5.2**	3.5
Current income tax payables	**8.1**	4.5
Derivative financial instruments	**1.2**	1.1
Provisions	**7.6**	7.7
	204.9	175.5
Total liabilities	**239.8**	207.5
Total liabilities and equity	**583.8**	523.9

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

As at 31 March 2023

	Share capital £m	Share premium £m	Other reserves £m	Translation reserve £m	Retained earnings £m	Total £m
As at 1 April 2022	**2.9**	**62.5**	**0.2**	**7.6**	**243.2**	**316.4**
Total comprehensive income/(expense):						
Profit for the year	**-**	**-**	**-**	**-**	**58.6**	**58.6**
Other comprehensive income/(expense):						
- Foreign exchange translation differences	**-**	**-**	**-**	**5.3**	**-**	**5.3**
- Remeasurement loss in respect of post-retirement benefits	**-**	**-**	**-**	**-**	**(38.6)**	**(38.6)**
- Tax credit on items that will not be reclassified to Consolidated Statement of Income	**-**	**-**	**-**	**-**	**9.7**	**9.7**
Total comprehensive income attributable to equity shareholders of the parent	**-**	**-**	**-**	**5.3**	**29.7**	**35.0**
Transactions with owners recorded directly in equity:						
- Credit in respect of employee service costs settled by award of share options	**-**	**-**	**-**	**-**	**2.4**	**2.4**
- Tax credit in respect of share options	**-**	**-**	**-**	**-**	**0.7**	**0.7**
- Proceeds from shares issued	**-**	**0.1**	**-**	**-**	**-**	**0.1**
- Dividends	**-**	**-**	**-**	**-**	**(10.6)**	**(10.6)**
Total transactions with owners recorded directly in equity:	**-**	**0.1**	**-**	**-**	**(7.5)**	**(7.4)**
As at 31 March 2023	**2.9**	**62.6**	**0.2**	**12.9**	**265.4**	**344.0**

As at 31 March 2023	**2.9**	**62.6**	**0.2**	**12.9**	**265.4**	**344.0**

As at 1 April 2021	2.9	62.4	0.2	6.6	194.1	266.2
Total comprehensive income/(expense):						
Profit for the year	-	-	-	-	38.6	38.6
Other comprehensive income/(expense):						
- Foreign exchange translation differences	-	-	-	1.0	-	1.0
- Remeasurement gain in respect of post-retirement benefits	-	-	-	-	27.3	27.3
- Tax charge on items that will not be reclassified to Consolidated Statement of Income	-	-	-	-	(6.8)	(6.8)
Total comprehensive income attributable to equity shareholders of the parent	-	-	-	1.0	59.1	60.1
Transactions with owners recorded directly in equity:						
- Credit in respect of employee service costs settled by award of share options	-	-	-	-	2.1	2.1
- Tax credit in respect of share options	-	-	-	-	0.2	0.2
- Proceeds from shares issued	-	0.1	-	-	-	0.1
- Dividends	-	-	-	-	(12.3)	(12.3)
Total transactions with owners recorded directly in equity:	-	0.1	-	-	(10.0)	(9.9)
As at 31 March 2022	2.9	62.5	0.2	7.6	243.2	316.4

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.

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 none (2022: 2,370) 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 2023

	2023 £m	2022 £m
Profit for the year	**58.6**	38.6
Adjustments for:		
Income tax expense	**14.9**	9.0
Net financial (income)/expense	**(1.1)**	0.7
Fair value movement on financial derivatives	**(3.0)**	6.4
Release of provision on disposal	**(0.4)**	-
WiTec post-acquisition gross margin adjustment	**0.5**	1.7
Acquisition-related costs	**-**	0.4
Restructuring costs	**0.4**	-
Intellectual property litigation costs	**0.5**	-
Impairment of capitalised development costs	**0.8**	-
Amortisation and impairment of acquired intangibles	**9.3**	9.5
Depreciation of right-of-use assets	**4.6**	3.4
Depreciation of property, plant and equipment	**4.8**	4.1
Amortisation of capitalised development costs	**1.4**	1.9
Adjusted earnings before interest, tax, depreciation and amortisation	**91.3**	75.7
Charge in respect of equity settled employee share schemes	**2.4**	2.1
Cash payments to the pension scheme more than the charge to operating profit	**(11.7)**	(7.6)
Operating cash flows before movements in working capital	**82.0**	70.2
Increase in inventories	**(15.6)**	(0.1)
Increase in receivables	**(21.5)**	(21.6)
Increase in payables and provisions	**18.8**	11.4
Increase/(decrease) in customer deposits	**9.2**	(1.5)
Cash generated from operations	**72.9**	58.4
Interest paid	**(0.7)**	(0.5)
Income taxes paid	**(5.7)**	(8.8)
Net cash from operating activities	**66.5**	49.1
Cash flows from investing activities		
Proceeds from sale of property, plant and equipment	**0.2**	

