

Annual Report 2022

Transforming Tomorrow Together

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About us

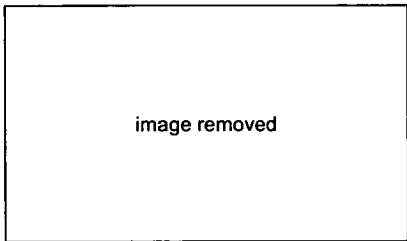
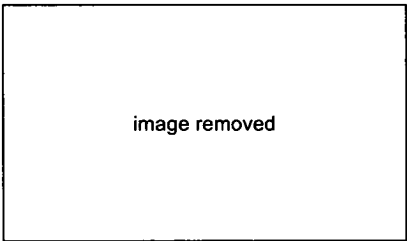
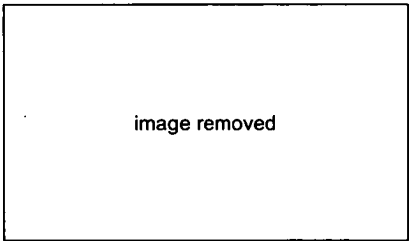
What we do and why

We're a world leading supplier of measuring systems and production systems. Our products give high accuracy and precision, gathering data to provide customers and end users with traceability and confidence in what they're making. This technology also helps our customers to innovate their products and processes.

We are guided by our purpose: Transforming Tomorrow Together. This means working with our customers to make the products, create the materials, and develop the therapies that are going to be needed for the future.

We believe that our purpose is incredibly relevant in today's environment where the pace of change in technology is faster than ever. We also know that the future will be a world of scarce resources, needing high-performance, intelligent, personalised solutions that make the best use of these resources, and our expertise can help deliver this.

Our vision is to innovate and transform the capabilities of our customers and end users through unparalleled levels of:

Precision	Productivity	Practicality
		

How we do it

While our vision sets our direction, our strategy is our route to getting there, and we set this out on pages 18 to 21.

Our purpose, vision and strategy are supported by our values. Our values guide the way we behave and the decisions we make, both as a business and as individual employees. Opposite, we explain each of our values and hear what they mean to some of our people.

Our values

Innovation

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We encourage our people to be innovative and challenge convention.



Innovation is a mindset, of continually challenging processes, products and systems, professionally and in everyday life."

Joel Canty
UK



Innovation goes beyond our products. In my team, we always look to improve the way we do things and the processes we use every day."

Faye Blackmore
UK

Integrity

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We should act with integrity at all times.



When we hold each other to account, we value the commitments we make to each other, and we keep ourselves collectively on track. Integrity can be hard but it's worth it."

Greg Nixon
UK



During last year's formal sale process I saw a very strong drive to make sure that we communicated – within the rules – to employees about some of the key developments. That, to me, was also a real sign of integrity because some companies would not have felt compelled to do that, but Renishaw did."

Jacqueline Conway
UK

Inspiration

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We should aim to inspire each other, our customers and the people we work with outside of the business.



Inspiration works both ways; sometimes each of us is a source of inspiration, and we can draw it from our colleagues and customers, getting ideas and motivation from them."

Enrico Orsi
Italy



I really think that it's very important to get ideas from your colleagues and to learn from other cultures."

Ariadna Herrojo
Spain

Involvement

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We encourage everyone to be fully involved and to support each other in contributing to the success of our business and the communities we operate in.



Whichever part of Renishaw you work in, you're involved. We all make a difference."

Steve Oakes
UK



I think that everyone's opinion counts and is valuable."

Roberta Capano
Spain

Renishaw at a glance

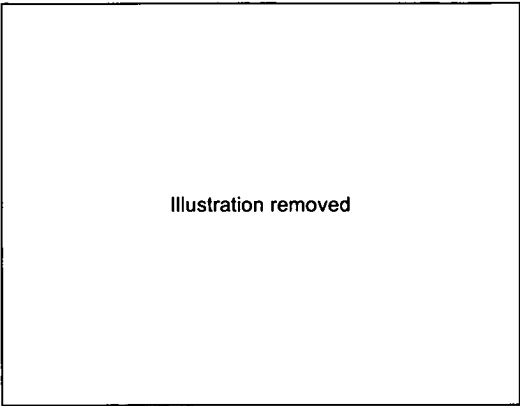
Global business, local service

Where we operate

We work closely with our customers to solve complex engineering and science challenges and improve products and processes. We're a global business, with three sales regions; the Americas, EMEA, and APAC. Most of our R&D work takes place in the UK, with our largest manufacturing sites located in the UK, Ireland and India.

We have two operating segments: Manufacturing technologies, and Analytical instruments and medical devices.

Opposite is a summary of what each segment does, and you can find more details on pages 28 to 38.



Sales and marketing regions

Americas

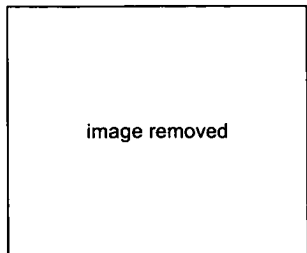
Sales and marketing locations

7

Total revenue

£148.3m

Leo Somerville
President,
Americas



EMEA

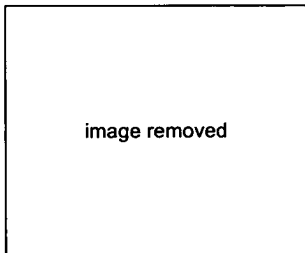
Sales and marketing locations

21

Total revenue

£205.8m

Rainer Lotz
President,
EMEA



APAC

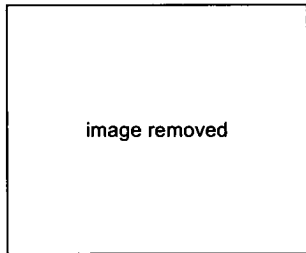
Sales and marketing locations

28

Total revenue

£317.0m

Andy Buttrey
President,
APAC



Group including manufacturing and R&D

• Key locations

65

Total revenue

£671.1m

Will Lee
Chief Executive

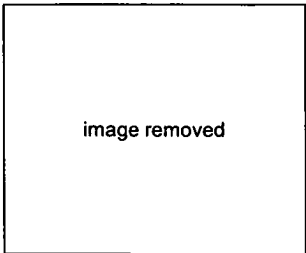


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Manufacturing technologies

This segment helps improve and automate high-tech manufacturing operations.

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Industrial Metrology

Products include our measurement systems for co-ordinate measuring machines (CMMs), gauging systems, and probes for use on machine tools such as lathes and milling machines. We also sell styli, the part of the measuring system that makes contact with the measured parts, and fixtures that help secure those parts in place.

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Position Measurement

Our encoders are devices which give fast feedback on linear and rotary positions of machines. Our calibration products help manufacturers know whether their machines are working as intended.

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Additive Manufacturing (AM)

Our Additive Manufacturing machines use laser powder bed fusion to create metal 3D parts from digital files. Thin layers of material are used to create complex shapes that cannot be produced by traditional manufacturing such as casting, forging and machining.

Analytical instruments and medical devices

This segment uses our innovative technologies to bring precision, productivity and practicality to materials analysis and neurological therapies.

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Neurological

Products include our drug delivery system, which helps treat neurological conditions, and our stereotactic robot that's used in neurosurgery.

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Spectroscopy

Our Raman spectroscopy systems analyse materials in the laboratory and in the field. The systems help gather chemical and structural information, which customers use to identify the materials in a sample.

► You can find more information about Manufacturing technologies on pages 28 to 34.

► You can find more information about Analytical instruments and medical devices on pages 35 to 38.

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Financial and operational highlights

Revenue

£671.1m

(2021: £565.6m)

Adjusted* profit before tax

£163.7m

(2021: £119.7m)

Statutory profit before tax

£145.6m

(2021: £139.4m)

Total dividend for the year

72.6p

(2021: 66.0p)

Graduates and apprentices employed

296

(2021: 223)

Research and development investment

£59.4m

(2021: £58.6m)

* Note 29, Alternative performance measures, defines how Adjusted profit before tax is calculated.

We use abbreviations and trade marks within this document. For brevity, we don't define or identify these every time they are used; please refer to the glossary on page 182 for this information. We've changed how we refer to years in our narrative commentaries in this report. As an example, FY2022 means the financial year ended 30 June 2022. Other dates in our narrative commentary, such as 2022, means the 2022 calendar year.

Strategic Report

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Precision

British Cycling races ahead with precision technology

Wanting to improve the performance of their new Olympic track bike, British Cycling turned to Renishaw to support Lotus Engineering and Hope Technology in producing additively manufactured parts.

We initially used our AM expertise to quickly produce prototype parts for aerodynamic testing of the new design. This helped to ensure that parts were light, geometrically correct and strong enough to endure the strain from riders. After proof of concept, we then made aluminium and titanium parts, such as handlebars, for the competition bikes, with these parts being customised for each cyclist.

"When you do something new and brave you have lots of difficulties to overcome and that is where Renishaw has been fantastic. The Renishaw team has worked with the engineers to do the refinement at break-neck speed. In the past it would take months to go from the drawing board to a piece that you could try in the test rig or in the velodrome, and now we can do it in weeks."

Great Britain Cycling Team (UK)

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► Scan the QR code
to watch the video

Chairman's statement

Achieving record results

Sir David McMurtry
Executive Chairman

Introduction

I'm delighted to report a record year for both revenue and Adjusted* profit before tax. Our revenue for FY2022 was £671.1m. This was 19% higher than FY2021 revenue of £565.6m and was achieved against a backdrop of a global recovery in all our key markets. Adjusted profit before tax was £163.7m (FY2021: £119.7m), an increase of 37%. Statutory profit before tax was £145.6m (FY2021: £139.4m). Both revenue and Adjusted profit before tax are consistent with the trading update we provided in May.

Our performance has been built on years of strategic focus. We've developed the innovative products required to meet the challenges faced by manufacturers in growing markets, while ensuring that we have the global infrastructure and skilled people to deliver those opportunities. The right products, the right place and the right people – all helping us to deliver on our purpose of Transforming Tomorrow Together.

What is clear to me is that these record results couldn't have been achieved without the huge commitment of our employees, who have faced enormous personal and professional challenges over the course of the pandemic. They worked tirelessly during the year to serve our customers in the face of strong demand for our products and considerable supply chain challenges. They have made me very proud, and I would like to convey my thanks and that of the Board, for everything that they've achieved.

After the end of the formal sale process (FSP) in July 2021, John Deer and I made it clear to the Board and our employees that we remain committed to Renishaw. I do not doubt that the process caused some uncertainty among our employees, and we are very grateful for the commitment they've demonstrated to Renishaw. As a Board, we were encouraged with how well everyone delivered 'business as usual' during the process, and I feel this excellent set of results demonstrates this, as well as underlining the strength of our business.

Board changes bring new experience to Renishaw

A strong and experienced Board is essential to the success of a complex, global business like Renishaw and I'm delighted with the new appointments that were made during the year. I would firstly like to thank Carol Chesney and John Jeans, who, during the year, stepped down from the Board as Non-executive Directors after nine years' service. In their place we've appointed Juliette Stacey, currently Senior Independent Director at Fuller, Smith & Turner plc, and Stephen Wilson, currently Chief Executive of Genus plc. Juliette brings extensive experience with her strong finance and leadership background, while Stephen brings strategic, financial and business development experience in the software sector.

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Sir David McMurtry talks to attendees at our Investor Day in May 2022.

We remain committed to high standards of corporate governance. We always consider key stakeholders when making decisions, in the belief this will protect our business and its long-term sustainable success. Further details are provided in the Directors' Corporate Governance Report on pages 72–81 and our Section 172 statement on pages 66–68.

Responding positively to a new world

Last year I wrote about the profound changes to our society, trading environment and business practices brought about by the pandemic. We have positively embraced those changes and the opportunities that they have presented for growth and to increase focus on employee welfare. It seems to me that our vision of transforming capabilities in manufacturing, science and healthcare through precision, productivity and practicality is absolutely relevant to helping meet societal needs in the coming years.

We've also responded positively to the global challenges of climate change. We have achieved significant reductions in our carbon emissions in recent years (see page 57) but as a large business with a global footprint, we want to make a step change in our efforts.

This year, the Board approved significant commitments to help deliver this step change, and Will Lee explains our Net Zero commitment in more detail on page 9. I am acutely aware that society has high expectations of companies like ours when it comes to setting environmental targets, and I'm pleased to see that we've made this commitment. The Board is determined to ensure that we make meaningful, measurable progress. That's why we will have our targets verified by the independent Science Based Targets initiative, and we will not succumb to 'greenwashing'.

As part of our sustainability commitments, our new Sustainability Committee identified three of the UN's Sustainable Development Goals (SDGs) that are most relevant to our business. The Board agreed that we should link our sustainability commitments and targets to these goals, demonstrating our support for decent work and economic growth, responsible consumption and production, and climate action. We're now developing a plan on how we will measure our progress against these SDGs.

Continuing to embed our values to support our culture

As I mentioned in my introduction, our employees have continued to demonstrate resilience throughout the pandemic. This has highlighted the importance of our strong working culture, underpinned by our core values of innovation, inspiration, integrity and involvement.

This year we've continued to actively communicate and embed these values across the business, from policy documents and training materials, to the careers pages of our corporate website. These values embody our culture, where our people are encouraged:

- to be innovative and challenge convention;
- to always inspire each other, our customers and our wider communities;
- to act with integrity; and
- to be fully involved and support each other in contributing to the success of Renishaw and our communities.

Ensuring these values were well communicated and understood was particularly important to the Board. We listened to feedback from workshops across the business, and Will helped launch the communications campaign.

Recognition and reward is an important way that a company can embed its values. That's why, towards the end of the year, we launched a global competition encouraging teams to share how they demonstrate our values in action. Our Executive Committee will select one winning team per value, with each team choosing a charity to receive a £5,000, or local currency equivalent, donation.

As part of our value of involvement, we are committed to equality and diversity at all levels of the Company. Our UK Diversity & Inclusion group continued to produce thought-provoking awareness campaigns throughout the year, including a focus on sexuality and gender, disability, and how inclusion drives understanding in the workplace.

Looking ahead

While there continues to be some global uncertainties due to the geopolitical environment and rising costs for consumers and manufacturers, the last two years have demonstrated the great resilience of our business and people. I therefore feel that whatever challenges and opportunities we may face in the coming years, we'll be able to respond positively and continue to deliver on our purpose.

Sir David McMurtry
Executive Chairman

15 September 2022



* Note 29, Alternative performance measures, defines how Adjusted profit before tax is measured.

Chief Executive's review

Global success from a solid strategy

Will Lee
Chief Executive

Last year I spoke about the strong position that we were in to take advantage of the many opportunities presented by the global recovery in our markets. We've capitalised well on those opportunities this year, delivering the best set of financial results in our history. It wasn't easy, however, and our people around the world have had to work incredibly hard to deliver these record results given the huge challenges we have faced.

The rapid upturn in the global economy placed supply chains under great stress, with serious shortages of electronic components. Combined with strong demand and a highly competitive labour market, we faced significant challenges in meeting our customers' needs. Our teams responded brilliantly, increasing output and re-engineering certain products when components weren't available. Our work over the past few years to build our inventory levels also helped us overcome these problems.

This record set of results also clearly demonstrates that our business is in an even stronger position than when we launched the FSP last year, and we continue to be confident in our strategic direction.

Having introduced our new purpose, vision and strategy last year, I'm encouraged by how well we've embedded these in the business this year. Our purpose of Transforming Tomorrow Together has helped guide us this year, reinforcing the importance of working with our customers to help them make the products, create the materials, and develop the therapies that will be needed for the future.

A record set of results driven by strong revenue growth

As Sir David has said, we've achieved a record set of results. We had strong revenue growth in all regions, with the strongest growth in our Manufacturing technologies segment. This has been driven by increased investments in the semiconductor and electronics sectors, and demand for industrial automation due to skills shortages and labour costs. In our Analytical instruments and medical devices segment, our spectroscopy products also achieved record revenue with growing research and industrial applications for Raman microscopy.

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Our revenue for the year ended 30 June 2022 was £671.1m, compared with £565.6m last year. This is a direct result of our new strategy, that builds from our existing strength in working closely with our customers to develop the products they need to grow. Our ability to make these products in-house to tight timescales, while offering local support as a global business, has been essential to our success this year.

We achieved record Adjusted* profit before tax of £163.7m compared with £119.7m last year, and this means Adjusted* earnings per share was 185.5p compared with 132.0p last year. Adjusted measures are the ones we use as a Board to measure our underlying trading performance, and we're pleased with our improvements given that we've faced significant increases in some production costs and made investments in pay and reward.

Statutory profit before tax for the year was £145.6m compared with £139.4m last year, leading to Statutory earnings per share of 165.4p compared with 153.2p last year. Allen Roberts, our Group Finance Director, provides more detail of our financial performance on pages 24 to 27.

Excellent progress in our customer-focused strategy

Our strategy is designed to deliver sustainable, profitable growth by ensuring we have the agility and resources to identify and respond to opportunities in our markets. I'm really encouraged with the progress our two segments have made here this year, and in the four strategic pillars (see pages 18 to 20) that support our segments.

As I mentioned above, our teams have gone above and beyond this year to support our customers. Many of the markets we work in have experienced a rapid and significant recovery from the economic effects of the pandemic, and our approach of providing local support to our customers has helped us to respond to this.

We've continued to launch new products, such as an ultrasonic probe for REVO (our market-leading multi-sensor system for CMMs). Ultrasonic probes offer an advantage over traditional tactile probes for parts where it's hard to access internal features, such as drive shafts and hollow aerospace blades. This is a great example of what we already do so well; understanding the problems our customers are having and then using our expertise to make a product that helps them solve the issue.

We've also continued to improve our existing products. When it launched last year, our NC4+ Blue set the standard for non-contact tool setting, thanks to its industry-first blue laser. We've since launched the next generation product this year. Both this and the RUP ultrasonic probe demonstrate how we can grow our business by developing products in our existing markets.

This innovation, and our approach of building a long-term relationship with customers, is helping us to gain new customers and outperform market growth. I'm particularly proud of the success of our Encoder business this year, gaining key customer accounts in recent months and not just in the semiconductor sector.

As part of how we're moving into new markets we've also expanded our offer to customers this year. We've been working on making more of our products compatible with third-party software, such as our popular Equator gauging system. Doing this helps us open new opportunities in areas where customers and end users may already be using a different software system.

Our design and engineering teams have made good progress this year with our flagship product projects. These are the ones we prioritise because the products are most important to our long-term growth, or where we expect them to bring significant revenue growth quickly. One of our first flagship products to launch last year was FORTiS, our enclosed encoder for use in machine tools. One of our strategic priorities is to develop non-substitutional products in adjacent markets, and FORTiS is exactly this. It's been really well received by our customers and again shows how we can grow our business within new markets.

The skills and flexibility of our manufacturing teams have been central to achieving this success. We've recruited around 300 people into these teams this year, and significantly increased our productive hours ahead of this rise in headcount. This in-house manufacturing expertise means we've been able to meet the rising demand this year while still maintaining our exacting standards, and have kept our gross profit margin at 53% (FY2021: 52%) despite the global rise in costs, such as raw materials, gas and electricity.

Sustainable, responsible business

We're committed to being a responsible business in everything we do, and want to ensure that our people understand their role in achieving this. This year we introduced 'Responsible Renishaw', our global umbrella brand for compliance matters, guiding our people to do business responsibly in line with our value of integrity. We launched the new brand with a week of focused communications, and 'Responsible Renishaw Week' will now be an annual event.

Following the Russian invasion of Ukraine in February 2022, we immediately stopped the supply of goods from the Group to Russia and certain parts of Ukraine. We have now ceased our operations in Russia. Although we've spent many years growing our business in Russia and were conscious of the effect this would have on our employees in Moscow and Perm, it was the right decision to make. We are also actively managing any attempts to procure our products through alternative routes.

Sustainability is an integral part of our business. It's at the heart of our purpose of Transforming Tomorrow Together, working with our people, customers, suppliers and communities to create a more sustainable world. This year, we've committed to a science-based Net Zero emissions target of no later than 2050 for our entire business and a target of 2028 for Scope 1 and 2 emissions.

For us, Net Zero means achieving a 90% reduction in greenhouse gas (GHG) emissions compared to our FY2020 baseline emissions. For the remaining 10% of emissions, we will invest in credible carbon offsetting and removal programmes. Although we've set an overall target of achieving Net Zero by 2050, we expect we can do more. We've therefore set ourselves a target of measuring our Scope 3 emissions by March 2023, with the aim of then setting an earlier target year for achieving Net Zero for all our emissions.

The move to Net Zero also represents many opportunities for our business, since our products positively contribute to our customers' own sustainability ambitions, by reducing energy consumption and minimising waste.

* Note 29, Alternative performance measures, defines how Adjusted profit before tax is measured.

Chief Executive's review continued

Our success is testament to our people

Sir David has already acknowledged the huge contribution of our employees during another highly challenging year. I'd also like to add my own thanks for everything that they did to help achieve this record year for the business. With such significant sales growth and supply chain pressures, we've been stretched in many operational areas. Nonetheless, I've been inspired by the resilience, skill, dedication and innovation shown by our people this year.

We've made excellent progress this year on responding to feedback from our people, and have focused on modernising our approach to pay and reward, improving our performance reviews, and supporting career progression. The Group-wide pay benchmarking review is a major part of this. As a result of the reviews to date, and excluding other factors such as headcount growth, we expect our labour costs to increase by around £19m in FY2023 compared with FY2022.

To support our growth, we welcomed over 400 additional people into our business, ending the year with around 5,100 people across the world. We continue to take a long-term view and plan for the future success of the Group, so this year we recruited nearly 150 apprentices and graduates, and also took on more than 40 industrial placements. Having started here as a sponsored student myself, I know we've always been committed to developing our people to both build and retain their skills within the business. This includes supporting people through further study, with more than 200 colleagues currently enrolled on apprenticeship programmes.

COVID-19 update

We continue to monitor the impact of COVID-19 on our people and business, and retain some measures designed to minimise the risk of in-company transmissions. However, most of our operations are now operating on a more normal basis. We were affected by the spring lockdowns in China, with our local headquarters in Shanghai closed for two months, but were able to respond well to this. For example, we used technical webinars to stay in touch with customers, and used our extensive network of offices and employees across the country to supply key customers and satisfy urgent orders.

I'd like to recognise the huge efforts made by colleagues in China throughout this challenging period.

Although the pandemic has clearly been a difficult time for so many people, I think it's important to reflect on what we've learnt from it. We've demonstrated our resilience, and the ability and dedication of our people to respond to rapid changes. We've been able to make better use of digital technology to work with each other, our customers and our suppliers, meaning we can work in a more environmentally conscious way by travelling less. More digital engagement with customers is also opening up more sales opportunities, and our online sales are growing too.

Outlook

We have made a positive start to FY2023 and our order book remains strong. We have, however, recently seen a weakening in order intake from the semiconductor and electronics sectors, and general market sentiment is becoming more cautious. In light of this, we are managing costs carefully and focusing on productivity.

Having strong cash reserves also helps us take a long-term view and weather shorter-term challenges. We believe our markets offer very positive long-term growth opportunities, and that we're making the right investments to benefit from them. We have some innovative new products in the pipeline to support our growth in new and adjacent markets with both machine builders and end users.

The work I noted above on retaining, rewarding, and developing our people to fulfil their potential is a critical part of delivering our growth plans. Having seen what our people have already achieved this year, I know this potential is enormous.

Overall, I'm confident in our strategy and the actions we're taking to deliver sustainable, long-term growth, and I look forward to the year ahead.

Will Lee
Chief Executive

15 September 2022



We launched the second generation of our innovative FORTIS enclosed encoders this year.

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Our investment case

We're a leading provider in our markets and believe that global trends offer significant growth opportunities.

Innovation has always been at the heart of what we do, and we have a substantial IP portfolio that supports our growth and builds barriers that competitors cannot easily overcome. We take a long-term approach, integrating our innovative products into a range of machines. By supporting machine builders and end users we develop trusted relationships and recurring business.

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Global presence

We base ourselves close to our customers, giving us good access to local markets and ensuring that we can provide local support for customers and end users and build trusted relationships with them. Our global presence means we're well placed to satisfy demand wherever it arises. This mitigates the risk of changing global trends while allowing us to make the most of the opportunities that these trends offer.

With our main manufacturing sites in the UK, Ireland, and India, and purchasing teams spread across the globe, we're also well positioned to respond to global supply challenges.

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Proven innovators

Innovation is part of our heritage and culture, and we've been transforming technology since our inception in 1973. We've always understood the value of our IP, now holding nearly 1,800 patents, and we reinvest a significant proportion of our revenue into R&D.

Our technology is focused on delivering precision, productivity and practicality to customers, which, in turn, helps them to innovate and transform capabilities in manufacturing and healthcare. We also apply innovation to our own processes, with our RAMTIC system being an example of transformative quality and productivity in manufacturing, ensuring we can manufacture high-quality products with high profit margins.

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Market opportunities

All our product groups are underpinned by strong market opportunities. These product groups have some common long-term growth drivers, such as the need for more automation as skills shortages bite, and the need for more efficient and higher performance products.

More specific growth drivers provide further opportunity for specific product lines, such as:

- the increasing demand for more powerful and rapidly upgraded consumer electronics products.
- the need for innovative new therapies in healthcare for a growing global population.
- the reshoring of manufacturing.

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Strong financial record

Our approach of in-house innovation and manufacturing, to sell market-leading products and services, allows us to generate high margins and then reinvest. We've primarily grown organically and financed this growth with our own reserves.

We have a robust balance sheet, with significant cash reserves to fund future growth.

This solid financial base has also meant that we can focus on taking a long-term view and helps us to weather shorter-term economic challenges. It also supports our progressive dividend policy.

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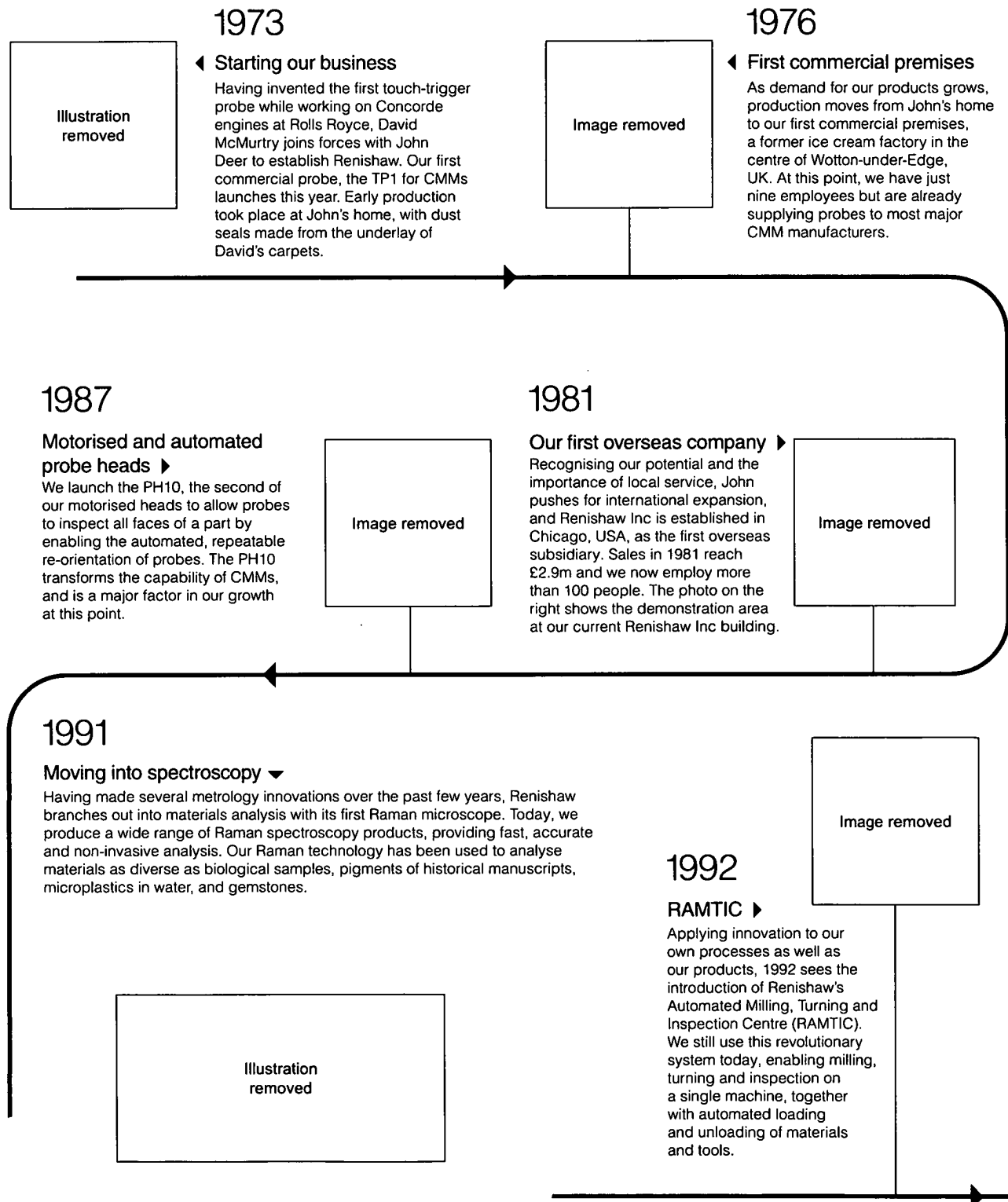
Sustainable business

As a business that has always taken the long-term view, we've worked hard to develop sustainable operations. For example, we've invested in self-generation of electricity at our larger sites and purchase most of our remaining electricity from renewable sources. Our Net Zero commitment promises that we'll go even further.

Our products improve manufacturing efficiencies and reduce waste for our customers, supporting them to build a more sustainable future. This provides us with strong growth opportunities as other businesses adopt a more concerted approach to sustainability.

Our history

Pioneers since 1973



2022

A record year for graduates and apprentices

Having launched our apprenticeship and sponsored student programmes in 1979 and 1984 respectively, we have a proud history of developing people from within the business. This year we've welcomed 60 apprentices and 85 graduates, representing a record year.

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2018

◀ Additive manufacturing

We launch the RenAM 500Q metal 3D printer in 2018. It is the smallest quad-laser powder bed fusion machine on the market. This enables high productivity and lower costs per part, plus a new level of build quality with its novel gas flow.

Image removed

2012

◀ RESOLUTE

Our RESOLUTE encoder delivers a huge leap forward in absolute encoder performance, enabling nanometre resolution at 100 m/s. It has since proved a great success in many different motion control applications. Our recently-launched FORTIS enclosed encoder takes this a step further, extending this performance into harsh environments, such as machine tools.

Image removed

2011

Equator ▼

We introduce the Equator in 2011 – the world's first flexible gauge and a category creator. It combines super-fast scanning with a robust comparison process. This delivers highly repeatable, thermally insensitive, versatile, and reprogrammable gauging to the shop floor.

2000

Advances in machine tool probes ▼

We launch the OMP40 in 2001, building on our expertise in machine tool probes developed over the past two decades. Machine tool probes help users to inspect parts and set up machine tools, vital for helping manufacturers reduce scrap and improve productivity. Its outstanding performance means the OMP40 is still a popular choice for customers today.

Image removed

Image removed

2005

◀ REVO

We launch the REVO 5-axis head – a breakthrough innovation. The REVO enables a 10x increase in tactile measurement speeds, to significantly reduce inspection times, and simplified stylus set-up and calibration. Today, we are adding other sensor types to reduce the range of different quality assurance equipment needed by customers to fully inspect complex parts.

Illustration removed

Our markets

Our customers rely on our products and processes to help them solve complex engineering and scientific challenges. They help make everything from smartphones to solar panels, jet engines to dental implants.

Like every global business, demand for our products is affected by a range of global economic trends:

- **rising energy costs** – businesses want products that help them both maximise production and lower costs;
- **global competitiveness and greater efficiency** – customers are looking for cost-effective products that improve manufacturing efficiency and reduce scrap/rework;
- **global pandemic, skill shortages and rising labour costs** – customers are increasingly interested in automation, robotics and easy-to-use technology to help them manage these challenges;
- **near-shoring and reshoring** – global politics, trade tensions and supply chain concerns are pushing up investment in new localised manufacturing facilities. In markets with high labour costs, these issues are also driving interest in automation and robotics; and
- **Net Zero commitments/sustainable manufacturing** – more customers are setting sustainability targets and looking for products that maximise efficiency, while reducing emissions and waste. This is also driving interest in digital tools and data to create more sustainable ‘smart’ factories.

Here, we outline our principal markets and the specific issues driving demand for our products.

Automotive

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Although investment in internal combustion engine (ICE) vehicles is reducing, research and production of hybrid and electric vehicles is rising. Like the ICE industry, customers in this relatively new sector rely on precision parts and automated processes throughout the supply chain to help them achieve ever more demanding performance targets. These customers are also looking for products that help drive down their manufacturing costs.

Meanwhile, vehicle design life cycles are falling, driving demand for more flexible manufacturing processes and precision measurement tools.

Many key components in domestic and commercial ICE vehicles are subject to process control that relies on our products.

We expect demand in this market to fall over time as more governments introduce bans on ICEs. However, we see multiple opportunities to counteract that decline with higher value products as the hybrid and electric vehicle (EV) market grows. These are used throughout EV manufacture, including inspecting electric motors using our REVO and gauging systems, and Raman spectroscopy is used for battery research to increase vehicle range.

Aerospace and defence

Icon removed

We were born out of the aerospace business. The industry has changed a lot since then, but the twin drivers of efficiency and safety remain key. Customers are looking for greater fuel efficiency, lighter components and ways to reduce costs. Research into more sustainable aviation is also growing.

More recently, geopolitical tensions, including the war in Ukraine, are prompting increases in defence spending, as well as shortages in titanium, a significant proportion of which aircraft manufacturers source from Russia.

Despite the ongoing impact of COVID-19, we expect long-term growth in the civil aviation market, particularly in short-haul aircraft in Asia. The current geopolitical environment is likely to trigger higher global defence spending.

Our products are used throughout the aerospace and defence sector. Aircraft are highly complex structures with exacting safety standards. Key assemblies, from engines to wings to control systems and landing gear, rely on process control and post-process inspection using our products. This enables manufacturers to undertake repeatable, traceable and efficient work to the finest tolerances.

Electronics

Icon removed

The fast-paced consumer electronics market demands flexible manufacturing systems that can adapt to shorter life cycles, yet still deliver high-quality, high-volume components.

We are also seeing growing need for more complex integrated circuits and changes in the types of materials used. For example, smartphone manufacturers are switching from metal, to glass and ceramic, to improve 5G signal reception.

Rising labour costs are pushing up demand for automation, and supply chains are adapting rapidly to cope with emerging demand in new markets. This is also a response to supply uncertainty – particularly in semiconductors – caused by the COVID-19 pandemic and trade sanctions.

Consumer electronics is one of our largest sectors. Our encoders can be found inside equipment at all stages of semiconductor chip manufacturing – a highly demanding sector that relies on speed, precision and reliability.

Despite short-term uncertainty, we expect long-term growth for our encoder products with the introduction of new generations of electronic devices, localisation of semiconductor production, and the relentless increase in digitalisation. For example, in March 2022 Intel announced it would invest €80bn in Europe over the next decade.

Healthcare

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As global life expectancy rises, we are expecting pharmaceutical customers to need more, highly efficient products to help develop new treatments for neurological diseases and other age-related health issues. We therefore see opportunities for our drug delivery system which is being used in trials to develop drug therapies for neurological conditions, including Parkinson's disease.

In industrialised nations, rising obesity rates are pushing up demand for orthopaedic procedures. This provides opportunities for our Additive Manufacturing business, as AM produces lightweight, custom implants.

Meanwhile, the medical profession is looking for faster, more precise surgical therapies to reduce waiting times. Demand is also growing for more economical, patient-specific treatments, as well as medical robots and precision tool positioning to reduce human error. Our neurosurgical robot and planning software for brain surgery, which assist surgeons with precision tool positioning and implant placement, can benefit from this.

Our Spectroscopy products are also being used within the healthcare sector, including studies into early cancer detection. Our dedicated pharmaceutical analyser is also being used to formulate drugs more efficiently by speeding up the analysis of tablet composition and structure.

Power generation and resource extraction

Icon
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Whether fossil fuels, nuclear or renewable, the energy sector relies on key components, such as power transmission systems, generators and pumps, to efficiently deliver the power the world needs.

In wind and solar, customers are increasingly looking to maximise machinery efficiency, and are spending more on energy storage research, especially for electric vehicles. Our Spectroscopy business is well-placed to benefit from this, and our products are already being used for battery research.

Oil and gas equipment, meanwhile, must be manufactured to stringent safety standards, requiring accurate, cost-effective and traceable processes. The sector is also looking to improve the efficiency of large diesel engines typically used for transport and other production processes, which requires greater component accuracy.

Renishaw's products are used to control the production of many key components in this sector. The manufacture of large components for wind turbines, including blades and bearings, all require the use of our Industrial Metrology products, including probes on machine tools. Our optical encoders are also being used to control solar panel manufacture.

Heavy industry

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Customers are looking to increase agricultural yield to help feed a growing global population. They also want tools that will help them reduce their environmental footprint. Both are driving investment and demand for new machinery and 'smart' farming technologies, such as geo-mapping and automation.

Meanwhile, the construction industry is investing more in sustainable infrastructure to address its environmental impact. Equipment manufacturers are looking for increased automation to counteract skills shortages.

Many key components that end up in high-end agricultural equipment rely on process control using Renishaw's products.

We also make products that are used in high-value construction components, such as chassis in heavy earthmoving equipment, and that help design more reliable power plants with lower emissions. Our Raman spectroscopy systems support the identification of materials in geological samples.

Precision manufacturing

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Customers who make products that are used across a range of industries, such as robotics, laser-based manufacturing systems and steam energy systems, alongside the subcontracted manufacturers that support them, are faced with common challenges.

These include the increased demand for innovative new products with more complex parts, a shortage of skilled operators, tighter part tolerances to meet performance, aesthetics and safety requirements, and shorter product lifecycles.

This is one of our largest markets. Our Manufacturing technologies products are used throughout a host of production processes, including machinery calibration during build, process control and component measurement.

Demand for our Additive Manufacturing products is also rising as more customers are finding ways to use the technology to improve machinery performance.

We are also helping our customers to implement smart manufacturing and automation into their current operations using our technologies.

Our business model

We have a simple business model.

We work with our customers to understand their challenges and then design and manufacture products to solve them. Here's an overview of how our business model helps us focus our resources and strengths to deliver value for all our stakeholders.

Our resources

Icon removed

Customer relationships

Our trusted relationships with customers help us to understand their needs and design solutions to solve their challenges.

Icon removed

People

Our 5,100 talented people around the world are committed to delivering our purpose, vision and strategy.

Icon removed

Suppliers

Our global suppliers provide us with the high-quality components and materials we need, as well as supporting our infrastructure and operations.

Icon removed

Research & development

Our strong IP portfolio and significant commitment to R&D expenditure helps set us apart from competitors and delivers long-term value.

Icon removed

Financial resources

We've funded our growth and infrastructure by reinvesting our profits. We also have a strong cash position, helping us to fund future development and deliver our strategy.

Delivering value for...

Our customers

- £85.8m spent on developing new products and improving our existing products.
- Live and on-demand webinars available in up to 13 languages.

Our suppliers

- £166.5m spent on materials and services.
- £88.4m committed to capital expenditure projects.

Our communities

- £0.3m in charitable donations in the year.
- 11,000 students taking part in our STEM outreach programmes

Our people

- £254.4m in salaries, bonuses, social security and pension contributions.
- More than 200 new roles or vacancies filled by internal candidates this year.

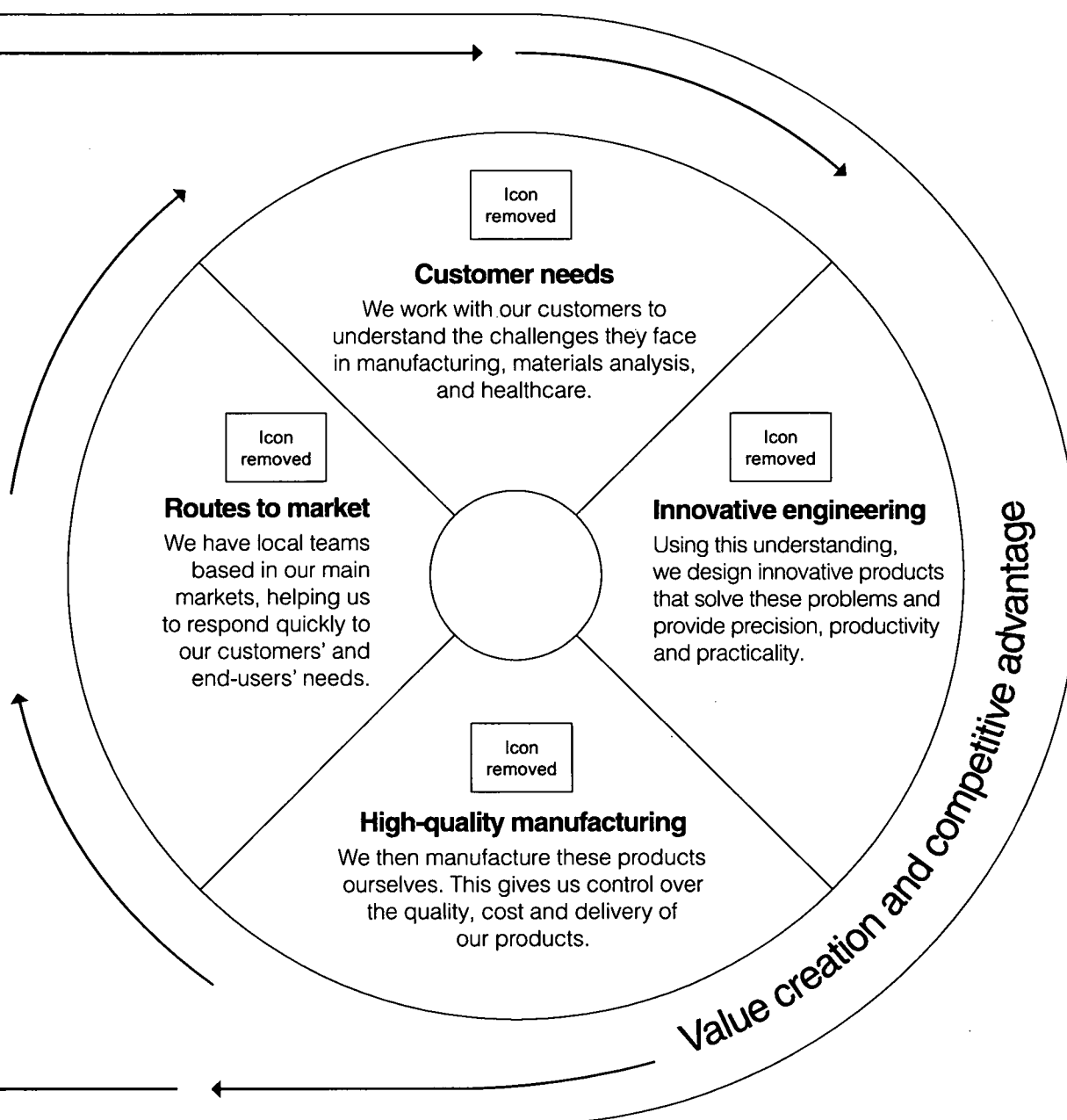
Our planet

- 5% reduction of our market-based statutory greenhouse gas (GHG) emissions.
- 10% increase in use of renewable energy.

Our shareholders

- 37% increase in Adjusted profit before tax.
- Total dividends of £52.8m for the year.





Our strategy for creating long-term value

Our strategy is designed to deliver sustainable, profitable growth that benefits all our stakeholders by ensuring we have the agility and resources to identify and respond to opportunities in our markets. We do this by focusing on four key strategic pillars: sales and marketing, engineering, manufacturing, and support services. These pillars are underpinned by our people and culture, and our commitment to sustainability, including our Net Zero commitment.

On the next three pages we explain the progress we've made in these areas this year. On pages 28 to 38 you'll find more detail about our segment strategies.

Our strategy



Illustration removed

Sales & Marketing

Icon removed

What we do

Support our customers' success, all round the world

Our priorities

- Ensuring we can provide quality, quick, global customer support.
- Maximising our opportunities in high-growth markets, such as semiconductors and electronics manufacturing.
- More integration with third-party software, to open up new markets.
- Moving into close-adjacent markets with our non-substitutional products, such as enclosed encoders for machine tools.

Our progress

- Exceeded our sales targets in all regions, with particularly strong growth in semiconductor and consumer electronics markets.
- Made our Equator gauging system available for use with a range of third-party software.
- Received positive feedback from our long-standing machine tool builder customers for the FORTiS range of enclosed encoders.

Link to KPIs

Revenue (£m)

Adjusted profit before tax (£m)

Statutory profit before tax (£m)

► Read more on pages 22–23

Link to risks

Our relevant principal risks for this area are marked **SM** on pages 42 to 49.

Engineering

Icon removed

What we do

Deliver innovative products and processes

Our priorities

- Completing our flagship product projects on time. These are products that either bring faster revenue benefits or are strategically important to the Group.
- Continuing to invest in new and disruptive technologies.
- Expanding our research teams, particularly in materials science, artificial intelligence and ASIC design.

Our progress

- Launched the REVO ultrasonic probe, the latest addition to our market-leading range of products for CMMs (see page 29 for more detail).
- Launched the second generation of our innovative NC4+ Blue non-contact tool setter.
- Four new ASICs now in full production, and used in both our Industrial Metrology and Position Measurement product groups.
- Redesigned current products when certain components weren't available due to supply chain disruption.

Link to KPIs

Total engineering costs (£m)

Adjusted profit before tax (£m)

Statutory profit before tax (£m)

► Read more on pages 22–23

Link to risks

Our relevant principal risks for this area are marked **E** on pages 42 to 49.

Our strategy for creating long-term value continued

Manufacturing

Icon removed

What we do

Provide quality products through cost-effective manufacturing

Our priorities

- Maintaining our quality standards.
- Responding to significant growth in demand.
- Improving our productivity to make better use of existing resources and maintain gross profit margins.
- Investing in our factories, to support long-term growth.

Our progress

- 40% increase in productive hours, from a 19% increase in production labour and overheads expense.
- Maintained production costs at 35% of revenue, despite well-publicised cost increases for raw materials, components and labour.
- Maintained 'safety stock' for certain critical components.
- Approved investment of around £64m to expand our site in Miskin, Wales. This will increase our global manufacturing floorspace by 55%.

Link to KPIs

Revenue (£m)

Adjusted profit before tax (£m)

Statutory profit before tax (£m)

► Read more on pages 22–23

Link to risks

Our relevant principal risks for this area are marked **M** on pages 42 to 49.

Support Services

Icon removed

What we do

Enable an efficient, intelligent, and responsible business

Our priorities

- Working as business partners to make sure that other parts of the business have the information and advice they need to make the right strategic decisions.
- Improving our IT systems to help our people to work more efficiently.
- Helping the Group meet its legal, regulatory and ethical obligations.
- Helping the Group manage its risks, to make the best use of our risk appetite and focus on sustainable growth.

Our progress

- Launched 'Responsible Renishaw', our global umbrella brand for compliance matters, including a central policy portal helping our people to find the information they need more easily.
- Provided virtual training on core IT topics and applications, helping people to work more efficiently and make better use of data.
- Created a Sustainability Committee to help deliver our Net Zero commitment and sustainability responsibilities in an efficient way. The Committee brings together representatives from across the business to work on our priorities.

Link to KPIs

Adjusted profit before tax (£m)

Statutory profit before tax (£m)

► Read more on pages 22–23

Link to risks

Our relevant principal risks for this area are marked **SS** on pages 42 to 49.

People and culture

Icon removed

What we do

Provide a great place to work, grow and contribute, to drive Renishaw's success

Our priorities

- Modernising our pay and benefits, to attract, retain, and motivate our people.
- Supporting career progression, to foster growth for our people.
- Simplifying our performance review process, to encourage better engagement and help people understand how their contributions support our strategy.
- Creating an inclusive culture with a diverse workforce in an environment that supports our people's wellbeing.

Our progress

- Launched our global salary benchmarking exercise in the UK. We expect to complete this across the rest of the Group by December 2022.
- Formed a career progression working group and started developing a new job grading framework.
- Introduced a simpler way for people to review their performance with their managers, with clearer overall gradings.
- Introduced more Diversity & Inclusion Champions across the Group, and approved an Equality, Diversity & Inclusion Lead role.

Link to KPIs

Global voluntary employee turnover (%)

Adjusted profit before tax (£m)

Statutory profit before tax (£m)

► Read more on pages 22–23

Link to risks

Our relevant principal risks for this area are marked **P** on pages 42 to 49.

Our sustainability commitment

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As a responsible business, it's up to us to act in a sustainable way so that we can achieve long-term revenue and profit growth while improving the social and physical environments that we work in.

This year we agreed a new Net Zero commitment to reduce our GHG emissions by 90% compared to our FY2020 baseline. We have committed to achieving this reduction in our Scope 1 and 2 emissions by 2028 and in our Scope 3 emissions by 2050 at the latest. We will address the remaining 10% of emissions through credible carbon offsetting and removal programmes.

While this commitment is new, we've been working to reduce our emissions for many years. Our largest manufacturing sites already have solar panels installed, for example, and we self-generate around 10% of the electricity we use.

As part of our broader commitment to sustainability, we also know we need to treat people fairly. As an employer, we want to ensure we create a working environment where everyone feels included. Our aim is to promote a culture that embraces our people's differences and our new Equality, Diversity and Inclusion Policy supports this. We're also committed to ensuring that the human rights of people working within our supply chains are protected. We do this by risk-assessing our suppliers and working with them to understand how they mitigate the risk of modern slavery and other rights-related issues.

This year we've selected three of the UN's Sustainable Development Goals (SDGs) as being the most relevant to our business, and where we believe we can make the greatest impact. These are Goal 8 – Decent work and economic growth, Goal 12 – Responsible consumption and production, and Goal 13 – Climate action.

Within the next year we'll create objectives and targets to meet the aspirations of these goals and report publicly on our progress.

Link to KPIs

Statutory emissions (tCO₂e per £m revenue)

► Read more on pages 22–23

Link to risks

Our relevant principal risks for this area are marked **S** on pages 42 to 49.

Key performance indicators

Our KPIs are used by the Board to track and measure performance progress. Our management teams also use other metrics to monitor and assess performance at more granular levels.

Key

F Financial **NF** Non-financial

Revenue £m

Chart removed

Why we measure this

Sustainable long-term growth is a key part of our strategy. Revenue growth helps increase our profits, which we reinvest in our business to deliver that strategy and use to pay dividends to our shareholders.

How we measure this

Revenue generated from operations, at actual rates of exchange.

How we performed

Revenue grew to £671.1m, an increase of 19% from FY2021, with growth in all regions.

This was driven by our Manufacturing technologies segment, with strong demand for our encoder products. We also experienced good growth in demand for our machine tool and co-ordinate measuring machine products.

Adjusted profit before tax £m

Chart removed

Why we measure this

This helps demonstrate the underlying trading performance of the business.

How we measure this

We adjusted Statutory profit before tax for: fair value gains and losses from forward currency contracts that did not qualify for hedge accounting and which have yet to mature; third-party costs relating to the FSP; a one-off past service cost for the UK DB pension scheme; and restructuring costs.

How we performed

This has increased by 37%, mainly as a result of our increased revenue this year. We are pleased with the improvements here given the significant increase in some production costs and the investments we've made in pay and reward.

Statutory profit before tax £m

Chart removed

Why we measure this

Profit demonstrates how our strategy is delivering value for our stakeholders.

How we measure this

This is the Statutory profit before tax as reported on page 129.

How we performed

This has increased by 4%, a lower increase than our Adjusted profit measure. This year includes an £11.7m charge relating to changes to the UK defined benefit pension scheme. Other year-on-year movements are explained further in note 29.

Total engineering costs including R&D £m

Chart removed

Why we measure this

Investment in engineering is fundamental to our growth, helping us to develop innovative new products and support our existing products.

How we measure this

Annual expenditure on engineering, including R&D that has been capitalised in the year, and net of amortisation on capitalised R&D.

How we performed

Gross expenditure increased significantly. The overall expenditure is consistent with our plans, but we spent more than originally planned on existing product support, needing to redesign some existing products due to supply chain disruption. As a result, our R&D expenditure was broadly the same as FY2021.

Dividend per share in respect of the year pence

Chart removed

Why we measure this

To track the underlying performance of the business and measure whether profit growth translates into improving shareholder returns.

How we measure this

Interim dividend paid in the year, plus the proposed final dividend.

How we performed

We paid an interim dividend of 16 pence per share in April 2022 and the Directors propose a final dividend of 56.6 pence per share. If approved, this would bring the overall dividend per share to 72.6 pence, an increase of 10% per share from the total dividend for FY2021.

This growth is a result of the improved profitability this year.

Global voluntary employee turnover %

Chart removed

Why we measure this

The success of our strategy relies on our talented people and we consider their skills a source of great strength.

How we measure this

The number of voluntary leavers (excluding voluntary redundancy, if applicable) in the year, as a percentage of our total headcount.

How we performed

The lifting of COVID-19 restrictions in many markets has led to a very active labour market. As a result, our leaver numbers have risen this year. We're already addressing this, investing heavily in pay and reward this year as explained in more detail on pages 54–56.

Statutory GHG emissions tCO₂e per £m revenue

Chart removed

Why we measure this

This helps us measure whether we are doing business responsibly and how we are performing against our Net Zero commitment.

How we measure this

Tonnes of Scope 1 and 2 ('statutory') CO₂ emissions from our operations, per £m of revenue, using the market-based method.

How we performed

We're pleased to have again reduced our statutory GHG emissions as a proportion of revenue. We've also decreased them in absolute terms, mainly by fitting solar panels to our buildings in Ireland and Mexico.

Financial review

A strong performance with record results

I'm delighted to report record revenue for the year amounting to £671.1m, an increase of 19% compared with £565.6m last year. Further details of our performance by segment can be found on pages 28 to 38.

We've also achieved record Adjusted¹ profit before tax of £163.7m, an increase of 37% compared with £119.7m last year. Statutory profit before tax was £145.6m. We continue to be in a strong financial position, with net cash and bank deposit balances of £253.2m at 30 June 2022 (FY2021: £215.0m).

Revenue by region

	2022 revenue at actual exchange rates £m	Change from 2021 %	2021 revenue at actual exchange rates £m	Underlying change at constant exchange rates %
APAC	317.0	+15	274.8	+16
EMEA	205.8	+22	169.1	+22
Americas	148.3	+22	121.7	+18
Total Group revenue	671.1	+19	565.6	+18

Allen Roberts

Group Finance Director

Image removed

Revenue analysis

We've seen strong revenue growth in all our regions this year. Our APAC region was the first to recover in the previous financial year, but recent growth has been more evenly spread. This rapid upturn has placed supply chains under great stress in many sectors, most notably semiconductor and electronics, where substantial investments are in progress to ease capacity constraints.

Manufacturing technologies revenue grew by 19.6% to £634.6m this year, and we have seen increased demand for all our product lines. The most notable growth was in our Position Measurement business, with our encoder product line benefitting from significant global investments in the electronics capital equipment market, including semiconductor manufacture. This has been driven by an increase in both consumer and commercial demand for electronic products. Magnetic encoders designed and manufactured by our associate company, RLS, also experienced strong growth due to increased demand for industrial automation products. All our Industrial Metrology product lines grew due to a recovery in investments in metal cutting machinery and the need to measure the outputs from those processes, including increased investments in shopfloor metrology.

Revenue from our Analytical instruments and medical devices business grew by 4.0% to £36.5m this year. Our Spectroscopy business achieved growth across our three regions, delivering record revenue, driven by customers releasing funds on capital expenditure projects. Despite a challenging year for our neurological business, we still see many opportunities to grow this business and have a strong pipeline for drug delivery revenue.

Operating costs

Our extensive in-house manufacturing operations, proactive inventory management and continual assessment of alternative components has allowed us to mitigate continued supply chain constraints, caused, in large part, by the global shortage of electronic components.

Against this backdrop, we're pleased to have maintained our production costs (see note 4) at 35% of revenue. Like many businesses, we've experienced cost increases, but by improving our efficiency through increasing production volumes and making process improvements we've been able to mitigate this.

The Group headcount increased during the financial year, reaching 5,097 at the end of June 2022. This compares to 4,664 at the end of June 2021. We have recruited additional manufacturing staff to ensure we have sufficient capacity to meet demand, as well as targeting headcount growth to support product development, and expanding our future talent programmes. The average headcount during the year was 4,931, an increase of 11% compared with last year. Total labour costs (including bonuses) for the year were £254.4m compared with £223.9m last year.

The cost increase results mainly from the headcount increase, pay reviews for our employees and increased performance related bonuses.

As part of our reward and retention programmes, we have carried out extensive salary benchmarking exercises in certain parts of the business, including all our UK employees. Our intention is to benchmark all Group employees by the end of this calendar year. As a result of benchmarking and other pay reviews already completed (and excluding other factors such as headcount growth), we expect annual labour costs to increase by around £19m in FY2023 compared with FY2022.

Certain other operating costs, such as travel and exhibitions, are higher this year compared to last year as some pandemic-related restrictions have been lifted. We have also experienced a notable increase in utilities costs, caused by increasing energy prices and usage.

During the financial year, £3.7m (FY2021: nil) of expenditure on services relating to the implementation of a Group-wide ERP software has been recognised in Administrative expenses in the Consolidated income statement.

Following the Russian invasion of Ukraine in February 2022, we immediately stopped the supply of goods from the Renishaw Group to Renishaw Russia and by 30 June 2022 we had ceased our operations in Russia. Typically, combined sales to Russia and Belarus have represented around 1% of total Group revenue. We recorded £2.1m of impairments against our assets in Russia, and we do not anticipate any further costs or impairments.

No other significant asset impairments have been recognised this year, as a result of upward demand trends across most of our geographic areas and business units. In the previous year, we recognised impairments of £4.7m in Administrative expenses relating to an associate company.

Research and development

We remain committed to our long-term strategy of delivering growth through the development and introduction of innovative and patented products.

During the year, we incurred research and development expenditure of £59.4m, compared with £58.6m last year (see note 4). We also incurred £26.4m (FY2021: £18.0m) on other engineering expenditure, to support existing products and technologies. There has been an increased focus on existing products and technologies during the year due to global supply chain issues, which have, in some instances, required product or process redesigns.

Profit and tax

Adjusted profit before tax amounted to £163.7m compared with £119.7m in FY2021, an increase of 37%. Statutory profit before tax was £145.6m compared with £139.4m in the previous year.

There are sometimes infrequently occurring events which impact on our financial statements, recognised according to applicable IFRSs, that we believe should be excluded from adjusted performance measures in order to give readers a more understandable and comparable view of our underlying performance.

Items excluded from Adjusted profit before tax include: losses of £8.3m from forward contracts deemed ineffective for cash flow hedging (FY2021: £23.0m gain); third-party fees relating to the FSP of £0.2m gain (FY2021: £3.2m loss); a revised estimate of FY2020 restructuring provisions of £1.7m gain (FY2021: nil); and a defined benefit (DB) pension scheme remeasurement loss relating to augmentation of members' benefits totalling £11.7m (FY2021: nil). These have not affected cash flow during the financial year.

Chart removed

	2022 £'000	2021 £'000
Adjusted profit before tax:		
Adjusted profit before tax	163,742	119,666
Revised estimate of 2020 restructuring provisions	1,688	–
Third-party FSP costs	200	(3,222)
UK defined benefit pension scheme past service cost	(11,695)	–
Fair value (losses)/gains on financial instruments	(8,349)	22,995
Statutory profit before tax	145,586	139,439

Financial review continued

Adjusted operating profit¹ in our Manufacturing technologies segment was £158.6m compared with £114.1m last year², while in our Analytical instruments and medical devices segment, Adjusted operating profit was £2.8m compared with £4.5m last year².

The overall effective rate of tax was 17.3% (FY2021: 20.1%). We operate in many countries around the world and the overall effective tax rate is a result of the combination of the varying tax rates applicable throughout these countries. In addition, the tax rate has benefited from tax incentives (patent box and capital allowances super-deduction) and higher profits from associates and joint ventures. Note 7 provides further analysis of the effective tax rate.

Consolidated balance sheet

We have invested £31.0m in property, plant and equipment and vehicles during the year, of which £6.7m was spent on property and £24.3m on plant and machinery, IT equipment and infrastructure, and vehicles. Property expenditure in the year included the completion of a new distribution facility in South Korea, amounting to £3.8m, while plant and equipment expenditure mostly comprised manufacturing equipment in the UK.

Within working capital, we have increased our inventories to £162.5m from £113.6m at the beginning of the year. This is in line with increases in global demand and reflecting planned increases in certain component safety stock levels to mitigate global supply shortages. We continue to focus on inventory management while remaining committed to our policy of holding sufficient finished goods to ensure customer delivery performance, given our short order book.

Trade receivables increased from £114.7m to £127.6m due to increased revenue and a currency translation gain of £5.3m.

Debtor days remained constant year-on-year at 61 days. We continue to experience low levels of defaults, and hold a provision for expected credit losses at 0.2% of trade receivables (FY2021: 0.3%).

Total equity at the end of the year was £815.2m, compared with £703.3m at 30 June 2021. This is primarily a result of profit for the year of £120.4m and gains from the remeasurement of defined benefit pension scheme liabilities of £53.1m, offset by dividends paid of £49.5m.

Cash and liquidity

We have further improved our liquidity position this year, with net cash and bank deposit balances at 30 June 2022 of £253.2m (FY2021: £215.0m). This is a result of our strong trading performance, offset by our previously noted investments and working capital movements, and dividends paid of £49.5m.

In line with our capital allocation strategy, the chart below summarises our sources and uses of cash for the year.

We disclose details of 'severe but plausible' scenario forecasts used in our going concern and viability assessments on pages 50–51 and 135 and conclude that we have a reasonable expectation that we will retain a liquid position and be able to continue in operation for at least the next three years.

Capital allocation strategy

Our Board regularly reviews the capital requirements of the Group, in order to maintain a strong financial position to protect the business and provide flexibility to fund future growth.

We've consistently applied our capital allocation strategy for many years. We're committed to R&D investment for new products, manufacturing processes and global support infrastructure to generate growth in future returns and improve productivity while managing expenditure appropriate to trading conditions. This is evidenced in the year by our capital expenditure and investments in R&D.

Chart removed

Actual and forecast returns, along with our strong financial position, support our progressive dividend policy, which aims to increase the dividend per share while maintaining a prudent level of dividend cover.

Pensions

The Company and trustees have successfully implemented a number of changes to the UK Defined Benefit Pension scheme during the year.

Following the Queen's Counsel opinion received in FY2021, primarily in respect of the periods over which revaluation and late retirement factors are applied, the liabilities of the scheme reduced by £14.3m last year with the credit reported in other comprehensive income and expense.

This year the scheme rules have been changed to align with the historic administrative method for calculating the revaluations and early retirement factors. The resulting increase in liabilities, totalling £11.7m, has been recognised as a past service cost in the Consolidated income statement. This cost has been excluded from Adjusted profit before tax (see note 29 for further details). We also agreed that the Company will have the unconditional right to a refund of any surplus on wind-up of the scheme, allowing for the recognition of the IAS 19 scheme surplus this year. Following the agreement of the September 2021 actuarial valuation, the £10.6m held in escrow as security has now been released from charge and the net book value of UK properties subject to charge has reduced from £81.7m last year to £54.2m this year.

At the end of the year, our defined benefit pension schemes, now closed for future accrual, showed a surplus of £42.2m, compared with a deficit of £23.7m at 30 June 2021. Our defined benefit pension schemes' assets at 30 June 2022 decreased to £216.7m from £231.4m at 30 June 2021, primarily reflecting investment performance during the period.

Pension scheme liabilities decreased from £255.1m to £174.5m, on an IAS 19 basis. This primarily reflects the net effect of:

- an increase in the discount rates of the UK and Ireland schemes;
- changes to the UK scheme rules which allows recognition of a surplus position; and
- the change in the UK scheme rules relating to members' benefits discussed above.

See note 23 for further details on employee benefits.

Treasury policies

Our treasury policies are designed to manage the financial risks that arise from operating in a number of foreign currencies, with the majority of sales made in these currencies, but with most manufacturing and engineering carried out in the UK, Ireland and India.

We use forward exchange contracts to hedge a proportion of anticipated foreign currency cash inflows and the translation of foreign currency denominated intercompany balances. There are forward contracts in place to hedge against our Euro, US Dollar and Japanese Yen cash inflows, and to offset movements on Renishaw plc's Euro, US Dollar and Japanese Yen intercompany balances. We do not speculate with derivative financial instruments.

Most of these forward contracts are subject to hedge accounting under IFRS 9 'Financial Instruments'. The hedged item in these contracts is the revenue forecasts of Renishaw plc and Renishaw UK Sales Limited, and during the year these forecasts were increased due to the improved economic conditions.

This means that all forward contracts have passed hedge effectiveness testing in the year. Gains and losses, which recycle through the Consolidated income statement as a result of contracts previously found to be ineffective, are excluded from adjusted profit measures. See note 25 for further details on financial instruments and note 29 on alternative performance measures.

Our treasury policies are also designed to maximise interest income on our cash and bank deposits and to ensure that appropriate funding arrangements are available for each of our companies.

We have always valued having cash in the bank to protect the core business from downturns, and we monitor our cash against a minimum holding according to forecast overheads and revenue downturn scenarios. This cash also enables us to react swiftly as investment or market capture opportunities arise, while we expect to significantly increase our investments in capital expenditure in the coming years.

Earnings per share and dividend

Adjusted earnings per share is 185.5p, compared with 132.0p last year, while statutory earnings per share is 165.4p, compared with 153.2p last year.

Chart removed

We paid an interim dividend of 16.0 pence per share (FY2021: 14.0p) on 11 April 2022 and are pleased to propose a final dividend of 56.6 pence per share in respect of the year (FY2021: 52.0p).

Looking forward

While there remains some global economic uncertainty, we have many drivers in our key markets to deliver long-term revenue growth and we continue to invest in the infrastructure required to meet the expected future demand. Supported by our strong balance sheet, we have committed around £64m to increasing the footprint of our production facilities at Miskin, Wales, and are investing in production equipment to increase both capacity and productivity, with a focus on automation. Where possible, we are mitigating cost inflation by increasing the sale price of our products and are focused on delivering productivity improvements across the business.

Allen Roberts
Group Finance Director
15 September 2022



¹ Note 29, 'Alternative performance measures', defines how revenue at constant exchange rates, Adjusted profit before tax, Adjusted operating profit and Adjusted earnings per share are calculated.

² Results relating to sales of additive manufacturing machines to medical and dental customers are no longer recognised in the Analytical instruments and medical devices operating segment. Comparative figures have been reclassified accordingly, see note 2.

Performance review

Manufacturing technologies

Our markets

Our key markets include aerospace and defence, automotive, consumer electronics and precision manufacturing.



Aerospace

- ▶ Read more on page 14
- ▶ www.renishaw.com/aerospace



Automotive

- ▶ Read more on page 14
- ▶ www.renishaw.com/automotive



Electronics

- ▶ Read more on page 14
- ▶ www.renishaw.com/electronics



Precision manufacturing

- ▶ Read more on page 15
- ▶ www.renishaw.com/precision-manufacturing

Our products



Industrial Metrology



Position Measurement



Additive Manufacturing

Blending precision, productivity, and practicality

The global manufacturing industry is being transformed by multiple powerful business trends. These include:

- skills shortages and rising labour costs driving increased automation;
- Net Zero commitments and the transition to sustainable transport;
- digitilisation of factories for traceability and efficiency;
- ever-tighter dimensional tolerances (the amount by which a dimension is permitted to vary), needing more precise production processes;
- new generations of semiconductors to support rising demand for electronics; and
- shorter product life cycles demanding flexible manufacturing equipment.

Our Manufacturing technologies products are positioned to take advantage of these trends. In a world of scarce resources, our high-tech solutions help create more efficient, sustainable, and innovative factories.

Our vision is to innovate and transform manufacturing capabilities with our unique blend of precision, productivity and practicality. We work closely with our customers, using our technologies and expertise to provide:

- precision through products that give them accurate, intricate production processes to deliver higher performance and sustainability;
- productivity through products that give them higher process yields, faster cycle times and more automation; and
- practicality through products that are easy to use and have embedded knowledge and data analytics.

Market conditions and performance

We've seen increased demand for all our Manufacturing technologies product lines this year, most notably within our Position Measurement business. The APAC region was the first to begin its economic recovery from the pandemic in the previous financial year. However, this year's growth has been more evenly spread, with EMEA and the Americas also seeing rising demand. This rapid upturn has placed supply chains under great stress in many sectors, most notably semiconductor and electronics, where substantial investments are in progress to ease capacity constraints.

Across all our Manufacturing technologies businesses we have faced significant challenges to meet customer needs against a backdrop of increasing demand and serious shortages of electronic components. However, we've coped well due to our in-house manufacturing and proactive inventory management, including assessing alternative components. We've also re-engineered some products. Being able to supply products faster than many of our competitors means we've also gained new customers.

As mentioned, overcoming these supply chain challenges has meant diverting some of our design engineers to redesign products to incorporate alternative components. While this has delayed some of our work to improve existing products, we've maintained our focus on flagship product projects. These develop the products we expect to be most strategically and commercially important.

Industrial Metrology

Ultrasonic thickness measurement

Manufacturers of hollow components, such as aircraft engine blades and long tubular sections of aircraft landing gear, face a challenging problem – how to measure difficult to reach or inaccessible features that are critically important to the component's safety and performance. Our REVO ultrasonic probe tackles this problem, allowing manufacturers to measure wall thicknesses with access to only one side. Launched in October 2021, we've already seen much interest from the aerospace industry and other sectors, including defence, oil and gas, and automotive.

Charlie Wallis, Co-Director of Industrial Metrology explains:

"The REVO multi-sensor system enables manufacturers to simultaneously reduce measurement cycle times while also measuring features that previously required additional equipment. This results in reduced overall footprint, higher automation, and lower overall capital expenditure.

The addition of the REVO ultrasonic probe allows manufacturers to combine single-sided material thickness measurements into their existing CMM measurement programs. This removes the need for large, specialised water tanks with robotic measuring tools, which involve significant upfront investment and ongoing maintenance costs."

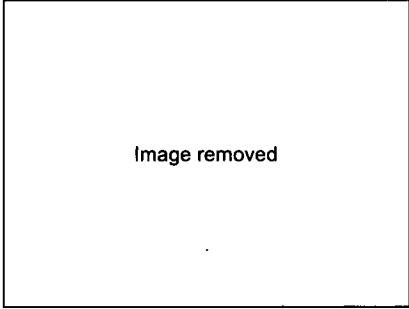


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Charlie Wallis

Co-Director of Industrial Metrology



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Performance review

Manufacturing technologies continued

Industrial Metrology

Charlie Wallis

Co-Director of Industrial Metrology

Derek Marshall

Co-Director of Industrial Metrology

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What we do

Our Industrial Metrology business provides dimensional measurement solutions that help manufacturers in a wide range of industries automate their production of precision components. We offer a market-leading range of sensors for CMM and CNC machine tools, as well as a growing range of measurement systems and metrology software.

We're also driving the Industry 4.0 agenda, focusing on metrology, CNC connectivity and process control.

Manufacturers are increasingly using metrology to control machining processes, with measurements either performed on the machine tool itself, or on a shopfloor measuring machine. As well as growth in conventional applications for process set-up, we are seeing more customers using metrology to compensate for natural process changes during longer production runs. This reduces variation and waste at source and minimises downstream problems, such as poor component fit, which are expensive to rectify.

We lead the way in shopfloor metrology. We continue to develop our range of probing systems and software for machine tools, working closely with machine tool builders to steadily increase fitment levels. Our range of Equator shopfloor flexible gauges is now compatible with several leading metrology software brands, making them an option for more customers. Our revolutionary REVO 5-axis multi-sensor system enables comprehensive inspection of the most complex components in a single automated process.

Software forms an important part of our strategy. We're broadening the appeal of our CMM and gauging systems by integrating our hardware with popular third-party metrology software packages. In parallel, we're heavily investing in developing our own software, including mobile and on-machine apps, with a strong emphasis on ease of use.

To make our systems available to a wider base of customers, we're also broadening our third-party distribution network for certain products, including the Equator gauging system.

Performance

All our Industrial Metrology product lines grew, due to a recovery in the market for metal cutting machinery and the need to measure the outputs from increased metal cutting activities. This resulted in increased customer investments in shopfloor metrology.

We have seen good growth across all our regions, based on general demand across multiple sectors. There is significant continued investment in the production of hybrid and electric vehicles (EV), where there are multiple applications for our products. Customers and end users are also upgrading existing production capabilities for internal combustion engines (ICE), to improve the efficiency of these engines.

Labour and skills shortages have increased interest in automation. We're seeing more sales of our Equator gauges within manufacturing lines with automated part handling. This product also benefits from a trend towards very flexible machining lines where fixed gauges and fixturing is no longer suitable.

At the Control exhibition, in Stuttgart, Germany, we announced that we're making our Equator gauging products available with third-party software including competitor products. This signifies market acceptance of the Equator system, and increases the opportunities for product sales into businesses that are already using a particular metrology software platform.

It was a good year for product launches and we were pleased to introduce many of them at the EMO Milano exhibition in October, including:

- an upgraded version of our NC4+ Blue laser tool setting system for machine tools;
- a new radio transmission probe system that improves product sustainability by delivering significant increases in battery life for machine tool probe operation; and
- the new ultrasonic probe for the REVO measurement system for CMMs, as explained on the previous page.

Position Measurement

Enclosed optical encoders

Optical encoders are important instruments that help customers accurately measure machine position and motion. However, when used in machine tools, grinders, and wafer dicers, the encoder is exposed to particles, swarf, and coolant, which can obscure or damage the measurement optics. To help combat this problem, we launched the FORTiS encoder last year, our first optical encoder that's sealed and enclosed to protect it from these contaminants.

Steve Oakes, Director of Position Measurement explains:

"The FORTiS encoder takes things that we know work well, looks at a problem in a new way and delivers a solution that doesn't just give better performance, but is also easier to install and more reliable than competitor products, which haven't changed much in years.

"We've taken proven technology and used that as a platform to create a new way of solving an old problem – how do you get an optical encoder system to work reliably inside an environment that's full of contaminants?

"It's a tricky problem, but by approaching it from a fresh perspective we've been able to find new angles in both the metrology technology and the fundamentals of how to set up and use the system. All of which means the FORTiS encoder's performance is way ahead of any other product."

Steve Oakes

Director of Position Measurement

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Performance review

Manufacturing technologies continued

Position Measurement

Steve Oakes

Director of Position Measurement

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What we do

Our Position Measurement business is at the heart of high-performance industrial equipment. It enables precise motion control of machinery in many applications, such as semiconductor processing, assembly and the manufacture of flat panel displays for TVs and computer monitors. This precision motion control is also needed in robotics, industrial automation, machine tools, and metrology equipment. Our calibration systems provide the foundation for accuracy, while our encoders deliver immediate position information for motion control.

We provide a comprehensive range of calibration products, optical encoders, laser encoders and magnetic encoders. The latter are manufactured by our joint venture, RLS. All these products span a broad range of prices and performance to meet the evolving needs of equipment builders.

While precision and productivity are critical considerations, we also focus heavily on the practicality of our Position Measurement products. We compete by making our innovative devices easy to deploy, combining exceptional performance with low total cost of ownership.

For instance, our position encoders feature generous set-up tolerances, easy adjustment and improved diagnostic capabilities, which minimise installation costs. We continue to improve the usability and features of our CARTO calibration software for quicker machine set-up and maintenance. We're also expanding our R&D investments to develop the next generation of high-performance optical and laser encoders to meet market demands for ever higher resolution, accuracy and speed.

A key strategic objective is to move into close-adjacent markets with non-substitutional new products to grow our market share. Last year, we entered the machine tool sector with our innovative FORTiS range of enclosed encoders. A winning combination of exceptional measurement performance, robust design and easy installation has been very positively received by our long-standing machine tool builder customers.

Performance

Our encoder business achieved record sales for the second year running, primarily due to significant global investments in the electronics capital equipment market, including semiconductor manufacture. This has been driven by an increase in both consumer and commercial demand for electronic products. Magnetic encoders also experienced strong growth due to increased demand for industrial automation products.

Semiconductor chip demand remains very high. Home and hybrid working have become the norm for many businesses, creating significant demand for IT products and infrastructure, as people replicate their office-based set-ups. The automotive industry is also driving demand, using more sensors and electronics for vehicle control, plus 'infotainment' and digital dashboard systems. Rising demand for EVs is accelerating this.

Sales of our optical and laser encoders continued to benefit from investments made by semiconductor manufacturers. They're investing in manufacturing technologies to increase both production volumes and the number of transistors in a chip. This transistor density produces smaller, faster, and more power-efficient chips, which are essential for the global implementation of 5G telecoms.

It was a particularly good year for our FORTiS range. Introduced in FY2021, this product is an example of our strategy of entering close-adjacent markets with non-substitutional products. Market demand was stronger than expected and having increased our manufacturing capacity, we're excited about the sales prospects for FY2023.

Our encoders, especially our magnetic range, continue to benefit from the ongoing global drive towards industrial automation. As well as a desire for increased capacity and flexibility, manufacturers also wish to mitigate the impact of potential future lockdowns by automating more processes.

Additive Manufacturing

Louise Callanan

Director of Additive Manufacturing

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What we do

Additive Manufacturing (AM) – also known as 3D printing – creates complex components direct from a digital file. We focus on laser powder bed fusion technology, which produces high-strength metal components from fine metal powder.

Our family of RenAM machines provide a market-leading combination of multi-laser productivity in a compact footprint. This supports manufacturers in the transition from lab to pre-production to volume manufacture.

AM has huge growth potential as product designers increasingly identify more opportunities to create efficient new products. Because of this potential, our vision is to accelerate adoption of metal AM as a viable high-volume production process.

We continue to develop our next generation of AM machines to keep reducing AM part costs so that this technology can be used in more applications.

Our end-to-end software suite covers computer-aided manufacturing (CAM), control, process and production monitoring, enabling innovations in all aspects of the AM process. It's also vital that AM systems can be easily integrated with other manufacturing technologies as part of a smart manufacturing/Industry 4.0 environment. We therefore adopt an open systems approach, where our hardware and software platforms can easily connect with third-party design and production planning packages.

Our sales efforts remain concentrated on customers who need multiple system installations for volume production, targeting repeat purchases.

Performance

Sales of AM machines for both industrial and medical/dental applications were ahead of last year and we continue to enjoy a strong order book. The RenAM 500Q multi-laser system continues to be our flagship product and is proving to be one of the best machines on the market for productivity and the quality of manufactured parts. As a result, we're seeing repeat orders for the system.

Our new Flex range of machines, introduced this year, has further enhanced our sales opportunities. These systems are a derivative of the RenAM 500Q, designed for easy changes between different powder types when developing manufacturing processes.

This year, we've also seen growing acceptance of additive manufacturing as a standard production process for volume manufacture. Our strategy of working closely with businesses who have adopted AM for this purpose has proved to be successful, resulting in multiple machine sales.

The aerospace sector, which was an early adopter of AM technologies, continues to face challenging conditions. However, attractive multiple machine sales opportunities in new markets, including consumer electronics and precision manufacturing, are compensating for this.

AM is also highly suited to patient-specific dental prosthetics, and orthopaedic implants. This means that the medical and dental sector continues to be one of our strongest areas for revenue growth, despite our decision at the start of the year to stop making medical and dental devices in-house. This decision has allowed us to concentrate on machine sales and means that we're no longer in competition with companies in the sector, some of whom are now our leading multiple machine customers.

With more machines being used for volume production, we are starting to see more repeat revenue from maintenance contracts and software licences. This year, we've also seen more customers wanting operating leases for our AM machines. This is an attractive way for new customers to adopt AM technology due to lower upfront costs.

With wider adoption of AM technology, we're confident that the metal AM market is set to grow at a strong pace over the coming years. With our current portfolio of machines, we are well placed to benefit from this growth.

Outlook for Manufacturing technologies

Despite shorter-term concerns about the global economy, we expect to see continued strong long-term demand across our key markets, driven by the need for automation, digitalisation, sustainability and the efficient use of energy. The trend towards national and regional self-sufficiency in semiconductor manufacturing will further boost electronics and industrial automation, and we expect a strong order backlog of new aircraft to service increase demand in Asia to aid recovery in the aerospace market.

Our Industrial Metrology business is well placed to take advantage of these trends, as these products are used throughout our key markets.

Our Position Measurement business is more focused on electronics and semiconductor manufacturing and has benefitted from the strong growth in this market this year. We continue to invest in the development of innovative new products that will help us to maximise the long-term opportunities in this market.

We believe that our focus on key accounts in Additive Manufacturing continues to be the right approach and is allowing us to benefit from repeat business. These customers span our key markets, across which AM becomes a more mainstream option for volume manufacturing.

Performance review

Manufacturing technologies continued

Additive Manufacturing

Scale from lab to volume production with the RenAM 500 series of additive manufacturing machines

While AM was initially seen by users as a prototyping tool, we're passionate about its adoption in high-volume applications.

We specialise in metal Laser Powder Bed Fusion (LPBF) technologies, in which a thin layer of powder is spread and precision lasers melt sections into solid metal, before another layer of powder is spread on top. The process repeats until a complete part is created. The lasers only melt material where it's needed, meaning customers can create highly optimised designs. This method also reduces waste, as any powder that isn't melted can be used in future builds.

Our RenAM 500 series deliver what's needed for each step of the part development process, including material trials, part validation and finally volume manufacture. With a common platform across the series, customers can confidently develop their application on our machines, without risk of invalidating their test data.

Louise Callanan, Director of Additive Manufacturing explains:

"With the benefits of AM now well established, we're seeing more uptake in mainstream volume production. Our customers are looking for the additional benefits that AM bring in terms of design freedom, light-weighting, and cost-effective, fast turnaround. This is without compromising on what they're already used to in terms of structural repeatability, reliability and accuracy. Our expertise in these areas means we're well placed to support our customers' adoption of AM and help them move seamlessly from a development environment to volume production."

Louise Callanan
Director of Additive Manufacturing

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Performance review

Analytical instruments and medical devices

Our markets

Our key markets include healthcare providers, pharmaceutical companies and research institutes.

Materials analysis

- Icon removed
- ▶ Raman spectroscopy systems for advanced materials analysis, including biochemical changes associated with disease formation and progression.
 - ▶ www.renishaw.com/raman

Neurosurgery (brain surgery)

- Icon removed
- ▶ Neurosurgical robots, surgery planning software, drug delivery devices, and a range of consumable medical devices for a variety of diagnostic and treatment procedures related to the brain.
 - ▶ www.renishaw.com/neuro

Our products

Spectroscopy

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Neurological

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Market conditions

While our Spectroscopy business achieved good growth and record revenue, it was a disappointing year for our Neurological line. In our Spectroscopy business, we saw good sales across our three regions, with capital expenditure projects releasing funds. We also continue to see a good recovery in industrial and academic research budgets. Lockdowns in China initially caused some issues for our Spectroscopy business, but there were more shipments to this important market at the end of the year. Despite a challenging year for our Neurological business, we still see many opportunities to grow and have a strong focus on drug delivery revenue.

Like our Manufacturing technologies segment, we have faced challenges to meet customer demands due to shortages of electronic components, although not at the same level. Some of our design engineers were reallocated to work on redesign and testing work for current products, but the greater impact has been on projects for new product development. Recruitment is also presenting challenges for all our product lines, and we have had to prioritise key projects.

Neurological

Rupert Jones

Managing Director – Renishaw Medical

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What we do

We deliver neurosurgical precision to enable innovative, life-enhancing therapies for increasingly prevalent neurological conditions. We do this by giving our customers:

- precision through products that give accurate device delivery and improved procedure safety;
- productivity through products that enable fast planning, automated placement and shorter surgeries; and
- practicality through products that support image-guided planning and predictable outcomes.

We aim to develop a common platform for drug delivery and deep brain stimulation (DBS), complete regulatory approval for drug delivery hardware and software, and help our customers to progress multiple drug delivery clinical trials.

Our key commercial objective is to simplify our approach and focus on strategic growth opportunities. That's why we're mainly focused on a service and support model that helps pharmaceutical companies develop a delivery strategy for trials that meets requirements for patients and candidate drugs.

We've chosen this route because each therapy development and delivery programme needs a bespoke approach. This model of working with pharmaceutical companies from pre-clinical testing to full market approval is proving to be the best way to achieve a successful trial outcome and a market-approved therapy. It is also a great example of our purpose in action, working with our customers in the healthcare sector to transform tomorrow's medical therapies.

Performance

Revenue was significantly lower than expected this year, for two main reasons.

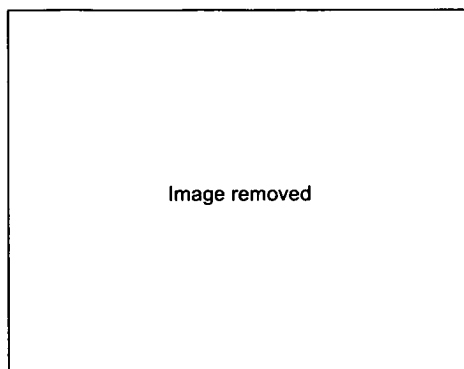
The first was lower sales of our neuromate stereotactic robot. This was a result of needing to wait for new regulatory approval, that we have now received.

Revenue was also hit by the end of a programme with a major pharmaceutical company that was using our drug delivery system to trial its candidate drug. The programme ended because of an issue with the drug.

We're talking to a number of pharmaceutical businesses, key international clinics and funding organisations about future programmes that could use our drug delivery system. These conversations mean we are more optimistic about revenues in FY2023.

Performance review

Analytical instruments and medical devices continued



Neurological

Crossing the blood-brain barrier

Delivering therapies to the brain, by bypassing the blood-brain barrier, is one of medicine's biggest challenges today. The barrier is highly effective in protecting the brain against pathogens, but in doing so it also makes it difficult to administer medicines to the brain. Finding practical ways around that barrier could transform treatments for certain neurological conditions. We're particularly excited, therefore, about our neuroinfuse drug delivery system – an innovative, precision-engineered product that allows direct delivery of therapies to the brain, and is currently in the clinical investigation phase of development.

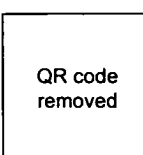
Rupert Jones, Managing Director – Renishaw Medical explains:

"We've been working with clinical experts to provide a solution for intermittent drug delivery to the central nervous system (CNS). Implantation can be performed outside of an MRI, reducing the need for costly equipment and radiologists. It's patient specific, and can be used to deliver single, one-off doses of a therapy or for repeat administrations of the chosen drug without the need for additional surgeries. This reduces the inherent risk and cost of repeated surgery.

"We've been working with pharmaceutical companies to test the product, using it only in approved clinical trials. The system shows great promise and could be a step change in treating neurological conditions such as Parkinson's disease and brain cancer.

"By using our products and working with our experts as early as possible, we can help pharmaceutical companies ensure new therapies suitable for CNS delivery are introduced into clinical studies as effectively and cost efficiently as possible."

Rupert Jones
Managing Director – Renishaw Medical



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Spectroscopy

Tim Batten

Director – Spectroscopy

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What we do

Our vision is to advance materials identification to help our customers gain a deeper understanding of materials and their interaction at a molecular level.

We do this by creating:

- precision spectroscopy products that give high-resolution sampling with sensitivity and specificity;
- productivity through systems that give automated analysis and rapid, reliable results; and
- practicality through products that are easy to set up and combine well with other analytical tools.

More specifically, we're making it easier to integrate Raman spectrometers with other analytical techniques, including scanning electron microscopy (SEM). We're also expanding into new markets beyond the laboratory with portable products for remote sample analysis, including production environments for process monitoring. An example of this is our Virsa analyser that offers customers a portable product for use in the field. You can read more about this on the following page.

Our aim is also to produce easy-to-use, compact benchtop systems for dedicated application areas such as early disease detection and pharmaceutical quality control. These systems don't need specialist Raman knowledge, giving users consistent results without the complexity.

We continue to expand our range of regular educational webinars, which we introduced during the pandemic. These are good commercial opportunities and have helped us reach new prospects. Registrations have grown significantly from 50 people for the first seminar to now over 1,000 registrants for our most recent events.

Performance

We saw good growth in our Spectroscopy business, with record revenue and strength in all regions. We had some challenges with sales in China – an important market for Raman spectrometers – due to the local lockdowns introduced by the Chinese government as part of its zero-COVID policy. However, we've entered the new financial year with a strong order backlog which gives us confidence for FY2023.

As reported last year, the applications for industrial use of Raman spectroscopy continue to grow due to increasingly complex chemical formulations in everyday products, including polymer laminates in household products.

As demand for EVs rises, so too does research into battery technology, which offers strong opportunities for Raman systems. Our customers are using these spectrometers to research new materials, such as graphene, that will improve performance, enable faster charging and extend battery life. This year, we sold multiple additional inVia Raman spectrometers to a manufacturer in APAC that is developing the next generation of lithium-ion batteries, demonstrating the growing interest in our technology in this sector.

Last year we focused on developing new sector opportunities for our Raman systems by working closely with customers who are developing innovative biological detection techniques. As a result, this year we received orders for our RA816 Biological Analyser from a company that is developing a cancer screening test based on the Raman analysis of blood plasma. This product is a compact, easy-to-use benchtop Raman imaging system that enables the rapid collection of information from biological samples, such as tissue and biofluids. It is an ideal tool for developing disease diagnostic methods using Raman spectroscopy.

We also continued to see strong system sales for a broad range of applications including environmental, green energy and heritage. This validates our approach of taking Raman technology away from laboratory-only use and into field applications where sampling can take place in-situ.

Outlook for Analytical instruments and medical devices

Life expectancy is rising in both developed and developing countries. This increases the need for faster procedures (to reduce waiting times), more economical treatments, and safer, more automated procedures to reduce human error. Our Analytical instruments and medical devices product lines are well placed to support these needs.

Increased life expectancy also means greater incidences of degenerative neurological diseases, which will need surgical therapies that our neurological products can support. In developing markets, levels of wealth are rising at a national and individual level, which is driving demand for higher-quality medical treatments that require more technologically advanced products.

We see the market for Raman spectroscopy continuing to grow, with an increasing range of applications in those sectors already mentioned above, plus biomedical and 2D materials. We have the products to meet these opportunities.

While robots in neurosurgery are still an emerging market, we continue to see general underlying demand for our technology. For example, we expect to see significant increase in our delivery device for potential gene therapy treatments for neurological diseases and disorders. Our strong patent portfolio and many years of experience in neurosurgery mean that we are well positioned to capture opportunities in drug delivery. Despite a challenging year, we remain optimistic about the future growth of this business.

Performance review

Analytical instruments and medical devices continued

Spectroscopy

High performance Raman spectroscopy, wherever it's needed

For many years we've made precision-engineered Raman spectroscopy instruments, such as microscopes and benchtop analysers, that scientists rely on to help them chemically analyse materials. Increasingly, though, our customers are looking for that same quality and precision in a more flexible format. So we've launched the Virsa analyser, a portable system that allows customers to analyse samples outside of the laboratory.

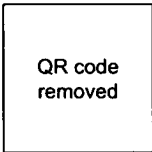
Tim Batten, Director – Spectroscopy, explains:

"The Virsa system allows users to analyse samples in their native environment. It's perfect for measuring large or immovable samples that can't be placed under a microscope, such as testing materials used in a painting.