Proceeds from sale of property, plant and equipment	**0.2**	-
Acquisition of property, plant and equipment	**(32.3)**	(13.9)
Acquisition of intangible assets	**-**	(0.1)
Acquisition of subsidiaries, net of cash acquired	**(4.8)**	(30.6)
Acquisition-related costs	**-**	(0.4)
Capitalised development expenditure	**(0.6)**	(0.7)
Interest received	**1.1**	0.1
Net cash used in investing activities	**(36.4)**	(45.6)
Cash flows from financing activities		
Proceeds from issue of share capital	**0.1**	0.1
Interest paid on lease payables	**(0.5)**	(0.3)
Repayment of lease payables	**(5.1)**	(3.1)
Repayment of borrowings	**(0.5)**	(0.1)
Dividends paid	**(10.6)**	(12.3)
Net cash used in financing activities	**(16.6)**	(15.7)
Net increase/(decrease) in cash and cash equivalents	**13.5**	(12.2)
Cash and cash equivalents at beginning of the year	**87.7**	97.6
Effect of exchange rate fluctuations on cash held	**0.3**	2.3
Cash and cash equivalents at end of the year	**101.5**	87.7
Comprised of:		
Cash and cash equivalents as per the Consolidated Statement of Financial Position	**112.7**	96.4
Bank overdrafts	**(11.2)**	(8.7)
	101.5	87.7

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 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, depreciation of right-of-use assets and amortisation of intangible assets to adjusted operating profit, and can be found in the Consolidated Statement of Cash Flows. The 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. The definition of cash conversion is set out in the Finance Review.

Reconciliation between operating profit and profit before income tax and adjusted profit from continuing operations

	2023		2022	
	Operating Profit £m	**Profit before income tax £m**	Operating Profit £m	Profit before income tax £m
Statutory measure	**72.4**	**73.5**	48.3	47.6
Release of provision on disposal	**(0.4)**	**(0.4)**	-	-
Acquisition-related costs	**-**	**-**	0.4	0.4
WITec post-acquisition gross margin adjustment	**0.5**	**0.5**	1.7	1.7
Restructuring costs	**0.4**	**0.4**	-	-
Intellectual property litigation costs	**0.5**	**0.5**	-	-
Impairment of capitalised development costs	**0.8**	**0.8**	-	-
Amortisation and impairment of acquired intangibles	**9.3**	**9.3**	9.5	9.5
Fair value movement on financial derivatives	**(3.0)**	**(3.0)**	6.4	6.4
Unwind of discount in respect of contingent consideration		**0.4**		0.3
Total non-GAAP adjustments	**8.1**	**8.5**	18.0	18.3
Adjusted measure	**80.5**	**82.0**	66.3	65.9
Adjusted income tax expense		**(17.0)**		(11.7)
Adjusted profit for the year	**80.5**	**65.0**	66.3	54.2
Adjusted effective tax rates		**20.7%**		17.8%

Release of provision on disposal

These represent the release of the provision on disposal of the OI Healthcare business in the US in 2020.

Acquisition-related costs

These represent the costs of one-off charges incurred at the balance sheet date relating to the acquisition of WITec Wissenschaftliche Instrumente und Technologie GmbH ('WITec').

WITec post-acquisition gross margin adjustment

The finished goods and work in progress inventories were revalued to fair value, based on selling price less costs to sell. The adjustments in the current and prior periods relate to the gross margin which would have been earned on post-acquisition sales to 31 March 2023, but which has been absorbed into the acquisition date fair value. This will not recur, as all such inventory at the acquisition date had been delivered to customers by 31 March 2023.

Restructuring costs

These represent the costs of one-off restructuring charges within the Materials & Characterisation segment.

Intellectual property litigation costs

These represent one-off legal costs in the Research & Discovery segment to defend our intellectual property.

Impairment of capitalised development costs

During the year, the Group reviewed the capitalised development costs to ensure they remained directly related to targeted product or software developments. The one-off non-cash impairment relates to delays in market launch of specific development projects within the Materials & Characterisation segment.

Amortisation and impairment of acquired intangibles

Adjusted profit excludes the non-cash amortisation and impairment of acquired intangible assets and goodwill.

Fair value movement on financial derivatives

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.

Unwind of discount in respect of contingent consideration

Adjusted profit excludes the unwind of the discount in respect of the contingent consideration on the acquisition of WITec.

Adjusted income tax expense

Adjusting items include the income tax on each of the items described above.

Reconciliation of changes in cash and cash equivalents to movement in net cash after borrowings

	2023 £m	2022 £m
Net increase/(decrease) in cash and cash equivalents	**13.5**	(12.2)
Effect of exchange rate fluctuations on cash held	**0.3**	2.3
Movement in net cash in the year	**13.8**	(9.9)
Covid-19 loan at WiTec acquired	**-**	(1.8)
Repayment of borrowings	**0.5**	-
Net cash after borrowings at the start of the year	**85.9**	97.6
Net cash after borrowings at the end of the year	**100.2**	85.9

Reconciliation of net cash to Statement of Financial Position

	2023 £m	2022 £m
Covid-19 loan at WiTec	**(1.3)**	(1.8)
Overdrafts	**(11.2)**	(8.7)
Cash and cash equivalents	**112.7**	96.4
Net cash after borrowings at the end of the year	**100.2**	85.9