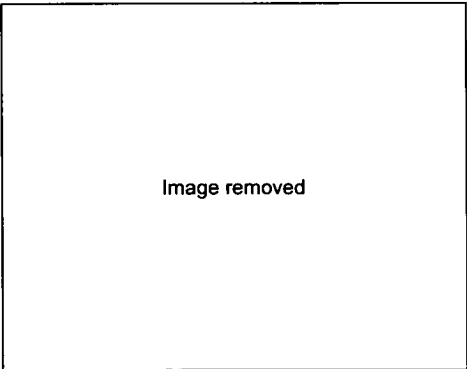
"Using our proven technology, the system gives customers the accurate results they need and since it's portable, people using the Virsa analysers aren't confined to the lab to perform their testing. We have a range of probes for different needs, such as immersion probes for analysing liquids, high-temperature, high-pressure probes for monitoring reaction processes, and biological probes for analysing biological systems.

"Virsa is already being used in a range of applications, such as studying the reasons for poor performance in solar panel modules and analysing the specialist coatings on turbine blades."

Tim Batten
Director – Spectroscopy



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to visit the website



Risk management

Our risk identification and management processes have come into their own this year

Jacqueline Conway
Chair of the Risk Committee

Image removed

Effective risk management has become very topical following the COVID-19 pandemic, evidence of a highly competitive labour market, and supply chains under stress. All of these issues feature in our principal risks, but the one area that has stood out this year has been the People risk and the need to work on retaining, rewarding, and developing our people in order to support our growth and meet our customers' demands. It has been encouraging to see our senior managers engage so strongly with risk management, which is also driven by the heightened awareness of how many risks are interconnected and influenced by global forces.

Our approach – risk management and risk appetite

Our annual risk review process starts with our strategic objectives. We take into account external risks and the global environment, as well as internal risks across our business.

Our risk identification process aims to identify those risks that represent the most significant threat to achieving our strategic objectives. This, combined with both global changes and internal shifts, resulted in some key changes to our principal risks this year. Each principal risk has an owner, who is invited to Risk Committee meetings during the year to discuss their risk, latest developments or issues, and the work they're doing to mitigate it. This year, we again carried out a formal risk appetite assessment, the results of which are shown in the table on pages 42–49. This lets us assess if we're taking the right amount of risk, and consider opportunities as well as mitigation strategies.

Our now well-established process of risk identification and management means we can see risk management being embedded in the way we do business. This culture shift has meant that our people recognise that risk is inherent in our operations. They also consider both the upside and downside of potential risks in their business practices and decision making. This is critical in helping us achieve our strategic objectives.

This year, we also formed an Ethics Committee. This Committee comprises four members of the Senior Leadership Team (all of whom also sit on the Risk Committee), including myself as Chair. The Committee meets on an ad hoc basis to consider matters that are referred to it, usually by internal stakeholders. The Ethics Committee considers the ethical issue and makes a recommendation to the Executive Committee on how to proceed. Most matters referred to the Ethics Committee involve a risk appetite decision, for example where the proposed course of conduct is lawful but may involve some reputational risk. Matters referred have included dealing with Russian-related entities based outside of Russia.

How do we identify risks?

Our risk identification process comprises two stages:

1. Top-down process

I conduct risk interviews with senior managers, focusing on the risks that are most significant for us as a whole. The anonymised output from these interviews is aggregated to identify key themes, trends, and any new or emerging risks.

2. Bottom-up process

Risk reports are received from regional and product line managers, who are asked to focus on key day-to-day operational risks. These results are aggregated to identify trends and any new principal or emerging risks.

The results from both processes shape our principal risks. The proposed principal risks are assessed by the Committee and then reviewed by our Executive Committee, Audit Committee, and Board.

Risk management continued

The table below sets out some of the key risk management activities undertaken throughout the year:

January/February	March/April	May/June	July–December
Risk identification: – Top-down interviews conducted with senior managers. – Bottom-up risk reports refreshed by regional and product line managers. – Consolidated outputs from the bottom-up and top-down process are shared with and considered by the Risk Committee. – Risk Committee agrees draft principal risks. – Draft principal risks are reviewed by the Executive Committee/Audit Committee/Board.	Risk oversight: – Risk appetite is considered by the Risk Committee. – Risk Committee agrees a schedule of in-depth risk reviews for the year ahead. – Composition, membership and effectiveness of the Risk Committee is considered.	Risk reporting: – Consultation with each principal risk owner to prepare draft wording for the Annual Report. – 'Severe but plausible scenarios' are identified for our Viability statement.	Risk monitoring: – In-depth reviews by the Risk Committee, risk owners give an update on their principal risks. – 'Severe but plausible scenarios' are modelled to determine our viability over three years.

Oversight

		Board	Executive Committee
		– Overarching responsibility for risk management. – Determines our risk appetite and identifies our principal risks and opportunities.	– Reviews and approves revised principal risks. – Assesses the status of various principal risks throughout the year (e.g. risks relating to technology, people, finances, and our systems and processes). – Evaluates proposed strategies against risk appetite.
Operational risk management	Top-down		
	Bottom-up	Risk Committee – Comprises executive members (including our Group Finance Director) and senior management from across the business. – Creates our risk framework. – Collects and aggregates risk information. – Helps senior management govern, identify, manage, and report on principal and emerging risks. – Manages central repository of risk data from across the business divisions and the regions in terms of their respective principal risks.	Operational managers – Effective day-to-day risk management. – Design and implement key controls. – Identify risks at an early stage. – Embed risk management. – Monitor risks – mitigating or escalating as appropriate – and respond to manage those risks. – Give updates to the Risk Committee.

Independent oversight

Audit Committee

- Reviews the effectiveness of our risk management and internal control processes.
- Supports the Board in monitoring risk exposure and advises the Board on principal risks that may threaten solvency or liquidity.

Internal Audit

- Provides input on the effectiveness of the risk programme.
- Assesses the effectiveness of controls for key risks, particularly financial risks.
- Holds scheduled audits of some Group companies, and gives executive summaries to Audit Committee meetings. Any significant shortcomings are discussed and acted upon promptly.
- Facilitates process enhancements.
- Requires all operating companies to complete annual self-certification questionnaires regarding compliance with our policies, procedures and requirements.

Key themes this year

Once again, risk management has been at the top of the agenda this year. It has been encouraging to see some of the changes we have made in this area making a difference in the way we have responded to a challenging external environment.

Risk Movement

New risk

This year, we added a new risk: Climate change. We recognised this theme as an emerging risk in 2021, and this year raised it to a principal risk because of its significant impact. We acknowledge that climate change, without any mitigating actions, poses a risk to our ability to achieve our strategic growth objectives.

Our Net Zero commitment also contributes to our decision to upgrade this from an emerging risk to a principal risk, as our commitment will take significant effort and management focus.

Increased risks

- **People** – this risk has increased due to a very active labour market. Leaver numbers have increased and we are competing for top talent. Our people are central to everything we do, and we recognise the potential negative impact on our strategic objectives if we do not have the necessary resources.
- **Innovation strategy** – this risk has increased due to the current competitive market and our focus on our flagship products and disruptive technology.
- **Cyber** – activity in this area (including attempted attacks) has increased with the shift to remote working. We continue to focus on maintaining a strong control environment but recognise that it would only take one successful attack to have a significant impact on our operations.

Decreased risks

- **Industry fluctuations** – as we emerge from the pandemic, it's clear that our mitigating strategies have protected us from being severely affected by this risk.
- **Loss of manufacturing output** – our responses to the challenges of the past 24 months have demonstrated that we manage this risk well, therefore reducing its impact.

Geopolitical matters

Following the Russian invasion of Ukraine in February 2022, we immediately stopped the supply of goods to our Russian offices. Instead, they continued to fulfil orders from local stock where possible and where customers were not subject to sanctions. We have since taken the decision to end our operations in Russia, including closing our offices in Moscow and Perm. Although we have been able to transfer some colleagues to other subsidiaries, regrettably this has meant the loss of jobs within Russia, and we have offered support to those affected colleagues.

Combined sales to Russia and Belarus have typically represented around 1% of total Group revenue. As a result of our decision, we recorded an impairment of £2.1m relating to assets held in Russia. The Board keeps a watching brief on risks in relation to this and other geopolitical issues.

Cyber security

We maintain our high level of vigilance against cyber security threats. We continually monitor and adopt good industry practices. This includes investing in training and technologies

to mitigate, detect, and respond to this risk. We continue to meet ongoing requirements for remote and hybrid working across many locations. Through training and communications, we continue to promote awareness among our people.

COVID-19

Since the first half of FY2021, the impact of the COVID-19 pandemic has significantly decreased. Many of our mitigations proved effective, and we have developed an enhanced approach to risk mitigation (as noted in my introduction). As we start to see the longer-term effects on the macroeconomic environment, the impact of the pandemic on our principal risks has been much less significant than anticipated.

Data protection

We have made an ongoing commitment to achieving high standards of compliance with the General Data Protection Regulation (GDPR) and other data protection laws. As part of this, we have a privacy team that keeps policies, procedures, training, and other compliance requirements under review.

Looking ahead

Emerging risks

We continue to assess our emerging risks. These are uncertain in nature and have the potential to develop over time and affect our performance. While they may increase the impact and likelihood of our principal risks occurring, we do not currently expect them to become future principal risks.

To identify these risks, we review the outcomes from our bottom-up reports to assess any emerging themes at regional and product group levels. As these may develop over time, we maintain a dynamic approach in monitoring these risks. This includes regular consideration at Risk Committee, Audit Committee, and Board meetings. For example, in FY2021 we identified changing work patterns as an emerging risk and we continue to monitor its effect on our principal risks. We now better understand the impact that hybrid working has had on our People risk, particularly productivity, innovation, and recruitment. We continue to look at ways to manage this so that our people can collaborate and innovate. Changing working patterns have increased our People risk overall, as well as our Innovation strategy risk.

Priorities for the year ahead

- Ongoing enhanced focus on reward, recruitment and retention.
- Increase focus on the potential impact of geopolitical crises.
- Continue to assess the Climate change risk, particularly in relation to our TCFD disclosure work, and strengthen responses to a potential climate event.
- Conduct in-depth reviews on all our internal principal risks (namely those linked to our internal control environment).
- Ongoing focus on the long-term impact of COVID-19 on our people and innovation.
- Ongoing consideration of data protection and cyber security risks, particularly in light of the shift to hybrid working.
- Continue to monitor and assess emerging risks.

Principal risks and uncertainties

Risk movement

Increased risk	↑
Decreased risk	↓
Stable risk	↔

Link to strategy

SM Sales & Marketing	E Engineering	P People and culture
M Manufacturing	SS Support Services	S Sustainability

People			
Appetite MEDIUM	Link to strategy P	Risk owner Head of Group HR	
Risk description			
Our people are fundamental to the success of our business.			
Inability to attract, retain, and develop key talent at all levels of the organisation could mean we fail to successfully deliver on our strategic objectives.			
Potential impact		What we are doing to manage this risk	
– Loss of expertise, skills, and specialist talent could affect delivery of objectives. – Poor retention and engagement could slow the delivery of our strategic objectives and product delivery. – Failure to develop future leaders, insufficient talent progression. – Loss of market share, reduced revenue, poor customer service, and reduced profit.		– Targeted approach to attract, reward, and retain our talent globally, including the roll out of a new benchmarking programme for annual salary reviews and major investment in reward to ensure our pay is competitive. – Continued investment in our STEM and Early Career programmes, as well as talent development and succession planning. – Advancing our employee engagement through multi-media communications, promoting wellbeing, evolving feedback mechanisms, and further developing our inclusion strategy. – Establishing continuity plans to enable rapid adaptation to changing circumstances.	
Innovation strategy			
Appetite HIGH	Link to strategy E	Risk owner Product Group Directors	
Risk description			
Failure to create new cutting-edge, high-quality products, or failing to protect the intellectual property that underpins these products, which allows us to differentiate ourselves from our competitors.			
As a business driven by innovation, there is a higher risk with new ventures outside our traditional field of expertise where the science and engineering are less proven.			
Potential impact		What we are doing to manage this risk	
– Failing to meet customer needs for high-quality and complex products. – Loss of market share. – Reduced revenue, profit and cash generation. – Failing to recover investment in R&D.		– Increasing focus on presenting and understanding technology development and commercialisation roadmaps. R&D and flagship projects are prioritised and regularly reviewed against milestones. Medium to long-term R&D strategies are monitored regularly by the Board and Executive Committee. – All Board meetings now have a standing agenda item to review disruptive technology. – Market developments are closely monitored and product development is based on input from customers. – Patent and intellectual property protection are core to new product development, with management and review integrated into the Product Innovation Process (PIP) procedure.	

Appetite**LOW**

Minimal risk exposure is considered the safest approach, which may mean lower returns.

MEDIUM

A balanced approach which carefully considers the risks and rewards.

HIGH

Greater risk tolerance, which may involve maximum risk for maximum return.

Supply chain dependencies

Appetite
LOW

Link to strategy
M

Risk owner
Head of Group Manufacturing

Risk description

We're exposed to the risk that critical components, or some components that we buy from single-source suppliers, make us vulnerable to an interruption in supply.

Potential Impact

- Inability to fulfil customer orders, leading to a reduction in revenue and profits, and damage to reputation.
- Failure to meet contractual requirements.
- Increased cost of alternative sourcing or redesign.
- Loss of market share.

What we are doing to manage this risk

- Continued focus on, and review of, sourcing of key components.
- Increase in buffer inventory.
- Cost-effective alternative sources of supply actively sought (including in-house manufacturing) to reduce dependency on single-source suppliers.
- Specifications are reviewed and updated where necessary to facilitate alternative sourcing.

Industry fluctuations

Appetite
HIGH

Link to strategy
SM, M, E

Risk owner
Chief Executive

Risk description

We're exposed to the cyclical nature of demand from aerospace, automotive and consumer electronics industries, which may be more severe if downcycles in these key industries coincide.

Potential Impact

- Increased competition on prices.
- Loss of market share.
- Reduced revenue, profit and cash generation.

What we are doing to manage this risk

- Closely monitoring market developments.
- Expanding our range in order to meet the demands of a number of different industry sectors and markets.
- Identifying and meeting the needs of emerging markets, for example in robotic automation.
- Maintaining a strong balance sheet with the ability to flex manufacturing resource levels.

Principal risks and uncertainties continued

Risk movement

Increased risk Decreased risk Stable risk 

Link to strategy

SM Sales & Marketing**M** Manufacturing**E** Engineering**SS** Support Services**P** People and culture**S** Sustainability

Economic and political uncertainty			
Appetite HIGH	Link to strategy All	Risk owner Chief Executive	
Risk description			
As a global business, we may be affected by political, economic or regulatory developments in countries that we operate in. This could include a global recession, US/China trade relations, or the current war in Ukraine.			
Potential impact		What we are doing to manage this risk	
– Loss of financial and physical assets in a region. – Supply issues leading to failures to meet contractual obligations. – Reduced revenue, profit and cash generation.		– Monitoring external economic and commercial environments, and identifying relevant headwinds. – Maintaining sufficient headroom in our cash balances. – Increase in buffer inventory. – Closely monitoring all markets in which we operate.	

Route to market/customer satisfaction model			
Appetite MEDIUM	Link to strategy SM	Risk owner Chief Executive	
Risk description			
Inherent complexity in the move to systems integration and the sale of capital goods.			
Potential impact		What we are doing to manage this risk	
– Low capital efficiency – high people costs and low productivity. – Higher engineering and distribution costs. – Adversely affects customer satisfaction levels, revenue, and profits.		– Closely monitoring customer feedback. – Collaborating with complementary third parties. – Adopting new approaches to the sale of capital goods.	

Appetite**LOW**

Minimal risk exposure is considered the safest approach, which may mean lower returns.

MEDIUM

A balanced approach which carefully considers the risks and rewards.

HIGH

Greater risk tolerance, which may involve maximum risk for maximum return.

Capital allocation

Appetite
MEDIUM

Link to strategy
E

Risk owner
Group Finance Director

Risk description

This risk could be triggered by a failure to properly allocate budget between core and emerging activities.

Potential impact

- Investing in declining or less profitable areas at the expense of more profitable and strategically important areas.
- Reduced profits.
- Loss of market share.
- Impact on innovation.

What we are doing to manage this risk

- Defining, prioritising, and developing strategies for all core and emerging areas of the business.
- Scrutinising all expenditure, including regular reporting on labour costs and capital expenditure.
- Regular reporting of cash balances.
- Tracking of performance objectives including regular reporting on flagship project progress.

Competitive activity

Appetite
LOW

Link to strategy
All

Risk owner
Chief Executive

Risk description

Failure to adapt to market and/or technological changes.

Potential impact

- Reduced revenue, profits and cash generation.
- Loss of market share.
- Erosion of prices.
- Loss of reputation as a leader in innovation.

What we are doing to manage this risk

- We are diversified across a range of products, industries, and geographies.
- Closely monitoring market developments, particularly across our core product areas.
- Local sales and engineering support to quickly identify changing local needs.
- Strong historic and ongoing commitment to R&D investment to continue to build our product portfolio (see note 4 on page 140 for details of R&D expenditure).

Principal risks and uncertainties continued

Risk movement

Increased risk	↑
Decreased risk	↓
Stable risk	↔

Link to strategy

SM Sales & Marketing	E Engineering	P People and culture
M Manufacturing	SS Support Services	S Sustainability

Cyber 		
Appetite LOW	Link to strategy All	Risk owner Director of Group Operations
Risk description External and internal threat which could result in a loss of data including intellectual property, or our ability to operate our systems which could severely affect our business.		
Potential Impact		What we are doing to manage this risk
– Loss of intellectual property and/or commercially sensitive data. – Inability to access, or disruption to, our systems leading to reduced service to customers. – Financial loss and reputational damage. – Impact on decision-making due to lack of clear and accurate data, or disruption caused by the lack of service.		– Substantial resilience and back-up built into our systems, which are continuously updated for current threats and good industry practice. – Regularly discuss cyber and security risks at Board meetings, including the strength of our control environment. – Deploy physical, logical, and control measures to protect our information and systems, and external penetration testing is conducted as appropriate. – Conduct regular security awareness training, including phishing simulation exercises, which are proving effective.
IT transformation failure 		
Appetite LOW	Link to strategy All	Risk owner Director of Group Operations
Risk description The upgrade of our IT systems to Microsoft Dynamics 365, to remove legacy systems and ensure our business is better integrated, could affect our business if there are major technical issues, or it is poorly integrated. This risk could also result in problems if there are significant delays to the programme or it runs significantly over budget.		
Potential Impact		What we are doing to manage this risk
– Major disruption to our systems, causing delay to our operations. – Affect our ability to process or issue invoices and customer orders, or to procure goods and services. – Increased costs, including to fix technical issues and restore or upgrade other affected systems. – Project delay would leave us supporting legacy systems for longer than desired.		– Risk assessments carried out for all key systems likely to be affected by the upgrade. – A clear roadmap with measurable milestones, and planning to implement lower risk companies first. – Assigning project managers who have clear oversight of the project and any issues. – Promptly identifying and dealing with any significant issues.

Appetite**LOW**

Minimal risk exposure is considered the safest approach, which may mean lower returns.

MEDIUM

A balanced approach which carefully considers the risks and rewards.

HIGH

Greater risk tolerance, which may involve maximum risk for maximum return.

Loss of manufacturing output

Appetite
LOW

Link to strategy
M

Risk owner
Head of Group Manufacturing

Risk description

Manufacturing output can be adversely affected by factors including environmental hazards, technical delays or outages, plant or equipment failure, inadequate resourcing levels, or factors affecting the workforce, such as a pandemic.

Potential impact

- Inability to fulfil customer orders leading to a reduction in revenue, failure to meet contractual requirements and damage to reputation.
- Increased costs of alternative sourcing or redesign.
- Impact on maintenance of buffer inventory.
- Loss of market share.

What we are doing to manage this risk

- Duplication of high-dependency processes, such as component manufacturing and finishing, electronic printed circuit board assembly, and microelectronics assembly, across multiple manufacturing locations.
- Ensuring we have flexible manufacturing capacity and sufficient resilience across our manufacturing sites.
- Standardised approaches to assembly, annual risk assessments, and business continuity planning.
- Reviewing and maintaining business interruption and other insurance cover.

Exchange rate fluctuations

Appetite
MEDIUM

Link to strategy
SM

Risk owner
Group Finance Director

Risk description

Due to the global nature of our operations, with over 90% of the revenue generated outside the UK, we're exposed to volatility in exchange rates that could have a significant impact on our results.

We're exposed to exchange rate risks, including the strengthening of Sterling against our major trading currencies, currency cash flow, currency translation risk, and the currency risk on intercompany balances.

Potential impact

- Significant variations in profit.
- Reduced cash generation.
- Increased competition on product prices.
- Increased costs.

What we are doing to manage this risk

- Rolling forward contracts for cash flow hedges in accordance with Board-approved policy, and one-month forward contracts to manage risks on intercompany balances.
- Tracking of overseas net assets value compared to the market capitalisation.
- Obtaining input from external sources including our banks.

Principal risks and uncertainties continued

Risk movement

Increased risk	↑
Decreased risk	↓
Stable risk	↔

Link to strategy

SM Sales & Marketing	E Engineering	P People and culture
M Manufacturing	SS Support Services	S Sustainability

Climate change			New risk
Appetite LOW	Link to strategy All	Risk owner General Counsel & Company Secretary	
Risk description			
We could be exposed to physical risks, potentially triggering an inability to operate, and other transition risks regarding our plans to achieve Net Zero. We could fail to react adequately to new climate-related legislation, technology or market factors. Failure to respond to large-scale natural hazards, such as hurricanes, floods, fires or pandemics, could result in operations failure.			
Potential Impact		What we are doing to manage this risk	
– Increased costs – potentially costly and uncertain supplies of renewable energy certificates and/or offsetting schemes to achieve Net Zero commitment, and underestimating Net Zero costs. – Damage to reputation and loss of future business. – Impact on macroeconomic landscape. – Disruption to operations caused by natural hazards.		– Sustainability and climate change are regularly discussed at Board and Executive Committee meetings. – Our Sustainability team supports the Risk Committee in evaluating and understanding the possible effect of climate-related risks and opportunities. – Reviewing and maintaining business interruption and other insurance cover to minimise any financial loss that may occur in the event of disruption caused by climate events.	
Pensions			
Appetite MEDIUM	Link to strategy P	Risk owner Group Finance Director	
Risk description			
Investment returns and actuarial assumptions of our defined benefit pension schemes are subject to economic and social factors outside our control.			
Potential Impact		What we are doing to manage this risk	
– Any deficit may need additional funding in the form of supplementary cash payments to the plans or the provision of additional security. – Significant management time. – External support costs. – Damage to reputation.		– Implemented recovery plan for the UK defined benefit scheme in June 2019 with the aim of funding to self-sufficiency by 2031. – Appointed a corporate Trustee in June 2022, with the previous Trustees stepping down. This will help reduce management time and support costs. – Active engagement with the Trustee(s) on investment strategy. – The Trustee(s) work to a statement of investment principles, and the Company and Trustee(s) seek appropriate independent professional advice if needed.	

Appetite**LOW**

Minimal risk exposure is considered the safest approach, which may mean lower returns.

MEDIUM

A balanced approach which carefully considers the risks and rewards.

HIGH

Greater risk tolerance, which may involve maximum risk for maximum return.

Non-compliance with laws and regulations

Appetite
LOW

Link to strategy
All

Risk owners
General Counsel & Company Secretary/Director of Renishaw Neuro Solutions

Risk description

We operate in a large number of territories and in some highly-regulated sectors. We are subject to a wide variety of laws and regulations, including those relating to anti-bribery, anti-money laundering, sanctions, competition law, privacy, health and safety, product safety, and medical devices.

There is a risk that somewhere in the Group we may not be fully compliant with these laws and regulations.

Potential Impact

- Damage to reputation and loss of future business.
- Potential penalties and fines, and cost of investigations.
- Management time and attention in dealing with reports of non-compliance.
- Inability to attract and retain talent.

What we are doing to manage this risk

- Whistleblowing hotline available for use by all employees which means that our people can make us aware of any potential non-compliance issues.
- Global compliance programmes in place for all high risk areas, which includes policies, key controls, and effective communication. Training also includes refreshed mandatory anti-bribery and anti-corruption modules.
- Promotion of all compliance functions under the umbrella brand 'Responsible Renishaw'. This helps to raise awareness about compliance, and makes it easier for our people to find the information they need to comply.
- Implementing a global privacy programme.

Product failure

Appetite
LOW

Link to strategy
E, M

Risk owners
Group Quality Manager/Renishaw Neuro Solutions
Quality Manager

Risk description

The quality of our products could be adversely affected by internal threats, such as inadequate quality management procedures. Product quality could also be affected by external threats, such as substandard resourcing from third-party suppliers.

This risk is particularly notable in our neurological products, where failure could result in significant personal injury claims.

Potential Impact

- Damage to reputation.
- Claims, including personal injury.
- Potential penalties and fines, and cost of investigations.
- Inability to fulfil customer orders leading to a reduction in sales.

What we are doing to manage this risk

- Rigorous internal product development and testing procedures (during development, manufacturing, and release) to international standards where applicable, to ensure high levels of quality assurance.
- Extensive interaction with customers and regulators to obtain and address feedback.
- Regular monitoring of third-party suppliers to ensure incoming parts and sub-contracted activity meet requirements.
- Liability is limited by our terms and conditions of sale and we have liability insurance. For clinical studies, we have separate trial insurance.

Viability statement

The Directors have assessed our prospects and viability, in accordance with the UK Corporate Governance Code.

This assessment took account of our current position and principal risks, and the details of the assessment and the conclusion reached are set out opposite.

Context

In making the assessment, the Directors considered the following factors that they felt provided important context.

Financial resources – we have significant financial resources, with cash balances and bank deposits at the start of the viability assessment period of £253.2m. We have a strong history of creating cash for the business. The only external source of finance included in the viability assessment is the existing property mortgage in Japan (see note 21 on page 154), which is assumed to be repaid in full in the assessment period. We have no debt covenants.

Business model and markets – our business model includes designing and manufacturing products ourselves, giving us the flexibility to respond to customers' needs and control over where we direct our manufacturing resources. We can also direct our sales and marketing resources where needed, should market trends and conditions change. In addition, we are also diversified over a range of markets, as explained on pages 14-15.

Business planning – our business planning process uses a top-down approach (the 'corporate view') as well as detailed forecasts from both our product groups and our sales regions, to ensure we consider a range of perspectives. We also use external sources of information, such as market trends and economic growth rates, in our business planning process.

Risk management – we have a robust risk assessment and management process, as set out on page 39. As we explain in the scenarios section below, the crystallisation of our principal risks has been considered in the viability assessment.

Assessment period

The Directors used a three-year period, to the end of September 2025, in making their viability assessment. While a five-year business plan has been prepared, the Directors feel that a three-year period is more suitable for this assessment and better reflects our business model, where we typically have short-term contracts with customers, a short order book, and can adapt our manufacturing to demand in months rather than years.

Principal risks

The Directors reviewed our principal risks and considered which would have a significant financial effect on the Group in the next three years if that risk were to crystallise. For risks such as People, Innovation strategy, and Capital allocation, the Directors felt that if these risks crystallised they would result in the restriction of longer-term growth rather than having a significant financial effect in the medium term. We therefore didn't include these risks in the scenarios. For other principal risks, the Directors considered that the scenarios sufficiently modelled a range of outcomes, including what would happen if multiple risks crystallised at the same time, and that the outcomes of other risks crystallising would be no worse than the existing scenarios.

Seven of our principal risks were taken forward into 'severe but plausible' scenarios, as explained in the table opposite.

Financial modelling

Each scenario used the same starting point, taking the revenue forecast as the pessimistic view in our five-year business plan (which we also refer to as the 'highly probable' revenue forecast for hedge accounting). The starting point for overheads, capital expenditure, and other cash outflows was then taken from optimistic revenue forecast from this same plan. Together, this means that the scenarios started by assuming that revenue growth is at the lowest end of our corporate view while still incurring the costs in the next three years that are needed to achieve revenue growth in later years. For context, revenue in the first year of this starting point is a small increase from FY2022's revenue of £671.1m.

The seven scenarios then took this same starting point and added in the following elements:

Scenario	Relevant principal risk	Financial modelling
A	Supply chain dependencies	Reduction in revenue if we were unable to buy certain critical ASIC chips for 12 months.
B	Industry fluctuations	As demand of our encoder products can be cyclical, the pessimistic revenue forecast already includes a reduction in revenue for this part of our business. Scenario B both increases this encoder downturn and adds in a significant reduction in demand for CMM and machine tool products from January 2024 onwards.
C	Economic and political uncertainty	This risk could cause both a reduction in revenue and an increase in costs as inflation rises. The modelling for this scenario therefore combined: – a reduction in sales from the start of the assessment period; – an increase in labour costs, starting in FY2023; and – an increase in materials, heat and power, and logistics costs. These cost increases are in addition to those already expected by management and that are therefore reflected in the base plan for each scenario.
D	Cyber	This scenario modelled a cyber-attack causing a loss of networks and systems for three weeks (management's assessment of a worst-case scenario for total network loss).
E	Loss of manufacturing output	This risk was modelled as the effect on our business if we lost the use of our main hall at Miskin, Wales – our largest factory – for six months.
F	Exchange rate fluctuations	This scenario modelled the effect of a further 10% and 15% strengthening in Sterling, compared to management's existing assumptions.
G	Climate change	In this scenario, Net Zero capital expenditure estimates increase by 50%.

This modelling showed positive cash and bank deposit balances throughout the assessment period for all scenarios. These balances remained above £100m throughout the viability assessment period, except for scenario C where cash and bank deposits became negative in November 2024. We therefore remodelled scenario C with mitigating actions. These were to reduce the performance-related bonus, and dividend, to levels appropriate for the reduced trading performance. In this revised scenario, cash and bank deposit balances remained above £60m throughout the assessment period.

Outcomes, mitigating actions and upsides

As explained above, the financial modelling demonstrated that should the Group experience 'severe but plausible' conditions in the period to September 2025, positive cash and bank deposit balances can be maintained throughout. As a vertically integrated business that typically funds future growth through cash reserves, we have a good degree of control on how we use cash, and a range of mitigating actions we can take to respond to challenging conditions.

In making their viability assessment, the Directors also considered the strong demand we are currently experiencing and how well we've responded to challenges such as the pandemic and global supply chain disruption.

Conclusion

Based on this assessment, incorporating a review of the current position, the scenarios, our principal risks and mitigation, the Directors have a reasonable expectation that we'll be able to continue operating and meet our liabilities as they fall due over the period to 30 September 2025.

Managing our resources and relationships

How we engage with our stakeholders

We've summarised our stakeholder relationships below, and on pages 66–68 set out how we have considered our stakeholders when making important decisions (our 'Section 172 statement').

Our people	Planet	Customers
		
Why we engage Attracting, retaining and motivating our people is vital to our success, so that we have the right skills and knowledge in our business. We also need to hear how our people are feeling in terms of wellbeing, and to ensure that we are providing a safe place to work.	Why we engage To deliver long-term value in a world of increasingly scarce resources, we need to minimise the impact our business has on the environment. Stakeholders also tell us that this topic is important to them.	Why we engage To give our customers the products and services they need, we must understand their needs and the problems they're trying to solve.
How we engage – Works Forums, attended by members of the HR team and employee representatives. – HR Business Partners and their work with line managers and leaders in their areas of the business. – Diversity and Inclusion group. – Updates on Channel R, our in-house video channel.	How we engage – Discussions with customers on their sustainability requirements. – Reviewing and monitoring our emissions, waste output and energy consumption.	How we engage – Visits to customer sites to understand their manufacturing challenges. – Visits to Renishaw sites for demonstrations. – Meetings and discussions at trade shows and conferences. – Live webinars and online workshops. – Smart Manufacturing Ambassador programme on social media.
Actions – Began a global salary benchmarking review, intended to move our entire pay range fully into the upper half of the market range. – New performance review process. – New job grading structure.	Actions – Agreed Net Zero targets – by 2028 for Scope 1 and 2 emissions, and no later than 2050 for Scope 3. – Created a Sustainability Committee and brought four new people into our Sustainability team. – Launched a salary sacrifice scheme for ultra-low emission vehicles (ULEV), starting in the UK.	Actions – Restarted attendance at global trade exhibitions and customer open houses. – Created more live and on-demand webinars which are available in up to 13 languages. – Restarted visits to local demonstration facilities.
Read more on pages 54–56	Read more on page 57–61	Read more on page 62

Communities

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Why we engage

Acting in a responsible way is important to us, and we want to make sure that we have a positive influence on the communities close to where we operate.

How we engage

- Educational outreach work, including virtual workshops, led by four full-time members of our outreach team.
- Employee volunteering.
- Donations, including providing IT equipment.
- Active membership of trade associations and research centres.

Actions

- Donated £0.3m to over 190 charitable and not-for-profit organisations.
- Engaged with 11,000 students through our schools outreach programmes in the UK.
- Supported the UK's Homes for Ukraine scheme and sponsored two Ukrainian families to settle in Gloucestershire.

Read more on page 63

Shareholders

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Why we engage

We recognise the trust that our minority shareholders have placed in us, and aim to provide sustainable long-term growth in return.

How we engage

- Reintroduced our Investor Day in May 2022.
- Webcasts to present our interim and annual results, including Q&A sessions.
- Feedback received at and after the AGM.
- Dedicated email inbox for shareholders to submit questions before the AGM.

Actions

- Interim dividend of 16.0p per share, paid in April.
- Final dividend proposed of 56.6p per share.
- Hosted 49 investors at this year's Investor Day.

Read more on page 64

Suppliers

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Why we engage

Having a secure supply of high-quality, safe and ethical raw materials is important to our success as a manufacturer.

We also need to have strong relationships with our suppliers to help us meet our customers' evolving needs.

How we engage

- Regular calls and meetings between our purchasing teams and our suppliers.
- Purchasing teams located in key locations for working with suppliers, including China.
- Supplier audits and performance reviews.

Actions

- £166.5m spent with suppliers during the year.
- £88.4m committed to capital expenditure projects.

Read more on page 65

Managing our resources and relationships continued

Our people

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We have had another busy year, prioritising key activities and welcoming more than 1,000 people into our business. The pandemic has continued to cause some challenges, but we've turned these into opportunities and focused on three key topics; improving our performance reviews, supporting career progression and developing our reward and benefits offer.

Developing and motivating our people

We needed to improve our performance review process, to promote transparency, consistency and fairness, and to encourage more regular conversations between people and their managers.

In FY2021, we began rolling out a new process, including a new rating system. Following performance reviews in that period, we asked people to share their experience of that process. They told us that they found the rating system complex and had difficulty completing their reviews within the required timescales.

We set up a working group to address this. While the overarching principles remain the same – we review performance based on a combination of objectives and attributes – we wanted to simplify the process. This year, we've made the following improvements:

- **process** – reduced the number of steps required to complete the performance review;
- **scoring** – replaced our itemised objective and attribute scoring system with a simpler description-based rating system;
- **accessibility** – extended the amount of time managers can access team reviews; and
- **timetable** – shortened timescales to complete the process, so it didn't become protracted.

Following these changes, our focus for FY2023 will be to evolve and refine the process further.

This year, we have also focused on ways to strengthen career progression at Renishaw. This is following feedback from existing employees, and leavers in their exit interviews, telling us that they didn't understand career progression pathways. Some people also felt they lacked access to development training.

We set up a working group to address this topic, with representatives from across the business. We also shared a survey with all UK employees in January 2022 to gather feedback. This told us that:

- most employees feel that progression should recognise their personal development in terms of skills and knowledge;
- career progression and increasing responsibility, aligned with pay increases, is very important to them, particularly as they develop their careers in their 20s and 30s;
- some people want to expand their role and become more influential at work, and this is most common at office-based sites;
- some employees are satisfied in their current position and are not looking for promotion at the moment;
- job title changes are highly valued by people in the early-to-mid stages of their career;

- people wanted clearer information on competencies, grades, salary and career paths;
- younger employees would prefer more frequent promotion with smaller increments of responsibility and pay, over less frequent/bigger steps.

Respondents also told us that while competitive pay is a key factor for retention, we also need to improve the way we support our people to build their skills and develop their careers.

We're currently working on a new job grading structure, using an industry-wide framework, which will help us to benchmark our pay and benefits across the Group. Once the revised grading structure is in place we'll create competency frameworks for all our roles. This will make progression pathways more transparent and link them to relevant training/resources to better support personal development. Our HR Business Partners (HRBPs) also continue to develop succession plans within their business units to safeguard key skill sets.

These changes will take some time to implement but we're committed to making them to give our people greater clarity and understanding.

Our Workday Learning system currently offers almost 1,200 training courses on subjects such as technical skills, project management and engineering change management, and we provided more people management training this year.

Our Early Career pathways continue to be popular and we welcomed 160 students during the academic year for work experience on a project-based scheme. We currently have 209 apprentices, 87 graduates, and 42 industrial placements across various disciplines, meaning we have around 340 people currently on these programmes.

Rewarding and recognising our people

We know that reward is an important topic for our employees, which is why this year we have reviewed our approach. Previous annual salary reviews have included an inflationary salary review based on CPI and linked to performance review, plus a bonus based on Group results. This had promoted a focus on monetary review rather than on performance or progression.

We aim to create a reward programme that is transparent, applied fairly and consistent with market forces to help us remain competitive. So we will continue to carry out periodic benchmarking to maintain competitive salaries and limit employee turnover. This is intended to move our entire pay range fully into the upper half of the market range, and has resulted in pay increases significantly above inflation for many people. We are aiming to introduce benchmarking globally by December 2022 using market data sourced from WTW.

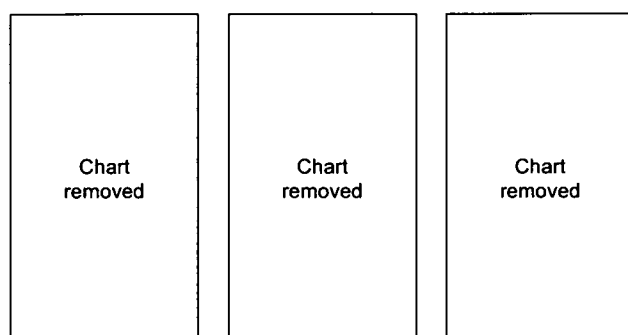
Our goal is to ensure that pay is set at an appropriate level, in line with both the wider employment market, and our reward programme. We have made significant progress on this from the benchmarking work we've done this year, however there is still further work to do to reach our target position.

Nurturing an inclusive culture

We are committed to creating a work environment where everyone feels included. Our aim is to promote a culture that embraces our people's differences and improves engagement, helping them perform to the best of their ability.

We're recruiting an Equality, Diversity and Inclusion Lead who will help us to develop, implement and monitor our diversity and inclusion programme going forward. This year we;

- published a more detailed report for our employees to explain what we are doing to reduce our gender pay gap;
- increased the number of Diversity and Inclusion Champions;
- started an inclusive leadership training programme for our managers;
- reviewed our recruitment processes for due diligence on diversity and inclusion measures;
- reintroduced stress awareness training for our managers;
- promoted our values to support a culture in which diverse skill sets, combined with a strong collaborative approach, create an environment where both personal and business objectives can be met.



At 30 June 2022 our gender diversity split was:

Management level	Male	Male %	Female	Female %
Board	6	75	2	25
Executive Committee	6	86	1	14
Senior managers ¹	15	83	3	17
Subsidiary directors ²	40	95	2	5

¹ As defined by the Companies Act 2006.

² Means statutory directors.

Engaging with our people

The ongoing effects of the pandemic have highlighted the importance of engagement to ensure that our people continue to feel supported through challenging times. Returning to normal after lockdown has given everyone the opportunity to return to collaborating onsite more frequently, which our people have welcomed. Employees have welcomed our new hybrid working policy, which adds further flexibility to our working practices.

The labour market has been particularly challenging in all regions. As a result, we have taken a more dynamic approach to attracting and retaining talent, including incentivising our existing employees to make referrals for key roles.

We hope that our focus on performance review, career progression and reward will also improve employee engagement. More generally, we continue to share news and information about Renishaw through a number of channels, to help our people stay engaged in our Group.

During the next year, we will continue to achieve our objectives for reward and career progression. We also intend to review our benefits package to identify where improvements can be made.

Supporting wellbeing

The health, safety and wellbeing of our people remains a priority. Once again, our people rose to the ongoing challenges during the pandemic this year. We took a cautious but structured approach to relaxing measures when lockdowns were lifted, demonstrating our commitment to keeping our people and our communities safe.

Of course, wellbeing has remained a critical issue for everyone, even as restrictions have started to ease. As a result, we've introduced additional measures to support our people's health and wellbeing:

- Added mental health cover to our subsidised private medical scheme (UK only).
- Introduced a free flu voucher programme (UK only).
- Increased our wellbeing materials on SharePoint.
- Shared further guidance for managers on handling difficult conversations.
- Piloted mental health awareness training for managers (UK only).

Providing a safe working environment

We've continued to work hard managing COVID-19 risks and the associated changes in legislation and guidance, protecting our employees' health and safety with minimal business disruption. We've reviewed our COVID-19 control measures throughout the year, and some measures remain in place such as providing free lateral flow tests for site-based employees. With the rules on wearing of face coverings and social distancing relaxing, we're back to a relatively normal way of working.

With a new Group Health and Safety manager joining us in the year, we've introduced a new H&S strategy and have three further new members of the team. We also developed and delivered a 'near miss' reporting campaign, which is helping us to better understand these events and take remedial action. Our H&S team also discuss these near misses with managers in the relevant business areas. This should help reduce our accident rate in the future.

This year we experienced 145 accidents (2021: 124) against a year-end headcount of 5,097 (2021: 4,664). This gives an accident frequency rate of 24.27 per million hours worked (2021: 17.40), with the increase reflecting that we have more people working onsite this year.

There were six reportable accidents under the UK RIDDOR reporting requirements. This is equivalent to a lost time injury rate of 1.0 per million hours worked, compared with a UK manufacturing average for RIDDOR-reportable accidents of 2.3 per million hours worked.

Gender pay gap

22.0%
mean
(2021: 23.7%)

22.8%
median
(2021: 23.2%)

Health and safety

1.0
injury rate per million
hours worked (Group)

2.3
injury rate per million
hours worked
(average for UK
manufacturing sector)

Managing our resources and relationships continued

Our people

Opportunities to progress

We are proud of our track record of developing people from within the business. We offer them opportunities to progress through different levels and into other parts of the Group. Our Early Careers programme is really popular, and many of our senior leaders have been with us since the start of their career; Will Lee, our Chief Executive, was part of our graduate intake in 1996. Here, a few of our people talk about how they developed their career at Renishaw.

Image removed

“

I'm a third-year apprentice and joined the programme after completing my GCSEs. From day one, Renishaw offered me a secure platform to develop my education and hands-on skills in an enjoyable environment. As an ambitious global business, Renishaw is continuing to invest in my potential as an engineer.”

Seb Hobbs
Manufacturing Apprentice

“

I joined as an apprentice 10 years ago, moving into manufacturing to work on CMM products. I've since completed my degree in mechanical engineering and am now a Senior Process Improvement Engineer, leading a team of technicians and engineers to support the production of our styli and encoder products.”

Beth Low
Senior Process Improvement Engineer

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“

I started the embedded electronics degree apprenticeship programme in 2017 and since then have rotated through various roles in the business. I've been working on the embedded software in our next generation of radio probes, and am looking forward to developing my own skills and Renishaw's future products.”

Jack Chapman
Design/Development Engineer

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“

I wanted to explore options related to my medical engineering degree but outside of a pure engineering role, so I joined the graduate programme as a Project Co-ordinator, delivering product development projects for encoders. I then moved to Group Engineering as a Senior Project Manager, streamlining business processes, project reporting and business change initiatives. In March 2021, I became our Head of Compliance Transformation, supporting the business to better align our compliance activities.”

Lily Joyce
Head of Compliance Transformation

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Promoting from within

Louise's journey

“

I started working as a summer placement student in Renishaw Ireland while studying engineering at Trinity College Dublin, before joining the UK graduate programme in 1997. Since then, I've held several technical, operational and corporate roles, including in design, production and project engineering, as well as key operational roles.

A particular highlight was working closely with Will Lee and the Executive Committee on key strategic and operational projects. More recently, I've been appointed Director of Additive Manufacturing, working closely with a dedicated team, including Sir David McMurtry, to shape Renishaw's future direction in this exciting area. I combine my role at Renishaw with that of mother to three young children.”

Louise Callanan
Director of Additive Manufacturing

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Managing our resources and relationships continued

Our planet

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Our approach to sustainability

Sustainability is an integral part of our purpose to transform tomorrow together. It's our ambition to become a sustainability leader, working in partnership with our customers, suppliers and local communities to create positive change. This year, we developed a new sustainability delivery plan, guided by our values, which sets out our targets for reducing our emissions and how we'll contribute to the three UN Sustainable Development Goals (SDGs) that are most relevant to our business.

One of the most important ways in which we can have an impact is by reducing our emissions. Our new Net Zero commitment, approved by the Board in April 2022, sets out how we will prioritise that work.

In order to achieve our commitment, we will need to reduce our GHG emissions by 90%, compared to our FY2020 baseline.

So, we have committed to reaching Net Zero across all our Scope 1 and 2 emissions by 2028 and in our Scope 3 emissions by 2050, at the latest.

To address the remaining 10% of emissions, we'll invest in credible carbon capture and removal programmes, such as reforestation and carbon capture technologies. This way we can ensure that we're removing at least as many GHGs as we emit.

We intend to submit our targets and plans for verification and approval by the Science Based Target initiative (SBTi).

Addressing our Scope 1 and 2 emissions

Scope 1 and 2 emissions are those that we release directly into the atmosphere, either by burning fuel to run our vehicles and buildings or through the electricity we buy.

To tackle these emissions and reach our 2028 target, we have developed a phased action plan, which includes:

- moving our sites to low-carbon heating systems;

- installing more renewable sources of energy at our sites, such as solar panels and wind turbines;
- continuing to move our sites to purchased renewable electricity; and
- upgrading our vehicle fleet to ultra-low emissions.

Scope 3 is a broader category covering indirect emissions associated with making our products. For example, emissions associated with moving our products around the world, or from the goods and services we buy.