2 Earnings per share

Basic earnings per ordinary share (EPS) is calculated by dividing the profit attributable to equity shareholders of the parent

by the weighted average number of ordinary shares in issue during the year, excluding ordinary shares held by the Employee Share Ownership Trust, which have been treated as if they had been cancelled. The weighted average number of shares used in the calculation is as follows:

	2023 Shares million	2022 Shares million
Weighted average number of shares outstanding	57.7	57.7
Less: weighted average number of shares held by Employee Share Ownership Trust	-	(0.2)
Weighted average number of shares used in calculation of basic earnings per share	57.7	57.5

During the year, all shares were transferred out of the Employee Share Ownership Trust, and the trust was subsequently closed. Therefore there are no shares held by the trust at 31 March 2023.

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.

The following table shows the effect of share options on the calculation of diluted earnings per share:

The following table shows the effect of share options on the calculation of diluted earnings per share:

	2023 Shares million	2022 Shares million
Number of ordinary shares per basic earnings per share calculations	**57.7**	57.5
Effect of shares under option	**0.7**	0.8
Number of ordinary shares per diluted earnings per share calculations	**58.4**	58.3

Basic and diluted EPS are based on the profit for the period attributable to equity shareholders of the parent, as reported in the condensed consolidated statement of income. Adjusted and diluted adjusted EPS are based on adjusted profit for the period, as reported in note 2:

	2023		2022	
	£m	**Pence**	£m	Pence
Underlying profit attributable to equity shareholders of the parent/underlying EPS	**58.6**	**101.6**	38.6	67.1
Total underlying adjustments to profit before tax (Note 2)	**8.5**	**14.7**	18.3	31.8
Related tax effects	**(2.1)**	**(3.6)**	(2.7) (4.6)	
Adjusted profit attributable to equity shareholders of the parent/adjusted EPS	**65.0**	**112.7**	54.2	94.3
Diluted underlying EPS		**100.3**		66.2
Diluted adjusted EPS		**111.3**		93.0

3. Segment information

The Group has nine 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. 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 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 based on 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. 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.

On 31 August 2021, the Group acquired 100% of the issued share capital of WITec which has been integrated into the Materials & Characterisation segment.

Depreciation	**2023 £m**	2022 £m
Materials & Characterisation	5.1	3.8
Research & Discovery	1.7	1.5
Service & Healthcare	-	0.7
Unallocated Group items	2.6	1.5
	9.4	7.5

Capital expenditure	**2023 £m**	**2022 £m**
Materials & Characterisation	28.6	11.4
Research & Discovery	2.7	1.7
Service & Healthcare	-	0.1
Unallocated Group items	1.0	0.7
	32.3	**13.9**

Amortisation and impairment	**2023 £m**	2022 £m
Materials & Characterisation	5.2	5.0
Research & Discovery	6.3	6.4
Service & Healthcare	-	-
Unallocated Group items	-	-
	11.5	11.4

Capitalised development costs	**2023 £m**	2022 £m
Materials & Characterisation	0.4	0.7
Research & Discovery	0.2	-
Service & Healthcare	-	-
Unallocated Group items	-	-
	0.6	0.7

Revenue	**2023 £m**	2022 £m
UK	29.4	20.2
China	107.4	103.9
Japan	46.7	39.0
USA	121.2	79.9
Germany	32.1	28.1
Rest of Europe	43.4	40.7
Rest of Asia	47.1	45.7
Rest of World	17.4	9.8
	444.7	367.3

Non-current assets (excluding deferred tax)	**2023 £m**	2022 £m
UK	189.6	182.8
Germany	34.8	32.7
USA	13.9	14.2
Japan	1.9	2.4
China	2.9	1.8
Rest of Europe	6.5	7.2
Rest of Asia	0.2	0.3
Rest of World	0.3	0.6
	250.1	242.0

Results

2023	**Materials & Characterisation £m**	**Research & Discovery £m**	**Service & Healthcare £m**	**Total £m**
Total segment revenue	234.5	139.4	70.8	444.7
Segment adjusted operating profit	40.5	18.0	22.0	80.5

2022	**Materials & Characterisation** £m	**Research & Discovery** £m	**Service & Healthcare** £m	**Total** £m
Total segment revenue	185.5	120.3	61.5	367.3
Segment adjusted operating profit	26.1	21.3	18.9	66.3

Revenue in the Materials & Characterisation and Research & Discovery segments represents the sale of products. Revenue in the Service & Healthcare segment relates to service income. No individual customer accounts for more than 10% of total revenue.

As at 31 March 2023, the Group had unfulfilled performance obligations under IFRS 15 of £319.6m (2022: £260.2m). It is anticipated that £303.0m (2022: £250.5m) of this balance will be satisfied within one year. The remainder is anticipated to be satisfied in the following financial year.

Reconciliation of reportable segment profit

2023	**Materials & Characterisation £m**	**Research & Discovery £m**	**Service & Healthcare £m**	**Unallocated Group items £m**	**Total £m**
Segment adjusted operating profit	40.5	18.0	22.0	-	80.5
Restructuring costs	(0.4)	-	-	-	(0.4)
Release of provision on disposal	-	-	0.4	-	0.4
Intellectual property litigation costs	-	(0.5)	-	-	(0.5)
Impairment of capitalised development costs	(0.8)	-	-	-	(0.8)
WITec post-acquisition gross margin adjustment	(0.5)	-	-	-	(0.5)
Amortisation and impairment of acquired intangibles	(3.1)	(6.2)	-	-	(9.3)
Fair value movement on financial derivatives	-	-	-	3.0	3.0
Financial income	-	-	-	2.7	2.7
Financial expenditure	-	-	-	(1.6)	(1.6)
Profit before income tax	35.7	11.3	22.4	4.1	73.5

2022	Materials & Characterisation £m	Research & Discovery £m	Service & Healthcare £m	Unallocated Group items £m	Total £m
Segment adjusted operating profit	26.1	21.3	18.9	-	66.3
Acquisition-related costs	(0.4)	-	-	-	(0.4)
WITec post-acquisition gross margin adjustment	(1.7)	-	-	-	(1.7)
Amortisation and impairment of acquired intangibles	(3.2)	(6.3)	-	-	(9.5)
Fair value movement on financial derivatives	-	-	-	(6.4)	(6.4)
Financial income	-	-	-	0.5	0.5
Financial expenditure	-	-	-	(1.2)	(1.2)
Profit/(loss) before income tax	20.8	15.0	18.9	(7.1)	47.6

4. **Research and development (R&D)**

The total research and development spend by the Group is as follows:

2023	Materials & Characterisation £m	Research & Discovery £m	Total £m
R&D expense charged to the Consolidated Statement of Income	**26.5**	**10.2**	**36.7**
Less: depreciation of R&D-related fixed assets	**-**	**(0.3)**	**(0.3)**
Less: amortisation and impairment of R&D costs previously capitalised as intangibles	**(2.1)**	**(0.1)**	**(2.2)**
Add: amounts capitalised as intangible assets	**0.4**	**0.2**	**0.6**
Total cash spent on R&D during the year	**24.8**	**10.0**	**34.8**

2022	Materials & Characterisation £m	Research & Discovery £m	Total £m
R&D expense charged to the Consolidated Statement of Income	23.0	9.8	32.8
Less: depreciation of R&D-related fixed assets	-	(0.2)	(0.2)
Add: amounts capitalised as fixed assets	-	0.3	0.3
Less: amortisation of R&D costs previously capitalised as intangibles	(1.8)	(0.1)	(1.9)
Add: amounts capitalised as intangible assets	0.7	-	0.7
Total cash spent on R&D during the year	21.9	9.8	31.7

5. **Acquisition of WITec**

On 31 August 2021, the Group acquired 100% of the issued share capital of WITec Wissenschaftliche Instrumente und Technologie GmbH ('WITec') on a cash-free, debt-free basis for consideration of €42m (£36.0m), of which €5m (£4.3m) was conditional on trading performance over a period of 12 months from the acquisition. The conditions for the deferred consideration were meeting certain revenue, order and margin thresholds. WITec is a leading designer and manufacturer of Raman microscopy imaging solutions, based in Ulm, Germany. The business has been integrated into the Materials & Characterisation segment.

Contingent consideration of £4.8m was paid during January 2023 based on the performance of the WITec business in the year to 31 August 2022. The difference of £0.5m between contingent consideration provided at acquisition and that paid in January 2023 was due to an adjustment to the net assets purchased.

Acquisition-related costs in the prior year of £0.4m (2021: £0.4m) were expensed to the Consolidated Statement of Income as an adjusting item in the administration and shared services cost line. There were no acquisition-related costs in the current year.

If the acquisition had occurred on the first day of the prior year the acquisition would have contributed revenue of £14.3m, adjusted operating profit of £2.8m and a statutory loss before tax of £0.3m to the Group's profit for the year ended 31 March 2022.

Income tax expense	**2023 £m**	2022 £m
Recognised in the Consolidated Statement of Income		
Current tax expense		
Current year	10.2	9.0
Adjustment in respect of prior years	0.3	(1.0)
	10.5	8.0
Deferred tax expense		
Origination and reversal of temporary differences	5.1	1.2
Adjustment in respect of prior years	(0.7)	(0.2)
	4.4	1.0
Total tax expense	14.9	9.0
Reconciliation of effective tax rate		
Profit before income tax	73.5	47.6
Income tax using the weighted average statutory tax rate of 21% (2022: 21%)	15.4	10.0
Effect of:		
Tax rates other than the weighted average statutory rate	0.3	0.1
Change in rate at which deferred tax recognised	1.0	0.6
Non-taxable income and expenses	(1.4)	(0.3)

Tax incentives not recognised in the Consolidated Statement of Income	-	(0.2)
Adjustment in respect of prior years	(0.4)	(1.2)
Total tax expense	14.9	9.0

Taxation (credit)/charge recognised directly in other comprehensive income		
Deferred tax - relating to employee benefits	(9.7)	6.8

Taxation credit recognised directly in equity		
Deferred tax - relating to share options	(0.7)	(0.2)

On 5 March 2021 it was announced that the rate of UK corporation tax would be increased to 25% from 1 April 2023. This change was substantively enacted on 24 May 2021. As such, the UK deferred tax assets and liabilities have been calculated based on the enacted rate of 25% as utilisation will occur after that date.