Calculating Scope 3 emissions is a complex process because it involves measuring the GHGs from our whole value chain. So we have set ourselves a deadline to quantify these emissions by March 2023. We're already making progress in several areas, including:

- introducing an ultra-low emission vehicle (ULEV) leasing scheme for UK employees; and
- carrying out life cycle assessments (LCAs) for key products to determine their environmental impact.

We realise that becoming a sustainable business requires a lot more than achieving Net Zero emissions. That's why we've also assessed the SDGs and identified three that are most relevant to our business:

- Goal 8 – Decent work and economic growth;
- Goal 12 – Responsible consumption and production; and
- Goal 13 – Climate action.

Within the next year we'll create objectives and targets for our contribution to these goals and report publicly on our progress.

To help us deliver our sustainability plans, we have set up a new Sustainability team, which includes four new roles that will work alongside our Head of Sustainability. We've also created a sustainability governance structure (see overleaf) to manage and direct our approach.

We've made significant progress in the last 12 months and are excited to continue working towards achieving our sustainability commitment. On the following two pages you can read more about our plans to reach Net Zero and what we've achieved this year.

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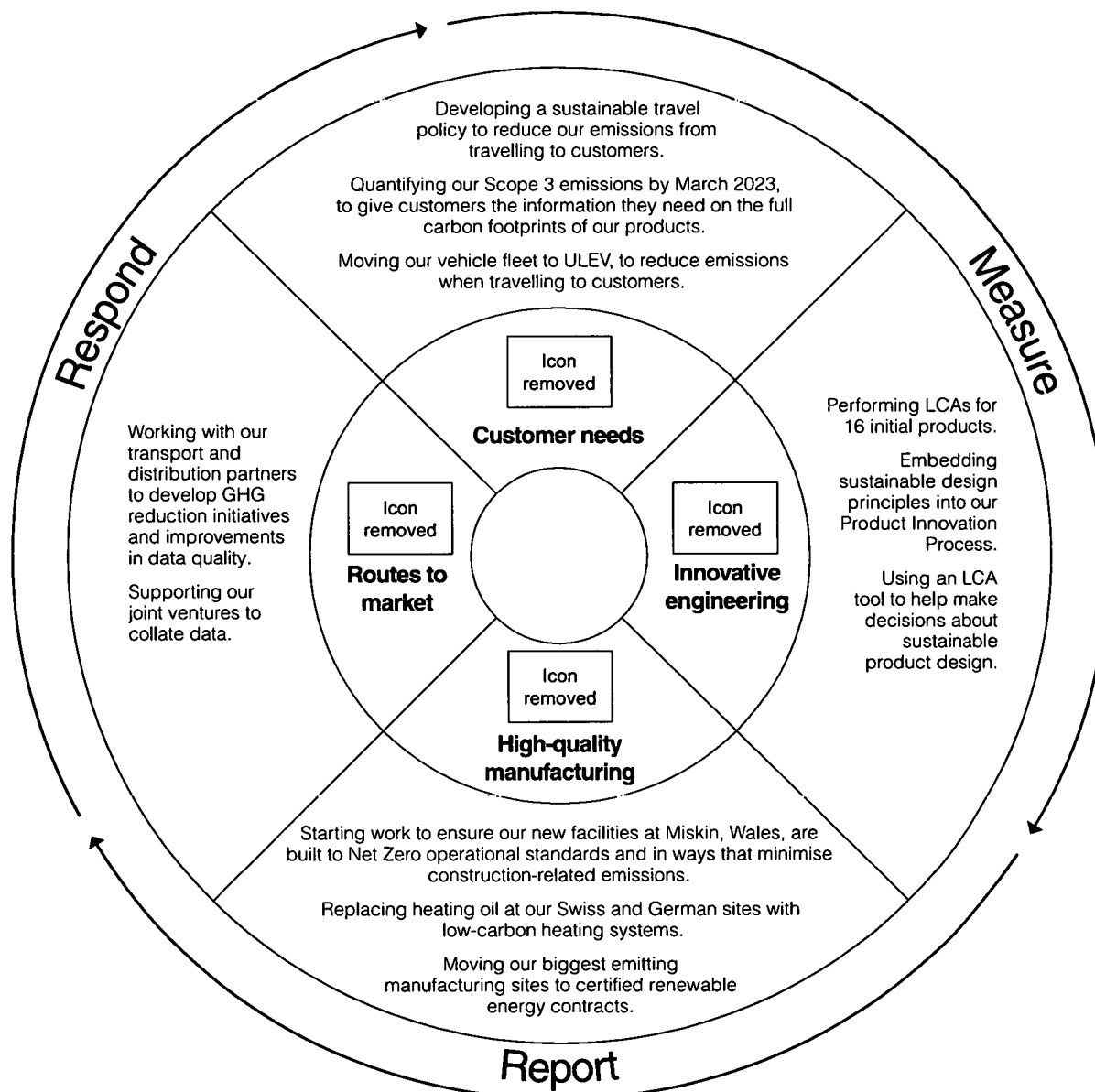
We calculate our GHG emissions using the GHG Protocol Corporate Accounting and Reporting Standard (revised edition). We base as much data as we can on direct sources, such as meter readings and utility bills. We use estimated figures for June each year to ensure timely data capture, but we'll update June 2022's data in the next Annual Report. Data for previous years has been subject to a 'true up' due to improvements in data capture methodologies, official retrospective updates to carbon emission factors and the correction of historical data errors. Our 'statutory emissions' mean our Scope 1 and 2 emissions and we use the market-based methodology to account for our efforts in generating and purchasing low-carbon energy. The location-based method is provided for disclosure only.

Managing our resources and relationships continued

Our planet

Our Net Zero commitment

To achieve Net Zero, we need to make changes throughout the business, which is why we've aligned our Net Zero commitment with our business model. To successfully deliver on a commitment of this scale, it will be crucial for us to measure our progress, report to relevant stakeholders and take meaningful action in response. The graphic below shows the key actions that we've identified so far and how they relate to our business model:



Our progress this year

In addition to agreeing our Net Zero commitments this year, we've continued to make good progress in our existing work to reduce emissions, minimise waste, and support our customers in their sustainability journeys. We've also introduced a new sustainability governance structure to help direct and oversee this work:

Sustainability governance structure



Life cycle assessments to help our customers

We know our customers value the way in which our products reduce waste and improve efficiency. We also know that they want to understand the product's environmental performance. That's why we're starting to carry out a series of LCAs on a mixture of popular and new products. This will help us understand and quantify their environmental impact, so that we can share this with our customers. We plan to start integrating LCAs into our Product Innovation Process (PIP) this coming year. Once fully integrated into the PIP, it will ensure that new products are designed with sustainability as a key requirement.

We also want to find ways to design more sustainable options for our products once they reach their end of use. To help us do that, we set up a new Design for Circularity forum this year, which includes representatives from every product group. We also provide recycling guidance for our products which helps end users dispose of them responsibly.

Lowering our emissions

Once again, we're pleased to have reduced our statutory GHG emissions by 293 tCO₂e this year. We have mainly achieved this by fitting solar panels to our buildings in Dublin, Ireland, and Apodaca, Mexico, and moving more of our sites to renewable electricity contracts. Our overall measured GHG emissions have increased this year because we've started measuring more of our Scope 3 emissions. As mentioned, we intend to fully quantify our Scope 3 emissions by March 2023, but already report more GHG data for:

- shipping and distributing our products;
- employee commuting;
- our joint venture companies; and
- the raw materials we use.

Our air travel emissions increased by 662 tonnes CO₂e versus last year, as COVID-19 travel restrictions eased. However, we haven't returned to our pre-pandemic levels, thanks to our new hybrid ways of working. To keep making progress, we're developing new sustainable travel principles, which will help embed sustainability in everyday business decisions.

Minimising our waste

Due to a record year of trading, our waste levels rose to 2,616 tonnes this year (2021: 2,438 tonnes). However, we diverted 87% of our waste away from landfill, by finding ways to reuse, recycle and compost, as well as energy from waste recovery. For example, we began successfully reusing our transit crates, which has reduced the number of new crates we needed to buy.

We know that a significant proportion of our waste is created from our manufacturing processes. So, our new Design for Circularity forum is working with our manufacturing waste champions to continue looking at ways to minimise the amount of waste we generate, while maximising options to reuse, recycle and compost.

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Managing our resources and relationships continued

Our planet

Task Force on Climate-related Financial Disclosures

The table below shows our position relating to the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and recommended disclosures, in compliance with Listing Rule 9.8.6(8). This year, we've taken steps to comply with these recommendations and disclosures, including establishing our Sustainability Steering Committee to oversee our sustainability approach. We haven't yet been able to take all the necessary actions to comply fully with the recommended strategy disclosures a), b) and c), or risk management disclosures a), b). However, below, we set out what we have achieved this year, as well as explaining how we're working towards full compliance in our next Annual Report.

Progress



Improvement



No change

Governance

2022 position	2023 priorities	2022 progress
– We have identified climate change as a principal risk (see page 48). This means our Board now oversees the Group's management of climate-related matters, which are discussed regularly at our Board meetings. Allen Roberts, Group Finance Director and Board member continues to hold executive responsibility for sustainability. Our Audit Committee, with input from the Risk Committee, oversees risk management including climate-related risks. More detail on how the Board are updated on principal risks can be found on page 40. – The Board has considered climate-related issues when reviewing and guiding strategy, and in April 2022 it approved our Net Zero commitment. As part of this commitment the Board considered climate-related issues when they agreed a major plan of works and significant capital expenditure to reach Net Zero in our Scope 1 and 2 GHG emissions by 2028. It made clear that the budget for the Sustainability team should be increased to cover four new specialist sustainability roles. – Our Sustainability Steering Committee provides strategic oversight of our sustainability approach and our full sustainability governance structure is on page 59. The Committee includes members of the Executive Committee and senior managers. It gives monthly climate-related updates to the Board and wider Executive Committee. – This Committee also supports our Board in making strategic decisions on climate-related matters, such as our Net Zero commitment.	– We'll establish a consistent and regular review of climate-related risk and opportunities so our Board can oversee progress towards related goals and targets. – We'll also start a training programme on carbon literacy and climate risk and opportunities for our senior managers and wider Group.	

Strategy

2022 position	2023 priorities	2022 progress
- Although we have identified climate change as a principal risk, our Risk Committee has agreed that we need to better understand exactly what climate-related risks and opportunities we face. - We are already aware of some of those risks and opportunities. For example, the rapid rise in energy prices is both a risk and opportunity since it increases costs but reduces the payback period on renewable energy generation projects. As a result, more of our sites have become viable for renewable energy generation projects. However, we have not yet completed a full assessment of all our climate-related risks and opportunities, and this will be a priority before we publish our next Annual Report.	- We'll carry out climate scenario analysis to better understand our resilience to climate change. We'll focus on our own operations first but understand the importance of assessing resilience across our whole value chain. - We'll identify the climate risks and opportunities we face over the short, medium and long-term and determine their effect on our strategy and financial planning.	↔

Risk management

2022 position	2023 priorities	2022 progress
- Our risk identification and management process has identified our Climate change risk, as explained on page 48. - Our risk oversight for climate issues is located on page 39. This includes both a 'top down' and 'bottom up' risk identification process.	- We'll establish a consistent and regular review of climate-related risk and opportunities using a 'bottom-up' approach. - We'll start to engage with other stakeholders like customers, suppliers and investors as we recognise their involvement is necessary to effectively manage our climate risk and opportunities.	↑

Metrics and targets

2022 position	2023 priorities	2022 progress
- Our recently agreed Net Zero commitment means that we are now working towards Scope 1, 2 and 3 emissions targets. More detail can be found on page 57. - We continue to disclose GHG data as well as other environmental metrics such as renewable energy generation and waste. More detail can be found on pages 57 and 59.	- We'll quantify our Scope 3 emissions by March 2023. - We'll seek external assurance for our sustainability data. - We'll use relevant cross-industry TCFD metrics in future disclosures.	↑

Managing our resources and relationships continued

Customers

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Delivering our purpose means working closely with our global customers to help them solve complex challenges. It also means helping them increase innovation, product quality, production and operational efficiencies in their own businesses.

Building long-term relationships

When working with customers, we have four key aims:

- build long-term, trusted relationships to maximise customer satisfaction and return on investment. It is not just about a sale, but supporting and helping our customers develop their processes and improving the quality of their products;
- bring high levels of integration to our customers' manufacturing environments. We are especially focused on businesses that are looking to introduce connectivity and intelligent use of data into their processes;
- deliver excellent support no matter where in the world our customers are based. Supporting our customers, wherever their machines are located, builds their trust and confidence; and
- provide innovative services to support changing customer expectations and market requirements throughout the life cycle of all our product ranges. We are flexible in our approach and support customer needs from initial purchase, right through to end of product life.

We have always understood the importance of providing excellent support at a local level. We achieve this through our subsidiary network and long-term distributors. This allows us to assure our customers that whatever their needs, we can support and assist them, resulting in a positive return on their investment.

While the application of our products is common worldwide, business practices, customs and levels of technical expertise and language can vary. That's why our local teams are so important. This approach costs more than relying solely on third-party distributors, but it means our teams are readily available to provide support and advice. By using the strength of our UK operations to develop new products, this local approach means teams are free to make faster decisions and tailor their sales and marketing, and their solutions, to specific customer needs.

Establishing feedback

The ongoing success of our business relies on customers continuing to buy our products. To ensure our existing and future products continue to serve their requirements, we work hard to understand their needs. We do this in several ways, such as gathering regular feedback while testing new products and working with them to design world-class customer support programmes.

Due to the highly technical nature of our customers' requirements and our products, we prefer to do all this through direct contact. For example, the voices of our customers are represented at numerous forums, including regional sales and marketing conferences, product line conferences attended by representatives from our sales regions, and service conferences. Members of our Board and Executive Committee, and our Regional Presidents, also regularly engage with machine builders and end users across our key sales regions. They receive feedback on our performance as a supplier and

how we can continue to help our customers improve their own products and operational performance. Our membership of trade associations and other industry bodies (see 'Communities') gives us the opportunity to network with our peers and learn more about the challenges our industry faces.

As more customers set their own sustainability targets, it is more important than ever that we work with them to understand their challenges and goals. Understandably, customers are also interested in our own commitments and this year we received more questions than ever before, including queries about embedded emissions within our products.

This year we also started to attend global trade exhibitions and customer open houses, possible once again now that pandemic restrictions in many parts of the world are easing. These are very important opportunities to talk to our customers in a way that simply isn't possible using digital platforms. For example, our Chief Executive, Will Lee, attended exhibitions in EMEA, APAC and the Americas during the year, meeting key customers, as well as our sales and applications colleagues who have daily interactions with customers and prospects. These events are, once again, generating thousands of enquiries giving us valuable intelligence into market trends, as well as sales opportunities.

Despite the return of trade exhibitions, we continue to develop our use of digital marketing technologies. These have proven an invaluable way to interact with our wider industry and introduce them to our technologies and expertise. We've further developed our webinar programme during the year, with a range of topics such as CMM productivity and Raman spectroscopy of carbon materials. These are available live and on-demand in up to 13 languages. This has been particularly successful for our Spectroscopy business, whose live webinars now regularly attract more than 1,000 participants. We're continuing to use automated marketing to coordinate our messages, and deliver more tailored customer experiences.

Social media, especially LinkedIn, continues to be an important channel for us. Our Smart Manufacturing Ambassadors programme, which gives social media training and support to customer-facing employees, has increased our online engagement and support for customers. This channel makes us a more accessible business and our experts' 'How to?' style posts generate good levels of engagement, with queries answered directly by our employees.

The return of in-person events also means we can, once again, host customers from around the world at our local demonstration facilities and our manufacturing sites in the UK. As a manufacturer and heavy user of machine tools and our own products, we understand how to talk to our customers. Site visits give customers the chance to discuss mutual challenges, peer-to-peer, with our manufacturing teams.

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Our stand at the EMO Milano exhibition in October 2021.

Communities

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We strive to be open, honest and consistent in our relationships with the communities that live near our operations, and we are guided by our values of integrity and involvement. As a large organisation we recognise the impact we have on the communities we work in and aim to make a positive difference.

We aim to achieve this by:

- supporting community sustainability initiatives;
- providing financial support for charities and other not-for-profit organisations;
- engaging with local and national governments and elected representatives;
- working with trade and general business organisations;
- running extensive education outreach initiatives and large work experience programmes;
- supporting employee fundraising and volunteering;
- offering free use of our facilities for educational and other community events; and
- sponsoring community sports clubs and festivals for science, music and the arts.

Education outreach

Our science, technology, engineering and maths (STEM) education outreach programme is designed to excite, interest and engage young people in a range of engineering activities. We do this to encourage them to consider studying STEM subjects and, further down the line, a career in engineering. Our programme includes virtual and physical workshops at our longstanding education centre at our site in Miskin, Wales. We're also opening a new education centre at our New Mills headquarters this autumn, following a delay caused by the pandemic.

During the 2021-22 academic year our programmes reached around 11,000 UK students, with most events held online. Our interactive virtual workshops on 3D printing and coding proved particularly popular. We also ran work experience weeks and our four full-time education outreach employees, supported by more than 120 STEM ambassadors, also delivered talks and workshops at local schools.

We were particularly pleased that 49 of our events took place at schools with an above-average number of students claiming free school meals. We believe this is a good demonstration of our commitment to supporting diversity in engineering careers. We also worked with Gloucestershire Local Enterprise Partnership to give activity packs to special educational needs and disabilities (SEND) schools, supported by virtual interactive workshops. To mark International Women in Engineering Day 2022 we also hosted a weekend of STEM workshops for 130 Girl Guides.

In April we sponsored a WorldSkills event during the UK's MACH exhibition, which held competitions for students across Europe. In the USA, Renishaw Inc has relationships with several universities and colleges, including Greenville College, South Carolina, and Davis Technical College, Utah. This gives students access to our latest measurement technology and support from our engineers.

Image removed

Lucy Spiteri-Beale, one of our Early Careers STEM Outreach Tutors.

Charitable giving

We support charities and not-for-profit organisations within our communities via formal charities committees, individual employee fundraising and one-off fundraising events. The committees are focused on supporting organisations local to Renishaw offices. In the UK, we run an additional fund that donates monies to support the victims of global disasters.

In FY2022, we made direct donations totalling £292,000 to more than 190 different organisations around the world. This included donating £40,000 to charities supporting the crises in Afghanistan, Madagascar and Ukraine. Among our donations in the UK was £5,000 towards a baby transport incubator for the neo-natal intensive care unit at St Michael's Hospital in Bristol. In India, we gave grants of £105,000 to support projects focusing on healthcare, female empowerment, environmental protection, and child welfare. This included a £33,000 donation to the Ashwin Medical Foundation's Moraya Charitable Hospital in Pune, to help it operate its own oxygen plant during the pandemic.

In the US, our Social and Wellness Initiatives Towards Collective Health (SWITCH) committee focuses on the idea that one small switch can make a big difference to your overall wellbeing. This year, the committee ran a number of fundraising events, including a 'One Warm Coat Drive' to purchase winter coats for people in need, a local blood drive and a sweet collection to send to US troops serving overseas.

Following the Russian invasion of Ukraine, we also made some of our accommodation that is normally used by employees available to the UK's Homes for Ukraine programme. We also sponsored two Ukrainian families to help them settle in Gloucestershire.

Community engagement

We support a wide range of arts, music and sports organisations in the West of England and South Wales where our main UK sites are located. During the year, this included Lechlade and Wychwood music festivals, and sponsoring Scarlets Women's rugby team, as well as several national and international male players. We're also long-term sponsors of Bristol Beacon concert hall, where we are sponsoring an education room that will be located within its refurbished building in the heart of Bristol.

We continue to support initiatives that aim to create more sustainable communities. For example, we are members of Stroud District Action on Plastic, which aims to remove unnecessary plastic in the area. We also take part in a project, which is using some of our land to help realise its aim to provide a traffic-free route that connects our New Mills headquarters site with local towns, villages and a proposed train station.

We support our wider business community through active membership of trade associations and industry research centres, such as Canada Makes; the European Society for Precision Engineering & Nanotechnology; Global 3D Printing Hub (Spain); and the Additive Manufacturing Users Group (USA).

Managing our resources and relationships continued

Shareholders

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Shareholders

With around 53% of our shares held by our founders, Sir David McMurtry and John Deer (our Executive Chairman and Non-executive Deputy Chairman respectively), our investor profile is quite different to most other large, listed companies. We recognise the trust that our minority shareholders have placed in us, and aim to provide sustainable long-term growth in return.

Engaging with shareholders

We were pleased to welcome shareholders back in person at our November 2021 AGM. Due to positive feedback from the wider investor community, we have kept the Q&A facility, which we first introduced at our closed doors AGM in 2020. This allows our shareholders to submit questions via email before the meeting and to submit proxy instructions electronically. It also helps them engage with the Board even when they are not able to attend the AGM. Details of this year's AGM can be found in the Notice of Meeting, which will be provided separately to shareholders in due course.

During the year, we held open webcasts for the FY2021 full-year results and FY2022 interim results (which also included Q&A sessions). Recordings of these are made available on our website.

With COVID-19 restrictions lifted, we were also pleased to welcome back current and potential shareholders, analysts, brokers and financial advisors in person at our Investor Day in May. During the day, we gave presentations on our strategy and commitment to sustainability, including our journey to Net Zero. We also held smaller workshops, which focused on topics including finance, strategy and individual product groups. This helped investors to gain more in-depth understanding about our products and business, and to ask detailed questions. The Board considered investor feedback on the day via our broker UBS, and intends to implement appropriate enhancements.

Record revenue and adjusted profit before tax

We're pleased to have achieved record revenue and adjusted profit in a year where we have seen strong revenue growth in all of our regions as the recovery from the effects of the pandemic continues. Adjusted profit before tax increased to £163.7m this year from £119.7m last year, and statutory profit before tax increasing to £145.6m this year from £139.4m last year. Our cash and bank deposit balances have increased to £253.2m at 30 June 2022, from £215.0m at 30 June 2021.

We have always valued having cash in the bank to protect the core business from downturns, and we monitor our cash against a minimum holding according to forecast overheads and revenue downturn scenarios. This cash also enables us to react swiftly where investment or market capture opportunities arise, while we expect to significantly increase our investments in capital expenditure in the coming years to meet expected future demand.

Investing for the future

To deliver sustainable long-term growth, we have continued to invest in research and development this year, spending £85.8m on engineering costs in the year. As explained on page 19, we've continued to concentrate on our flagship product projects this year, focusing on products that we believe offer the best return on our investment and fit with our longer-term strategy.

With further improved profits and cash, we increased our interim dividend to 16.0 pence per share, and the Board proposes a final dividend of 56.6 pence per share.

Image removed

Product demonstration at our May 2022 Investor Day.

Shareholdings

Directors

52.85%

Individuals

1.04%

Institutions

46.11%

Suppliers

Icon removed

Developing relationships

Our purchasing teams in the UK, Ireland, India, China, the USA, and various European countries work hard to develop strong, effective relationships with our suppliers. By having teams based close to many of our suppliers we can have regular and direct communications while addressing differences in culture, time zone and language.

We also aim to build long-term relationships with suppliers. We do this by embedding buyers within our New Product Innovation teams so that we work with the right suppliers from the initial product design stage. This helps us to ensure that we're receiving the components and materials we need from suppliers with the high standards we're looking for, while supporting their growth too. As a result, our overall number of suppliers hasn't significantly changed as our business has grown; instead many of our suppliers have grown with us.

We use tens of thousands of individual raw materials and components, and so we recognise that we can't take a 'one size fits all' approach to these supplier relationships. For some suppliers we'll be a relatively small part of their business, while for others, particularly small businesses located near our manufacturing sites, we could be their major customer. This reinforces the importance of working with our suppliers from the early design stages, to help identify what matters most to them.

Overcoming challenges in the year

Like many businesses, we've experienced supply chain challenges this year. For many of the raw materials and components we buy, global demand has outstripped supply, and this has been a particular challenge with electronic components. Some lingering effects of pandemic-related local shutdowns and Brexit have exacerbated these issues.

Our long-term approach to working with suppliers, and the quality of the relationships we've built, has helped us meet this challenge. Our purchasing teams' responsiveness and rapid decision-making means we have responded quickly to changes in supply and pricing. Having teams based close to main sources of supply has also helped us to identify alternative suppliers where needed. As some of our customers are manufacturers of electronic components themselves, in some instances we've used those relationships to strengthen our position with suppliers to secure supply of critical parts.

Being clear on priorities has also helped us to mitigate much of the supply disruption. Giving our suppliers clarity on our demand requirements, including over the medium-term, has been important to them. In turn, we've needed accurate delivery dates from them to help revise our production plans as necessary. As a result of our work with our suppliers, and our investment in buying safety stock of critical components, we've seen no significant disruption to manufacturing this year.

We remain grateful to our suppliers for their support in working with us in this challenging period.

Working with high-quality and ethical suppliers

The need to protect the interests of our employees, customers, and shareholders is important to us, and we do this by ensuring that our supply chains are as risk-free as possible. We use a risk management process that regularly assesses supply chain risk and, where possible, looks to introduce secondary sources for all key outsourced requirements.

We actively involve suppliers in our supplier performance programme. Existing suppliers are assessed on a regular basis to ensure that they meet expectations in the areas of delivery, quality, corrective actions, and responsiveness. Where we find shortcomings, we engage with suppliers to ensure they are trained in good practice and that appropriate ongoing improvement programmes are put in place.

Our supply chain and engineering teams put great emphasis on ensuring that suppliers have the ability to meet our high standards of quality by engaging with them as early as possible.

Where necessary, we work closely with suppliers to ensure that they have the controls in place to ensure the ongoing supply of quality goods and services. We share known good practices and our knowledge and experience.

We are committed to conducting our business with honesty and integrity; suppliers are no exception to this policy. All suppliers we engage with are required to comply with our trading terms and Group Business Code, covering areas such as modern slavery, conflict minerals, human rights, anti-bribery, tax evasion, data protection and dangerous goods.

Image removed

AM assembly at our factory in Miskin, Wales.

Expenditure on goods and services:

£166.5m

Committed to capital expenditure projects:

£88.4m

Section 172 statement

How has the Board had regard to Section 172 matters?

We explain how our Board engaged with employees, suppliers, and customers during the year in the Managing our resources and relationships section on pages 52–65. The Directors regularly consider reports on health and safety, environment, and security. This supports the Directors in their decision-making, helping them understand the impact those decisions have on our local communities and the environment. It is critical to our success that we promote and ensure high standards of business conduct. Further information can be found on pages 41, 49, 55, and 57–59. The Group Legal and Company Secretariat, Quality, Compliance, HR, and Sustainability teams also report regularly to the Board. Our Non-financial information statement on page 69 identifies policies and guidelines governing our approach to anti-corruption, anti-bribery, social matters, and human rights. Considering the long-term impact of the decisions made by the Board is an integral part of the approval of strategy, and our strategic progress this year is disclosed on pages 18–21.

How did the Directors discharge their Section 172 duty when taking the principal decisions during the year?

Our Board takes the interests of our stakeholders into account when making decisions. We've identified key stakeholders on pages 52–53. Different stakeholders have different needs, so our Board tries to understand these needs and priorities during its discussions. This, together with considering the long-term consequences of decisions and maintaining our reputation for high standards of business conduct, has always been integral to the way we operate. This statement explains how our Directors:

- have engaged with our employees, shareholders, customers, suppliers, our communities and others; and
- have considered our employees' interests, the best interests of our shareholders, the need to foster business relationships with suppliers, customers and our communities, and the outcomes of those considerations on the following principal decisions taken during the financial year.

In this statement, we define principal decisions of our Board as those taken in this financial year, which relate to matters of key strategic importance and which are significant to any of our key stakeholders.

Employee retention commitments

What was the principal decision?

How to ensure that the remuneration of our people remained competitive and that we are well positioned to attract and retain talent.

Which stakeholders were considered?

Employees, shareholders

How did we engage with or consider our stakeholders?

We established working groups across the business to review our reward processes and make recommendations.
We gathered employee feedback through a pulse survey and exit interviews to help identify key areas for improvement.
We considered the expectations of, and verbal feedback received from, our shareholders.

What was the outcome of our engagement/consideration?

The Board approved a significant benchmarking budget for the UK and some overseas roles. It then implemented package changes or identified employees in two phases during the year. We intend to roll out benchmarking globally by December 2022.

During phase one, we engaged an external provider – WTW – to benchmark salaries in the UK, India, and parts of Europe. The benchmarking exercise involved the analysis of our pay distribution relative to the wider market, as well as the consideration of the pay of each employee, relative to what they might earn elsewhere, to ensure their pay is competitive. Around 1,400 companies contribute their data anonymously to the wider market element of this exercise.

Our reward strategy is now focused on improving our pay positioning by continuing to benchmark going forward.

The Board also agreed to simplify our performance review process (including the rating system), which has shortened timescales and given our people greater flexibility to complete their reviews.

In the main, our people have reacted positively to the changes in both the performance review process and benchmarking.

We are now in the process of putting a new job grading structure in place, and work is underway to develop competency frameworks to support career progression.

► For more information, see pages 54–55

Sustainability commitments

What was the principal decision?

Whether to set sustainability targets and, if so, how to achieve them.

Which stakeholders were considered?

Shareholders, employees, customers, suppliers, environment, and communities

How did we engage with or consider those stakeholders?

Employee-led groups such as the Sustainability Committee and Design for Circularity forum gave our people the opportunity to help shape the main actions and target dates of our Net Zero commitment and targets.

In setting these targets, developing our emission reduction plans, and acknowledging climate change as a new principal risk, our Board specifically considered investor expectations, acknowledging that many of our shareholders are similarly concerned about climate change and want to see companies take action.

The Board's consideration included reviewing the potential costs to the Group and our stakeholders (including our customers and suppliers) against the wider benefits of the commitment, including the benefits to our planet and communities in which we operate.

What was the outcome of our engagement/consideration?

Following engagement with stakeholders, the Board acknowledged that taking action on climate change is the right thing to do; from a global perspective, it is the responsible approach for both our planet and society.

Our Board agreed to set specific Net Zero targets to address our Scope 1, 2 and 3 emissions. To reach Net Zero, we aim to reduce our Scope 1 and 2 emissions, by 90% of our FY2020 baseline emissions, no later than 2028. And we aim to do the same in our Scope 3 emissions by 2050 at the latest. Our Board also agreed that climate change should be included within our principal risks.

Involving our employees in the process of setting our Net Zero commitment has helped to ensure it genuinely reflects our business and represents realistic and achievable goals. It also helped us consider the interests of our people. We communicated our Net Zero commitment across the Group through a series of webinars where employees could provide feedback and ask questions. A video was also posted on Channel R, our internal communications channel available on the employee intranet.

One of our larger institutional investors asked us to explain what our Net Zero commitment is, to help them understand how it aligned with their investment requirements. This has helped us to better understand what matters to our shareholders. We also gave a presentation on our Net Zero commitments at our Investor Day this year, and attendees had the opportunity to ask questions during a Q&A session.

As part of our sustainability commitments we have also identified three of the UN's Sustainable Development Goals which are most relevant to our business. Our Board have approved this selection since the year-end, and we will now develop targets and plans for how we can best contribute to these SDGs in FY2023.

► For more information, see pages 57–61

Section 172 statement continued

Our values

What was the principal decision?

How to communicate and embed our values – innovation, integrity, inspiration, and involvement – which underpin our purpose of Transforming Tomorrow Together.

Which stakeholders were considered?

Employees

How did we engage with or consider those stakeholders?

We held values workshops with regional representatives, with attendees from all levels of the business. This included dedicated workshops for senior managers to involve them in the communication of the values and to understand how they are perceived in different areas. This ensured that all parts of the business were considered.

Involving employees in values workshops before they were more widely communicated and embedded ensured we understood how the values were perceived by different employee groups and that they genuinely reflected our business.

What was the outcome of our engagement/consideration?

We ran a global communications campaign for our updated values, which included an introductory video from our Chief Executive, Will Lee. Other materials to support this campaign, such as videos from employees from different parts of the business and in multiple languages, were available on our employee intranet.

Having communicated our values to the Group, we launched a global values competition as a tangible way to recognise values-led behaviours and celebrate employees who exemplify them.

► For more information, see pages 6–7

Cessation of trade in Russia

What was the principal decision?

Following the Russian invasion of Ukraine in February 2022, we immediately stopped the supply of goods to our Russian offices. These offices continued to fulfil orders from local stock when possible and where customers were not subject to sanctions. The Board had to consider how to deal with operations in Russia going forward.

Which stakeholders were considered?

Employees, customers, suppliers, shareholders, and communities

How did we engage with or consider those stakeholders?

We consulted affected employees, distributors and regional management. We gave serious consideration to our people living and working in Russia, as our Board acknowledged that any interruption to, or cessation of, trade would have a significant effect on their lives. We issued regular guidance and published an FAQ document to address concerns. We listened to our people throughout the Group, who voiced their opinion that the right thing to do would be to end trade in Russia.

We also needed to consider our suppliers, as sanctions have been introduced against Russian and Russian-affiliated companies. As part of this, we reviewed our global supplier base and assessed potential effects of the decision. Our Group purchasing processes include assessing suppliers against current export controls and sanctions and conducting appropriate due diligence. We have talked to key suppliers around the world to identify any potential disruption within their own supply chains and will take mitigating actions where necessary.

What was the outcome of our engagement/consideration?

Following our stakeholder engagement, we decided to stop trade operations of our Russian subsidiary, including closing our offices in Moscow and Perm. Although we have been able to transfer some colleagues to other subsidiaries, regrettably this has meant job losses within Russia, and we have offered support to affected colleagues. The decision to end trade operations in Russia has also led us to make a provision for a possible £2.1m loss on the value of our Russian assets. Despite this, we do not expect to see major financial issues as a result of our decision. Combined sales to Russia and Belarus have typically represented around 1% of total Group revenue.

► For more information, see page 41

Non-financial information statement

We need to include in our Annual Report certain non-financial information, as required under sections 414CA and 414CB of the Companies Act 2006. The table below shows where this information can be found in this Report.

Our business model is set out on pages 16–17 and our non-financial KPIs are disclosed on page 23.

Reporting requirements(s)	Where you can find this	Our policies	Related principal risks
Climate-related financial disclosures	TCFD statement (pages 60–61)	n/a	Climate change (page 48)
Environmental matters	Managing our resources and relationships – our planet (pages 57–59)	Group Business Code, Group Environment Policy	Climate change (page 48)
Our employees	Managing our resources and relationships – our people (pages 54–55)	Group Business Code, Equality, Diversity and Inclusion Policy	People (page 42)
Social matters	Managing our resources and relationships – our people (pages 54–55) and our communities (page 63)	Group Business Code	People (page 42)
Respect for human rights	Managing our resources and relationships – our people (pages 54–55) and our suppliers (page 65)	Group Business Code, Modern Slavery and Human Trafficking Statement	People (page 42) Non-compliance with laws and regulations (page 49)
Anti-corruption and anti-bribery	Principal risks – non-compliance with laws and regulations (page 49)	Group Business Code, Group Anti-Bribery Policy	Non-compliance with laws and regulations (page 49)

Allen Roberts
Group Finance Director



The Strategic Report on pages 1 to 69 was approved by the Board on 15 September 2022 and signed on its behalf by:

Sir David McMurtry
Executive Chairman



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regulatory disclosures

114 Directors' responsibilities

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Productivity

BOST reduces
machine set-up
time by 50%

BOST Machine Tools Company (BOST), a well-established manufacturer of machine tools in Spain, has used our calibration solutions to support the verification and testing of their machines before they leave their factory.

With an increasingly demanding market, BOST was faced with the need to verify, and improve the precision of rotary axes but due to the design of the rotary heads it wasn't possible to mount equipment to the centre of these axes to verify performance. Our engineers demonstrated our XR20-W rotary axis calibrator on various machines at BOST, and this gave complete flexibility with test method set-up. Tests could be configured with the capture intervals and measurement ranges needed to suit the different axes being tested. Our off-axis rotary software also allows the XR20-W to be mounted away from the centre of axis rotation, providing a simple solution for the calibration of the rotary axes.

Our XL-80 laser interferometer has also been used to provide a stabilised laser source and environmental compensation, resulting in linear measurement accuracy within ± 0.5 ppm, and reducing calibration time by up to 50%.

BOST also uses the XL-80 to carry out precision checks on positioning performance of angular and straightness errors.

Together, these products have provided BOST with the accuracy and ease that they need, improving their own productivity and helping them to provide their customers with high-quality, verified machine tools.

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► Scan the QR code
to watch the video

Directors' Corporate Governance Report

Effective leadership for all stakeholders

Sir David Grant
Senior Independent Director

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This year, we further developed our strategy in the context of global challenges and opportunities, Board changes, and a focus on succession planning. We made good progress in launching our Net Zero commitment, and have focused on our employees, ensuring we remain a competitive and attractive employer. Importantly, we have continued to embed our values in all that we do.

Board changes

We renewed our work on Board succession planning this year. We welcomed Juliette Stacey as a Non-executive Director and Chair of the Audit Committee with effect from 1 January 2022. Juliette also joined the Nomination and Remuneration Committees. We appointed Stephen Wilson as a Non-executive Director from 1 June 2022. He also joins the Audit, Nomination and Remuneration Committees. These appointments have brought new perspectives and experience to our Board. While Juliette brings a strong finance and leadership background, Stephen has extensive business leadership experience, including strategic, financial, and business development experience in sectors relevant to Renishaw. We look forward to their contribution to the Board and the Group as a whole. I would also like to take this opportunity to thank John Jeans and Carol Chesney, who stepped down this year having served as very effective Non-executive Directors for a number of years.

Sustainability commitments

With climate change and environmental sustainability becoming increasingly prevalent concerns, I am particularly pleased to see that we have set ourselves a new Net Zero commitment. To achieve that commitment, we will need to reduce our emissions by 90% compared to our FY2020 baseline. To that end, we are aiming to achieve Net Zero for Scope 1 and 2 by 2028 and in Scope 3 by 2050 at the latest. We also accepted the Risk Committee's recommendation to elevate climate change from an emerging risk to a new principal risk.

Embedding our values

Our values underpin our purpose of Transforming Tomorrow Together. These principles guide the way we behave and the decisions we make, both as a business and individual employees.

In order to embed our values across the business and ensure our employees understand what they mean for them, Will Lee launched our global communications campaign. We also held a number of values workshops in different global regions.

These helped us to understand how our values would be perceived by our employees, and to ensure that everyone's views were considered. We engaged with a wide spectrum of employees and also gave our senior managers separate workshops to help them communicate our values to their teams. Alongside the campaign and workshops, we provided our employees with supporting materials on our employee intranet.

A culture driven by our purpose

We are strongly committed to ensuring everyone at Renishaw acts with integrity. To help them do that, it is vital that we maintain a strong culture which aligns with our purpose, strategy, and values. Our culture and ethics are enshrined in our Group Business Code and Anti-Bribery Policy, which can be found at: www.renishaw.com/businesscode and www.renishaw.com/en/renishaw-anti-bribery-policy-16236. We plan to introduce a new Code of Conduct next year, to support our growing business in light of the latest laws and regulations.

We continue to work on robustly assessing and mitigating our principal risks via our Risk Committee, with a particular focus this year on our people in light of the enhanced level of this risk. See pages 39–49 for more information.

Our confidential global hotline service, 'Speak Up', is there for people to raise any concerns about suspected unlawful or unethical behaviour. The Board monitors the operation of our whistleblowing policy and we consider every concern raised through the service. See page 78 for more information.

Further developing our relationships with stakeholders

As a Board, we're mindful of our many stakeholders and we endeavour to consider all of them in our discussions. Travel and communication constraints during the pandemic restricted some of our regular stakeholder engagements. However, as pandemic constraints eased, we have enjoyed increasingly helpful engagements – and more frequently face-to-face. Here are some of our highlights:

- **People:** Non-executive Director and designated employee engagement ambassador, Catherine Glickman, gives the Board helpful feedback from workforce engagement activities. Catherine brings our employees' views into the boardroom through her attendance at meetings with employee groups. This year, Catherine mentored members of the Senior Leadership Team and provided anonymous feedback to the Board on a variety of topics, including career development. Diane Canadine, our Head of Group HR, also regularly updates the Board. We've created working groups, which are looking at how we reward and retain our people, how we review performance, and how we support career progression. These groups are facilitated by up-to-date information from an external pay review provider. Further information on workforce engagement can be found on pages 52–55.
- **Customers:** As always, we take a particularly close interest in our customers, the challenges they face and how best we can support them. The Board receives regular updates on conversations that Will Lee and senior colleagues have with our customers. This year, these reports have helped us understand how well we managed through the pandemic and various global events from the perspective of our customers.
- **Shareholders:** Despite the continuing uncertainty around COVID-19, we were glad to welcome shareholders back for our 2021 AGM. To safeguard our shareholders, employees, the Board, and the wider community, only shareholders and their proxies were allowed to attend, with socially distanced seating arrangements. At our May 2022 Investor Day, our leaders gave presentations on our strategy and commitment to sustainability, including our journey to Net Zero. We also held workshops on a range of topics including finance and individual flagship product development projects. These workshops gave opportunities for investors to gain more in-depth understanding of the business and to ask detailed questions. Feedback on the event was very positive, and we look forward to welcoming our shareholders back for our 2022 AGM. Further details are on page 64.

Our effectiveness

As detailed in the Nomination Committee report, we conducted an internal evaluation of our Board and its Committees. This allowed us to reflect on how we've improved over the last year, but also highlighted areas which we can develop further over the next year. I have particularly appreciated the high quality of Board papers this year, and look forward to increasing the breadth of stakeholders in attendance at Board meetings to help us continue to improve our focus on strategic matters.

Diversity and inclusion

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Diversity and inclusion remains an important area of focus for us, and we have grown a network of more than 70 diversity and inclusion champions across the UK. We have also committed to the UK government's Disability Confident scheme. The purpose of this scheme is to encourage organisations like Renishaw to think differently about disability and take steps to improve the recruitment, retention, and development of disabled people. As part of our commitment, we are ensuring recruitment processes are inclusive and accessible, as well as developing current procedures to support existing employees.

Supported by the Board, members of our Senior Leadership Team attended Inclusive Leadership training, hosted by the Employers Network for Equality & Inclusion (enei). This created an opportunity for more of the business to develop a broader understanding and education on diversity, inclusion, and related matters.

As a Board, we've engaged with diversity and inclusion throughout the year in several ways, including:

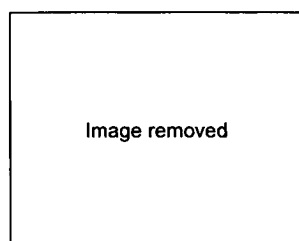
- after the success of the 2020 National Inclusion Week (an external awareness event run by Inclusive Employers, dedicated to celebrating inclusion and taking action to create inclusive workplaces), we supported the 'Continue the Conversation' theme for 2021. We hosted several awareness days, and shared videos of employees and senior leaders discussing protected characteristics and topics such as disability, LGBTQIA+, racial discrimination, women in engineering, and mental health. In 2022, we have supported the focus on how inclusion drives understanding in the workplace;
- approving the Group's membership to enei and WISE – external professional diversity and inclusion networks – to further demonstrate our commitment and develop our awareness on diversity and inclusion externally; and
- approving the recruitment of a diversity and inclusion advisor, who will look to grow our diversity and inclusion strategy and network globally, to ensure we are fit for the future.

We have noted the recent amendments to the Listing Rules and Disclosure Guidance and Transparency Rules regarding increased diversity disclosures on boards and executive management, and will report against these new requirements in next year's Annual Report. In the meantime, we continue our support of the aspirations of gender and ethnic diversity as set out in the FTSE Women Leaders Review and Parker Review respectively, with our search underway for a further independent Non-executive Director; succession planning continues to be a key activity for the Board, with a focus on diversity.

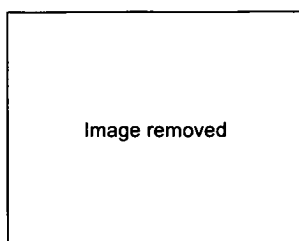
Directors' Corporate Governance Report continued

Board of Directors

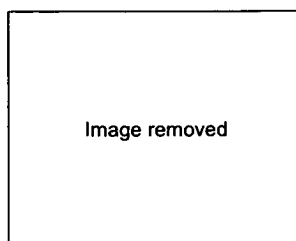
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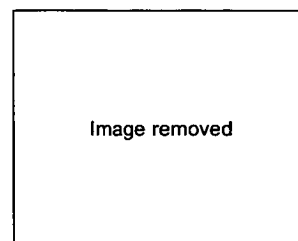
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1. Sir David McMurtry **N**

Executive Chairman

Appointed September 1975

Areas of expertise

Strategy, product development, engineering, science/technology

Contribution, skills and experience

- Co-founder of Renishaw, provides strong leadership to the Board, and responsible for Group innovation, product strategy, and Group technology.
- Significant contribution to the long-term sustainable success of the Company and all aspects of the business.
- Strategic vision, and technical and industry knowledge.

External appointments

- None

2. John Deer

Non-executive Deputy Chairman

Appointed July 1974

Areas of expertise

Manufacturing, strategy, international

Contribution, skills and experience

- Co-founder of Renishaw, contributes to Board leadership and strategic decisions for growing the business.
- Extensive manufacturing and quality experience contributes to the delivery of efficient, high-quality manufacturing.
- Strategic vision, and commercial and international experience.

External appointments

- None

3. Will Lee

Chief Executive

Appointed August 2016 as Group Sales and Marketing Director, February 2018 as Chief Executive

Areas of expertise

Sales and marketing, strategy, engineering, operations

Contribution, skills and experience

- Effective and strong leadership and management, both technical and commercial, with an acute awareness of the industry and its opportunities and challenges.
- Maintains a wide breadth of knowledge, as well as strong stakeholder relationships that continue to develop the Renishaw business.
- Joined the Renishaw graduate scheme in 1996 and since then has held various senior management positions in engineering, operations, and sales and marketing, resulting in an in-depth understanding of the Group's business, products and markets.