The Group carries tax provisions in relation to uncertain tax positions arising from the possible outcome of negotiations with tax authorities. The provisions have been calculated based on the probable outcome of those negotiations from a range of possibilities and assume that the tax authorities have full knowledge of the facts. 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.

7. Dividends per share

The following dividends per share were paid by the Group:

	2023 pence	2022 pence
Previous period interim dividend	-	4.1
Previous period final dividend	13.7	12.9
Current period interim dividend	4.6	4.4
	18.3	21.4

The following dividends per share were proposed by the Group in respect of each accounting period presented:

	2023 pence	2022 pence
Interim dividend	4.6	4.4
Final dividend	14.9	13.7
	19.5	18.1

The final dividend for the year to 31 March 2022 of 13.7 pence per share was approved by shareholders at the Annual General Meeting on 28 July 2022 and was paid on 23 August 2022. The interim dividend for the year to 31 March 2023 of 4.6 pence was approved by a sub-committee of the Board on 7 November 2022 and was paid on 13 January 2023.

The proposed final dividend of 14.9 pence per share was not provided at the year end and is subject to shareholder approval at the Annual General Meeting on 28 July 2023. It is expected to be paid on 22 August 2023, to shareholders on the register on the record date of 14 July 2023, with an ex-dividend date of 13 July 2023 and with the last date of election for the Dividend Reinvestment Plan (DRIP) being 01 August 2023.

8. Exchange rates

The principal exchange rates to sterling used were:

Year-end rates	**2023**	2022
US dollar	**1.24**	1.32
Euro	**1.14**	1.18
Japanese yen	**165**	160

Average translation rates

2023	**US Dollar**	**Euro**	**Japanese Yen**
April	**1.28**	**1.19**	**161**
May	**1.26**	**1.18**	**163**
June	**1.24**	**1.17**	**164**
July	**1.22**	**1.18**	**164**
August	**1.19**	**1.18**	**162**
September	**1.14**	**1.15**	**161**
October	**1.13**	**1.15**	**166**
November	**1.17**	**1.16**	**169**
December	**1.20**	**1.14**	**162**
January	**1.22**	**1.13**	**159**
February	**1.22**	**1.14**	**163**
March	**1.22**	**1.14**	**165**

Average translation rates

2022	US Dollar	Euro	Japanese Yen
April	1.38	1.16	152
May	1.40	1.16	153

June	1.40	1.16	154
July	1.39	1.17	153
August	1.38	1.17	152
September	1.36	1.16	151
October	1.36	1.17	153
November	1.35	1.18	153
December	1.34	1.18	153
January	1.35	1.19	155
February	1.34	1.20	155
March	1.33	1.19	157

9. Annual general meeting

The Annual General Meeting will be held on 28 July 2023. Detailed arrangements in respect of the AGM will be advised in due course.

10. Risk Management

Audit, risk and internal control Approach to risk management

Approach to risk management

An ongoing process for identifying, evaluating and managing the significant risks faced by the Group 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 in the Annual Report and Financial Statements. The current risk management and internal control systems have been in place throughout the financial year and up to the date of approval of the Report and Financial Statements, and are subject to annual review by the Board. In respect of the year ended 31 March 2023, the Board considered that these processes remained effective.

Summaries of our risk management framework and process can be found below and on page [XX], respectively.

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 at least a quarterly basis. The principal risks set out below 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 below. 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, this is reported 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.

Priorities during financial year ended 31 March 2023

During the year ended 31 March 2023 the principal priority was the integration of the processes for identifying, evaluating, and reporting on climate related risks and opportunities across the Group, as set out in the TCFD statement. These processes have been successfully integrated into the wider enterprise risk management processes and the detailed assessment of key risks using a standardised methodology, as performed by the business units across the Group.

In compliance with the Financial Conduct Authority's Listing Rule 14.3.27, the climate related financial disclosures consistent with the TCFD Recommendations and Recommended Disclosures have been included within the TCFD Statement in the Annual Report and Financial Statements, which also encompasses further information regarding the Group's exposure to climate related risks and opportunities.

Risk governance framework

The key accountabilities and features of our risk governance framework are set out below:

Operational Management Responsible for risk management and control within the business and, through the Management Board, implementing Board policies on risk and control.
Guided by the internal audit and assurance function, completes detailed risk reviews on a quarterly basis.

Internal audit and assurance 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 information regarding the scope of internal audit and assurance activities is set out below

Audit and Risk Committee Reviews the internal financial controls and systems that identify, assess, manage and monitor financial risks, and other internal control and risk management systems. More information regarding the work of the Committee can be found in the Report and Financial Statements

Board Oversees the internal control framework, and determines the nature and extent of the principal risks the company is willing to take in order to achieve its long-term strategic objectives. Ultimately accountable for approving the adequacy and effectiveness of internal controls operated by the Group.

Internal 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 prepares 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 internal audit and assurance function or are subject to separate review by subject matter experts where required (eg health and safety and product compliance).

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. Due to 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:

- a formal schedule of matters reserved to the Board for decision and specific terms of reference for each of its Committees; other than these matters, the Board delegates to the Chief Executive, who in turn reviews the delegation of authorities throughout the management structure;
- the Group's internal management beneath the Board is led 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;
- whilst financial executives within Group businesses report to their own operational head, there is also a well established and acknowledged functional reporting relationship through to the Chief Financial Officer;
- 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 prior year. They also prepare rolling reforecasts for orders, turnover, operating profit and cash. These 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 12 months against the original proposal is reviewed by the Board;
- internal audits are carried out through a system of regular reviews of the financial and non financial internal controls at each site. This is further explained in the Audit and Risk Committee Report in the Annual Report and Financial Statements
- the Board receives regular updates on pensions, sustainability, 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 Chief Financial Officer and the Group assurance function;
- 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 Chief Financial Officer;
- 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 customs; and as regards 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 to the members as they fall due.

Risk management process

The diagram below summarises our methodical approach to risk management. The principal risks and uncertainties detailed below are monitored utilising this risk management process.

Alignment with strategy

The broad range of potential factors which could impact the Group are considered and those which have a significant effect on its ability to deliver its strategy are determined to be principal risks and uncertainties.

Evaluation of risk

Careful consideration is given to:

i) the specific scenarios in which the risk could manifest; and

ii) the various potential impacts which the risk could present.

Mitigation implementation

Suitable management actions or robust control mechanisms are determined, developed and implemented.

Review risk

An embedded, cyclical process review:

i) determination of principal risks and uncertainties; and

ii) the effectiveness of the implemented mitigation mechanisms.

Emerging risks

The Board is required to complete a robust assessment of the company's emerging and principal risks and confirms that it performed such an evaluation during the financial year.

It is recognised that emerging risks can also be principal risks. A detailed description of the principal risks and the activities to mitigate these are set out below.

The identification and evaluation of emerging risks is derived from the Group's quarterly risk reporting framework. The output from the business units' detailed risk registers is reviewed by the Group Head of Risk and Assurance and the Chief Financial Officer every quarter. Any new risks reported by the business units are specifically identified and discussed as part of this process. Further, there is a formal review of emerging risks at the year end, with commentary provided to the Audit and Risk Committee as part of its review of the Group risk register and principal risks and uncertainties. No emerging risks have been identified during the latest review.

Principal risks and uncertainties

Principal risks are reported and discussed at every meeting of the Audit and Risk Committee. For Oxford Instruments, principal risks are generally those that could have a significant adverse impact on the Group's business model, financial performance, liquidity or reputation. The Audit and Risk Committee also considers emerging risks within the risk management framework. A formal review of emerging risks is conducted around the year end. For the year ended 31 March 2023, the output of this assessment was an increase in the level of geopolitical risk and a decrease in the level of risk relating to Oxford Instruments' legacy defined benefit pension scheme. . Further information is set out below. As set out above, no emerging risks were identified.

The principal risks and uncertainties are set out below.

A minor change in the Group's approach to risk management during the year ended 31 March 2023 was the update of the scoring matrix for key risks at Group level and amendment to the bandings for the estimated impact of a risk arising, albeit risks continue to be categorised in a matrix based on the expected likelihood of the risk arising and their estimated impact. Business units continue to perform a detailed assessment of key risks using a standardised methodology. This now includes climate related risks and opportunities, which were integrated into the wider enterprise risk management processes during the year ended 31 March 2023. The output is reported to the Group and is the basis for the compilation of the quarterly Group risk register by the risk management function, in collaboration with the Executive Directors. The resulting Group risk register is reported to the Audit and Risk Committee every quarter.

Principal risks and uncertainties matrix

To facilitate meaningful comparison of the relative importance of the principal risks and uncertainties at a Group level, these have been mapped onto a probability and impact matrix. This matrix includes arrows which indicate the change in the risk in comparison to the prior year's assessment. The methodology for mapping the risks uses the Group's assessment of the residual risk, being the probability of the risk occurring and the potential impact it may have, taking account of any mitigating actions and controls that have been implemented.

The output of this assessment is shown in the Annual Report and Financial Statements. The most significant risks are located in the top right quadrant of the chart, while those assessed as being the least significant are found in the bottom left. The chart shows that the Group's assessment of geopolitical risk has increased compared to the prior year, while the risk relating to pensions has decreased.

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The risk management process identified 13 principal risks which are set out below. The narrative provides a summary of the risk, explains why it is relevant to the Group and also sets out the potential consequences should the risk materialise, together with the mechanisms used for risk mitigation. Risks are managed by the Board and are not assigned an individual risk owner.

1. Geopolitical

Context: The Group operates in global markets
and is required to comply with relevant regulations including, but not limited to, sanctions, tariffs and export controls. Government policy on the export of specific technologies and the approval of particular end users is subject to foreign policy objectives which can change over time.