External appointments

- None

4. Allen Roberts

Group Finance Director

Appointed October 1980

Areas of expertise

Finance, strategy, internal controls, operations, compliance

Contribution, skills and experience

- Chartered accountant, with an invaluable contribution to financial planning and strategy, including adept management of financial risks and business development.
- Deep understanding of the Group's businesses, products, relationships and the sectors in which we operate.
- Experienced in the management of financial risks, reporting and planning.

External appointments

- None

► Read more extensive Board biographies online.
Visit www.renishaw.com/directors.

Committees

- A** Audit Committee
- N** Nomination Committee
- R** Remuneration Committee
- *** Chair of Committee

Former Directors who held office during FY2022

Carol Chesney **A** **N** **R**
Independent Non-executive
Director

Appointed October 2012**Resigned** December 2021

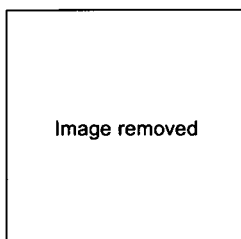
John Jeans **A** **N** **R**
Independent Non-executive
Director

Appointed April 2013**Resigned** February 2022

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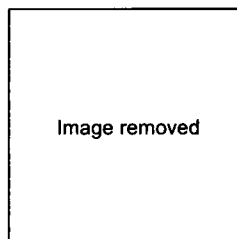
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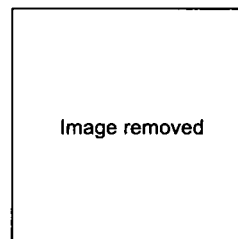
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**5. Sir David Grant** **A N R**

Senior Independent Director

Appointed April 2012**Areas of expertise**

Engineering, people, science/technology

Contribution, skills and experience

- Contributes to talent recruitment, increasing diversity and development of workforce.
- Extensive engineering experience and recognised for his contributions to industry.
- Various previous leadership positions at international engineering companies and government-related science and technology bodies.

External appointments

- None

6. Catherine Glickman **A N R**

Independent Non-executive Director

Appointed August 2018**Areas of expertise**

People, remuneration, pensions, strategy

Contribution, skills and experience

- Breadth of human resources experience in other listed companies and as a non-executive director is particularly valued by the Board.
- Skilled at developing reward structures that align leadership motivation with Group strategy.
- Extensive HR, remuneration and pensions experience, as well as previous international experience with Genus plc and Tesco PLC.

External appointments

- Non-executive director and remuneration committee chair of TheWorks.co.uk plc.

7. Juliette Stacey **A N R**

Independent Non-executive Director

Appointed January 2022**Areas of expertise**

Finance, M&A, strategy, corporate governance, internal controls, compliance

Contribution, skills and experience

- Chartered accountant with an in-depth understanding of finance, M&A, and strategy.
- Career experience in finance, as well as executive roles in both listed and non-listed company environments.
- Roles as chair of audit committees at other listed companies brings a wider industry perspective.

External appointments

- Senior independent director and audit committee chair of Fuller, Smith & Turner P.L.C.
- Non-executive director and audit committee chair of Sanderson Design Group plc.

8. Stephen Wilson **A N R**

Independent Non-executive Director

Appointed June 2022**Areas of expertise**

Software, finance, strategy, business development, IT transformation, international

Contribution, skills and experience

- Extensive experience in the software sector, including strategic, financial and business development and IT transformation.
- Career experience in finance and business development, including in global businesses.
- Executive and non-executive roles in listed company environments.

External appointments

- Chief Executive and nomination committee member of Genus plc.

9. Jacqueline Conway

General Counsel & Company Secretary

Appointed November 2019**Areas of expertise**

Corporate governance, risk and compliance

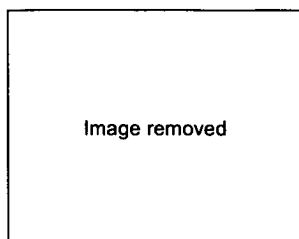
Contribution, skills and experience

- Responsible for providing legal and governance advice to the Board and senior management, as well as leading the legal function.
- Specialised in corporate governance, risk and compliance.
- Substantial experience of operating in a listed environment.

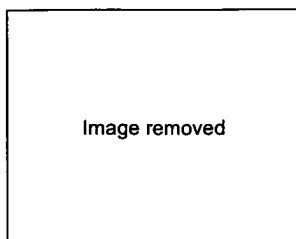
Directors' Corporate Governance Report continued

Executive Committee

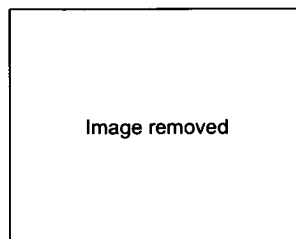
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1. Gareth Hankins

Head of Group Manufacturing

Appointed February 2018

Contribution, skills and experience

- Responsible for manufacturing operations, procurement and facilities management across the Group.
- Skilled leader with acute insight into operations and manufacturing.
- Experience in engineering, production, and operations and business management, including previous role as operations manager for styli and custom products.

2. Leo Somerville

President, Americas

Appointed March 2004

Contribution, skills and experience

- Responsible for development of the Americas region.
- Strong leadership and business development skills, combined with in-depth market and product knowledge.
- Experience as project manager for machine tool probing in the UK, and as business manager for machine tool probing and calibration products at Renishaw Inc.

3. Dave Wallace

Director of Group Operations

Appointed January 2008

Contribution, skills and experience

- Responsible for Group Operations, with oversight of Group Commercial Development, Group Quality, Group Compliance, our centralised Group Engineering teams, Group Business Systems, and Group Commercial Services and Marketing.
- Deep insight into Renishaw's products, markets, and product development, as well as strong management skills.
- Has worked in various functions of the business, including as Director and General Manager for the CMM Products Division and previously held Executive Committee responsibility for the Industrial Metrology business.

4. Will Lee* (Chair)

Chief Executive

► See page 74 for biography

5. Sir David McMurtry*

Executive Chairman

► See page 74 for biography

6. Allen Roberts*

Group Finance Director

► See page 74 for biography

7. Jacqueline Conway

General Counsel & Company Secretary

► See page 75 for biography

* These members of the Executive Committee were also plc Board Directors during FY2022.

Further information on the Executive Committee can be found on page 79.

Former Executive Committee members who held office during FY2022

Geoff McFarland

Director of Group Technology

Appointed July 2001

Retired September 2021

Scope of disclosures

In our Corporate Governance Report, we have incorporated:

- the Audit Committee Report (page 85);
- the Nomination Committee Report (page 82); and
- the Directors' Remuneration Report (page 92).

We've structured this report in accordance with the five sections of the Governance Code and describe how we've applied its principles. You can find the Governance Code at: www.frc.org.uk.

We report on the operation of our business in the following ways:

– Our business and likely future developments

Our Executive Chairman (on pages 6–7) and Chief Executive (on pages 8–10) have given a review of our business and likely future developments. We've also reported on these aspects in our Strategic Report. We set out our results by operating segment in note 2 to the Financial statements, together with an analysis of revenue by geographical market.

– Management Report

We include a management report in our Strategic Report, as required by the Financial Conduct Authority's Disclosure Guidance and Transparency Rules (DTR).

– Directors' Report

The Directors' Corporate Governance Report and Other statutory and regulatory disclosures set out on pages 111–113 together form the Directors' Report.

– Corporate Governance Report

We set out our corporate governance practices in the Directors' Corporate Governance Report (on pages 70–114), which forms part of the Directors' Report, as required by the DTR.

– Shareholder information

We set out certain information, which is required by the FCA's Listing Rules (LR) to be provided to our shareholders, in the Directors' Corporate Governance Report (pages 70–114), the Directors' Remuneration Report (pages 92–110), and Other statutory and regulatory disclosures (pages 111–113). This includes information relating to arrangements with controlling shareholders.

1. Board leadership and Company purpose

Engagement with shareholders and other stakeholders

Global challenges, such as supply chain disruption, have required us to continue monitoring the business extremely carefully in FY2022, to safeguard our future. We aim to engage effectively

with our shareholders and other stakeholders, especially with respect to key Board decisions. The Managing our resources and relationships section on pages 52–65 sets out examples of engagement, and the table on pages 66–68 demonstrates how the Board has considered Section 172 obligations in discussions and decision-making. We continue to monitor progress with engagement mechanisms and regularly review our investor relations policy. Our overall approach to shareholder engagement is set out on page 64.

Our AGM takes place at our headquarters or one of our other sites, and we send our shareholders advance notice of the meeting. Our Chief Executive and other nominated presenters give presentations on the business, and the Chairs of our Audit, Remuneration, and Nomination Committees are available for questions during and after the meeting.

Despite the continuing uncertainty around COVID-19, we were glad to welcome shareholders back in person at our November 2021 AGM. To safeguard our shareholders, employees, the Board, and the wider community, only shareholders and their proxies were allowed to attend, with socially distanced seating arrangements. Due to positive feedback from the wider investor community, we have kept the Q&A facility, which was first introduced at our September 2020 AGM. This allows our shareholders to submit questions via email before the meeting and to submit proxy instructions electronically. This helps our shareholders engage with the Board even when they are not able to attend the AGM. Details of this year's AGM can be found in the Notice of Meeting, which will be provided to shareholders separately in due course.

Separate resolutions are proposed for each substantially separate issue, and all resolutions are taken on a poll. We report on the number of votes lodged in respect of each resolution, the balance for and against each resolution, and the number of votes withheld. This information is published via a Regulatory Information Service (RIS) and on our website following the meeting.

At our November 2021 AGM, we were again pleased that the majority of resolutions were passed with a high level of support from our shareholders. We engaged in correspondence with our top 20 shareholders in connection with our Executive Director bonus awards, as disclosed in last year's Annual Report on remuneration. This engagement resulted in the resolution to approve the Annual Report on remuneration being passed with a 97.15% vote in favour. We considered the votes against resolutions 4, the re-election of Sir David McMurtry (22.68%) and 5, the re-election of John Deer (24.56%). In order to better understand the reasons for these votes against, we

Reporting against the Governance Code

To avoid duplication in this report, the table below cross-references explanations given elsewhere of how we have sought to comply with the principles and provisions of the Governance Code. We report against other relevant Governance Code principles and provisions within this Directors' Corporate Governance Report.

Topic	Page(s)
Company purpose	IFC
Values and culture	1, 7
Workforce engagement	52–55
Other stakeholder engagement	52–64
Strategy and business model	16–21
Effective controls	81
Sustainability	57–61
Capital allocation	26–27, 45
Workforce policies and practices	52–55, 69, 112
Risk management	39–49

Directors' Corporate Governance Report continued

considered the views of our shareholders, including through engagement with the General Counsel & Company Secretary or via the Senior Independent Director. We also reviewed the voting recommendations of proxy voting agencies, where these had been made available to us, for the November 2021 AGM. We continue to engage with shareholders to understand their views on this issue and any other significant matters. We published an update as required under the Governance Code at www.theia.org/public-register.

We also hold an annual Investor Day aimed at current and potential shareholders, analysts, brokers, and financial advisers. All our Directors usually attend, and we give a range of presentations, along with opportunities for participants to ask questions throughout the day. Details of our May 2022 Investor Day can be found on page 64, and information about our 2023 Investor Day will be published in due course.

We also hold Q&A sessions with our Executive Chairman, Chief Executive and Group Finance Director as part of our full- and half-year results webcasts.

Employee whistleblowing

We encourage our people to raise concerns about suspected unlawful or unethical behaviour, and outline our expectation in our Whistleblowing Policy. One important way in which people can raise concerns is via Speak Up, our confidential global hotline service. The service is also available to officers, suppliers, customers, consultants, contractors, volunteers, job applicants, and any third parties who provide services for or on behalf of the Group. Between our launch of the Speak Up hotline in July 2020 to 30 June 2022, we logged 29 cases, all of which were promptly followed up. All cases are reviewed by our triage coordinators (our General Counsel & Company Secretary and Director & General Manager of SFPD) and are then allocated to an appropriate investigator. Every matter reported is investigated, unless it is considered outside of the scope of Speak Up (for example, if someone raises an IT issue). Regular meetings are held with key stakeholders to track the progress of investigations to help ensure cases are closed in a timely manner. As a Board, we monitor the operation of our Policy and this service.

Conflicts of interest

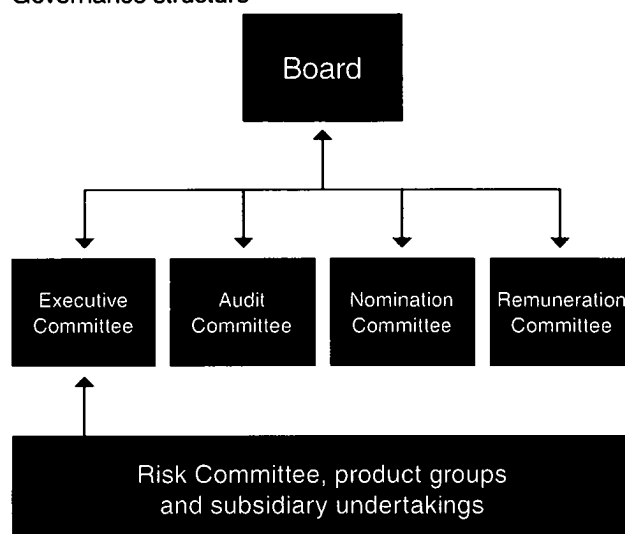
The Board has a conflicts of interest policy and a register of situational conflicts. This includes procedures for the disclosure and review of any conflicts and potential conflicts, and authorisation by the Board (if considered appropriate). We review all authorisations granted, and their associated terms, every year. New disclosures are made where applicable.

Cautionary note and safe harbour: this Annual Report has been prepared for the purpose of assisting the Company's shareholders to assess the strategies adopted by the Company and the potential for those strategies to succeed and no one, including the Company's shareholders, may rely on it for any other purpose.

This Annual Report has been prepared on the basis of the knowledge and information available to the Directors at the time. Given the nature of some forward-looking information, which has been given in good faith, the Company's shareholders should treat this information with due caution.

2. Division of responsibilities

Governance structure



Composition of the Board

The Governance Code recommends that at least half of a board, excluding the chairman, should comprise independent non-executive directors. Our Board currently comprises two Executive Directors in addition to the Executive Chairman and five Non-executive Directors, four of whom are considered independent.

Sir David Grant, Catherine Glickman, Juliette Stacey, and Stephen Wilson are considered by the Board to be independent in character and judgement, and there are no relationships or circumstances that are likely to affect their judgement. Sir David Grant has served as an Independent Non-executive Director for more than 10 years. As such, we carried out a rigorous review to assess his independence, effectiveness, and commitment. We consider that Sir David Grant continues to be independent in character and judgement. We also assessed that there are no relationships or circumstances that are likely to affect, or could appear to affect, his judgement. We agree that it is in the best interests of the Company for Sir David Grant to remain as Senior Independent Director. Given the recent changes to the composition of the Board, Sir David Grant is able to provide some stability, and the Board benefits from his extensive knowledge of the Company and expertise in engineering.

We consider that all our Non-executive Directors demonstrate commitment to their roles and dedicate sufficient time to their Company duties. Their contribution, skills and experience are summarised in their biographies on pages 74–75.

Sir David McMurtry has held the position of Executive Chairman since we listed in 1984. Following careful consideration of Provision 19 of the Governance Code (relating to a chairman's tenure), we concluded that Sir David's continued service as Executive Chairman remains in the best interests of the Company and our shareholders. This is in part because of his unique history as a co-founder of Renishaw, but more importantly his contribution to our long-term sustainable success. The latter is a direct result of his role and responsibilities for innovation and product strategy, and his continued effective leadership of our Board.

Senior Independent Director and Non-executive Directors

Sir David Grant is the Senior Independent Director. He is available to discuss material concerns with shareholders, including if the normal channels of the Executive Chairman, the Chief Executive, or the Group Finance Director fail to resolve any shareholders' concerns. Our Non-executive Directors and Executive Chairman meet without the other Executive Directors present, to discuss performance, corporate governance, and other matters. Our independent Non-executive Directors also regularly meet without the Executive Directors, Executive Chairman, or other Directors present.

Division of responsibilities

We agreed that there was a clear division of responsibilities at Board level throughout FY2022. This ensured that there was an appropriate balance of power and authority, so there is no one person with unfettered powers of decision-making. The Board and Executive Committee each meet on a regular basis to make decisions of significance to our business segments and review management actions.

You can find written statements of our Chief Executive's and Executive Chairman's key responsibilities, which also detail the key responsibilities of the Senior Independent Director, on our website at: www.renishaw.com/corporategovernance.

The Board of Directors

You can find the biographies of our current Directors on pages 74–75. More extensive biographies are available online at: www.renishaw.com/directors.

There is a formal schedule of matters reserved for the Board. These include:

- the approval of annual and interim results, and trading statements;
- company and business acquisitions and disposals;
- major capital expenditure;
- borrowing facilities;
- reviewing the effectiveness of workforce engagement mechanisms;
- reviewing whistleblowing policy and processes;
- ensuring maintenance of a sound and effective system of internal control and risk management;
- business plans and budgets;
- material agreements;
- director and company secretary appointments and removals;
- patent-related disputes and other material litigation;
- forecasts; and
- major product development projects.

In FY2022, we met for seven scheduled meetings and two unscheduled meetings (relating to the FSP and Non-executive Director recruitment). Our attendance record at Board and Committee meetings is set out in this report, on page 80. You can find a high-level summary of the subjects we discussed during the year on page 80.

We have three formally constituted Committees – the Audit Committee, the Remuneration Committee, and the Nomination Committee. There is also our Executive Committee, which is responsible for the executive management of our businesses. It is chaired by our Chief Executive and includes our Executive Directors and senior managers, as noted on page 76. The Executive Committee usually meets every month. It considers the performance and strategic direction of our operating segments, performance against objectives, and other matters of general importance to the Group.

A framework of delegated authorities maps out the structure below the Board and includes the matters reserved to our Executive Committee. It also includes the level of authorities given to management below the Executive Committee.

The formal schedule of matters specifically reserved for the Board and the terms of reference for each of the Nomination Committee, Audit Committee, and Remuneration Committee are available on our website at:

www.renishaw.com/corporategovernance. We reviewed and updated the Remuneration Committee's terms during FY2022, and carried out the same process for the Audit and Nomination Committees in August 2022.

Scheduled Board and Committee meetings in the year

July 2021	August 2021
B* A R	B N
September 2021	October 2021
B A	B A* N R
November 2021	December 2021
	B* N*
January 2022	February 2022
	B A R
March 2022	April 2022
B R N	
May 2022	June 2022
B A R	B R

* Unscheduled meeting

Key

- B Board
- A Audit Committee
- N Nomination Committee
- R Remuneration Committee

Directors' Corporate Governance Report continued

Summary of subjects discussed by the Board during the year

For an in-depth look into some key decisions made by the Board in FY2022, please see our Section 172 statement on pages 66–68.

Strategy

- FSP closure
- Purpose, vision, and strategy
- Segmental and regional strategies, objectives and productivity
- Products and intellectual property
- Five-year plan

Risk

- Principal risks for FY2022

Governance

- Board effectiveness review
- Draft Annual Report
- AGM preparation
- Competition law
- Sanctions and trade controls
- Modern Slavery and Human Trafficking statement
- Privacy
- Whistleblowing
- Anti-bribery
- Formation of Ethics Committee
- Committees' Terms of Reference and Matters Reserved to the Board

Finance

- Dividend policy
- Forecasts, objectives, targets, budgets, and costs
- Financial performance across the Group
- Overseeing preparation and management of the financial statements
- Tax strategy and updates
- Trading statements

Shareholder engagement

- AGM and other shareholder feedback
- Communications with shareholders
- Investor Day planning and feedback

People

- Health and safety programme, and updates
- Diversity and inclusion
- Launch of Responsible Renishaw
- Talent and succession planning
- Non-executive director recruitment
- Salary reviews, bonus awards and share awards
- Performance against financial and strategic objectives

Climate

- Our Net Zero commitment

Board and Committee meeting attendance record

The table below shows the number of scheduled and unscheduled meetings of the Board and its Committees, alongside Directors who attended and the number of meetings they were eligible to attend, during FY2022.

Director	Board	Audit Committee	Nomination Committee	Remuneration Committee
Sir David McMurtry	9/9	n/a	4/4	n/a
Will Lee	9/9	n/a	n/a	n/a
Allen Roberts	9/9	n/a	n/a	n/a
John Deer	9/9	n/a	n/a	n/a
Carol Chesney ¹	5/5	3/3	3/3	2/2
Catherine Glickman	9/9	5/5	4/4	6/6
Sir David Grant	9/9	5/5	4/4	6/6
John Jeans ²	6/6	4/4	3/3	3/3
Juliette Stacey ³	4/4	2/2	1/1	4/4
Stephen Wilson ⁴	1/1	n/a	n/a	1/1

¹ Carol Chesney's resignation took effect on 31 December 2021, so the Board meeting on 16 December 2021 was her final Board meeting and the Committee meetings on 20 October 2021 were her final Committee meetings.

² John Jeans's resignation took effect on 28 February 2022, so the meetings on 1 February 2022 were his final Board and Committee meetings.

³ Juliette Stacey's appointment took effect on 1 January 2022, so the meetings on 1 February 2022 were her first Board and Committee meetings.

⁴ Stephen Wilson's appointment took effect on 1 June 2022, so the meetings on 22 June 2022 were his first Board and Committee meetings.

Commitment

The terms of appointment of our Non-executive Directors set out the expected time commitment, as well as the requirement to discuss any changes to other significant commitments with our Executive Chairman and Chief Executive in advance. They are available for inspection at our AGM and our registered office upon written request.

None of our Executive Directors holds a directorship in a FTSE 100 company.

Development

We offer our Directors the opportunity to attend formal training courses regarding their duties. We also provide them with guidance notes, papers, and presentations on changes to law and regulations, as appropriate. Non-executive Directors are invited to attend internal conferences, which are a great way to keep up to date with product development and marketing initiatives. These conferences are also an opportunity for our Non-executive Directors to meet with business units and functions. Business leaders (including from the finance and legal functions, product lines, and sales regions) give regular presentations at Board meetings, to update our Directors on products and business strategies. These also give our Directors the chance to discuss latest developments, and current and future initiatives.

As new Directors that have joined us this year, we gave both Juliette Stacey and Stephen Wilson tailored induction packs and bespoke induction programmes. These inductions included site visits and briefings by both senior managers and external advisers to help them better understand what we do. As part of our continuing development programme, we also offer opportunities to attend external trade shows as well as overseas subsidiary visits.

Information and support

Board members receive business updates, financial information, and forecasts with relevant commentaries in advance of each Board meeting. These allow us to review financial performance, current trading, and key business initiatives. We have access to the General Counsel & Company Secretary, who advises the Board on all governance matters. Where necessary, our Directors have access to independent professional advice, at the Company's expense, to discharge their responsibilities as Directors. We maintain liability insurance for our Directors and officers and have entered into indemnities as disclosed in Other statutory and regulatory disclosures on page 111.

3. Composition, succession and evaluation

Nomination Committee

We set out a description of the structure and activities of the Nomination Committee, as well as our commitment to diversity, in the Nomination Committee Report on pages 82–84.

Re-election

In accordance with the Governance Code, all our Directors retire from the Board at each AGM and offer themselves for re-election.

4. Audit, risk and internal control

Audit Committee

We set out a description of the membership and activities of the Audit Committee in the Audit Committee Report on pages 85–91.

Financial and business reporting

We explain the respective responsibilities of the Directors and auditor in connection with the financial statements in the Directors' responsibilities section on page 114 and the Independent Auditor's Report on pages 115–125.

Risk management and internal control

The Board is responsible for risk management and internal control, and for reviewing the effectiveness of these systems. Further information on our risk management and internal controls can be found in the Risk Management section on pages 39–41. Any system of internal control is designed to manage rather than eliminate the risk of failure to achieve business objectives and can only give reasonable, but not absolute, assurance against material misstatement or loss.

The Group has defined lines of responsibility and delegation of authorities. We have also established and centrally documented control procedures, including approvals of capital and other expenditure, information and technology security, and legal and regulatory compliance.

Our Internal Audit function helps to give independent and objective assurance that the control procedures are appropriate and effectively applied. The Group Internal Audit Manager attends Audit Committee meetings to present annual internal audit plans and the results of such audits. The Audit Committee monitors actions on an ongoing basis. Further information can be found in the Audit Committee Report on pages 85–91.

We have an established process for the review of business risks throughout the Group, which includes our Risk Committee. You can find more information on this in the Risk Management section on pages 39–41.

We ensure that the Group has effective internal controls over the financial reporting and consolidation processes. Monthly accounts and forecasts are presented to the Board for review. Our Internal Audit function carries out a review of our subsidiaries' accounting processes and financial statements to give assurance to the Board on the integrity of the information supplied.

The Board reviews the effectiveness of our system of internal controls, including via our Audit Committee. It receives regular reports from our Internal Audit function, external auditors, and other advisers, and carries out an updated risk and controls analysis every year. The review covers material controls, including financial, operational, and compliance controls, and risk management systems.

We've conducted a robust assessment of the principal and emerging risks that we face, including those that would threaten our business model, future performance, solvency, or liquidity. Our principal risks and uncertainties can be found on pages 42–49. The Board is satisfied that there is an ongoing process for identifying, evaluating, and managing the significant risks that we face. This is regularly reviewed and accords with the FRC Guidance on Risk Management, Internal Control and Related Financial and Business Reporting. The Board verifies that necessary action has been or is being taken to remedy any significant failings or weaknesses identified from its review.

Going concern

As Directors, we've assessed the Group's position as a going concern, and updated the assessment before signing this report. We considered the Group's forecast profits and cash flows for the period from the date of approval of the Annual Report to 30 September 2023. We are satisfied that the Group has adequate resources to continue operating as a going concern for the foreseeable future, and that no material uncertainties exist with respect to this assessment. More detail is provided on page 135.

Viability statement

We approved the Company's viability statement on pages 50–51.

5. Remuneration

In the Directors' Remuneration Report, we explain how we apply the Governance Code principles relating to remuneration. We include a description of the membership and activities of the Remuneration Committee on page 95.

Compliance statement

The Board considers that it has complied with the provisions of the Governance Code throughout FY2022 except in relation to the following matters:

- Provision 19 (that the chair should not remain in post beyond nine years from the date of their first appointment). A full explanation of the reasons for this is given on page 84; and
- Provision 21 (that the chair should consider having a regular externally facilitated board evaluation at least every three years). A full explanation of the reasons for this is given on page 83.

Sir David Grant
Senior Independent Director

15 September 2022



Nomination Committee Report

Succession planning for our future growth continues to be a key area of focus

Sir David McMurtry
Executive Chairman

Image removed

Introduction

Three key issues have occupied the Nomination Committee this year – succession planning, our annual Board effectiveness review, and diversity.

Board succession planning

Succession planning is an important process for any company, as it ensures a board has an appropriate balance of experience, skills, and diversity to help a company achieve its strategy. We've focused on succession planning this year, and welcomed two new independent Non-executive Directors to the Board – Juliette Stacey and Stephen Wilson. Their appointments are the result of a thorough recruitment process (set out below) led by the Senior Independent Director, Sir David Grant, and supported by Catherine Glickman, as Chair of the Remuneration Committee, which we launched in light of the tenure of Carol Chesney, John Jeans, and Sir David Grant. Carol and John have subsequently stepped down from the Board, and I would like to thank them for their support over the past 10 years.

While we began this recruitment progress in July 2020, we delayed it following the launch of the FSP in March 2021. Following the conclusion of the FSP in July 2021, we re-started the recruitment process in the autumn of 2021. We hired external recruitment consultants Kingsley Gate in connection with these appointments. Kingsley Gate has no connection with Renishaw or individual directors of Renishaw.

Our search for a third Non-executive Director to replace Sir David Grant continues. In the meantime, he has agreed to oversee the recruitment process and will remain on the Board until that process is concluded.

Board appointment process

The Board has an established process for identifying and evaluating candidates for appointment to the Board and senior management. Board appointments are also subject to the principles in our Equality, Diversity and Inclusion Policy, which formalises our commitment to diversity at all levels. The Committee's procedures, which were followed in respect of the recent appointments of both Juliette and Stephen, included the following steps:

- engaging external recruitment consultants, Kingsley Gate;
- appointing a sub-committee of the Board to oversee the process;
- evaluating the balance of skills, knowledge, experience, and diversity on the Board – including considering the skills and experience of outgoing Directors, Carol and John;
- agreeing role specifications for the proposed appointment, we agreed three role specifications with the consultants, one of which has yet to be filled;
- reviewing a long list of candidates provided by the consultants;
- reviewing candidate profiles and preparing a shortlist of diverse candidates for interview – we did this for both Juliette's role (as Chair of the Audit Committee) and for Stephen's;
- interviewing a shortlist of candidates who we reviewed against objective criteria, with due regard to the benefits of diversity on the Board – we conducted two separate interview processes for the two roles; and
- recommending the preferred candidates to the Board in December 2021 in respect of Juliette Stacey's appointment and in March 2022 in respect of Stephen Wilson's appointment.

Board effectiveness review

The Board undertakes an annual evaluation of its performance and effectiveness to identify opportunities for improvement.

Our last external, independent review took place in FY2019 and was carried out by Equity Communications Limited. In the following two years, our company secretarial team ran internal reviews using questionnaires. We had planned to conduct an external review in FY2022, but in view of the recent Board changes I've already mentioned, the Board decided to delay this process until FY2023. Please see page 81, which sets out the Compliance Statement, regarding non-compliance with provision 21.

By deferring the external process to FY2023, the next external evaluation will provide an opportunity for a more robust assessment and more useful insight into the effectiveness of the Board and its Committees. We will begin the tender process for this next external review in autumn 2022, with the evaluation anticipated to take place in the third quarter of FY2023.

After that, we will return to the more typical three-year cycle, with the FY2024 review being conducted internally.

Internal review process

While we did not carry out an external assessment this year, our company secretarial team did, once again, carry out an internal review during April and May 2022.

The questionnaire-based process covered several areas, such as strategy, succession, talent, conduct of Committees, and content and effectiveness of Board meetings. The questions were partly based on the output from the 2021 review, together with feedback from the Board on that process. Questionnaires were distributed to the Board in April, and all (then) seven Directors responded by the deadline in May 2022. The responses were consolidated and anonymised, and the results and key themes set out in a summary report. Recommendations were set out in an action plan based on the responses. Both the report and the proposed action plan were reviewed and discussed by the Board at its meeting in June.

The outcome of the evaluation confirmed that the Board and its Committees continued to operate effectively.

Key findings from the FY2022 review

It was noted that the following areas had improved as a result of the FY2021 review:

- **tracking by the Board of the Group's objectives** – which has been achieved through clearer reporting in the Board papers and regular updates from the Senior Leadership Team. I and the rest of the Board have been appreciative of this increase in focus on the objectives which helps to promote a culture of accountability and strong performance;
- **timeliness of the agendas and papers in advance of each meeting** – I know that all of the Directors appreciate the efforts of our General Counsel & Company Secretary and other team members in continually seeking to improve the timely circulation of Board packs, which is an essential part of effective Board meeting preparation; and
- **focus on talent management** – the Board has achieved this through the introduction of the mentoring scheme by the Non-executive Directors of the Senior Leadership Team. I and the other Executive Directors really appreciate the time and commitment that our colleagues on the Board have dedicated to this scheme, which has been very well received by many of the Senior Leadership Team.

The main recommendations from the evaluation included:

- **continued focus on timeliness and conciseness of papers** – which the Board will achieve through working closely with the General Counsel & Company Secretary and the Senior Leadership Team;
- **continued focus on strategic matters** – as part of this, the Board will ensure that the relevant Senior Leadership Team members are invited to participate in discussions on key strategic matters and that the focus is on addressing key questions through engagement and interaction with the Board, rather than on one-sided formal presentations which simply reiterate the material in the pre-read; and
- **continued focus on talent management** – and also succession planning. To address this, we will extend the mentoring scheme by the Non-executive Directors of the Senior Leadership team, review succession plans for all critical roles, and aim to complete the recruitment of a third new Non-executive Director in the year ahead.

Boardroom diversity

We recognise the importance and value of all forms of diversity, including gender, age, ethnicity, and background, as well as the importance of creating a culture of inclusion. Our aim is for the Board to have a diverse range of skills, experience, and thought from individuals who can really add value to the business and help us to develop and achieve our strategic goals.

The proportion of women on the Board is currently 25%.

The Board supports the aspiration of gender diversity, and best practices in this area, as set out in the FTSE Women Leaders Review (with a target of 40%), as well as the aspiration of ethnic diversity set out in the Parker Review (with a target of at least one director from a minority ethnic group by 2024). With the search currently underway for a further independent Non-executive Director, succession planning continues to be a key activity for the Board, with a focus on diversity.

In October 2021, the Board approved a new Equality, Diversity and Inclusion Policy which applies to the Group and the Board. The new policy supports the work of the diversity and inclusion working group. The policy confirms our commitment to develop, maintain, and support an equal and diverse workforce both in the UK and internationally, including at Board and senior management level. The main objective of the policy is to establish an inclusive culture, free from discrimination, harassment, and victimisation. The policy was applied during the year in respect of the recruitment process for two independent Non-executive Directors. The principles of the policy were discussed with the recruitment consultant at Kingsley Gate and helped in crafting the role profile, preparing a long list of candidates, and in the criteria used to assess the short list of candidates.

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Nomination Committee Report continued

The policy continues to also help us in achieving some of our strategic objectives, including creating an inclusive culture with a diverse workforce and Board, and building on our reputation as a responsible business.

Senior management diversity

The Executive Committee consists of six men and one woman (14% women). For the purposes of the Governance Code, the Executive Committee and their direct reports (excluding those in administrative or non-managerial roles), is made up of 34 men and eight women (19% women). The gender split for both the Executive Committee and senior management is included in the table set out below. We have also included the gender split for the Senior Leadership Team this year, which is a wider team than the Executive Committee.

Management level	Male	Male %	Female	Female %
Board	6	75	2	25
Executive Committee	6	86	1	14
Senior Leadership Team ¹	12	86	2	14
Executive Committee and direct reports ²	34	81	8	19

¹ Designated group which includes Executive Committee attendees, Heads of larger Product Divisions and Regional Presidents.

² As required by the Governance Code.

For the engineering sector to reach its full potential, it is important that it reflects the society in which it operates. The Committee will continue to focus on improving all forms of diversity at senior management level across the Group.

Committee composition

Our Committee comprises myself, as Chairman, and the four independent Non-executive Directors, Sir David Grant, Catherine Glickman, Juliette Stacey, and Stephen Wilson (Carol Chesney and John Jeans having stepped down during the year). Only Committee members are entitled to attend meetings, although Will Lee is a regular attendee (excluding when we discuss his role). Details of attendance at meetings are shown below.

Director	Attended
Sir David McMurtry (Chair)	4/4
Sir David Grant	4/4
Carol Chesney (stepped down on 31 December 2021)	3/3
John Jeans (stepped down on 28 February 2022)	3/3
Catherine Glickman	4/4
Juliette Stacey (appointed on 1 January 2022)	1/1
Stephen Wilson (appointed on 1 June 2022)	n/a

Our role and responsibilities

We're appointed by the Board and operate under the terms of reference published on our website at www.renishaw.com/corporategovernance, which we review annually.

Our primary duties are:

- reviewing the size, structure, and composition – including the balance of skills, knowledge, experience, and diversity – of the Board and its Committees, and recommending changes to the Board, as appropriate;
- overseeing succession planning for the Board and other senior executives;
- leading the process for new Board appointments and nominating candidates for appointment to the Board;
- reviewing the independence and requirements of Non-executive Directors every year; and
- monitoring the leadership needs of the Group, including for Directors and other senior executives.

Sir David McMurtry

Chair of the Nomination Committee

15 September 2022



Tenure of the Chairman

The Governance Code issued by the FRC in July 2018 sets out the governance principles that applied to the Company during FY2022. Provision 19 recommends that the Chairman should not remain in post beyond nine years from the date of his first appointment to the Board. This Provision was introduced for the first time for accounting periods beginning on or after 1 January 2019.

Our Executive Chairman, Sir David McMurtry, co-founded Renishaw together with John Deer in 1973. Sir David was appointed to the Board in September 1975 and has been Executive Chairman since the Company listed in 1984. He also served as Chief Executive from 1975 to 2018, when Will Lee was appointed.

While Sir David's tenure exceeds the nine years recommended under the Code, his length of service reflects that he continues to be a major driver of innovation and growth in the business. He is focusing on the next-generation project for additive manufacturing which will help to ensure Renishaw becomes a technical leader for selected applications within this field. Sir David's unique skills, experience, and knowledge of the industry explain the rationale for his lengthy tenure and the unanimous support of the rest of the Board for him remaining in post.

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Audit Committee Report

Fair scrutiny and oversight

Juliette Stacey
Chair of the Audit Committee

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I'm pleased to present the report of the Audit Committee for FY2022, which explains what we do, how we work, and where we focused our attention this year. This is my first report since I was appointed in January 2022, after Carol Chesney stepped down from the Board on completion of nine years' service. I'd like to thank Carol for her contributions as Chair during her time with Renishaw.

Despite some ongoing effects of the COVID-19 pandemic and the broader economic uncertainty this year, the Group has performed very strongly. Significant revenue, profit, and headcount growth supports our longer-term ambitions and also emphasises the importance of a good control environment and fair scrutiny of the Group's reporting, to give you as stakeholders the information you need. As a Committee, we work with management, the internal audit team, and our external auditors to ensure the integrity of this reporting. We've reviewed the critical judgements and estimates that management use in preparing the financial statements, and we've considered whether this Annual Report is fair, balanced, and understandable. With climate change becoming a principal risk this year and TCFD reporting now being mandatory, we've also spent time assessing how climate change has been reported in the Annual Report and reflected in the financial statements.

We also focused this year on the Group's internal control environment, in light of the Department for Business, Energy and Industrial Strategy (BEIS) consultation on 'Restoring trust in audit and corporate governance', with the outcomes of these proposals being announced by BEIS towards the end of our financial year. Management undertook a readiness assessment in the year to compare our current internal controls over financial reporting (ICFR) against the expectations of 'SOX-lite' requirements, and we reviewed their work and that of management's external advisors. We're pleased that this identified no major issues. Looking ahead, we'll oversee how management respond to the ongoing announcements from the FRC and BEIS and will agree the scope of this work in FY2023.

We continued to monitor EY's work and were pleased that the lifting of social distancing meant that more of the audit was performed on-site this year. The easing of COVID-19 restrictions also helped the Internal Audit team this year, who had to perform all of last year's overseas work remotely but were able to visit 17 of our overseas subsidiaries this year.

The role of our Committee and how we work

The Committee members are the independent Non-executive Directors, and each Committee member attended all of the meetings held during their respective tenures.

We support the Board in ensuring both the integrity of the Group's financial reporting and the adequacy of the Group's internal controls. Our terms of reference, which are updated annually, detail the following key areas of oversight:

- Internal control and risk management
- Internal audit
- Financial reporting
- External audit

An overview of our work in these areas during the year is set out opposite and our terms of reference can be found on our website at www.renishaw.com/en/corporate-governance-21975.

Audit Committee Report continued

The Board considers that, as a whole, the Committee has competencies relevant to Renishaw's sector to fulfil its responsibilities, including relevant professional qualifications and experience in senior finance roles. The Non-executive Director biographies can be found on pages 74 to 75.

Committee meetings

The Committee met a total of five times during FY2022, with a further three meetings held since the year-end that mainly focused on the Annual Report. We're provided with written updates and discussion papers by management and our external auditors before each meeting, and receive relevant verbal updates at each meeting. We invite the following people to attend each Committee meeting:

- Chief Executive;
- Group Finance Director;
- Head of Group Finance;
- Group Financial Controller;
- Technical & Development Finance Manager;
- Group Internal Audit Manager;
- General Counsel and Company Secretary; and
- External Audit Partner and Manager.

We invite other people to attend the Committee and provide updates when needed. After each meeting, I provide an update to the Board on the matters we discussed.

Committee members	Attended
Juliette Stacey ¹ (Chair)	2/2
Catherine Glickman	5/5
Sir David Grant	5/5
Stephen Wilson ²	n/a
Carol Chesney ³ (Chair until December 2021)	3/3
John Jeans ⁴	3/3

¹ Juliette Stacey has been Chair of the Committee since 1 January 2022.

² Stephen Wilson has been a member of the Committee since 1 June 2022. Stephen has attended each of the three Committee meetings held since the year-end.

³ Carol Chesney was Chair of the Committee until 31 December 2021.

⁴ John Jeans's resignation took effect on 28 February 2022.

Committee effectiveness

Our effectiveness as a Committee is reviewed each year. Last year, we identified that we wanted to focus on improving the timeliness of the reports we receive, and also to invite other senior people from the business to the Committee to discuss matters pertinent to our Committee's work. Earlier distribution of the Committee packs has improved this year, and two of our regional presidents have also attended a Committee meeting this year, to provide updates and insight for their respective region.

This year's review was carried out by the company secretarial team, and concluded that overall we remain effective.

Key activities

Our main activities this year were:

Internal control and risk assessment

- Reviewing this year's assessment of principal and emerging risks, and their mitigating actions, presented to us by the Chair of the Risk Committee.
- Discussing the expected impact of the BEIS 'Restoring trust in audit and corporate governance' consultation and reviewing management's initial readiness assessment.
- Monitoring the effectiveness of internal controls, including receiving updates on focus areas such as 'know your customer' policies.

Internal audit

- Agreeing the scope and resourcing of Internal Audit's work for FY2022, including the plan for subsidiary reviews.
- Approving the expansion of Internal Audit's work to include certain principal risks.
- Reviewing Internal Audit's reports and monitoring the responses from management, and discussing these with the Group Internal Audit Manager.

Financial reporting

- Reviewing the Annual Report, Half-year Report, and trading updates before publication.
- Discussing management's assessment of significant judgements, estimates, and financial reporting topics, as explained in more detail on the next page.
- Challenging management on these areas.
- Assessing whether the Annual Report is fair, balanced, and understandable.
- Reviewing the assumptions and financial modelling for the viability and going concern assessments.

External audit

- Reviewing EY's audit plan, including their scope and methodology, ahead of the FY2022 audit.
- Discussing with EY their progress and findings throughout the audit.
- Discussing their remediation to the findings from the FRC's Audit Quality Review of the FY2020 audit (see page 91 for more details).

More detail on the above work follows on pages 87 to 91.

Financial reporting, and critical judgements and estimates

We consider the issues below as the most significant in relation to this year's financial statements. Each of these has been discussed with management and the external auditors. Management's work on these areas has been reviewed, and challenged where relevant.

Cash flow hedges

Description

- Most sales are generated overseas and therefore most invoices to, and payments from, customers are in foreign currency. Forward currency contracts are therefore used to manage the effect of movements in exchange rate on revenue.
- Where these contracts are designated as hedges of future cash flows, and therefore intended by management to be eligible for hedge accounting, the hedged item is a layer component of forecast sales transactions. Management needs to estimate both 'more likely than not' and 'highly probable' revenue forecasts to determine the correct accounting treatment.
- If contracts are no longer eligible for hedge accounting, future movements in the fair value of the forward contracts would be recognised through the Consolidated income statement, rather than Other comprehensive income and expense.

Our review and conclusions

- Revenue forecasts, including 'highly probable' and 'more likely than not' levels had been presented by management at plc Board meetings. We discussed the rationale for the 'highly probable' and 'more likely than not' levels, and the assumptions used in generating the forecasts. We also confirmed with management that they'd used these Board-approved forecasts to support the hedge accounting treatment.

Defined benefit pension schemes

Description

- To determine the value of the defined benefit pension liability, management need to estimate the present value of the future obligations. Assumptions of discount rates, inflation rates and mortality rates are used in this estimate, and are determined by management in consultation with independent actuaries.
- With a gross defined benefit pension liability of £174.5m at 30 June 2022, small errors in these assumptions could have a material effect on the value of the liability.
- In addition to the above assumptions, which are a 'critical accounting estimate' each year, there have also been changes to the UK DB pension scheme this year. The trustees and the Company agreed to augment members' benefits, as explained in more detail on page 157. The changes to the scheme also involved allowing a surplus to be recognised.

Our review and conclusions

- We reviewed the assumptions of discount rates, inflation rates and mortality rates, including the movement in these assumptions since FY2021. We also confirmed with management that these assumptions had been determined in consultation with independent actuaries.
- We confirmed with management that the independent actuaries had reflected the changes to the UK scheme when estimating the liabilities at 30 June 2022.
- We also reviewed how management had accounted for these changes, and agreed that substantially all of the increase in liabilities for these changes should be treated as past service cost, and therefore charged to the Consolidated income statement.
- Finally, we also confirmed that the Company now has an unconditional right to a refund of the scheme surplus, and can therefore recognise the surplus arising this year.

Audit Committee Report continued

Research and development projects

Description

- The Group undertakes a significant amount of R&D work each year, and two key decisions are needed to determine the appropriate accounting treatment for related costs.
- The first decision is a judgement as to whether expenditure during the year on R&D activities meets the requirement for this expenditure to be capitalised.
- The second decision, for projects that have met the criteria for capitalisation, is to estimate the discounted future cash flows of the project and compare this to its capitalised development costs. If the future cash flows are lower than the capitalised development cost, an impairment should be recognised.

Our review and conclusions

- We reviewed the costs of the projects capitalised in the year, and agreed that they had been capitalised at the appropriate point in their development.
- We also reviewed the discounted future cash flows for both these projects and the ones that had previously been capitalised, together with the key assumptions behind these forecasts. We then reviewed the headroom between the capitalised costs and the discounted future cash flows, and agreed with management's assessment that no impairment was needed.

Goodwill

Description

- Where the Group recognises goodwill from the acquisition of a business, an estimate of the discounted future cash flows of this business (representing a 'cash-generating unit') is needed. This is compared to the carrying value of goodwill, to identify whether an impairment to goodwill is needed.
- At 30 June 2022, goodwill totalled £11.4m.

Our review and conclusions

- There are three main cash-generating units (CGUs) for which goodwill is recognised (itp GmbH and Renishaw Mayfield S.A. entities, and the fixturing product line). We reviewed the discounted future cash flows for these CGUs, and the key assumptions behind these forecasts.
- We then reviewed the headroom between the capitalised costs and the discounted future cash flows, and agreed with management's assessment that no impairment was needed.