Risk

Changes in the geopolitical landscape or an escalation in global trade tensions resulting in major obstacles to trade with customers in key markets. This can arise from sanctions, export licence refusals, trade tariffs, trade embargoes, or nations seeking to reduce reliance on imports in strategic technologies through the development of domestic competition and/or protectionist measures. We are seeing tighter UK Government export control policy, particularly in relation to exports to China, resulting in an increase in export licence refusals. Furthermore, the business is exposed to changes in both US and German export licence regulations.

Possible impact
- A contraction in export volumes to key markets and consequential loss of revenue and reputational damage
- Restrictions on the provision of after sales service, leading to lower service contract revenues
- Reduced access to key markets may impact research and development (R&D) investment decisions owing to adverse impacts on business cases
- Lower net pricing to key markets adversely affecting marginal revenue
- Increases to input costs and lower gross margins

Control mechanisms
- Engagement with UK Government and regulatory authorities
- Contract review and protection against breach of contract should export licences be withheld
- Long term investment planning strategies

Mitigation
- Focus on lower risk markets and end users
- Broad global customer base; contractual protection
- Market diversification

Change in the year: no change

2. Supply chain

Context: The Group operates a global supply chain, sourcing from many suppliers across a wide range of categories. For certain technologies, there are limited alternative sources.

Risk

- Operational disruption or price increases, due to supply chain shortages, particularly in electronic components
- Suppliers de-committing orders due to their inability to supply as a result of internal production issues.
- Change of supplier ownership resulting in loss of supply
- Regulatory changes or economic viability causing suppliers to discontinue production, impacting the long-term availability of key components

Possible impact

- Short-term delays or hiatus in our production arising from component shortages
- Poor customer service
- Reputational damage
- Lost revenue
- Downward pressure on margins
- Increased lead times and potential of being unable to fulfil orders
- Increased stock holding adversely impacting cash conversion

Control mechanisms

- Sales and operational planning process
- Group strategic sourcing programme to consolidate demand and manage key supplier risks
- Sourcing of alternative options and/or buffer stocks in relation to high risk suppliers
- Long term contracts with key suppliers

Mitigation

- Strategic, selective and diversified supplier base
- Long term demand planning
- Buffer stock in extended supply chain
- Relationship management with key suppliers
- Responsive and adaptive engineering change process

Change in the year: no change

3. Routes to market

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

Risk

Vertical integration by OEMs

Possible impact

- Loss of key customers/routes to market
- Reduction in sales volumes and/or pricing and lower profitability

Control mechanisms

- Customer intimacy to match product performance to customer needs
- Positioning of the Oxford Instruments brand and marketing directly to end users

Mitigation

- Strategic relationships with OEMs to sell performance of combined systems
- Product differentiation to promote advantages of Oxford Instruments' equipment and solutions
- Direct marketing to end users

Change in the year: no change

4. New Product Introduction (NPI)

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

Risk

- Failure of the advanced technologies applied by the Group to produce commercially viable products

Possible impact

- 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

Control mechanism

- 'Voice of the Customer' customer listening approach and market intimacy to direct product development activities
- Formal NPI processes to prioritise investment and to manage R&D expenditure
- Product life cycle management

Mitigation

- 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

Change in the year: n/a

5 Market risk: Recession/inflation

Context: Demand from the Group's customer base may be reduced if there is a global contraction in investment in R&D and commercial investment. Further, global inflation may place upward pressure on key elements of the cost base such as labour and materials.

Risk

- Lower demand for the Group's products and services
- Rises in key cost drivers such as people costs, energy, components, and raw materials
- For sales of long lead-time items, requirement to make inflationary estimates when pricing, which may be inaccurate

Possible impact

- Decrease in sales volumes
- Increased cost of production leading to a reduction in operating profit if not offset by sufficient price increases
- Potential for under-recovery of increases if inflation estimates are too low, or reduction in order volumes if competitors do not react similarly

Control mechanism

- Strategic focus on growth markets
- Price reviews
- Inflation protection in commercial response to long lead-time tenders and long-term agreements

Ability to address inflationary pressures

- through price management reviews
- Reviews of key drivers of financial performance
-

Change in the year: no change

6 Information technology

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

Risk

- Cyber attack on the Group's IT infrastructure
- Ransomware/spread of viruses or malware

Possible impact

- System failure/data loss and sustained disruption to production operations
- Loss of business critical data
- Financial and reputational damage

Control mechanisms

- Suite of IT protection mechanisms including penetration testing, regular backups, virtual machines, and cyber reviews
- External IT security consultants
- Internal IT governance to maintain protection systems and our incident response
- Employee awareness training

Mitigation

- Managed service with third party security specialists providing incident monitoring
- Regular review, monitoring and testing of key security measures to assess adequacy of protection against known threats
- Upgrade of enterprise resource planning (ERP) and other internal systems
- End user education and phishing simulation exercises

Change in the year: n/a

7 Legal and regulatory compliance

Context: The Group operates in a complex technological and regulatory environment, particularly in areas such as export controls and product compliance. Competitors may seek to protect their position through intellectual property (IP) rights and the Group may at times experience unintentional regulatory or IP compliance issues.