Inventories

Description

- The Group holds a significant amount of inventory (£162.5m at 30 June 2022). Estimates of future demand are used to determine the provision needed for slow-moving and potentially obsolete inventory, so that inventory is appropriately valued at the lower of actual cost and net realisable value.
- Management generates an estimate of the next 12 months' demand for individual inventory items based upon historic usage levels, demand from existing customer orders, and manufacturing build plans. Adjustments to this estimate are made where needed, for example where significant purchases of critical components have been made for 'safety stock'.
- At 30 June 2022, the inventory provision was £17.5m.

Our review and conclusions

- We reviewed the year-end provision in both absolute terms and as a proportion of gross inventory, and also compared this to previous periods. We discussed the rationale for the movements with management.
- We also asked Internal Audit to confirm that during the year they had reviewed the inventory provision workings prepared by subsidiaries, confirming that there had been no change in how this estimate is prepared.
- Overall, we concluded that the provision was reasonable.

Taxation

Description

- At the year-end, some of our Group companies had the potential to recognise deferred tax assets, relating to unused tax losses and other temporary timing differences. Management prepares forecasts of probable taxable profits for each of these companies and uses these forecasts to determine the value of the deferred tax asset that can be recognised. When management think it's probable that a company will have enough taxable profit to use its tax losses, a deferred tax asset can then be recognised. This deferred tax asset represents the value of the tax loss that is expected to be used in the future to offset future taxable profits.
- With deferred tax assets at 30 June 2022 of £22.9m, the estimates supporting the recognition of these assets are a key estimate.

Our review and conclusions

- We reviewed management's assessment, discussing with them the assumptions made in generating taxable profit forecasts for the relevant companies. We also reviewed how these company-level forecasts tied into the Group's overall business plan.
- We were satisfied with how management have accounted for deferred tax, and with the disclosures made in the financial statements.

Fair, balanced, and understandable assessment

As an Audit Committee, we have reviewed management's process for ensuring that this Annual Report is fair, balanced, and understandable. This process involved:

- using corporate reporting specialists to support the revised structure and content in the Strategic Report;
- ensuring that the fair, balanced and understandable requirements were a key part of the Annual Report project team's focus;
- involving senior management and the Board in preparing and reviewing the Annual Report, and explicitly asking whether they felt that the Annual Report was fair, balanced, and understandable; and
- engaging our remuneration and legal advisers, and corporate reporting specialists, in reviewing the Annual Report.

With the increased focus on climate change, and with TCFD reporting being mandatory this year, management also focused on ensuring that climate-change related activities were fairly reflected in the report and that these activities were reflected where appropriate in the financial statements. Management also engaged an external review on this year's TCFD reporting. We received updates on this work from management, including a paper setting out the key activities and how they'd been reported.

We were satisfied with management's process, and following discussions at our September 2022 Committee meeting we advised the Board that the Annual Report, taken as a whole, is fair, balanced, and understandable.

Audit Committee Report continued

Internal controls and risk management

The Board has overall responsibility for the Group's approach to risk management and internal control. Our Risk Committee has operational responsibility for risk management, and the Board has delegated responsibility to the Audit Committee for the oversight of this work and the effectiveness of internal controls.

This section of our report explains our role in risk management and the Group's internal control environment. It also summarises the work of Internal Audit, and how we assess the effectiveness of this function.

Risk management

The Risk Committee has a well-established process to identify and manage risks. Using a top-down approach, Jacqueline Conway as Chair of the Risk Committee interviews senior managers from across the Group, to identify the more prevalent and strategic topics to be considered. In addition, detailed risk reports are received from regional and product line managers, focusing on key operational risks. Each principal risk owner is invited to Risk Committee meetings to provide updates and present risk mitigation action plans.

The Risk Committee combines this work with identifying trends and any new emerging risks, to draft the Group's principal risks. The Audit Committee has considered and endorsed these principal risks presented to us by the Risk Committee.

As an Audit Committee, we also review management's work in preparing the viability assessment, which considers the potential impact of the Group's principal risks over a three year period. We report our work on this topic to the Board, and the Board's viability review is described in more detail on pages 50 to 51.

Internal controls

The Group uses systems and processes that reduce the risk of material error or loss, while acknowledging that these risks cannot be eliminated entirely.

Internal controls are embedded throughout the business's systems, and our Group Business Code explains how we expect our people to behave with honesty and integrity and provides specific requirements on topics such as trade controls and legal compliance. Everyone in our business undertakes relevant training and assessment within three months of joining Renishaw. We further embed our expectation of people's behaviour by having Integrity as one of our core values.

On a day-to-day basis management are responsible for implementing internal controls. The Group Internal Control Manual sets out all key processes and controls, mainly aimed at financial management and financial reporting. This is available to all employees and the Internal Audit team test subsidiary compliance with these controls during their audit work. Self-assessment of compliance is certified by each Group company on an annual basis.

This year management assessed the impact of the potential outcome of the BEIS whitepaper on 'Restoring trust in audit and corporate governance'. The final response from BEIS was published in May 2022, and is broadly consistent with our expectations. In readiness for the expected increase in ICFR assurance to be provided to stakeholders, management undertook a readiness assessment on the Group's current ICFR position, with support from an external accountancy firm independent of EY. This review did not find any critical weaknesses in our ICFR environment but did confirm that management would need to better document their existing processes and controls to support a 'SOX-lite' controls attestation in the future. This work also highlighted that our ICFR environment would be more effective if we increase the emphasis on preventative controls. This will be reflected in the implementation plan for Microsoft Dynamics 365, to ensure appropriate controls are embedded in our new system.

Internal audit

Internal Audit work is performed in-house, led by the Group Internal Audit Manager. As a Committee, we agree the Internal Audit team's plan of work at the start of each financial year and check their progress against this plan during our committee meetings.

With travel restrictions lifting in many countries this year the team were able to travel to 17 of their scheduled overseas subsidiary visits, with the remaining nine audits undertaken remotely from the UK. In these instances, the team held video calls with the subsidiary teams to perform tests and complete their audit work.

We're provided with reports after each audit, grading the audited entity and summarising the number and significance of the audit findings. At each committee meeting, the Group Internal Audit Manager updates on how these findings are being addressed, as well as any other observations from the team.

At the end of each financial year, we assess Internal Audit's effectiveness. We do this by discussing their work with the Group Finance Director and by reviewing the responses to questionnaires completed by teams audited in the year. These questionnaires cover topics such as how they planned each audit and how they communicated and prioritised their findings.

We also consider whether their work was effective by reviewing the volume, age, and severity of findings. This year has seen an improvement in how audit findings are responded to. Overall, we agreed that this year's Internal Audit work was effective.

External audit

Appointment, reappointment and tendering

We appointed EY as our auditors at our October 2016 AGM, and their first audit was for FY2017. Paul Mapleston stepped down after last year's audit having served five years as our lead audit partner. There was an unforeseen change in our lead audit partner during FY2022, and Anup Sodhi took on this role in July 2022. All other members of the external audit team this year have remained in place.

In line with regulation, the audit will be put out to tender at least every 10 years. As we have no current plans to bring the tender forward, the next tender is likely to take place in FY2026.

We consider that the Company has complied with the Competition & Markets Authority's Statutory Audit Services Order for the financial year under review.

Quality and effectiveness

The external auditors are invited to attend our Audit Committee meetings, and report their plan for the full year audit and interim results review. I meet with the lead audit partner on a regular basis, and the Committee meets with them at least annually, without management present, to allow both Committee members and the external auditors to raise any issues directly. We also discuss their remit during these meetings.

We reviewed the effectiveness of EY's performance of the external audit process, taking into account:

- the quality and scope of their audit plan, and the delivery and performance against this plan;
- the qualifications, efficiency, and performance of their audit team;
- the communication between management and EY;
- EY's understanding of the Group's business and industry sector; and
- the results of the FRC's Audit Quality Inspection Report on EY.

After considering these matters, our Committee was satisfied with the effectiveness of the year-end process and recommended to the Board that EY be reappointed at the Company's AGM on 30 November 2022.

The FRC's Audit Quality Review team (AQRT) reviewed EY's FY2020 audit, and this year we received the findings of that review. The AQRT reached a conclusion of 'Improvements Required', with three key findings relating to EY's oversight of component audit teams, their testing of capitalised development costs, and their testing of cash balances. The findings from the FRC report were addressed by EY in the FY2021 audit. None of the AQRT's findings indicated that the financial statements were materially misstated.

With the points being addressed in the FY2021 audit, and noting that the audit mainly took place in July and August 2020 and was therefore in the early stages of audit firms responding to COVID-19 disruption, we are satisfied that the external audit is effective.

Independence and objectivity

Both the Group and EY take action to ensure that EY are independent and objective. As noted earlier, Paul Mapleston rotated off the audit after five years as our lead audit partner.

The Group has a non-audit services policy, and as a Committee we check how this policy is applied. This policy prevents our external auditors from doing certain types of work for us, such as material or highly-sensitive valuations, or advising on legal and regulatory matters. Some non-audit work is permitted by the policy, but with safeguards in place such as prior authorisation and the use of a competitive tender process, depending on the level of expected fees.

For EY's own policies, they require non-audit work to be approved by our lead audit partner before the work starts; approval is not granted if the lead audit partner concludes there's a risk to the independence and objectivity of the audit. Separate teams also have to be used by EY, so that members of the audit team don't perform non-audit work for us.

This year, EY's fees for non-audit work were £32,000. This was for five engagements; Wotton Travel Limited's annual ATOL and ABTA reporting, tax compliance for Renishaw SAS, and review procedures for VAT s56A certification of Renishaw UK Sales Limited and Renishaw Ireland (DAC).

Juliette Stacey

Chair of the Audit Committee

15 September 2022



Directors' Remuneration Report

Committee Chair's statement

Our approach
to remuneration
is responsive to
our people and
the market

Catherine Glickman

Chair of the Remuneration Committee

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Introduction

On behalf of the Board, I present our Remuneration Report for FY2022.

Before I write about this year, on behalf of the Board, I would like to thank shareholders for the strong vote in favour of last year's Remuneration Report and specifically their support for the increase to Will Lee's salary. It ensured that Will was rewarded fairly and competitively for his role as Chief Executive of Renishaw. We look forward to consulting shareholders during FY2023, when developing our new Remuneration Policy, and to receiving both their input and support.

Performance for FY2022

FY2022 has been a year of strong growth, building on the momentum we saw in FY2021. Significant progress in key strategic areas underpins that growth, with record results from products already in the market and strong progress in the development of our flagship product projects (see pages 28–38 for more information).

Our markets recovered quickly, and we have experienced strong demand for our encoder product lines which has largely been driven by increased investments in industrial automation and the semiconductor and electronics capital equipment markets. We also experienced good growth in demand for our machine tool and CMM product lines, where we have benefited from a recovery in investments in metal cutting machinery and the need to measure the outputs from those processes.

Despite supply chain challenges, we have focused on increasing capacity to meet demand. During the year, we grew our manufacturing headcount by 20% and continue to work closely with suppliers to increase stocks of critical components and materials.

Remuneration in context

This year we, like many other companies and sectors, have worked hard to ensure that we can recruit, develop, and retain our people. As noted in our Risk Management section on pages 39–49, this year both domestic and global competition for talent has meant this risk has risen to become a key area of management focus.

We have traditionally been able to meet our staffing needs, with a strong reputation for internal development, innovation, low staff turnover and a positive, open culture. The growth of the business both in the UK and internationally, coupled with competition for talent, means that recruitment and retention have become a priority for the leadership team. Working at the leading edge of engineering innovation means it is vital that we attract and retain highly qualified, motivated and productive employees. In regions of full employment, this is a challenge all employers are facing, with particular issues in technical engineering, IT (specifically software development), and manufacturing.

As noted on pages 54–55, we have set up cross-functional working groups to focus on three key areas of people development, responding to issues we are identifying through leaver analysis and employee feedback. The three key areas are:

- improving our performance management;
- developing career progression pathways, together with structured learning and development programmes; and
- benchmarking and investing in reward and benefits.

I will comment on the reward project which is completely aligned with our decisions on executive remuneration, and with which we've made major progress this year. Market benchmarking exercises were completed in the UK, and a clear pay policy was agreed. This enabled management to identify where base pay investments would move us towards our target pay position in the market, subject to good performance. Where benchmarked outcomes rated existing salaries in line with our pay positioning, individuals received a lump sum payment in recognition of contribution, instead of an uplift to base salary.

We have also started benchmarking exercises in India and Europe, and have made investment in key skill areas, specifically technical, engineering, software, and manufacturing roles. You will have seen in our trading updates this year of our major investments in rewards for our people; these will continue to ensure that our pay remains competitive, so that we can retain and attract talented people. In FY2023, we will continue to monitor the market to maintain our competitive position, and will acquire benchmarking data for all roles during FY2023, with the aspiration that pay across all areas of operation will be locally competitive.

FY2022 annual incentive opportunity for Executive Directors

Our Executive Directors have successfully led us through another year of profitable growth, with 19% growth in revenue and 37% growth in Adjusted profit before tax (PBT).

As in previous years, the metrics for the Executive Directors' Deferred Annual Equity Incentive Plan (DAEIP) were predominantly financial, with 90% paying out on Adjusted PBT and the remaining 10% on non-financial, strategic objectives, subject to the threshold Adjusted PBT being met. The maximum award for Will Lee and Allen Roberts is 150%, and for Sir David McMurtry it is 100%. We defer 50% of any earned pay-out into shares for three years for Will and Allen, and any award for Sir David is paid as cash.

We set a stretching Adjusted PBT increase for FY2022 as follows:

- **Threshold** – £122m
- **On-target** – £141m
- **Stretch** – £146m
- **Maximum** – £152m

We set our strategic objectives around the following headings:

- **Group strategic direction** – covering software strategy, Group structure, associates and joint ventures, and planning;
- **Innovation** – focusing on new product delivery, specifically of flagship products, and inorganic growth;
- **People and culture** – covering delegation and accountability, productivity, values, and leadership; and
- **Sustainability** – focusing on the plan to achieve our Net Zero commitment.

On Adjusted PBT, I am delighted to confirm that we have far exceeded the maximum for the profit range this year, with a full year Adjusted PBT result of £163.7m. This means that this element pays out in full.

With regard to the non-financial element, the Committee considered performance against the strategic objectives in detail and agreed that they had been met in full; a detailed breakdown of performance against each strategic objective is given on page 104.

This has resulted in a maximum bonus award for FY2022 to each of the Executive Directors. When considering the outcomes, the Committee has taken a holistic view, including in relation to the employee and wider stakeholder experience, in addition to performance relative to the targets and objectives set. The Committee believes that the outcomes are an appropriate reflection of wider performance and has not exercised any discretion in relation to remuneration outcomes for Executive Directors.

Senior Leadership Team bonus plan

Following discussion by the Executive Directors, and with strong approval from the Committee, we aligned the metrics for the incentive scheme for the Senior Leadership Team with those of the Executive Directors' DAEIP for FY2022. Awards are based on 90% Adjusted PBT and 10% strategic objectives.

Any award will be made half in cash and half in deferred shares, held for three years, subject to a minimum award. For the first time, the incentive is aligned with the Executive Directors' reward, working to common profit and strategic targets. This is also the first time that our Senior Leadership Team have been rewarded in Renishaw shares. The plan has been extremely well received by our Directors and Senior Leadership Team, with clarity on what is required for the incentive to pay out and a shared sense of ownership.

FY2022 employee bonus awards

As is our policy, a proportion of our annual profit has been set aside to invest in bonus awards for our people. After a strong performance this year, bonus awards – which depend on seniority and performance – increased compared to last year, with a UK minimum award of £1,000 (pro-rated).

Directors' Remuneration Report

Committee Chair's statement continued

Our approach to Executive Director remuneration for FY2023

In line with the wider workforce, our approach to reward is focused on competitive pay positioning across the Group, driving accountability and performance. For our Executive Directors, we continue to operate our conservative approach, balancing the needs and experience of employees, shareholders and other stakeholders.

Our Executive Directors – Sir David McMurtry, Will Lee and Allen Roberts – will receive increases of 5% this year. This is lower than the average increase for the wider workforce at 6.2%.

FY2023 annual incentive plan for Executive Directors

The Committee has discussed the DAEIP design for our Executive Directors and agreed that it remains appropriate for FY2023. It will continue to be predominantly financial, based on Adjusted PBT, worth 90%, with strategic objectives worth 10%. As in FY2022, the FY2023 strategic objectives will be grouped under driving innovation, people and culture, sustainability with a focus on progress on our environmental targets, improving productivity, continued embedding of our vision and values, and evolving our strategy.

The Adjusted PBT targets and strategic objectives will also apply to the Senior Leadership Team to ensure collective accountability and responsibility.

Non-executive Director remuneration

The Board has reviewed the fees for the Non-executive Directors and has agreed that they should increase to £75,000 for FY2023. This represents a second year of increase and aligns the fees closer to the median point in the market for a business of our size. At the 2022 AGM we are seeking shareholder approval for a minor amendment to the Directors' Remuneration Policy to remove the requirement that all Non-executive Directors are paid the same fee in order to provide flexibility, in particular as consideration is given to the future composition of the Board and the appointment of further Non-executive Directors, and to bring the Policy into line with market practice in this regard. Further details are set out on page 100.

Engaging with our people

The Committee continues to support the growing focus on employee engagement. We use various methods to engage with the wider workforce, including:

- my role as employee engagement ambassador;
- meetings with the Senior Leadership Team and our people, joining employee briefings, receiving company updates through Channel R, attendance at the diversity and inclusion forums, and regular updates on business progress;
- regular virtual and face-to-face meetings with the Senior Leadership Team by members of the Committee; and
- regular briefings to the Board and Committee on recruitment (particularly in relation to early careers and technical employees), the progress of our key people projects on performance management during the year, career development and reward, and regular updates on retention.

Looking ahead – key focus area for the Committee

Our Remuneration Policy was approved by shareholders at the 30 September 2020 AGM, receiving a high level of shareholder support at 92.78%. During the course of this year we will be reviewing our Directors' Remuneration Policy, in advance of its renewal at our 2023 AGM, to ensure that it continues to support our strategic priorities and provides an appropriate level of reward to attract and retain high-calibre individuals in an increasingly competitive market. Our aim is to always consider the wider workforce, our shareholders, and other stakeholders, and to remunerate executives fairly and responsibly. We remain committed to a responsible approach to executive pay, as I trust this Directors' Remuneration Report demonstrates.

On behalf of the Board, I would like to thank all those who attended our AGM and Investor Day, and thank you again for your continued support and feedback. As always, I am happy to answer questions or receive feedback; please contact me at CompanySecretary@Renishaw.com.

Catherine Glickman

Chair of the Remuneration Committee

15 September 2022

Catherine Glickman

Committee members, advisers and meetings

What does the Committee do?

Our Committee helps attract, retain and motivate talented executives by ensuring Renishaw offers competitive remuneration and motivating incentives. These incentives are linked to our overall performance and, in turn, the interests of all shareholders.

We are responsible for:

- deciding our framework for executive remuneration;
- determining the remuneration for each of the Executive Directors and other senior management;
- ensuring that suitable financial and non-financial objectives are in place to reward and encourage strong performance; and
- overseeing and reviewing the structure and operation of the Remuneration Policy.

Our Committee terms of reference are published on www.renishaw.com/corporategovernance.

To avoid duplication, the table below cross refers to disclosures given elsewhere of how we have sought to comply with Provision 41 of the Governance Code.

Topic	Page(s)
– an explanation of the strategic rationale for executive directors' remuneration policies, structures and any performance metrics	93, 98–99
– reasons why the remuneration is appropriate using internal and external measures, including pay ratios and pay gaps	106
– a description, with examples, of how the Remuneration Committee has addressed the factors in Provision 40	102
– whether the Remuneration Policy operated as intended in terms of company performance and quantum, and, if not, what changes are necessary	98–100
– what engagement has taken place with shareholders and the impact this has had on Remuneration Policy and outcomes	101–102
– what engagement with the workforce has taken place to explain how executive remuneration aligns with wider company pay policy	101
– to what extent discretion has been applied to remuneration outcomes and the reasons why	n/a

Members

All members of the Committee are Independent Non-executive Directors: myself, as Chair; Sir David Grant; Juliette Stacey (from 1 January 2022); and Stephen Wilson (from 1 June 2022). During FY2022 Carol Chesney was a member of the Committee from 1 July 2021 to 31 December 2021 and John Jeans was a member of the Committee from 1 July 2021 to 28 February 2022. The Committee met six times in FY2022, and we set out on this page a summary of the topics discussed in those meetings.

Jacqueline Conway, our General Counsel & Company Secretary, acts as Secretary to the Committee. Executive Directors may attend our meetings by invitation (to advise on the remuneration and performance of senior management and to take part in specific discussions), although they are not present for any discussions that directly relate to their own remuneration.

Advisers

We use independent advisers as needed and our current adviser is Deloitte.

Deloitte is a founder member of the Remuneration Consultants Group and, as such, voluntarily operates under the code of conduct in relation to executive remuneration consulting in the UK. We believe that the advice received from Deloitte is objective and independent.

Total professional fees and expenses paid to Deloitte for advice received was £26,200.

Deloitte was appointed by the Committee and has provided other remuneration advice during FY2022.

Committee meeting attendance record

Committee members	Attended
Catherine Glickman (Chair)	6/6
Sir David Grant	6/6
Carol Chesney ¹	2/2
John Jeans ²	3/3
Juliette Stacey ³	4/4
Stephen Wilson ⁴	1/1

¹ During FY2022, Carol Chesney was a member of the Committee from 1 July 2021 until 31 December 2021.

² During FY2022, John Jeans was a member of the Committee from 1 July 2021 until 28 February 2022.

³ Juliette Stacey was a member of the Committee from 1 January 2022.

⁴ Stephen Wilson was a member of the Committee from 1 June 2022.

Meetings

Date	Topic
6 July 2021	– Group financial and non-financial objectives for FY2022
20 October 2021	– Employee salaries and bonus proposals for FY2022 – FY2022 bonus update – HR objectives for FY2022 – Executive Directors' DAEIP awards for FY2021
1 February 2022	– Senior Leadership Team bonus scheme – Senior management salary review – Employee salaries adjustment budget
30 March 2022	– Senior Leadership Team bonus scheme – Amendments to Committee's terms of reference
9 May 2022	– Employee bonus for FY2022 – Salary benchmarking – Proposed financial and non-financial objectives for FY2023
22 June 2022	– Employee bonus proposal for FY2022 – Salary benchmarking – Changes to the DAEIP – Achievement of financial and non-financial objectives for FY2022 – Financial and non-financial objectives for FY2023 – Executive Directors' salary review

Remuneration at a glance

Executive Director remuneration in 2022 vs 2021

The graph shows a comparison of the Executive Directors' total remuneration (including a breakdown of the components) for FY2022 and FY2021.

Chart removed

Executive Directors: share ownership

The Remuneration Policy approved by the shareholders at the AGM in September 2020 includes a minimum shareholding guideline for Executive Directors only. Current shareholdings for comparison with the shareholding requirements are calculated based on annualised salary as at 30 June 2022 and by reference to the closing share price on 30 June 2022 (3,568p).

	Current Executive Directors		
	Sir David McMurtry	Will Lee	Allen Roberts
Number of ordinary shares of 20p each beneficially owned as at 30 June 2022	26,377,291	7,695	6,840
Actual (x salary)	1,289.7	0.410*	0.572
Requirement (x salary)	0.5	2.0	0.5

* Will Lee is in the process of building towards his minimum shareholding guidelines. He has increased his proportionate shareholding since FY2021.

Total shareholder return (TSR)

Alignment of Executive Director and shareholder interests is reinforced by the significant shareholding of our Executive Chairman, and for non-founder Executive Directors through DAEIP awards being denominated in shares and the minimum shareholding guidelines.

To demonstrate alignment of performance alongside shareholder interests, the chart below shows our strong TSR performance over the last 10 years, illustrating that we have outperformed the FTSE 250 index consistently over the last five years. TSR performance was rebased to 100 at 30 June 2012.

Chart removed

Annual incentive opportunity

The Committee sets Group performance targets, including a threshold below which no annual incentive is earned. This increases from zero to a target at which 75% of salary (equivalent to 50% of the maximum opportunity for non-founder Executive Directors) would be earned, and to a cap at which the maximum opportunity of 150% of salary could be earned. The targets for pay-outs of between 100% of salary ('Stretch') to 150% of salary ('Maximum') will incentivise and reward even greater outperformance of profit growth expectations for any year.

Sir David McMurtry participates in the annual bonus plan: his incentive opportunity is capped at a maximum of 100% of salary, to be paid in cash.

Chart removed

How is performance reflected in our incentives?

Our incentive opportunity is based on financial and strategic objectives, although the award is only payable if the threshold Adjusted* PBT target is met.

Financial objectives

Adjusted PBT is a key measure of Renishaw's financial performance.

In FY2022, Adjusted PBT was weighted 90% in the annual incentive opportunity.

The Adjusted PBT targets for 2022 were:

- Threshold £122m;
- On-target £141m;
- Stretch £146m; and
- Maximum £152m.

* Note 29 (Alternative performance measures) defines how Adjusted PBT is calculated.

Non-financial objectives

The remaining 10% of our annual incentive opportunity was this year subject to the achievement of our non-financial objectives, including:

- Group strategic direction – covering software strategy, Group structure, associates and joint ventures, and planning;
- Innovation – focusing on new product delivery, specifically of flagship products, and inorganic growth;
- People and culture – covering delegation and accountability, productivity, values, and leadership; and
- Sustainability – focusing on the plan to achieve our Net Zero commitment.

KPI – performance snapshot

Chart removed

Adjusted PBT

The percentages in this bar chart refer to the total of the maximum awards that could be made to the Executive Directors. In both FY2021 and FY2022, the Executive Directors received the maximum bonus available under our annual incentive opportunity as both the financial and non-financial objectives were met.

Our financial performance for FY2022 has resulted in the following awards:

Executive Director	Cash bonus £'000	Deferred into shares £'000	Total £'000
Sir David McMurtry	730	0	730
Will Lee	503	503	1,006
Allen Roberts	320	320	640

Directors' Remuneration Policy

The Remuneration Policy approved at the 30 September 2020 AGM underpins the implementation of our strategic objectives. A summary of the key elements can be found below, and the full Policy is available at www.renishaw.com/en/financial-reports-22583. During FY2022, the Remuneration Policy operated as intended in terms of our performance and quantum.

Remuneration principles – total Remuneration Policy

Delivering the strategy

To attract, motivate and retain talented Executive Directors to support the delivery of Renishaw's strategy and maximise long-term shareholder value

Simple and aligned

Executive Director remuneration is designed to be simple, conservative, and aligned with shareholder interests

Proportionate

A cap on total remuneration at the upper quartile of the relevant market for the position in question

Linked to performance

Performance measures are defined for each constituent element of remuneration

Base salary

Policy	– Renishaw aims to pay base salaries between median and upper quartile, reflecting that its variable pay opportunities remain significantly below market. – Maximum: upper quartile of the relevant market. – Measured by: continued good performance.
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Link to strategy	To provide a competitive remuneration package to motivate and retain Executive Directors of the required calibre to help the Group deliver its strategic objectives.
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Benefits

Policy	– Benefits provided on an ongoing basis include: a car or car allowance; private medical insurance; and long-term disability cover. We may provide new Executive Directors with reasonable and proportionate support if they need to move closer to their place of work. – Maximum: capped at £50,000 a year (excluding accommodation and relocation costs). – Measured by: not applicable.
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Link to strategy	To provide market-competitive benefits to motivate and retain Executive Directors and to support them to give maximum attention to their role.
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Pension

Policy	– To provide a pension contribution/allowance in line with the wider workforce of the home country of the Executive Director and to motivate and retain Executive Directors of the required quality to meet the Group's objectives. – As from 1 August 2020, Executive Directors who joined Renishaw before 2007 will receive pension contributions into our UK defined contribution scheme, or all or part as an allowance paid in lieu, at 11% of salary, in alignment with other long-serving employees. Executive Directors who joined Renishaw after 2007 will receive the same annual contributions as other more recent joiners in the wider workforce (currently 9% of salary). – The allowance will be made into our defined contribution scheme or all or part as a cash allowance in lieu, as agreed by the Committee. – Maximum: 11% of base salary for Executive Directors who joined Renishaw before 2007 and 9% of base salary for those who joined after 2007. – Measured by: not applicable.
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Link to strategy	To provide a pension contribution/allowance in line with the wider workforce of Executive Director's home country, and to motivate and retain Executive Directors of the required quality to meet the Group's objectives.
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Annual incentive opportunity (cash bonus and deferred equity awards)

Policy	– The Committee sets Group performance targets, including a threshold below which no annual incentive is earned, increasing from zero on a straight-line basis to a target at which 75% of salary (equivalent to 50% of the maximum opportunity for non-founder Executive Directors) would be earned, to a cap at which the maximum opportunity of 150% of salary could be earned. – Part or all of any annual incentive payment (whether paid in cash or deferred into shares) may be subject to repayment in the event of any: material financial misstatement; error in calculation; misconduct; corporate failure; material loss; and/or reputational damage. – Maximum: 150% of salary for non-founder Executive Directors and 100% of salary for Sir David McMurtry (the award for whom is paid in cash only). – Measured by: primarily by Adjusted PBT, together with financial and non-financial metrics. Any non-financial metrics shall not form more than 25% of the overall bonus opportunity.
Link to strategy	To incentivise and reward the execution of the Group's objectives, reward outperformance and encourage Executive Director share ownership.

Minimum shareholding

Policy	– Chief Executive is expected to build up and maintain a level of share ownership of at least 200% of base salary. – All other Executive Directors are expected to build up and maintain a level of share ownership of at least 50% of base salary. Any future Executive Director appointments will need to build up and maintain a level of share ownership of at least 200% of base salary. – 50% of any net vested share awards (after disposals to meet tax liabilities) must be retained until the minimum shareholding guideline is met. – The required level of shareholding is expected to be achieved within five years of an Executive Director's appointment. – Maximum: not applicable. – Measured by: not applicable.
Link to strategy	Supports the alignment of Executive Director and shareholder interests.

Post-employment shareholding

Policy	– Executive Directors (excluding Sir David McMurtry) will need to maintain a personal shareholding in Renishaw plc at a level of at least the lower of their actual shareholding and the level of their minimum shareholding guideline for one year after they step down from the Board, and 50% of that level for a further year. – This applies to shares awarded after October 2020. – The Committee retains the discretion to modify the post-employment shareholding requirement in certain exceptional circumstances. For example, on a change of control or if a conflict of interest arises with an Executive Director's next appointment. – Maximum: not applicable. – Measured by: not applicable.
Link to strategy	Supports the principle of long-term share ownership that is promoted by the Governance Code.

Directors' Remuneration Policy continued

Non-executive Director Remuneration

As set out in the Committee Chair's statement, we are seeking shareholder approval for a minor amendment to the Policy at our 2022 AGM in so far as it applies to Non-executive Directors. Under the current Policy, all Non-executive Directors are paid the same fee, irrespective of their responsibilities – for example membership of, or their chairing of, Board committees.

However, we recognise the benefit of greater flexibility, in particular as consideration is given to the future composition of the Board and the appointment of further Non-executive Directors. Therefore, in order bring the Policy into line with market practice in this regard, the proposed amended Policy, which is set out below, removes the current limitation. This would enable the Company to provide fees within a market competitive range, taking into account the responsibilities of the Non-executive Director's role and the expected time commitment.

Non-executive Directors' policy table

The fees for any Non-executive Chair would be determined by the Committee and the fees for other Non-executive Directors are determined by the Chairman and the Executive Directors. Set out below is a table summarising the approach to fees for Non-executive Directors.

The Non-executive Directors are appointed for an initial three-year period subject to annual performance review and re-elections at AGMs, unless terminated earlier by either party on one month's written notice. Appointments will not normally continue beyond nine years in office, although there may be exceptions where a certain skillset is difficult to replace and/or to allow Renishaw to conduct a comprehensive recruitment exercise.

Board fees

Operation	– Fees are set taking into account the responsibilities of the role, the expected time commitment and prevailing market rates. – The Non-executive Directors are currently all paid a single all-inclusive fee. A basic fee with additional fees paid for the chairing of Committees and assuming the role of Senior Independent Director may be introduced in the future. Additional fees may also be paid for other Board responsibilities or roles if this is considered appropriate. – Fees are reviewed at appropriate intervals, usually on an annual basis, with reference to fees payable to non-executive directors of companies of a similar size and complexity. – Non-executive Directors do not receive incentive pay or share awards and do not currently receive any benefits or pension arrangements. – Travel and other reasonable expenses (including fees incurred in obtaining professional advice in the furtherance of their duties) incurred in the course of performing their duties are reimbursed to Non-executive Directors (including any associated tax liability). – Performance measures are not applicable. – Maximum: basic fees are subject to the aggregate limit set in accordance with the Company's Articles of Association, as amended by shareholder approval from time to time.
Link to strategy	To provide a competitive fee to attract and retain Non-executive Directors of the required calibre to meet the Group's objectives.

Approach to remuneration and consideration of stakeholders

Introduction

We consider a variety of stakeholder views when determining executive pay, including those of our shareholders, colleagues, and external bodies. See pages 52–65 for more information on how we consider our stakeholders' views more generally.

Employee engagement

Our Committee continues to focus on employee engagement. As Chair, I also act as employee engagement ambassador and have attended meetings with HR, members of the Senior Leadership Team, and our Diversity and Inclusion Committee during the year. This has helped me gain insights on employee views around a variety of topics.

In FY2023, I look forward to further personal engagement with our people through various forums, which will help inform where our priorities lie on future engagement initiatives.

Further information on how we have engaged with our people can be found on pages 52, 54 and 55. We did not specifically consult with employees on our current Executive Director Remuneration Policy.

Consideration of employment conditions

We are involved in setting the remuneration for our Senior Leadership Team. We also review the remuneration and related policies of our wider workforce, with particular reference to the UK since it is the market in which the Executive Directors are based. This allows us to ensure sufficient alignment between the remuneration policies of the wider workforce and the Executive Directors. It also gives additional context for making informed decisions on executive pay, and ensures performance objectives are aligned with our culture and strategy. The pension arrangements for the Executive Directors are aligned to those available to our workforce as set out on page 98.

Employee pay

To reward and recognise the record performance achieved in this financial year, eligible employees received an annual bonus paying out a UK minimum of £1,000 (pro-rated).

In 2021, we announced that we would conduct benchmarking exercises periodically to ensure that Renishaw's remuneration and salaries remain competitive, and during FY2022 we continued working on our goal to reach our targets for pay.

Our approach to reward, which was based on increases linked to inflation and performance, has been replaced by aligning pay to market competitive rates. We carry out detailed benchmarking of our pay and benefits using global, industry-wide comparisons. We believe that this approach will improve attraction, retention, and our gender pay gap figures. The major investment in reward this year has seen an improvement in the competitiveness of our pay, and has been well received by our people. We will continue to work towards our target position.

Our benchmarking activities will complement the implementation of our new job grading structure. Here, too, we developed this structure using an industry-wide framework that will allow us to benchmark our pay and benefits globally. Once we have fully introduced our reviewed structure, we will shift our focus to creating competency frameworks for all our roles.

We have focused on these priority projects in direct response to feedback from our people about a lack of transparency on pay and career progression. These processes will help define relevant training and resources to support further personal development, backed by our global HR system which will support implementation and access.

It is crucial that our employee pay is correctly and competitively positioned within the wider employment market to ensure we retain our talented people while attracting new employees to join our business. Benchmarking not only takes account of inflationary rises but also considers other factors such as:

- demand for specific skills, e.g. engineering or software development;
- fluctuating salaries in geographical locations; and
- ensuring fairness and consistency, demonstrating to our people that they are competitively rewarded.

While variable and share-based payments are more heavily weighted elements of remuneration for our Executive Directors compared to our wider workforce, we have further aligned the pay of our Senior Leadership Team, who are now participants in our Senior Leadership Team Annual Bonus Plan.

This operates on the same basis as the Executive Directors' DAEIP. See page 93 for more information on the Senior Leadership Team Annual Bonus Plan.

Consideration of shareholder views

We engage with shareholders when making decisions about changes to the Directors' Remuneration Policy. We considered shareholder feedback when drawing up the current Policy. We consulted the top 20 external shareholders as well as proxy voting agencies in May and June 2020 regarding our proposed changes.

We are grateful for feedback from shareholders as part of this process, which indicated broad support for the initial proposals. While no substantive changes were made to the Policy as a result of the feedback before we published our 2020 Annual Report, a number of shareholders and proxy voting agencies raised questions and concerns following its publication.

We took into account these questions and, following further discussion, announced the following clarifications to the proposed Remuneration Policy in September 2020:

- **minimum in-post shareholding requirement:** future Executive Directors will have to build and maintain a shareholding of at least 200% of their salary over time (the same as our current Chief Executive); and
- **recruitment remuneration:** the maximum award opportunity under any long-term incentive for a new Executive Director, during the current Policy (three years), is 200% of salary.

We were pleased that the Remuneration Policy received 92.78% votes in favour when proposed to the shareholders at the AGM in 2020.

We continued to engage with shareholders in FY2022, including regarding the implementation of the Remuneration Policy in relation to Executive Directors' salary increases effective for FY2022. This included an initial written communication, followed by one-to-one telephone conversations with me where requested.

We received constructive feedback from shareholders who appreciated the context and were supportive of the rationale, which encouraged us to proceed with the proposed increases. This support was reflected in the voting results at the 2021 AGM, with the Annual Report on Remuneration passing with 97.15% votes in favour.

We will continue to monitor trends and developments in corporate governance and market practice to ensure the structure of executive remuneration remains appropriate. We intend to consult with shareholders when developing our new Policy in FY2023, and look forward to receiving their input and support.

Approach to remuneration and consideration of stakeholders continued

Alignment with strategy

The strategic alignment of each element of pay is set out in the summary of the Remuneration Policy on pages 98–100. The non-financial objectives for FY2022 were:

- **Group strategic direction** – covering software strategy, Group structure, associates and joint ventures, and planning;
- **Innovation** – focusing on new product delivery, specifically of flagship products, and inorganic growth;
- **People and culture** – covering delegation and accountability, productivity, values, and leadership; and
- **Sustainability** – focusing on the environment and our plan to achieve our Net Zero commitment.

These are all linked to the strategy and values of our Group, which underpin our culture and drive behaviours consistent with our purpose.

Our non-financial objectives for next year will similarly be linked to our strategy, further embedding the alignment between executive remuneration and strategy. We set out our FY2023 non-financial objectives on page 94 and will expand on these further in our FY2023 Annual Report.

With 50% of the non-founder Executive Directors' variable pay deferred into shares with a three-year vesting period, combined with minimum shareholding guidelines (both in and after employment), this helps ensure the interests of executives and their behaviours are aligned with shareholders. Expanding the annual incentive plan to our Senior Leadership Team further aligns the interests of management and shareholders, and encourages managers to behave in the long-term interests of the Group.

The Committee has considered our Executive Director Remuneration Policy and practices in the context of the UK Corporate Governance Code, particularly Provision 40, as follows:

Factor	How did we address this factor?
Clarity	A summary of the Remuneration Policy approved at the 2020 AGM has been set out with the full Policy available on our website. The Annual Report on Remuneration clearly explains how we have implemented the Policy in FY2022, including the incentive outcomes. We have engaged with stakeholders as explained in detail on page 101 and are committed to consultation; we will consult with shareholders later this year when we review our Policy during FY2023.
Simplicity	We operate a simple and conservative reward Policy with only the annual incentive plan and no long-term incentive plan, making it much easier to understand for participants, employees and shareholders.
Risk	There is an appropriate mix of fixed and variable pay, and financial and strategic objectives, and there are robust measures in place to manage different kinds of risk, including: – the post-vesting retention period; – minimum shareholding requirement (including post-cessation); – bonus deferral into shares; – malus and clawback provisions; and – Committee discretion to override formulaic outcomes.
Predictability	We set out the range of possible pay opportunities under different performance scenarios (threshold, on-target, stretch and maximum) within the Remuneration Policy as set out on page 97 of this Report. This allows shareholders to consider such aspects before voting on the Remuneration Report (and Policy when proposed) at our AGM.
Proportionality	Executive Directors are incentivised to achieve annual stretching targets and the Committee assesses performance holistically at the end of the period, taking into account performance against the financial and strategic objectives. There is no payout if the threshold financial objectives are not met and our outcomes do not reward poor performance. The strategic alignment of each element of pay has also been clearly laid out in the Remuneration Policy. The Committee may exercise discretion to ensure that payouts are appropriate.
Alignment with culture	Our strategic objectives for this financial year are set out on page 93 and are all linked to our strategy and values, which underpin our culture.

Annual Report on remuneration

This section of the report sets out the remuneration of the Directors in FY2022 and also contains details of how we intend to implement the Remuneration Policy for FY2023. The information on pages 103 to 110 has been audited where required under the regulations and is indicated as audited where applicable.

We have prepared this Remuneration Report in accordance with Schedule 8 of the Large and Medium sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2008 (as amended in 2013, 2018 and 2019), LR 9.8 of the Listing Rules and the Governance Code.

Single total figure table (audited) – Executive Directors

	Salary		Benefits		Pension		Bonus ¹		Total fixed remuneration		Total variable remuneration		Total remuneration	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000	2022 £'000	2021 £'000	2022 £'000	2021 £'000	2022 £'000	2021 £'000	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Sir David McMurtry	730	0 ²	3	3	n/a	n/a	730	715	733	3	730	715	1,463	718
Will Lee	670	562	20	20	74	64	1,006	842	764	646	1,006	842	1,770	1,488
Allen Roberts	426	418	20	20	47	47	640	626	493	485	640	626	1,133	1,111

Single total figure table (audited) – Non-executive Directors

	Fees		Expenses		Total remuneration ³	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000	2022 £'000	2021 £'000
John Deer	70	0 ⁴	0	1	70	1
Carol Chesney ⁵	35	56	0	0	35	56
Catherine Glickman	70	56	0	0	70	56
Sir David Grant	70	56	0	0	70	56
John Jeans ⁶	47	56	0	0	47	56
Juliette Stacey ⁷	35	n/a	0	n/a	35	n/a
Stephen Wilson ⁸	6	n/a	0	n/a	6	n/a

¹ The value of the bonus includes both the value of the annual cash bonus and the face value of shares to be awarded under the DAEIP in respect of the relevant financial year. Deferred shares will normally vest on the third anniversary of grant, subject to continued employment.

² Sir David McMurtry waived his salary from 1 July 2020 to 30 June 2021.

³ The Non-executive Directors are not eligible for any variable remuneration and only receive fixed remuneration.

⁴ John Deer waived his fee from 1 July 2020 to 30 June 2021.

⁵ Carol Chesney resigned as a Non-executive Director on 31 December 2021. Therefore, these figures reflect remuneration received during the period from 1 July 2021 to 31 December 2021.

⁶ John Jeans resigned as a Non-executive Director on 28 February 2022. Therefore, these figures reflect remuneration received during the period from 1 July 2021 to 28 February 2022.

⁷ Juliette Stacey was appointed as a Non-executive Director on 1 January 2022. Therefore, these figures reflect remuneration received during the period from 1 January 2022 to 30 June 2022.

⁸ Stephen Wilson was appointed as a Non-executive Director on 1 June 2022. Therefore, these figures reflect remuneration received during the period from 1 June 2022 to 30 June 2022.

Benefits

	Car allowance £'000	Private medical cover applies to all Executive Directors and insurance on personal cars apply to some Directors £'000
Sir David McMurtry	0	3
Will Lee	20	0
Allen Roberts	20	0

Incentive outcomes for FY2022

Under the Remuneration Policy approved at the 2020 AGM, the Executive Directors were eligible in FY2022 for an annual incentive opportunity (as set out on page 104).

The incentive opportunity is based on financial and strategic objectives, although the award is only payable provided the financial threshold is met (irrespective of performance against the strategic objectives). The Committee established stretching targets for the financial element of the award.

The financial objectives, based on Adjusted PBT, comprise 90% of the award, and the non-financial or strategic objectives comprise the remaining 10% of the award. The targets and achievement against these targets are set out in the tables overleaf. The Committee considers that the level of pay-out is reflective of the overall performance of the Group in the year and is appropriate.

Annual Report on remuneration continued

Financial objectives

	Threshold	On-target	Stretch	Maximum
Adjusted PBT (£m)	£122m	£141m	£146m	£152m
% of bonus payable for Adjusted PBT performance	0%	45%	60%	90%

The Adjusted PBT for FY2022 was £163.7m. This result exceeds the maximum target set by the Committee.

Strategic objectives

All of the strategic, or non-financial, targets were also satisfied, as shown in the table below:

Strategic objective	Outcome of objective	% of bonus payable	% of bonus paid out
Deliver the Group strategic plan for FY2022	- Significant progress with key customers on implementing third party software on our products and devices, together with development of a subscription revenue model and investment to deliver this new venture, including marketing. - Actions to align associate and joint venture businesses with strategy, with divestment of HiETA shareholding and a new distribution model agreed with RLS. - The Committee also took into account the high quality of the strategic planning and budgeting undertaken.	10%	10%
Drive innovation with a focus on new product development and disruptive technology	- Focus on flagship products has produced the first two successes: our FORTIS enclosed absolute encoder; and NC4+ Blue (industry first in blue laser technology). - Significant progress during year on next flagship products in pipeline, meeting targets and key milestones on products from all major product groups. - Disruptive technology projects classified and ranked: high-potential projects launched or accelerated. Specific details regarding these projects are commercially sensitive.		
Develop our people – leadership and capability	- Implementation of simplified, revised performance management, with focus on high performance. - Targeted reward investment to support recruitment and retention, and to address market competitiveness; focus on technical engineering and software development markets to ensure we have sufficient resources. - Significant productivity improvements across the Group, particularly in manufacturing through efficiencies and engineering improvements. This includes a 40% increase in productive hours with only a 19% increase in production labour and overheads (from a combination of efficiencies and engineering improvements), and a 32% increase in revenue over two years with minimal change in our sales and marketing headcount. Further opportunities identified to be implemented in FY2023. - Values launched and embedded, including through the use of an introductory video from Will Lee, together with videos from the Senior Leadership Team, and a global values competition.		
Determine our approach to sustainability	- Approved an ambitious and detailed plan to achieve Net Zero for Scope 1 and 2 GHG emissions by 2028. - Agreed methodology to measure Scope 3 emissions, with a target date to complete this work by March 2023.		

Incentive opportunity outcome

The maximum opportunity for FY2022 was 150% of salary for non-founder Executive Directors and 100% of salary for Sir David McMurtry. For the non-founder Executive Directors, 50% of any bonus earned is to be deferred into shares for three years; any award to Sir David McMurtry will be made in cash.

Our financial performance for FY2022 has resulted in the following awards:

Executive Director	Cash bonus £'000	Deferred into shares £'000	Total £'000
Sir David McMurtry	730	0	730
Will Lee	503	503	1,006
Allen Roberts	320	320	640

When considering the outcomes, the Committee has taken a holistic view, including in relation to the employee and wider stakeholder experience, in addition to performance relative to the targets and objectives set. The Committee believes that the outcomes are an appropriate reflection of wider performance. The Committee has not exercised any discretion in relation to remuneration outcomes for Executive Directors.

Total pension entitlements

Will Lee is a member of our closed defined benefit scheme. The normal retirement age is 65. On death, pension benefits would pass to that member's dependents.

Since the closure of the defined benefit scheme, contributions have been made to a defined contribution scheme or paid in cash.

At 30 June 2022:	Value of defined benefit pension entitlement £'000 per year	Pension contributions
Will Lee	10	Paid in cash

Payments to past Directors

No payments were made to past Directors during the year.

Loss of office payments

There were no loss of office payments during the year.

Performance graph

The graph below shows our TSR performance, compared with the FTSE 250 index, which the Committee believes is the most appropriate broad index for comparison, as Renishaw is a member of this index. TSR performance was rebased to 100 at 30 June 2012.

TSR performance

Chart removed

Chief Executive total remuneration

The table below sets out information relating to the remuneration of the Chief Executive for each of the years in question:

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Will Lee (from 1 February 2018)										
Single figure of total remuneration (£'000)						594	653	601	1,488	1,770
Annual bonus payout (includes annual cash bonus and deferred equity incentive) % of maximum						95	0	0	100	100
Long-term incentive vesting % of maximum						n/a	n/a	n/a	n/a	n/a
Sir David McMurtry (until 31 January 2018)										
Single figure of total remuneration (£'000)*	663	632	1,298	668	1,207	818				
Annual bonus payout % of maximum	10	0	100	0	77	100				
Long-term incentive vesting % of maximum	n/a	n/a	n/a	n/a	n/a	n/a				

* Represents the total remuneration received by Sir David McMurtry in relation to this role.

Chief Executive pay ratio

The table on page 106 sets out the Chief Executive pay ratios as at 30 June 2022, 30 June 2021 and 30 June 2020. The report will build up over time to show a rolling 10-year period. The ratios compare the single total figure of remuneration of the Chief Executive with the equivalent figures for the lower quartile (P25), median (P50) and upper quartile (P75) employees. Ratios are also presented using base salary only.

We have used the 'Option B' methodology (based on gender pay reporting), as the most robust way to identify the individual reference points within an organisation with multiple operating segments.

Annual Report on remuneration continued

Chief Executive pay ratio

Total remuneration

FY2022	Employee remuneration			Pay ratio		
	P25	P50	P75	P25	P50	P75
Chief Executive						
£1,769,183	£31,099	£42,246	£48,457	56.9	41.9	36.5
FY2021						
	Employee remuneration			Pay ratio		
	P25	P50	P75	P25	P50	P75
Chief Executive						
£1,487,487	£28,438	£37,720	£45,170	52.3	39.4	32.9
FY2020*						
	Employee remuneration			Pay ratio		
	P25	P50	P75	P25	P50	P75
Chief Executive						
£601,241	£27,476	£35,619	£51,563	21.9	16.9	11.6

Base salary

FY2022	Employee remuneration			Pay ratio		
	P25	P50	P75	P25	P50	P75
Chief Executive						
£670,000	£27,213	£36,276	£41,331	24.6	18.5	16.2
FY2021						
	Employee remuneration			Pay ratio		
	P25	P50	P75	P25	P50	P75
Chief Executive						
£561,500	£24,420	£32,670	£42,480	23.0	17.2	13.2
FY2020*						
	Employee remuneration			Pay ratio		
	P25	P50	P75	P25	P50	P75
Chief Executive						
£505,350	£24,650	£32,634	£47,092	20.5	15.5	10.7

* Where necessary, adjustments were made to the underlying data to reflect a reduction in working hours during April 2020 to June 2020 in connection with the COVID-19 pandemic. The reductions in salary and employer pension contributions during this time have been added back to give a full-time equivalent figure. No other adjustments were made to the underlying data.

The base salary for the Chief Executive increased by 19.3% in July 2021. When Will Lee was appointed Chief Executive in February 2018, being an internal promotion, his salary was positioned below the normal market rate, with the stated intention that the Committee would make staged increases to bring the salary into line with the market, subject to performance and experience gained in the role. Since this appointment, Will had received one base salary increase, effective 1 July 2019, of circa 2%, in line with the wider workforce. We considered Will to be operating very effectively in the role, adding substantial value to the Company and its stakeholders, and we wished to position his base pay accordingly. The Committee was also aware of the importance of retention, and given that there is no long-term incentive, was keen to ensure that Will felt fairly rewarded as Chief Executive.

The base salaries for employees at P25, P50 and P75 have moved, primarily as a result of significant investment in employee pay, benchmarked to market pay rates. A large proportion of the funds have been allocated to lower paid employees (below P50), as evidenced by the increases to P25 and P50, which has meant that the distribution of pay amounts has shifted year-on-year. Furthermore, we have seen a significant increase in recruitment of employees below P25, which has contributed to the reduction of the P75 figure. The total remuneration ratios also increased slightly during the year.

Taking into account the above, the Committee considers the median pay ratio consistent with the Company's approach to pay and reward. The Committee will continue to monitor the ratios on an annual basis.

Executive Directors serving as non-executive directors of other companies

During the year none of the Executive Directors were paid to serve as a non-executive director for any other company.

Statement of Directors' shareholding and share interests

During the year, none of the Directors were required to own shares in the Company, although the Remuneration Policy approved by the shareholders at the AGM in 2020 includes a minimum shareholding guideline for Executive Directors. As at 30 June 2022 (and unchanged as at the date of this report) the share interests (including the interests of connected persons) of the Directors who have served on the Board at any time during the year are:

	Number of ordinary shares of 20p each beneficially owned (as at 30 June 2022)	Unvested and subject to continued employment (awarded under the DAEIP)	Minimum shareholding guideline	Current shareholding ¹	Minimum shareholding guideline met
Sir David McMurtry	26,377,291	n/a	0.5x salary	1,289.7x salary	Yes
Will Lee	7,695	8,256	2x salary	0.410x salary	Building
Allen Roberts	6,840	6,140	0.5x salary	0.572x salary	Yes
John Deer	12,076,790	n/a	n/a	n/a	n/a
Carol Chesney ²	1,000	n/a	n/a	n/a	n/a
Catherine Glickman	675	n/a	n/a	n/a	n/a
Sir David Grant	–	n/a	n/a	n/a	n/a
John Jeans ³	440	n/a	n/a	n/a	n/a
Juliette Stacey ⁴	–	n/a	n/a	n/a	n/a
Stephen Wilson ⁵	–	n/a	n/a	n/a	n/a

¹ Current shareholdings for comparison with the shareholding requirements for Executive Directors are calculated based on annualised salary as at 30 June 2022 and by reference to the closing share price on 30 June 2022 (3,568p).

² Carol Chesney resigned as a Non-executive Director on 31 December 2021 so the number of ordinary shares of 20p each beneficially owned is shown as at 31 December 2021 and not 30 June 2022.

³ John Jeans resigned as a Non-executive Director on 28 February 2022 so the number of ordinary shares of 20p each beneficially owned is shown as at 28 February 2022 and not 30 June 2022.

⁴ Juliette Stacey was appointed as a Non-executive Director on 1 January 2022.

⁵ Stephen Wilson was appointed as a Non-executive Director on 1 June 2022.

DAEIP awards granted during the year

Will Lee and Allen Roberts were eligible to receive an award under the DAEIP for performance over the year under review. The details of these awards – which at the date of this Directors' Remuneration Report have yet to be granted – will be reflected in the above table in next year's Remuneration Report.

On 28 October 2021, the Executive Directors, excluding Sir David McMurtry, were granted awards of shares under the DAEIP for performance over FY2021. The details of these awards are summarised below and reflected in the above table.

Executive Director	Number of shares	Face value £'000 ¹	Face value % of salary ²	Vesting date
Will Lee	8,256	421	75	28 October 2024
Allen Roberts	6,140	313	75	28 October 2024

¹ Based on the five-day average share price of 5,100p preceding the award date.

² Expressed as a percentage of salary at 30 June 2021.

In line with our Remuneration Policy, awards normally vest on the third anniversary of the award date, subject to continued employment only.

Annual Report on remuneration continued

Percentage change in remuneration of the Directors

The following table sets out the percentage change in the Directors' remuneration, compared with the percentage change in average remuneration to UK employees in FY2019 to FY2022. The figures shown in the table below refer to the base salary actually received by each Director, therefore these figures do not include the fees (whether all or part) that were waived for any financial years.

Where an item is not relevant for that Director or where it has changed from or to a zero figure in the timeframe, the change is shown as not applicable. All percentages in the table are rounded to the nearest whole number.

Sir David McMurtry¹	Salary	Benefits	Annual bonus
2019 to 2020	-23%	0%	0%
2020 to 2021	n/a	0%	n/a
2021 to 2022	n/a	0%	2%
Will Lee	Salary	Benefits	Annual bonus
2019 to 2020	-8%	0%	0%
2020 to 2021	11%	0%	n/a
2021 to 2022	19%	0%	19%
Allen Roberts	Salary	Benefits	Annual bonus
2019 to 2020	-2%	0%	0%
2020 to 2021	5%	0%	n/a
2021 to 2022	2%	0%	2%
John Deer²	Fees	Expenses	Annual bonus
2019 to 2020	-38%	-43%	0%
2020 to 2021	n/a	-94%	n/a
2021 to 2022	n/a	-37%	n/a
Carol Chesney	Fees	Expenses	Annual bonus
2019 to 2020	-4%	0%	n/a
2020 to 2021	5%	0%	n/a
2021 to 2022³	-38%	0%	n/a
Catherine Glickman	Fees	Expenses	Annual bonus
2019 to 2020	6%	0%	n/a
2020 to 2021	5%	0%	n/a
2021 to 2022	25%	0%	n/a
Sir David Grant	Fees	Expenses	Annual bonus
2019 to 2020	-4%	0%	n/a
2020 to 2021	5%	0%	n/a
2021 to 2022	25%	0%	n/a
John Jeans	Fees	Expenses	Annual bonus
2019 to 2020	-4%	100%	n/a
2020 to 2021	5%	n/a	n/a
2021 to 2022⁴	-17%	0%	n/a
Juliette Stacey	Fees	Expenses	Annual bonus
2019 to 2020	n/a	n/a	n/a
2020 to 2021	n/a	n/a	n/a
2021 to 2022⁵	n/a	n/a	n/a
Stephen Wilson	Fees	Expenses	Annual bonus
2019 to 2020	n/a	n/a	n/a
2020 to 2021	n/a	n/a	n/a
2021 to 2022⁶	n/a	n/a	n/a
UK employee (average)	Salary	Benefits	Annual bonus
2019 to 2020	3%	1%	n/a
2020 to 2021	1%	1%	n/a
2021 to 2022	9%	4%	22%

¹ Sir David McMurtry waived his salary from 1 July 2020 to 30 June 2021. As disclosed in our FY2021 Annual Report, Sir David's base salary increased by 2.1% from £714,700 (for the year ended 30 June 2021) to £729,709 (for the year ended 30 June 2022).

² John Deer stepped down as an Executive Director on 29 January 2020 (becoming a Non-executive Director). Therefore, the FY2020 figure was calculated on the basis of the salary received as Executive Director during the period from 1 July 2019 to 29 January 2020 and the fees received as Non-executive Director during the period from 30 January 2020 to 30 June 2020. John Deer waived his fee from 1 July 2020 to 30 June 2021. He did not waive his fee for the year ended 30 June 2022 and therefore was paid a fee of £70,000 in line with the other Non-executive Directors.

³ Carol Chesney resigned as a Non-executive Director on 31 December 2021. Therefore, these figures reflect remuneration received during the period from 1 July 2021 to 31 December 2021.

⁴ John Jeans resigned as a Non-executive Director on 28 February 2022. Therefore, these figures reflect remuneration received during the period from 1 July 2021 to 28 February 2022.

⁵ Juliette Stacey was appointed as a Non-executive Director on 1 January 2022. Therefore, these figures reflect remuneration received during the period from 1 January 2022 to 30 June 2022.

⁶ Stephen Wilson was appointed as a Non-executive Director on 1 June 2022. Therefore, these figures reflect remuneration received during the period from 1 June 2022 to 30 June 2022.

Relative importance of spend on pay

The following table sets out the total amount spent in FY2022 and FY2021 on remuneration to all Group employees and on dividends to shareholders:

	FY2022 £'000	FY2021 £'000	Change %
Employee remuneration	254,268	224,760	13.1
Shareholder dividends paid	49,494	10,189	385.8

Except as shown above, no other distributions have been made to shareholders or other payments or uses of profit or cash flow that affect the understanding of the relative importance of spend on pay.

Statement of implementation of Remuneration Policy in the next year

Base salary

Executive Directors received salary increases of 5%, effective 1 July 2022. This is lower than the average increase for the wider workforce, as set out in the Committee Chair's statement on page 94.

Annual cash bonus and deferred annual equity incentive

As set out in the Remuneration Policy approved at the 2020 AGM, the annual cash bonus and deferred annual equity incentive have been combined into a single award opportunity. The maximum opportunity for FY2023 will be 150% of salary for non-founder Executive Directors and 100% of salary for Sir David McMurtry. For the non-founder Executive Directors, 50% of any bonus earned will be deferred into shares for three years; any award to Sir David McMurtry will be made in cash. Measures will continue to be Adjusted PBT and non-financial strategic objectives, with targets set by the Committee in line with our stated Policy. The FY2023 strategic objectives will be grouped under driving innovation, people and culture, sustainability, improving productivity, continued embedding of our vision and values, and evolving our strategy. Further details (including the targets) will be disclosed in next year's Remuneration Report. Any awards are subject to the achievement of both financial and strategic objectives, as well as the Committee's discretion.

Pension and benefits

No changes will be made to the implementation of the pension and benefits elements of the Policy approved at our 2020 AGM.

Non-executive Directors

The fees payable for each Non-executive Director for FY2023 will increase to £75,000. This increase was approved by the Executive Directors in June 2022. The increase was considered to be appropriate given the substantial support provided by all of the Non-executive Directors, and the need to ensure that the Company continues to attract high-calibre Non-executive Directors with the appropriate skills and experience. No additional fees are paid, for example, for chairing Board committees.

Consideration by Directors of matters relating to Directors' remuneration

During the year, the Remuneration Committee considered the amount of the Executive Directors' salary and the framework for the annual bonus. The members of the Committee for this purpose were Catherine Glickman, Carol Chesney from 1 July 2021 to 31 December 2021, Sir David Grant, John Jeans from 1 July 2021 to 28 February 2022, Juliette Stacey from 1 January 2022, and Stephen Wilson from 1 June 2022.

Deloitte assisted the Committee in reviewing and benchmarking the Executive Director remuneration arrangements, as well as providing other remuneration-related advice to the Committee during FY2022. Further information is set out on page 95.

Annual Report on remuneration continued

Executive Director service contracts

The Executive Directors' service contracts require 12 months' notice of termination by either party. There are no obligations in any Executive Director's service contract, or Non-executive Director's letter of appointment, which would require the Company to pay a specific amount of compensation for loss of office.

The Executive Directors' service contracts reflect our policy regarding notice periods. No payment will be made for a termination by the Company for a breach by the Executive Director of his or her service contract. In other cases, payment in lieu of notice will be considered up to the 12 months' notice period to cover base salary, benefits and pension contributions. If additional compensation must be considered, such as on a settlement agreement, the Committee will consider all relevant commercial factors affecting that case. Directors' service contracts are available for inspection at our registered office upon written request to the Company Secretary.

Executive Director	Date of current service contract
Sir David McMurtry	18 October 2018
Will Lee	1 June 2020
Allen Roberts	20 April 2021

Non-executive Director letters of appointment

Non-executive Director	Date of current service contract
John Deer	3 February 2020
Carol Chesney ¹	4 October 2012
Catherine Glickman	20 July 2018
Sir David Grant	13 April 2012
John Jeans ²	8 April 2013
Juliette Stacey	20 December 2021
Stephen Wilson	31 March 2022

¹ Carol Chesney resigned as a Non-executive Director with effect from 31 December 2021.

² John Jeans resigned as a Non-executive Director with effect from 28 February 2022.

Statement of voting at general meeting

At the AGM held on 30 September 2020, votes cast in respect of the Directors' Remuneration Policy were as follows:

Resolution	Votes for	% for	Votes against	% against	Total votes cast	Votes withheld
Approval of Remuneration Policy	59,462,931	92.78	4,627,677	7.22	64,090,608	894,466

At the AGM held on 24 November 2021, votes cast in respect of the Directors' Remuneration Report were as follows:

Resolution	Votes for	% for	Votes against	% against	Total votes cast	Votes withheld
Approval of Remuneration Report	61,720,584	97.15	1,812,708	2.85	63,533,292	476,411

This report was approved by the Board and has been signed on its behalf by:

Catherine Glickman

Chair of the Remuneration Committee

15 September 2022

Catherine Glickman

Other statutory and regulatory disclosures

Review of the business

A review of the business and likely future developments is given in the Chairman's statement, the Chief Executive's review and the other sections of the Strategic Report.

Segmental information by geographical market is given in note 2 to the Financial statements.

Our principal activities are the design, manufacture, sale, distribution and service of manufacturing technologies products and services, and analytical instruments and medical devices, as outlined on page 3 of the Strategic Report. We have overseas manufacturing, marketing, and distribution subsidiaries to manufacture some of our products and support customers in the following major markets outside the UK:

- **Americas:** Brazil, Canada, Mexico and USA;
- **APAC:** Australia, China, Hong Kong, India, Japan, Malaysia, Singapore, South Korea and Taiwan; and
- **EMEA:** Austria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Netherlands, Poland, Romania, Spain, Sweden, Switzerland and Turkey.

We also have representative offices in Indonesia, Slovakia, Thailand and Vietnam.

In addition, in Slovenia we have a joint venture, RLS Merilna tehnika d.o.o. (RLS) and a subsidiary which designs and arranges the procurement of application-specific integrated circuits.

Further information is available on our website: www.renishaw.com.

Research and development

We continue to invest significantly in developing future technologies, with R&D activities located primarily in the UK. We develop technologies which lead to patented products and methods to help deliver our segmental strategies. You can find further information on R&D expenditure in note 4 on page 140. The amount of R&D expenditure capitalised, the amount amortised, and impairment charges in the year are given in note 12 on page 148.

Dividends

The Directors propose a final dividend of £41,198,315 or 56.6p per share which, together with the interim dividend of £11,646,167 or 16.0p per share, gives a total dividend for the year of £52,844,482 or 72.6p per share. In comparison, last year the Board agreed a total dividend for the year of £48,040,438 or 66.0p per share.

As at 30 June 2022, 14,396 shares were held by the Renishaw plc Employee Benefit Trust (EBT). These shares may be used to satisfy awards made to employees under our employee share plan - our Deferred Annual Equity Incentive Plan (DAEIP). Under the terms of the EBT, any dividends payable on these shares are waived.

Directors and their interests

The Directors at the end of the year are listed on pages 74 and 75. Carol Chesney and John Jeans served as Directors until 31 December 2021 and 28 February 2022 respectively. In accordance with the provisions of the Governance Code, all Directors will retire and, being eligible, offer themselves for re-election to office - or, in the case of any Director who was first appointed to the Board since the last AGM, election to office - at the AGM to be held on 30 November 2022. Details of these Directors are shown on pages 74 and 75 and full biographical details are available at www.renishaw.com/directors.

The rules on appointment, reappointment, and retirement by rotation of the Directors and their powers are set out in our Articles of Association. There are no powers given to the Directors that are regarded as unusual.

We have listed the Directors' interests in our share capital (with the equivalent number of voting rights), as notified to us, on page 107. There has been no change in the holdings shown on page 107 in the period 1 July 2022 to 15 September 2022.

All the interests were beneficially held, except for 2,278,161 shares (2021: 2,278,161 shares) which were non-beneficially held by John Deer but in respect of which he has voting rights.

Sir David McMurtry, as one party, and John Deer and Mrs M E Deer, as the other party, have entered into a voting agreement. Under this agreement the parties agree that: (i) John Deer and Mrs M E Deer will vote their shares in favour of any ordinary resolution if requested to do so by Sir David McMurtry; and (ii) Sir David McMurtry will vote his shares against any special or extraordinary resolution if requested to do so by John Deer. The voting arrangement was renewed in 2018 for a further period of five years and will terminate on the earlier of 25 May 2023 or the deaths of both Sir David McMurtry and John Deer.

Directors' and officers' indemnity insurance and Directors' indemnities

Subject to the provisions of the Companies Act 2006, our Articles of Association provide for our Directors and officers to be appropriately indemnified. In accordance with our Articles of Association and to the extent permitted by law, Directors (excluding the founders) have been granted an indemnity in respect of loss and liability incurred as a result of their office. Neither our indemnity nor insurance provides cover in the event that a Director is proven to have acted dishonestly, fraudulently or negligently. Copies of all indemnities granted are available for inspection at our registered office.

We also maintain insurance for our Directors and officers in respect of their acts and omissions during the performance of their duties.

Responsibility statement

As required under the Financial Conduct Authority's Disclosure Guidance and Transparency Rules, a statement made by the Board regarding the preparation of the financial statements is set out on page 114.

Share capital and change of control

Details of our share capital, including rights and obligations, is given in note 26 to the Financial statements. We are not a party to any significant agreements that might terminate upon a change of control.

A shareholder authority for the purchase of a maximum of 10% of our own shares was in existence during FY2022. However, we did not purchase any of our own shares during that time.

Auditor

A resolution to reappoint Ernst & Young LLP as our auditor will be proposed at the forthcoming AGM.

Other statutory and regulatory disclosures continued

Disclosure of information to auditor

The Directors who held office at the date of approval of this statement confirm that, so far as they are each aware, there is no relevant audit information of which our auditor is unaware. Each Director has taken all the steps that he or she ought to have taken as a Director to make himself/herself aware of any relevant audit information and to establish that our auditor is aware of that information.

Annual General Meeting

Shareholders will receive the notice convening our AGM and an explanation of our proposed resolutions separately. At our meeting, we will be seeking shareholder approval for, among other things, the ability to make market purchases of our own ordinary shares, up to a total of 10% of the issued share capital.

Substantial shareholdings

Apart from the shareholdings (and corresponding voting rights) of Sir David McMurtry and John Deer (36.23% and 16.59% respectively), the table below discloses the voting rights that have been notified to the Company under the requirements of the Financial Conduct Authority's Disclosure Guidance and Transparency Rules DTR 5. These represent 3% or more of the voting rights attached to issued shares, as at 30 June 2022. Please note that these holdings may have changed since being notified to us. However, notification of any change is not required until an applicable threshold is crossed.

Substantial shareholdings	% of issued share capital	Number of shares
BlackRock, Inc.	4.92%	3,578,133
Capital Research and Management Company	4.76%	3,465,738
Standard Life Investments Limited	4.99%	3,631,612

There have been no changes notified to the Company, in the holdings shown above, in the period 1 July 2022 to 15 September 2022.

Employees

The retention of our highly skilled people is essential to our future. Our Directors place great emphasis on the continuation of our training programme. Health and safety matters are another key area of focus, and well-established systems of safety management are in place to safeguard our people, customers and others.

Our employment policies are designed to provide equal opportunities irrespective of race, religion, gender, age, socio-economic background, disability or sexual orientation. We give full and fair consideration to applications for employment from people with disabilities, where suitable for appropriate vacancies. Any of our people who become disabled while with us will be given every opportunity to continue their employment through reasonable adjustment to their working conditions and equipment. Where this is not possible, we offer retraining for other positions. They will also be afforded opportunities to continue training and gain promotion on the same basis as any of our employees.

We set out details on how the Directors have engaged with our people and had regard to their interests in various sections of this Annual Report, including pages 54–56. You can also find information provided to our people on the performance of the business, consultation with employees and performance incentives in various sections of the Annual Report, including pages 101 and 102.

There are no agreements with employees providing for compensation for any loss of employment that may occur because of a takeover bid.

Suppliers, customers and other stakeholders

We have set out details on how the Directors have had regard to the need to promote our relationships with suppliers, customers, and others on pages 67 and 68. In this same section, we also set out the effect of that consideration on the Directors' principal decisions during FY2022.

Political donations

We did not make any political donations during the year.

Events after the balance sheet date

There have been no material events affecting us since the year end.

Financial risk management, objectives and policies

We have set out descriptions of the following in note 25 to the Consolidated financial statements on pages 158–163:

- the use of financial instruments;
- our financial risk management objectives and policies;
- policies in relation to hedge accounting; and
- exposure to market risk, including credit and liquidity risk.

Controlling shareholders' arrangements

The LR require that premium listed companies with 'controlling shareholders' must enter into a relationship agreement containing specific independence provisions. A controlling shareholder is a shareholder who individually or with any of their concert parties exercises or controls 30% or more of the votes that may be cast on all, or substantially all, the matters at a company's general meeting.

The independence provisions required by the LR are that:

- (i) transactions and arrangements with the controlling shareholder (and/or any of its associates) will be conducted at arm's length and on normal commercial terms;
- (ii) neither the controlling shareholder nor any of its associates will take any action that would have the effect of preventing the Company from complying with its obligations under the LR; and
- (iii) neither the controlling shareholder nor any of its associates will propose or procure the proposal of a shareholder resolution which is intended or appears to be intended to circumvent the proper application of the LR.

Sir David McMurtry (Executive Chairman, 36.23% shareholder) is a controlling shareholder. John Deer (Non-executive Deputy Chairman, together with his wife, 16.59% shareholder) is also a controlling shareholder by virtue of a long-standing voting agreement between him (and his wife) and Sir David McMurtry. The Board confirms that the Company has not been able to enter into a relationship agreement with its controlling shareholders, containing the independence provisions required by the LR. We have notified the FCA of this, as required by the LR.

The controlling shareholders have informed the Board that they are not willing to enter into a relationship agreement. They are of the view that the requirement to enter into a relationship agreement infringes upon their rights as shareholders and their track record demonstrates that they act in the best interests of the Company.

As there is no relationship agreement in place, the LR provide that certain enhanced oversight measures will apply.

This means, unless and to the extent the FCA agrees otherwise, all transactions with the controlling shareholders must be approved by our shareholders (excluding the controlling shareholders) in accordance with the related party transaction requirements of the LR, and none of the normal exemptions apply.

The FCA has given us guidance about the application of the enhanced oversight measures to the remuneration and benefits received by the controlling shareholders in their capacity as Directors (in accordance with the Company's approved remuneration policy). The FCA has also advised on other ordinary course corporate matters, such as the payment of dividends to all of our shareholders. The FCA has confirmed that either: (i) these are not transactions or arrangements that fall within the enhanced oversight measures; or (ii) they will permit a modification of the enhanced oversight measures so these will not apply, provided the arrangements remain in the ordinary course of business and, in the case of salary reviews and bonuses, they fall within the small transaction exemption in the Annex to LR 11. This guidance continues to apply in respect of remuneration awarded under our existing remuneration policy (see pages 98–100).

Greenhouse gas emissions and energy consumption

Disclosures concerning GHG emissions and energy consumption are set out on pages 57 and 59.

Disclosure of information under LR 9.8.4R

The information that fulfils the reporting requirements under this rule can be found on the pages identified below.

Section	Topic	Location
(1)	Interest capitalised	Not applicable
(2)	Publication of unaudited financial information	Not applicable
(4)	Details of long-term incentive schemes	Not applicable
(5)	Waiver of emoluments by a director	Not applicable
(6)	Waiver of future emoluments by a director	Not applicable
(7)	Non pre-emptive issues of equity for cash	Not applicable
(8)	As item (7), in relation to major subsidiary undertakings	Not applicable
(9)	Parent participation in a placing by a listed subsidiary	Not applicable
(10)	Contracts of significance	Not applicable
(11)	Provision of services by a controlling shareholder	Directors' Remuneration Report, starting on page 92
(12)	Shareholder waivers of dividends	Other statutory and regulatory disclosures, starting on page 111
(13)	Shareholder waivers of future dividends	Other statutory and regulatory disclosures, starting on page 111
(14)	Agreements with controlling shareholders	Other statutory and regulatory disclosures, starting on page 111

Signed on behalf of the Board.

Jacqueline Conway
General Counsel & Company Secretary

15 September 2022

Renishaw plc
Registered number 01106260
England and Wales



Directors' responsibilities

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

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

Company law requires the Directors to prepare Group and Company Financial statements for each financial year. Under that law the Directors are required to prepare the Group financial statements in accordance with UK-adopted international accounting standards, and have elected to prepare the parent Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law) including Financial Reporting Standard 101, 'Reduced Disclosure Framework'.

Under company law the Directors must not approve the Financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of their profit or loss for that period.

In preparing each of the Group and Company Financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether they have been prepared in accordance with applicable accounting standards; and
- prepare the Financial statements on the going concern basis unless it is inappropriate to presume that the Group and the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Group and the Company, and enable them to ensure that the Financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Group and the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Under applicable law and regulations, the Directors are also responsible for preparing a Strategic Report, Directors' Report, Directors' Remuneration Report and corporate governance statement that comply with the relevant laws and regulations.

Directors' confirmations

Each of the Directors, whose names and functions can be found on pages 74–75, confirms that, to the best of his or her knowledge:

- the Financial statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group and of the Company and the undertakings included in the consolidation taken as a whole; and
- the Strategic Report and the Directors' Report include a fair review of the development and performance of the business during the year and the position of the Group and of the Company at the year end, together with a description of the principal risks and uncertainties that they face.

The Directors consider that the Annual Report, taken as a whole, is fair, balanced and understandable, and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy.

Signed on behalf of the Board.

Allen Roberts
Group Finance Director

15 September 2022



Independent Auditor's Report to the members of Renishaw plc

Opinion

In our opinion:

- Renishaw plc's Group financial statements and Parent Company financial statements (the "financial statements") give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 30 June 2022 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with UK adopted international accounting standards;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of Renishaw plc (the 'Parent Company') and its subsidiaries (the 'Group') for the year ended 30 June 2022 which comprise:

Group	Parent Company
Consolidated balance sheet as at 30 June 2022	Balance sheet as at 30 June 2022
Consolidated income statement for the year then ended	Statement of changes in equity for the year then ended
Consolidated statement of comprehensive income and expense for the year then ended	Related notes C.31 to C.46 to the financial statements including a summary of significant accounting policies
Consolidated statement of changes in equity for the year then ended	
Consolidated statement of cash flow for the year then ended	
Related notes 1 to 30 to the financial statements, including a summary of significant accounting policies	

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and UK adopted international accounting standards. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is applicable law and United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group and Parent in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

The non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the Parent Company and we remain independent of the Group and the Parent Company in conducting the audit.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the Directors' assessment of the Group and Parent Company's ability to continue to adopt the going concern basis of accounting included:

- We understood the process undertaken by management to perform the going concern assessment.
- We obtained management's going concern assessment, including the cash flow forecasts for the going concern period to 30 September 2023. The Group has modelled a base scenario; seven 'severe but plausible' downside scenarios linked to the principal risks identified by management including supply chain dependencies, reductions to revenue due to industry fluctuations, increase in costs and reduction in revenue as a result of economic and political uncertainty, impact of a cyber-attack, loss of manufacturing output, exchange rate fluctuations, and climate change; and a reverse stress test based on liquidity in order to determine how much additional downside in trading could be absorbed before the Group exhausted its net cash and bank deposit balances;

Independent Auditor's Report to the members of Renishaw plc continued

- We assessed the appropriateness of the duration of the going concern assessment period to 30 September 2023;
- We evaluated the key assumptions underpinning the Group's base case forecast. In particular we compared the revenue growth projections to external industry forecasts and latest economic data for indicators of contradictory information;
- We considered the results of management's reverse stress test, assessing whether such a scenario was remote with reference to management's forecasts, the Group's historic trading and other information obtained throughout the audit, such as how the Group has responded to market challenges;
- We analysed management's historic revenue and profit forecasting accuracy;
- We tested the clerical accuracy of the models used to prepare the Group's going concern assessment and the appropriateness of the model for this purpose; and
- We assessed the appropriateness of the Group's disclosures concerning the going concern basis of preparation.

We observed that the Group held net cash and bank deposits of £253 million and had borrowings of £6 million at 30 June 2022 which are not subject to financial covenants. Revenue increased by 18.9% to £671 million (2021: £566 million) and the Group generated a statutory profit before tax of £146 million for the year ended 30 June 2022 (2021: £139 million). Management's reverse stress test indicated the Group would have to suffer a significant decline in revenue, to £19 million per month, a level worse than at any point during FY2021 and FY2022, before it exhausted its available liquidity.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group and Parent Company's ability to continue as a going concern for the period to 30 September 2023.

In relation to the Group and Parent company's reporting on how they have applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the Directors' statement in the financial statements about whether the Directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's ability to continue as a going concern.

Overview of our audit approach

Audit scope	– We performed an audit of the complete financial information of eight components and audit procedures on specific balances for a further five components. – The components where we performed full or specific audit procedures accounted for 98% of Adjusted profit before tax (as defined in Note 29 of the financial statements), 88% of Revenue and 93% of Total assets.
Key audit matters	– Management override via revenue recognition through the posting of manual journals. – Assessment of hedge effectiveness of forward currency contracts. – Valuation of the defined benefit pension liability and impact of amendment to the UK Trust Deed.
Materiality	– Overall Group materiality of £8.2m which represents 5% of Adjusted profit before tax.

An overview of the scope of the Parent Company and Group audits

Tailoring the scope

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for each company within the Group. Taken together, this enables us to form an opinion on the consolidated financial statements. We take into account size, risk profile, the organisation of the Group and effectiveness of Group-wide controls, changes in the business environment and other factors such as recent internal audit results when assessing the level of work to be performed at each company.

In assessing the risk of material misstatement to the Group financial statements, and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, of the 55 reporting components of the Group, we selected 13 components covering entities within the UK, Ireland, USA, Japan, Germany, Hong Kong, China, India, Spain, Italy and South Korea which represent the principal business units within the Group.

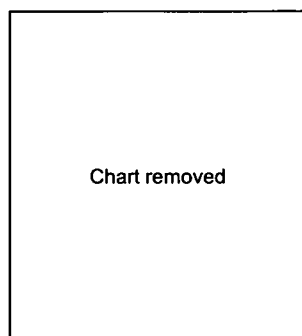
Of the 13 components selected, we performed an audit of the complete financial information of eight components ("full scope components") which were selected based on their size or risk characteristics. For the remaining five components ("specific scope components"), we performed audit procedures on specific accounts within that component that we considered had the potential for the greatest impact on the significant accounts in the financial statements either because of the size of these accounts or their risk profile.

The reporting components where we performed audit procedures accounted for 98% (2021: 95%) of the Group's Adjusted profit before tax, 88% (2021: 89%) of the Group's Revenue and 93% (2021: 93%) of the Group's Total assets. For the current year, the full scope components contributed 94% (2021: 90%) of the Group's Adjusted profit before tax, 80% (2021: 80%) of the Group's Revenue and 86% (2021: 86%) of the Group's Total assets. The specific scope components contributed 4% (2021: 5%) of the Group's Adjusted profit before tax, 8% (2021: 9%) of the Group's Revenue and 7% (2021: 7%) of the Group's Total assets. The audit scope of these components may not have included testing of all significant accounts of the component but will have contributed to the coverage of significant accounts tested for the Group.

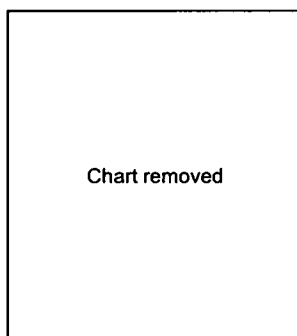
Of the remaining 42 components that together represent 2% of the Group's Adjusted profit before tax, none are individually greater than 0.7% of the Group's Adjusted profit before tax. For these components, we performed other procedures, including analytical review of revenue for eight review scope components where revenue exceeded Group performance materiality, aggregated overall analytical review for the remaining components, testing of consolidation journals and intercompany eliminations to respond to any potential risks of material misstatement to the Group financial statements.

The charts below illustrate the coverage obtained from the work performed by our audit teams.

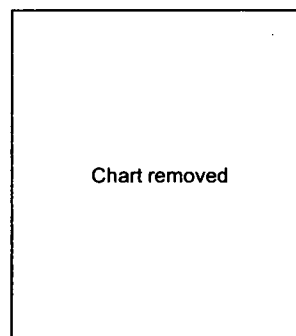
Adjusted profit before tax



Revenue



Total assets



Changes from the prior year

There was no change in our scoping of full and specific scope components compared to the prior year. Two review scope components were added, and one review scope component was removed from our scope, resulting in an increase from seven review scope components in the prior year to eight in the current year.

Involvement with component teams

In establishing our overall approach to the Group audit, we determined the type of work that needed to be undertaken at each of the components by us, as the primary audit engagement team, or by component auditors from other EY global network firms operating under our instruction. Of the eight full scope components, audit procedures were performed on three of these directly by the Primary Team. Of the five specific scope components, audit procedures were performed on four of these directly by the Primary Team. For the five full scope components and one specific scope component where the work was performed by component auditors, we determined the appropriate level of involvement to enable us to determine that sufficient audit evidence had been obtained as a basis for our opinion on the Group as a whole.

As a result of travel restrictions caused by the COVID-19 pandemic, full scope locations were last physically visited by the Primary Team during the 30 June 2019 audit cycle. Following easing of certain travel restrictions, during the current year's audit cycle, visits were undertaken by the Primary Team to the full scope components in Ireland, Germany and the USA. These visits involved meeting with local management and touring the Group's sites in these locations. The Primary Team were unable to visit China, Hong Kong and Japan during the current year's audit cycle due to continued travel restrictions in the region. The Primary Team had also planned to visit India in August 2022 however this visit was not undertaken due to an unforeseen change in Senior Statutory Auditor in July 2022. Audit procedures for the remaining full and specific scope components were performed directly by the Primary Team in the UK.

For those component teams in locations not physically visited in the year, the Senior Statutory Auditor and other members of the Primary Team completed their reviews remotely. We held video conference meetings with component teams to discuss audit issues arising from their work and used our global audit software to complete virtual reviews of our local audit teams' working papers, particularly focusing on the Group's audit risk areas. The Senior Statutory Auditor or Primary Team delegates attended closing meetings with component teams and local management via video conferencing. The Senior Statutory Auditor was also able to leverage his prior knowledge of components obtained through his previous role on the audit as the Engagement Quality Control Reviewer.

The Primary Team interacted regularly with the component teams where appropriate during various stages of the audit, reviewed relevant working papers and were responsible for the scope and direction of the audit process. This, together with the additional procedures performed at Group level, gave us appropriate evidence for our opinion on the Group financial statements.

Climate change

There has been increasing interest from stakeholders as to how climate change will impact Renishaw plc. The Group has determined that the most significant future impacts from climate change on their operations will be from transition risks impacting plans to achieve Net Zero commitments and from large-scale natural hazards. These are explained on pages 60–61 in the required Task Force for Climate-related Financial Disclosures and on page 48 in the principal risks and uncertainties, which form part of the "Other information," rather than the audited financial statements. Our procedures on these disclosures therefore consisted solely of considering whether they are materially inconsistent with the financial statements or our knowledge obtained in the course of the audit or otherwise appear to be materially misstated.

Independent Auditor's Report to the members of Renishaw plc continued

As explained in Note 1 to the financial statements on critical accounting judgements and estimation uncertainties, management considered the effect of climate change, including their own Net Zero commitment and concluded that climate change did not have a material effect on the key judgements and estimates for the year ended 30 June 2022, but recognise that climate change may pose a greater risk to the Group over time. Governmental and societal responses to climate change risks are still developing, and are interdependent upon each other, and consequently financial statements cannot capture all possible future outcomes as these are not yet known. The degree of uncertainty over these changes may also mean that they cannot be taken into account when determining asset and liability valuations and the timing of future cash flows under the requirements of UK adopted international accounting standards.

Our audit effort in considering climate change was focused on evaluating management's assessment of the impact of climate risk, on the areas of key estimation uncertainties and critical accounting judgements and the adequacy of the Group's disclosures in the financial statements. We also challenged the Directors' considerations of climate change in their assessment of going concern and viability and associated disclosures.

Whilst the Group has stated its commitment to the aspirations of the Paris Agreement to achieve net zero emissions by 2050, the Group are currently unable to determine the full future economic impact on their business model, operational plans and customers to achieve this and therefore as set out above the potential impacts are not fully incorporated in these financial statements.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in our opinion thereon, and we do not provide a separate opinion on these matters.

In the prior year, our auditor's report included a key audit matter in relation to management override of controls through manual journal entries posted through the consolidation process to misstate financial performance. In the current year, we concluded this risk has decreased due to the reduced level of manual intervention required to be made by management through the consolidation process as a result of increased automation. As a result, this matter did not require significant direction of efforts of the engagement team in the current year.

The key audit matter in relation to the defined benefit pension liability has been expanded in the current year to address the accounting impact of the amendment to the UK Trust Deed. This element of the key audit matter is not expected to recur in future periods

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Management override via revenue recognition through the posting of manual journals (£671.1 million, 2021: £565.6 million) Risk direction  Refer to the Accounting policy (page 137); and Note 2 of the Consolidated Financial Statements (page 138) There is an incentive for management to manipulate the revenue recognised through manual journals posted throughout the year, to improve financial performance We consider that the vast majority of the Group's revenue transactions are non-complex by nature, with revenue recognised at a point in time with no significant judgement required to be exercised by management.	We obtained an understanding of the processes and assessed the design and implementation of key controls for each of the material revenue streams. To test the appropriateness of revenue recognition throughout the period, our audit procedures included: – For components contributing 87% of total Group revenue, we used data analytics to analyse 100% of the revenue transactions recorded in the year, testing the correlation between revenue, trade receivables and cash and performing tests of detail over non-correlated transactions. – We verified that cash receipts that correlate to trade receivables are recorded accurately and relate to revenue, through testing a sample of cash journal entries to cash received during the period, and testing a sample of trade receivable balances at year end to debtor confirmations or cash received post year end or evidence of delivery of goods to the customer. – We used data analytics to identify potential instances of management override, including: i) manual journals based on the transaction type ii) journals recorded outside of normal working hours iii) journals posted by inappropriate individuals – These journals were then tested to supporting evidence, selecting those exceeding 10% of performance materiality for manual journals. – We performed representative sampling for the one remaining in-scope component where we did not use data analytics, tracing revenue transactions recorded throughout the year to cash receipts. We also performed the same procedures, as listed above, for manual journal entries to test for potential instances of management override. In addressing this key audit matter, audit procedures were performed by a combination of the Primary Team and each of the component audit teams under our supervision. We performed full and specific scope audit procedures over components, which covered 88% of total consolidated Group revenue, of which components contributing 53% of Group revenue were tested by overseas component teams under our supervision.	Based on the procedures performed, revenue recognised in the period is appropriate. We noted a strong correlation between revenue, trade receivables and cash across the Group. Our procedures did not identify instances of inappropriate management override across the Group.

Independent Auditor's Report to the members of Renishaw plc continued

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Assessment of hedge effectiveness of forward currency contracts (£19.9 million liability, 2021: £15.4 million asset) Risk direction ↓ Refer to the Audit Committee Report (page 87); Accounting policy (page 158); and Note 25 of the Consolidated Financial Statements (page 162) At 30 June 2022, the Group had designated cash flow hedges for forward currency contracts with a net fair value liability of £19.9 million (2021: asset of £15.4 million). Of these forward currency contracts at 30 June 2022, a net fair value liability of £5.5 million (2021: asset of £1.4 million) related to forward currency contracts deemed ineffective as a cash flow hedge. As more fully described in Note 25 to the Financial Statements, the Group uses forward currency contracts to manage risks arising from changes in foreign currency exchange rates relating to forecast sales. The Group designates certain derivatives as hedges of future cash flows. Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting. Changes in the fair value of foreign currency derivatives which are ineffective or do not meet the criteria for hedge accounting in IFRS 9 'Financial Instruments' are recognised in the income statement. For those instruments which are effective and meet the criteria for hedge accounting, the change in fair value is recognised in other comprehensive income. The complexity of applying hedge accounting and measuring hedge effectiveness could result in a misstatement between the income statement and other comprehensive income. The risk of hedge ineffectiveness has decreased in the current year due to improvements in global macroeconomic conditions and business performance, as markets recover from the COVID-19 pandemic, resulting in increases to the 'highly probable' revenue forecasts of the hedged items.	We obtained an understanding of management's process and assessed the design and implementation of key controls for applying hedge accounting and estimating hedge effectiveness. To test the appropriateness of applying hedge accounting and the assessment of hedge effectiveness, our audit procedures included: – Selecting a sample of hedge accounting relationships with each counterparty, for each individual currency, as we determined the population is homogenous. – For our selected sample of hedge accounting relationships, involving EY treasury specialists as part of our audit team to: i) assess the appropriateness of the methodology used by management to apply hedge accounting. We inspected management's hedge documentation and assessed the economic relationship to ensure compliance with the requirements of IFRS 9; and ii) independently re-perform the ineffectiveness measurement. We compared the result of our assessment to management's, to evaluate whether there were any additional ineffective hedges at 30 June 2022. – Assessing management's revenue forecasts, including the extent to which these have been deemed to be 'highly probable', by evaluating management's historical forecasting accuracy and comparing the revenue growth assumptions to third party industry forecasts; and – Evaluating the disclosures in the Group financial statements are in accordance with IFRS 7 'Financial Instruments: Disclosures'. In addressing this key audit matter, audit procedures were performed by the Primary Team.	We concluded that the Group's application of hedge accounting for forward currency contracts and the measurement of hedge effectiveness were in accordance with the requirements of IFRS 9. We agreed with management's assessment that, based on the 'highly probable' revenue forecast, there are no additional hedges that have become ineffective at 30 June 2022. The disclosures provided in Note 25 to the Group financial statements are in accordance with IFRS 7.