Risk

- Infringement of a third party's intellectual property
- Regulatory breach

Possible impact

- Potential loss of future revenue
- Future royalty payments
- Payment of damages
- Fines and non financial sanctions such as restrictions on trade, exclusion from public procurement contracts Reputational damage

Control mechanisms

- Formal 'Freedom to Operate' assessment to identify potential IP issues during product development

- 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
- Product compliance teams

Mitigation

- Confirmation of 'Freedom to Operate' during new product development stage gate process
- Compliance monitoring programme over key risk areas

Change in the year: n/a

8. 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 cost base is predominantly denominated in sterling.

Risk

- Long term strengthening of sterling against key currencies such as the US dollar, Japanese yen and the euro

Possible impact

- Reduced revenue and profitability

Control mechanisms

- Treasury management of short term hedging programme
- Strategic management of currency exposure

Mitigation

- Review of supply chain currency base
- Active review of net exposure in key currencies

Change in the year: n/a

9. Global pandemic/catastrophe causes major disruption

Context: The Group operates in a global market. Supply and demand can be materially affected in the short-term by major global events such as pandemics, conflict or natural disaster.

Risk

Potential reduction in customer demand, disruption to supply chains and Group operations leading to cancelled orders / reduced order intake, delays in production, and/or installation at customer sites

Possible impact

- Lower delivery volumes and reduced order book leading to lower revenue and downward pressure on pricing
- Delays in both manufacturing and service activity leading to lost or delayed product and service revenue

Control mechanism

- Sales production matching and contract review process
- Horizon strategy to focus on attractive markets for long term growth
- Operational reviews
- Strategic review of location of service personnel compared to installed base

Mitigation

- Sales and operational planning processes
- Contractual protection
- Safe ways of working and changes to shift patterns to maximise capacity
- Remote service activities
- Strategic procurement, working with supply chain to mitigate risk

Change in the year: n/a

10. People and capability

Context: Delivering and protecting core capability and knowledge is a strategic priority for the Group.

Risk

- Challenges in attracting and retaining high quality talent in a tight labour market
- Shortage of key capabilities required to meet the Group's strategic priorities

Possible impact

- Salary inflation and/or additional recruitment costs
- Adverse impact on NPI
- Operational disruption
- Lower sales and profitability

Control mechanisms

Strategic focus on the employee experience, including career development, communications and competitive remuneration. to differentiate Oxford Instruments

Mitigation

- Talent management and succession processes
- Leadership and technical development programmes
- Hybrid and remote working policies to facilitate location-agnostic appointments
- Visa sponsorship registration for employee mobility
- Comprehensive internal communications
- Regular updates to benefits packages to maintain competitiveness

Change in the year: n/a

11. Business interruption: operational

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

Risk

Sustained disruption to production arising from a major incident at a site

Possible impact

- Inability to fulfil orders in the short term, resulting in a reduction in sales and profitability
- Additional, non-recurring overhead costs

Control mechanisms

- Contingency plans are in place for all manufacturing sites
- Contractual clauses to limit financial consequences of delayed delivery

Mitigation

- Detailed responses in contingency plans 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
- Business interruption insurance

12. Climate change

Context: Climate change generates both risks and opportunities. Our response needs to address risks and optimise opportunities. More detail on our approach is set out in our Task Force for Climate-Related Disclosures Report on pages

Risk

- The transition from fossil fuels to a low carbon/net zero economy may require significant changes in materials used and production methods that may impact our own operations and those of our suppliers
- Chronic changes in weather and extreme weather events may disrupt supply chains, operations, and logistics

Possible impact

- Rises in production costs and product development costs to reduce all
- CO_2 emissions linked to our products Delayed production and/or installation leading to delayed revenue
- Reputational damage or loss of investment arising from failure to anticipate or address climate risk
- More expensive freight and packaging costs

Control mechanisms

- Sustainability Committee
- Climate related risks and opportunities evaluation and reporting embedded in operating businesses
- Strategic sourcing
- Product compliance groups

Mitigation

- Product compliance teams have an established methodology to deal with changes to environmental regulations
- Investment in product development to capitalise on the opportunities for our key enabling technologies to help customers address climate-related challenges
- Investment in CO_2 reduction solutions

Change in the year: no change

13. Pensions

Context: The funding requirement for the company's legacy defined benefit pension scheme varies, based on investment performance and external factors.

Risk

The actuarial pension deficit is sensitive to movements in actuarial assumptions and returns on investments. The factors affecting these assumptions are influenced by wider macro economic factors that are largely outside of the Group's control

Possible impact

- Variations to the current deficit recovery plan
- Increase in the annual levy paid to the Pension Protection Fund

Control mechanisms

- Ongoing review of investment strategy, including active control of risk, by the trustee's investment sub committee
- Liability hedging programme to mitigate exposure to movements in interest rates and inflation
- Reduced exposure to equity markets

Mitigation

- The Group closed its UK defined benefit pension scheme to future accrual in 2010
- The Group has a funding plan in place to eliminate the actuarial deficit by 2025/26

Change in the year: no change

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