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Valuation of the defined benefit pension liability and impact of the amendment to the UK Trust Deed (£174.5 million, 2021: £255.1 million) Risk direction ⬆ Refer to the Audit Committee Report (page 87); Accounting policy (page 155); and Note 23 of the Consolidated Financial Statements (page 155) A total defined benefit pension liability of £174.5 million was recognised at 30 June 2022 (2021: £255.1 million) in respect of the Group's schemes in the UK, USA and Ireland. There is an increased risk of material misstatement due to the size of the liability, the level of judgement involved in estimating the key assumptions to calculate the liability, and the fact that relatively small movements in assumptions can result in a material impact to the financial statements. As more fully described in Note 23 of the Group Financial Statements, during the year a Deed of Amendment was effected to the Trust Deed and Rules governing the UK Scheme. The changes included: i) Augmenting members' benefits, resulting in the recognition of an £11.7 million past service cost in the Consolidated income statement ii) Granting the Company the unconditional right to a refund of a scheme surplus. This has resulted in gains recognised in the Consolidated statement of comprehensive income and expense of £3.3 million for the removal of the asset ceiling restriction and £19.6 million for the reversal of the additional liability for minimum funding requirements recognised in the prior year under IFRIC 14 'IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction.' The complexity in accounting for the change in scheme rules could result in a misstatement of the defined benefit liability. As a result, the risk has increased due to the complexity of these changes in the current year.	We obtained an understanding of the processes and assessed the design and implementation of key controls for estimating the defined benefit pension liability. To test the appropriateness of the defined benefit pension liability, our audit procedures included: – Evaluating the competence and objectivity of management's external actuarial specialists and assessing the completeness and accuracy of the member data used by the actuaries to estimate the scheme liabilities by testing the clerical accuracy of the member data schedules, checking there were no additions to the participants in the year, and performing an analytical review of the year-on-year movements in the data. – Involving EY actuarial specialists as part of our audit team to: i) Independently estimate an acceptable range for each of the significant assumptions used in estimating the UK and Irish scheme liabilities, which included the discount rate; rate of inflation; and mortality assumptions. We compared each of the significant assumptions used by management's actuarial specialist to our independent acceptable range; ii) Perform a roll forward of the UK and Irish scheme liabilities from 30 June 2021 to 30 June 2022 and independently reconcile the output to the amounts calculated by management's external actuarial specialist. – Comparing the key assumptions used in the estimate of the US scheme liability to appropriate market data and performing an analytical review of the change in each key assumption compared to the previous period. This approach is applied given the smaller size of the US scheme liability. – Inspecting the Deed of Amendment to the Trust Deed and Rules and confirming the changes to the scheme were consistent with our understanding. – Involving our EY actuarial specialists to determine whether the augmentation of benefits had been correctly calculated in line with the amended rules. – Assessing whether the augmentation of benefits met the definition of a past service cost under IAS 19 'Employee Benefits' and evaluating whether the cost was appropriately recognised in the Consolidated income statement as opposed to other comprehensive income. – Inspecting management's paper and their legal advice obtained in relation to whether the amended rules granted the Company the unconditional right to a refund of surplus under IFRIC 14. – Evaluating the disclosures in the Group financial statements are in accordance with IAS 19. In addressing this key audit matter, audit procedures were performed by the Primary Team	We concluded management's external actuarial specialists were competent, the key assumptions used to estimate the defined benefit pension liability are within our acceptable range and the movement in the liability from the prior year to current year is reasonable. The scheme augmentation has been correctly accounted for, under IAS 19, as a past service cost in the Consolidated income statement. The accounting treatment for the impact of the change in scheme rules on the Company's unconditional right to a refund of surplus is appropriate and in accordance with IAS 19 and IFRIC 14. The disclosures provided in Note 23 to the Group financial statements are in accordance with IAS 19.

Independent Auditor's Report to the members of Renishaw plc continued

Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

Materiality

The magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Group to be £8.2 million (2021: £6.0 million), which is 5% (2021: 5%) of Adjusted profit before tax. We believe that Adjusted profit before tax is the most relevant performance measure to the stakeholders of the Group. Adjusted profit before tax excludes fair value gains and losses on financial instruments that are not effective for hedge accounting. These instruments are significantly impacted by the volatility in valuation and this is outside the Group's control and is not reflective of the Group's recurring performance. A significant past service cost arising from a change to the UK defined benefit pension scheme rules in the year has also been excluded from Adjusted profit before tax, along with smaller adjustments for the revised estimate of a restructuring related provision and final third-party FSP (formal sale process) costs. We consider these costs to be non-recurring by nature and therefore not reflective of the Group's recurring or underlying performance.

Illustration removed

We determined materiality for the Parent Company to be £8.9 million (2021: £8.0 million), which is 1% (2021: 1%) of equity.

Our initial planning materiality was calculated at £7.9 million based on management's FY2022 forecast of Adjusted profit before tax. During the course of our audit, we reassessed initial materiality, considering the performance of the business and our final planning materiality, based on actual results for the year ended 30 June 2022, is £8.2 million (2021: £6.0 million).

Performance materiality

The application of materiality at the individual account or balance level. It is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

On the basis of our risk assessments, together with our assessment of the Group's overall control environment, our judgement was that performance materiality was 75% (2021: 75%) of our planning materiality, namely £6.2m (2021: £4.5m). We have set performance materiality at this percentage due to the past history of few misstatements indicating a lower risk of misstatement in the financial statements.

Audit work at component locations for the purpose of obtaining audit coverage over significant financial statement accounts is undertaken based on a percentage of total performance materiality. The performance materiality set for each component is based on the relative scale and risk of the component to the Group as a whole and our assessment of the risk of misstatement at that component. In the current year, the range of performance materiality allocated to components was £0.4m to £3.7m (2021: £0.3m to £2.9m).

Reporting threshold

An amount below which identified misstatements are considered as being clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of £0.4m (2021: £0.3m), which is set at 5% of planning materiality, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds.

We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

Other information

The other information comprises the information included in the Annual Report set out on pages 1 to 184, including the Strategic Report set out on pages 1 to 69, Governance set out on pages 70 to 114, and Shareholder information set out on pages 181 to 184, other than the financial statements and our auditor's report thereon. The Directors are responsible for the other information contained within the Annual Report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

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

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit

Corporate Governance Statement

We have reviewed the Directors' statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the Group and Company's compliance with the provisions of the UK Corporate Governance Code specified for our review by the Listing Rules.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements or our knowledge obtained during the audit:

- Directors' statement with regards to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified set out on page 81;
- Directors' explanation as to its assessment of the Company's prospects, the period this assessment covers and why the period is appropriate set out on pages 50 and 51;
- Director's statement on whether it has a reasonable expectation that the Group will be able to continue in operation and meets its liabilities set out on pages 50 and 51;
- Directors' statement on fair, balanced and understandable set out on page 114;
- Board's confirmation that it has carried out a robust assessment of the emerging and principal risks set out on pages 39 to 49;
- The section of the Annual Report that describes the review of effectiveness of risk management and internal control systems set out on page 81; and
- The section describing the work of the audit committee set out on pages 85 to 91.

Independent Auditor's Report to the members of Renishaw plc continued

Responsibilities of directors

As explained more fully in the Directors' responsibilities statement set out on page 114, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group and Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect irregularities, including fraud. The risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the Company and management.

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the Group and determined that the most significant are those that relate to the reporting framework (UK adopted international accounting standards, FRS 101 and the Companies Act 2006, and the UK Corporate Governance Code) and the relevant tax compliance regulations in the UK and overseas jurisdictions in which the Group operates. In addition, we concluded that there are certain significant laws and regulations which may have an effect on the determination of the amounts and disclosures in the financial statements being the Listing Rules of the London Stock Exchange, the Bribery Act 2010, Occupational Health and Safety Regulations, General Data Protection Regulation and export controls.
- We understood how Renishaw plc is complying with those frameworks by reading internal policies and codes of conduct and assessing the entity level control environment, including the level of oversight of those charged with governance. We made enquiries of management, internal audit, the Group's legal counsel and those responsible for legal and compliance procedures. We corroborated our enquiries through our review of board minutes and papers provided to the Audit Committee and noted that there was no contradictory evidence.
- We assessed the susceptibility of the Group's financial statements to material misstatement, including how fraud might occur by considering the programs and controls that the Group has established to address risks identified by the entity, or that otherwise prevent, deter and detect fraud; how senior management monitor those programs and controls, evaluating conditions in the context of incentive and/or pressure to commit fraud, considering the opportunity to commit fraud and the potential rationalisation of the fraudulent act, and by making enquiries of senior management, including the Group Finance Director, Head of Group Finance, Group Internal Audit Manager and Chair of the Audit Committee. We planned our audit to identify risks of management override, tested higher risk journal entries and performed audit procedures to address the potential for management bias, particularly over areas involving significant estimation. Further discussion of our approach to address the identified risks of management override are set out in the key audit matters section of our report.
- Based on this understanding we designed our audit procedures to identify non-compliance with such laws and regulations identified above. Our procedures involved: making enquiries of management, including the Group's legal counsel, internal audit and full scope component management, of known instances of non-compliance or suspected non-compliance with laws and regulations; attendance at audit committee meetings; review of committee and board meeting minutes, including board meeting minutes for full scope components to identify any non-compliance with laws and regulations; journal entry testing, with a focus on journals meeting our defined risk criteria based on our understanding of the business; and, review of the volume and nature of complaints received by the whistleblowing hotline during the year. We also completed procedures to conclude on the compliance of significant disclosures in the Annual Report with the requirements of the relevant accounting standards, UK legislation and the UK Corporate Governance Code.
- We communicated regularly with the full scope component teams and attended key meetings with the component audit teams and local management in order to identify and communicate any instances of non-compliance with laws and regulations.

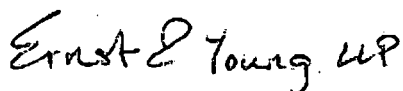
A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at <https://www.frc.org.uk/auditorsresponsibilities>. This description forms part of our auditor's report.

Other matters we are required to address

- Following the recommendation from the audit committee we were appointed by the Parent Company on 13 October 2016 to audit the financial statements for the year ending 30 June 2017 and subsequent financial periods.
- The period of total uninterrupted engagement including previous renewals and reappointments is six years, covering the years ending 30 June 2017 to 30 June 2022. Paul Mapleston was replaced as Senior Statutory Auditor for the year ending 30 June 2022 due to partner rotation requirements. However, there was a subsequent unforeseen change in Senior Statutory Auditor midway through the current year audit cycle. As this change was made in July 2022, the new Senior Statutory Auditor, Anup Sodhi, retrospectively reviewed and agreed the audit strategy, in order to be satisfied the planned audit approach appropriately addressed the risk of material misstatement to the Group financial statements. The new Senior Statutory Auditor was previously involved in the audit as Engagement Quality Control Reviewer and is therefore required to rotate subsequent to the year ending 30 June 2023.
- The audit opinion is consistent with the additional report to the audit committee.

Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.



Anup Sodhi

(Senior Statutory Auditor)

for and on behalf of Ernst & Young LLP, Statutory Auditor
Luton

15 September 2022

Financial statements

Practicality

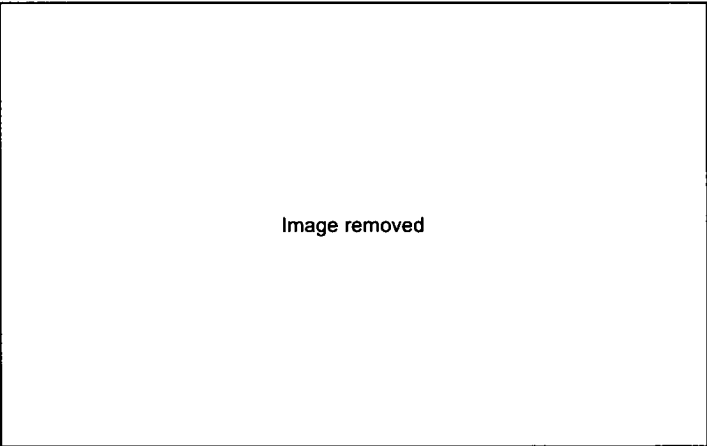
Probing made simple

GoProbe is an easy-to-use app that helps make probing simple. We've designed it to be very easy to understand, so that users can quickly get going with part setting, tool setting, and probe set-up cycles.

The app uses single-line commands, meaning users don't need an extensive knowledge of the G-codes normally used to programme CNC machines. Our commands are easy to understand and use, even for those new to probing. For existing users, this means that they don't need the more highly skilled people programming the parts and so can assign them to higher-value tasks.

Users simply need to select the probing cycle they need from the menu, complete the input data fields and then the app will generate the single-line command for that cycle, ready for them to key into the machine. The GoProbe app also includes animations of each probing cycle to help users.

GoProbe is supported by a self-study training kit that consists of a training part, pocket guide, quick-reference tool, and e-learning course. This helps to build knowledge and confidence rapidly so that part setting and tool setting processes can be optimised as soon as possible.

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► Scan the QR code
to watch the video

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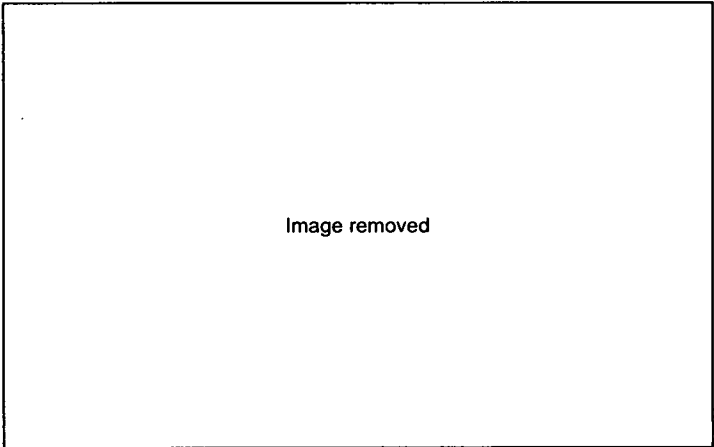


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Financial statements contents

Introduction

The Directors are responsible for preparing the Annual Report and the Group and Company financial statements in accordance with applicable law and regulations. The full statement of Directors' responsibilities can be found on page 114.

The notes (forming part of the financial statements) provide additional information required by statute, accounting standards or other regulations to assist in a more detailed understanding of the primary financial statements.

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Consolidated income statement

for the year ended 30 June 2022

	notes	2022 £'000	2021 £'000
from continuing operations			
Revenue	2	671,076	565,559
Cost of sales	4	(313,527)	(269,852)
Gross profit		357,549	295,707
Distribution costs		(122,455)	(110,087)
Administrative expenses		(69,736)	(69,257)
UK defined benefit pension scheme past service cost	23	(11,695)	–
(Losses)/gains from the fair value of financial instruments	25	(10,413)	21,978
Operating profit		143,250	138,341
Financial income	5	932	3,406
Financial expenses	5	(2,938)	(3,991)
Share of profits of associates and joint ventures	13	4,342	1,683
Profit before tax		145,586	139,439
Income tax expense	7	(25,235)	(27,980)
Profit for the year		120,351	111,459
Profit attributable to:			
Equity shareholders of the parent company		120,351	111,459
Non-controlling interest	26	–	–
Profit for the year		120,351	111,459
		pence	pence
Dividend per share arising in respect of the year	26	72.6	66.0
Dividend per share paid in the year	26	68.0	14.0
Earnings per share (basic and diluted)	8	165.4	153.2

Consolidated statement of comprehensive income and expense for the year ended 30 June 2022

	notes	2022 £'000	2021 £'000
Profit for the year		120,351	111,459
Other items recognised directly in equity:			
Items that will not be reclassified to the Consolidated income statement:			
Current tax on contributions to defined benefit pension schemes		1,653	1,653
Deferred tax on contributions to defined benefit pension schemes		(1,653)	(1,653)
Remeasurement of defined benefit pension scheme liabilities	23	69,078	33,285
Deferred tax on remeasurement of defined benefit pension scheme liabilities		(15,997)	(6,052)
Total for items that will not be reclassified		53,081	27,233
Items that may be reclassified to the Consolidated income statement:			
Exchange differences in translation of overseas operations	26	12,151	(14,752)
Exchange differences in translation of overseas joint venture	26	118	(728)
Current tax on translation of net investments in foreign operations	26	(1,529)	735
Deferred tax on translation of net investments in foreign operations	26	–	735
Effective portion of changes in fair value of cash flow hedges, net of recycling	26	(28,423)	51,590
Deferred tax on effective portion of changes in fair value of cash flow hedges	7,26	6,155	(9,790)
Total for items that may be reclassified		(11,528)	27,790
Total other comprehensive income and expense, net of tax		41,553	55,023
Total comprehensive income and expense for the year		161,904	166,482
Attributable to:			
Equity shareholders of the parent company		161,904	166,482
Non-controlling interest	26	–	–
Total comprehensive income and expense for the year		161,904	166,482

Consolidated balance sheet

at 30 June 2022

	notes	2022 £'000	2021 £'000
Assets			
Property, plant and equipment	9	243,853	246,242
Right-of-use assets	10	9,950	12,429
Investment properties	11	10,568	–
Intangible assets	12	44,218	43,795
Investments in associates and joint ventures	13	20,570	16,634
Finance lease receivables	14	6,961	6,241
Employee benefits	23	43,241	–
Deferred tax assets	7	22,893	21,292
Derivatives	25	–	12,484
Total non-current assets		402,254	359,117
Current assets			
Inventories	16	162,482	113,563
Trade receivables	25	127,551	114,661
Finance lease receivables	14	3,348	1,763
Contract assets		578	332
Short-term loans to associates and joint ventures		302	598
Current tax		8,901	1,600
Other receivables	25	27,068	30,021
Derivatives	25	7,121	9,639
Pension scheme cash escrow account	23	–	10,578
Bank deposits	15	100,000	120,000
Cash and cash equivalents	15,25	153,162	95,008
Total current assets		590,513	497,763
Current liabilities			
Trade payables	25	30,947	24,715
Contract liabilities	18	12,956	6,120
Current tax		10,078	4,680
Provisions	17	4,244	6,259
Derivatives	25	17,890	5,594
Lease liabilities	20	3,714	3,904
Borrowings	21	919	992
Other payables	19	51,949	51,716
Total current liabilities		132,697	103,980
Net current assets		457,816	393,783
Non-current liabilities			
Lease liabilities	20	6,466	8,658
Borrowings	21	5,160	6,457
Employee benefits	23	996	23,698
Deferred tax liabilities	7	22,815	10,402
Derivatives	25	9,463	355
Total non-current liabilities		44,900	49,570
Total assets less total liabilities		815,170	703,330
Equity			
Share capital	26	14,558	14,558
Share premium		42	42
Own shares held	26	(750)	(404)
Currency translation reserve	26	14,459	3,719
Cash flow hedging reserve	26	(10,923)	11,345
Retained earnings		798,541	674,603
Other reserve	26	(180)	44
Equity attributable to the shareholders of the parent company		815,747	703,907
Non-controlling interest	26	(577)	(577)
Total equity		815,170	703,330

These financial statements were approved by the Board of Directors on 15 September 2022 and were signed on its behalf by:

Sir David McMurtry

Allen Roberts

Directors



Consolidated statement of changes in equity

for the year ended 30 June 2022

Year ended 30 June 2021	Share capital £'000	Share premium £'000	Own shares held £'000	Currency translation reserve £'000	Cash flow hedging reserve £'000	Retained earnings £'000	Other reserve £'000	Non-controlling interest £'000	Total £'000
Balance at 1 July 2020	14,558	42	(404)	17,729	(30,455)	546,100	(129)	(577)	546,864
Profit for the year	-	-	-	-	-	111,459	-	-	111,459
Other comprehensive income and expense (net of tax)									
Remeasurement of defined benefit pension scheme liabilities	-	-	-	-	-	27,233	-	-	27,233
Foreign exchange translation differences	-	-	-	(13,282)	-	-	-	-	(13,282)
Relating to associates and joint ventures	-	-	-	(728)	-	-	-	-	(728)
Changes in fair value of cash flow hedges	-	-	-	-	41,800	-	-	-	41,800
Total other comprehensive income and expense	-	-	-	(14,010)	41,800	27,233	-	-	55,023
Total comprehensive income and expense	-	-	-	(14,010)	41,800	138,692	-	-	166,482
Share-based payments charge	-	-	-	-	-	-	173	-	173
Dividends paid	-	-	-	-	-	(10,189)	-	-	(10,189)
Balance at 30 June 2021	14,558	42	(404)	3,719	11,345	674,603	44	(577)	703,330
Year ended 30 June 2022									
Profit for the year	-	-	-	-	-	120,351	-	-	120,351
Other comprehensive income and expense (net of tax)									
Remeasurement of defined benefit pension scheme liabilities	-	-	-	-	-	53,081	-	-	53,081
Foreign exchange translation differences	-	-	-	10,622	-	-	-	-	10,622
Relating to associates and joint ventures	-	-	-	118	-	-	-	-	118
Changes in fair value of cash flow hedges	-	-	-	-	(22,268)	-	-	-	(22,268)
Total other comprehensive income and expense	-	-	-	10,740	(22,268)	53,081	-	-	41,553
Total comprehensive income and expense	-	-	-	10,740	(22,268)	173,432	-	-	161,904
Share-based payments charge	-	-	-	-	-	-	180	-	180
Own shares transferred on vesting	-	-	404	-	-	-	(404)	-	-
Own shares purchased	-	-	(750)	-	-	-	-	-	(750)
Dividends paid	-	-	-	-	-	(49,494)	-	-	(49,494)
Balance at 30 June 2022	14,558	42	(750)	14,459	(10,923)	798,541	(180)	(577)	815,170

More details of share capital and reserves are given in note 26.

Consolidated statement of cash flow

for the year ended 30 June 2022

	notes	2022 £'000	2021 £'000
Cash flows from operating activities			
Profit for the year		120,351	111,459
Adjustments for:			
Depreciation of property, plant and equipment, and investment properties	9,11	25,898	24,317
Loss on sale of property, plant and equipment	9	157	31
Impairment of property, plant and equipment	9	1,259	–
Depreciation of right-of-use assets	10	4,205	4,463
Impairment of right-of-use assets	10	1,837	–
Amortisation of development costs	12	4,698	9,019
Amortisation of other intangibles	12	1,225	1,205
Impairment of development costs	12	–	1,092
Write-off of intangible assets	12	3,510	–
Share of profits from associates and joint ventures	13	(4,342)	(1,683)
Profit on disposal of investment in associate	13	(582)	–
Impairment of investment in associate		–	1,674
Impairment of long-term loan to associate		–	2,633
Write-off of lease liabilities	20	(1,985)	–
UK defined benefit pension scheme past service cost	23	11,695	78
Financial income	5	(932)	(3,406)
Financial expenses	5	2,938	3,991
Losses/(gains) from the fair value of financial instruments	25	8,349	(22,995)
Share-based payment expense	24	180	173
Tax expense	7	25,235	27,980
		83,345	48,572
Increase in inventories		(48,919)	(8,066)
Increase in trade and other receivables		(11,301)	(25,703)
Increase in trade and other payables		12,288	27,216
(Decrease)/increase in provisions		(2,015)	668
		(49,947)	(5,885)
Defined benefit pension scheme contributions	23	(8,866)	(8,866)
Income taxes paid		(23,410)	(9,991)
Cash flows from operating activities		121,473	135,289
Investing activities			
Purchase of property, plant and equipment, and investment properties	9,11	(30,960)	(10,873)
Sale of property, plant and equipment		687	33
Development costs capitalised	12	(7,966)	(9,844)
Purchase of other intangibles	12	(929)	(3,000)
Decrease/(increase) in bank deposits	15	20,000	(110,000)
Interest received	5	834	625
Dividends received from associates and joint ventures	13	525	–
Purchase of additional shareholding in joint venture		–	(749)
Proceeds from sale of shares in associate	13	582	–
Payments from pension scheme cash escrow account	23	10,578	–
Cash flows from investing activities		(6,649)	(133,808)
Financing activities			
Increase in borrowings	21	–	636
Repayment of borrowings	21	(974)	(3,477)
Interest paid	5	(591)	(386)
Repayment of principal of lease liabilities	22	(4,081)	(4,815)
Own shares purchased	26	(750)	–
Dividends paid	26	(49,494)	(10,189)
Cash flows from financing activities		(55,890)	(18,231)
Net increase in cash and cash equivalents		58,934	(16,750)
Cash and cash equivalents at the beginning of the year		95,008	110,386
Effect of exchange rate fluctuations on cash held		(780)	1,372
Cash and cash equivalents at the end of the year	15	153,162	95,008

Notes (forming part of the financial statements)

1. Accounting policies

This section sets out our significant accounting policies that relate to the financial statements as a whole, along with the critical accounting judgements and estimates that management has identified as having a potentially material impact on the Group's consolidated financial statements. Where an accounting policy is applicable to a specific note in the financial statements, the policy is described within that note.

Basis of preparation

Renishaw plc (the Company) is a company incorporated in England and Wales. The Group financial statements consolidate those of the Company and its subsidiaries (together referred to as the Group, and 'we') and equity account the Group's interest in associates and joint ventures. The parent company financial statements present information about the Company as a separate entity and not about the Group.

The Group financial statements have been prepared and approved by the Directors in accordance with UK adopted International Accounting Standards (IAS). The parent company financial statements have been prepared in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework'.

The consolidated financial statements are presented in Sterling, which is the Company's functional currency and the Group's presentational currency, and all values are rounded to the nearest thousand (£'000).

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these Group financial statements. Judgements made by the Directors, in the application of these accounting policies, that have a significant effect on the financial statements and estimates with a significant risk of material adjustment in the next year are noted below.

Critical accounting judgements and estimation uncertainties

The preparation of financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets and liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances. The results of this form the basis of making judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may therefore differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis.

The areas of key estimation uncertainty and critical accounting judgement that have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities in the next financial year are summarised below, with further details included within accounting policies as indicated.

Item	Key judgements (J) and estimates (E)	Page
Taxation	E – Estimates of future profits to use deferred tax assets	141
Research and development costs	J – Whether a project meets the criteria for capitalisation	147
Goodwill and capitalised development costs	E – Estimates of future cash flows for impairment testing	147
Inventories	E – Determination of net realisable value	152
Defined benefit pension schemes	E – Valuation of defined benefit pension schemes' liabilities	155
Cash flow hedges	E – Estimates of highly probable forecasts of the hedged item	159

When reviewing the above critical judgements and estimates, management also considered the effect of climate change, including our own Net Zero commitment. For the year ended 30 June 2022 we concluded that climate change did not have a material effect on any of the above judgements and estimates. The Directors reached the same conclusion when reviewing the Group's going concern and viability assessment.

While the Group could benefit significantly from changing demand as customers and end-users make progress with their own Net Zero targets, we recognise that climate change may pose a greater risk to the Group over time. We will continue to review the effect of climate change on financial statements in the future, and update our accounting and disclosures as the position changes.

New, revised or changes to existing accounting standards

The following accounting standard amendments became effective as at 1 January 2021 and have been adopted in the preparation of these financial statements, with effect from 1 July 2021:

- amendments to IFRS 4, IFRS 7, IFRS 9, IFRS 16 and IAS 39, Interest Rate Benchmark Reform Phase 2; and
- amendments to IFRS 16, COVID-19-Related Rent Concessions.

These have not had a material effect on these financial statements.

1. Accounting policies (continued)

Going concern

In preparing these financial statements, the Directors have adopted the going concern basis. The decision to adopt the going concern basis was made after considering:

- the Group's business model and key markets, as set out on pages 16 - 17;
- the Group's risk management processes and principal risks, disclosed on pages 39 - 49;
- the Group's financial resources and strategies (pages 24 - 27); and
- the process undertaken to review the Group's viability, including scenario testing, as set out on pages 50 - 51.

In the viability review the Directors assessed the period to 30 September 2025, using the 'highly probable' revenue forecasts used by the Group for hedge accounting, and 'severe but plausible' downside scenarios. In making the going concern assessment, the Directors used the same forecasts but assessed the period to 30 September 2023.

Each scenario used the same starting point, taking the revenue forecast as the pessimistic view in our five-year business plan (which we also refer to as the 'highly probable' revenue forecast for hedge accounting). The starting point for overheads, capital expenditure, and other cash outflows was taken from the optimistic plan. Together, this means that the scenarios started by assuming that revenue growth is at the lowest end of our corporate view while still incurring the costs in the next three years that are needed to achieve revenue growth in later years. For context, revenue in the first year of this starting point is a small increase from FY2022's revenue of £671.1m.

The seven scenarios then took this same starting point and then added in the following elements:

A – Reduction in revenue if we were unable to buy certain critical ASIC chips for twelve months.

B – Reduction in revenue from encoder, CMM, and machine tool products.

C – Economic and political uncertainty, causing a reduction in revenue, an increase in labour costs, and an increase in materials, utilities, and logistics costs.

D – A cyber-attack causing a loss of networks and systems for three weeks (management's assessment of a worst-case scenario for total network loss).

E – The effect on our business if we lost the use of our main hall at Miskin, our largest factory, for six months.

F – The effect of a further 10% and 15% strengthening in Sterling, compared to management's existing assumptions.

G – A 50% increase in our estimated Net Zero capital expenditure.

For risks such as People, Innovation strategy, and Capital allocation, the Directors felt that if these risks crystallised they would result in the restriction of longer-term growth rather than having a significant financial effect in the medium term. We therefore didn't include these risks in the scenarios above.

We also performed reverse stress testing to identify what would need to happen in the period to 30 September 2023 to result in the Group having negative bank deposit and cash balances. We found that this would occur if revenue fell to £19m per month before mitigating actions were taken; this is considerably lower than forecast.

In making their going concern assessment, the Directors also considered the strong demand currently being experienced and how well we've responded to challenges such as the pandemic and global supply chain disruption.

Based on this assessment, incorporating a review of the current position, the scenarios, our principal risks and mitigation, the Directors have a reasonable expectation that we'll be able to continue operating and meet our liabilities as they fall due over the period to 30 September 2023.

Notes continued

1. Accounting policies (continued)

Basis of consolidation

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. In assessing control, the Group takes into consideration potential voting rights that are exercisable. The acquisition date is the date on which control is transferred to the acquirer. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

Associates and joint ventures are accounted for using the equity method (equity-accounted investees) and are initially recognised at cost. The Group's investment includes goodwill identified on acquisition, net of any accumulated impairment losses.

The consolidated financial statements include the Group's share of the total comprehensive income and equity movements of equity accounted investees, from the date that significant influence commences until the date that significant influence ceases. When the Group's share of losses exceeds its interest in an equity accounted investee, the Group's carrying amount is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal obligations or made payments on behalf of an investee.

Intragroup balances and transactions, and any unrealised income and expenses arising from intragroup transactions, are eliminated on consolidation. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Foreign currencies

On consolidation, overseas subsidiaries' results are translated into Sterling at weighted average exchange rates for the year by translating each overseas subsidiary's monthly results at exchange rates applicable to each of the respective months. Assets and liabilities denominated in foreign currencies at the balance sheet date are translated into Sterling at the foreign exchange rates prevailing at that date. Differences on exchange resulting from the translation of overseas assets and liabilities are recognised in Other comprehensive income and are accumulated in equity.

Monetary assets and liabilities denominated in foreign currencies are reported at the rates prevailing at the time, with any gain or loss arising from subsequent exchange rate movements being included as an exchange gain or loss in the Consolidated income statement. Foreign currency differences arising from transactions are recognised in the Consolidated income statement.

Separately disclosed items

The Directors consider that certain items should be separately disclosed to aid understanding of the Group's performance.

Gains and losses from the fair value of financial instruments are therefore separately disclosed in the Consolidated income statement, where these gains and losses relate to certain forward currency contracts that are not effective for hedge accounting. Restructuring costs are also separately disclosed where significant costs have been incurred in rationalising and reorganising our business as part of a Board-approved initiative, and relate to matters that do not frequently recur.

During the period, a change to the UK defined benefit pension scheme rules, per note 23, resulted in a significant non-recurring amount being recognised in the Consolidated income statement. This has also been separately disclosed.

These items are also excluded from Adjusted profit before tax, Adjusted operating profit and Adjusted earnings per share measures, as explained in note 29 Alternative performance measures.

Alternative performance measures

The financial statements are prepared in accordance with adopted IFRS and applied in accordance with the provisions of the Companies Act 2006. In measuring our performance, the financial measures that we use include those which have been derived from our reported results, to eliminate factors which distort year-on-year comparisons.

These are considered non-GAAP financial measures. We believe this information, along with comparable GAAP measurements, is useful to stakeholders in providing a basis for measuring our operational performance. The Board use these financial measures, along with the most directly comparable GAAP financial measures, in evaluating our performance (see note 29).

2. Revenue disaggregation and segmental analysis

We manage our business by segment, comprising Manufacturing technologies and Analytical instruments and medical devices, and by geographical region. The results of these segments and regions are regularly reviewed by the Board to assess performance and allocate resources, and are presented in this note.

Accounting policy

The Group generates revenue from the sale of manufacturing technologies and analytical instruments and medical devices goods, capital equipment and services. These can be sold both on their own and together.

a) Sale of goods, capital equipment and services

The Group's contracts with customers consist both of contracts with one performance obligation and contracts with multiple performance obligations.

For contracts with one performance obligation, revenue is measured at the transaction price, which is typically the contract value except for customers entitled to volume rebates, and recognised at the point in time when control of the product transfers to the customer. This point in time is typically when the products are made available for collection by the customer, collected by the shipping agent, or delivered to the customer, depending upon the shipping terms applied to the specific contract.

Contracts with multiple performance obligations typically exist where, in addition to supplying product, we also supply services such as user training, servicing and maintenance, and installation services. Where the installation service is simple, does not include a significant integration service and could be performed by another party then the installation is accounted for as a separate performance obligation. Where the contracts include multiple performance obligations, the transaction price is allocated to each performance obligation based on the relative stand-alone selling prices. The revenue allocated to each performance obligation is then recognised when, or as, that performance obligation is satisfied. For installation, this is typically at the point in time in which installation is complete. For training, this is typically the point in time at which training is delivered. For servicing and maintenance, the revenue is recognised evenly over the course of the servicing agreement except for ad-hoc servicing and maintenance which is recognised at the point in time in which the work is undertaken.

b) Sale of software

The Group provides software licences and software maintenance to customers, sold both on their own and together with associated products. For software licences, where the licence and/or maintenance is provided as part of a contract that provides customers with software licences and other goods and services then the transaction price is allocated on the same basis as described in a) above.

The Group's distinct software licences provide a right of use, and therefore revenue from software licences is recognised at the point in time in which the licence is supplied to the customer. Revenue from software maintenance is recognised evenly over the term of the maintenance agreement.

c) Extended warranties

The Group provides standard warranties to customers that address potential latent defects that existed at point of sale and as required by law (assurance-type warranties). In some contracts, the Group also provides warranties that extend beyond the standard warranty period and may be sold to the customer (service-type warranties).

Assurance-type warranties are accounted for by the Group under IAS 37 'Provisions, Contingent Liabilities and Contingent Assets'. Service-type warranties are accounted for as separate performance obligations and therefore a portion of the transaction price is allocated to this element, and then recognised evenly over the period in which the service is provided.

d) Contract balances

Contract assets represent the Group's right to consideration in exchange for goods and services that have been transferred to a customer, and mainly includes accrued revenue in respect of goods and services provided to a customer but not yet fully billed. Contract assets are distinct from receivables, which represent the Group's right to consideration that is unconditional.

Contract liabilities represent the Group's obligation to transfer goods or services to a customer for which the Group has either received consideration or consideration is due from the customer.

e) Disaggregation of revenue

The Group disaggregates revenue from contracts with customers between: goods, capital equipment and installation, and aftermarket services; operating segment; and geographical location.

Management believe these categories best depict how the nature, amount, timing and uncertainty of the Group's revenue is affected by economic factors.

Notes continued

2. Revenue disaggregation and segmental analysis (continued)

Within the two operating segments there are multiple product offerings with similar economic characteristics, similar production processes and similar customer bases. Our Manufacturing technologies business consists of industrial metrology, position measurement and additive manufacturing (AM) product lines, while our Analytical instruments and medical devices business consists of spectroscopy and neurological product lines. More details of the Group's products and services are given in the Strategic Report.

	Manufacturing technologies £'000	Analytical instruments and medical devices £'000	Total £'000
Year ended 30 June 2022			
Revenue	634,588	36,488	671,076
Depreciation, amortisation and impairment	36,552	2,570	39,122
Operating profit before losses from fair value of financial instruments and UK defined benefit pension scheme past service cost	162,549	2,809	165,358
Share of profits from associates and joint ventures	4,342	–	4,342
Net financial expense	–	–	(2,006)
UK defined benefit pension scheme past service cost	–	–	(11,695)
Losses from the fair value of financial instruments	–	–	(10,413)
Profit before tax	–	–	145,586
	Manufacturing technologies £'000	Analytical instruments and medical devices £'000	Total £'000
Year ended 30 June 2021*			
Revenue	530,445	35,114	565,559
Depreciation, amortisation and impairment	37,909	2,187	40,096
Operating profit before gains from fair value of financial instruments	111,978	4,385	116,363
Share of profits from associates and joint ventures	1,683	–	1,683
Net financial expense	–	–	(585)
Gains from the fair value of financial instruments	–	–	21,978
Profit before tax	–	–	139,439

*In previous years, we reported the results of additive manufacturing machines marketed and sold to medical and dental customers within Analytical instruments and medical devices (formerly Healthcare), reflecting how we managed this business. The management of this now sits within the AM product line, with a similar customer base and risk profile to this product line, with results and operational matters reported to the Executive Committee and Chief Operating Decision Maker accordingly. We now therefore report the medical and dental results within Manufacturing technologies rather than Analytical instruments and medical devices. Comparative figures have been reclassified accordingly. For the year ended 30 June 2021, revenue of £4,254,000, depreciation and amortisation of £993,000, and operating profit before gains from fair value of financial instruments of £1,480,000 have been reclassified from Analytical instruments and medical devices to Manufacturing technologies.

There is no allocation of assets and liabilities to operating segments. Depreciation, amortisation and impairments are included within certain other overhead expenditure which is allocated to segments on the basis of the level of activity.

The following table shows the analysis of non-current assets, excluding deferred tax, derivatives and employee benefits, by geographical region:

	2022 £'000	2021 £'000
UK	181,530	179,039
Overseas	155,725	146,393
Total non-current assets	337,255	325,432

No overseas country had non-current assets amounting to 10% or more of the Group's total non-current assets.

The following table shows the disaggregation of Group revenue by category:

	2022 £'000	2021 £'000
Goods, capital equipment and installation	615,641	513,675
Aftermarket services	55,435	51,884
Total Group revenue	671,076	565,559

Aftermarket services include repairs, maintenance and servicing, programming, training, extended warranties, and software licences and maintenance. There is no significant difference between our two operating segments as to their split of revenue by type.

2. Revenue disaggregation and segmental analysis (continued)

The analysis of revenue by geographical market was:

	2022 £'000	2021 £'000
APAC total	317,023	274,765
UK (country of domicile)	31,536	26,923
EMEA, excluding UK	174,290	142,219
EMEA total	205,826	169,142
Americas total	148,227	121,652
Total Group revenue	671,076	565,559

Revenue in the previous table has been allocated to regions based on the geographical location of the customer. Countries with individually material revenue figures in the context of the Group were:

	2022 £'000	2021 £'000
China	152,772	141,690
USA	128,531	103,850
Japan	69,829	51,523
Germany	58,636	51,095

There was no revenue from transactions with a single external customer which amounted to more than 10% of the Group's total revenue.

3. Personnel expenses

The remuneration costs of our people account for a significant proportion of our total expenditure, which are analysed in this note.

The aggregate payroll costs for the year were:

	2022 £'000	2021 £'000
Wages and salaries	207,783	183,235
Compulsory social security contributions	24,497	21,766
Contributions to defined contribution pension schemes	21,988	19,759
Government grants – employment support	–	(989)
Share-based payment charge	180	173
Total payroll costs	254,448	223,944

Wages and salaries and compulsory social security contributions include £16,179,000 (2021: £13,208,000) relating to performance bonuses.

The average number of persons employed by the Group during the year was:

	2022 Number	2021 Number
UK	3,132	2,742
Overseas	1,799	1,695
Average number of employees	4,931	4,437

Key management personnel have been assessed to be the Directors of the Company.

The total remuneration of the Directors was:

	2022 £'000	2021 £'000
Short-term employee benefits	3,763	2,697
Post-employment benefits	121	111
Share-based payment charge	180	173
Total remuneration of the Directors	4,064	2,981

Full details of Directors' remuneration are given in the Directors' Remuneration Report.

Notes continued

4. Cost of sales

Our cost of sales includes the costs to manufacture our products and our engineering spend on existing and new products, net of capitalisation and research and development tax credits.

Included in cost of sales are the following amounts:

	2022 £'000	2021 £'000
Production costs	234,919	197,805
Research and development expenditure	59,415	58,618
Other engineering expenditure	26,356	18,019
Gross engineering expenditure	85,771	76,637
Development expenditure capitalised (net of amortisation)	(3,268)	(825)
Development expenditure impaired	–	1,092
Research and development tax credit	(3,895)	(4,857)
Total engineering costs	78,608	72,047
Total cost of sales	313,527	269,852

Production costs includes the raw material and component costs, payroll costs and sub-contract costs, and allocated overheads associated with manufacturing our products.

Research and development expenditure includes the payroll costs, material costs and allocated overheads attributed to projects identified as being related to new products or processes. Other engineering expenditure includes the payroll costs, material costs and allocated overheads attributed to projects identified as being related to existing products or processes.

5. Financial income and expenses

Financial income mainly arises from bank interest on our deposits, while we are exposed to realised currency gains and losses on translation of foreign currency denominated intragroup balances and offsetting financial instruments.

Included in financial income and expenses are the following amounts:

Financial income	notes	2022 £'000	2021 £'000
Fair value gains from one-month forward currency contracts	25	98	2,781
Bank interest receivable		834	625
Total financial income		932	3,406
Financial expenses	notes	2022 £'000	2021 £'000
Net interest on pension schemes' assets/liabilities	23	306	876
Currency losses		1,414	2,660
Realised currency reserve losses from discontinuation of foreign operation	30	575	–
Lease interest	20	481	335
Interest payable on borrowings	21	52	69
Other interest payable		110	51
Total financial expenses		2,938	3,991

Currency losses relate to revaluations of foreign currency-denominated balances using latest reporting currency exchange rates. The losses recognised in 2021 and 2022 largely related to an appreciation of Sterling relative to the US dollar affecting US dollar-denominated intragroup balances in the Company.

Certain intragroup balances are classified as 'net investments in foreign operations', such that revaluations from currency movements on designated balances accumulate in the Currency translation reserve in Equity. Rolling one-month forward currency contracts are used to offset currency movements on remaining intragroup balances, with fair value gains and losses being recognised in financial income or expenses. See note 25 for further details.

At 30 June 2022, the Group's trading operations in Russia had ceased and the net assets of OOO Renishaw were written down to nil (see note 30). In accordance with IAS 21, cumulative translation losses relating to the company totalling £575,000 have been removed from the currency translation reserve and realised in the Consolidated income statement.

6. Profit before tax

Detailed below are other notable amounts recognised in the Consolidated income statement.

Included in the profit before tax are the following costs/(income):

	notes	2022 £'000	2021 £'000
Depreciation and impairment of property, plant and equipment, and investment properties (a)	9,11	27,157	24,317
Loss on sale of property, plant and equipment (a)		157	31
Depreciation and impairment of right-of-use assets (a)	10	6,042	4,463
Amortisation, impairment and write-off of intangible assets (a)	12	5,923	11,316
Impairment of investment in associates and joint ventures (c)		–	1,674
Impairment of long-term loans to associates and joint ventures (c)		–	2,633
Profit from sale of shares in associate (c)	13	582	–
Impairment of net assets of foreign operation (b)	30	2,126	–
Grant income (a)		(2,840)	(1,421)

These costs/(income) can be found under the following headings in the Consolidated income statement: (a) within cost of sales, distribution costs and administrative expenses, (b) within distribution costs, and (c) within administrative expenses. Further detail on each element can be found in the relevant notes.

Grant income relates to government grants, which are recognised in the Consolidated income statement as a deduction against expenditure. Where grants are received in advance of the related expenses, they are initially recognised in the Consolidated balance sheet and released to match the related expenditure. Where grants are expected to be received after the related expenditure has occurred, and there is reasonable assurance that the entity will comply with the grant conditions, amounts are recognised to offset the expenditure and an asset recognised.

Costs within Administrative expenses relating to auditor fees included:

	2022 £'000	2021 £'000
Audit of these financial statements	718	403
Audit of subsidiary undertakings pursuant to legislation	526	458
Other assurance	32	12
All other non-audit fees	–	–
Total auditor fees	1,276	873

7. Taxation

The Group tax charge is affected by our geographic mix of profits and other factors explained in this note. Our expected future tax charges and related tax assets are also set out in the deferred tax section, together with our view on whether we will be able to make use of these in the future.

Accounting policy

Tax on the profit for the year comprises current and deferred tax. Tax is recognised in the Consolidated income statement except to the extent that it relates to items recognised directly in Other comprehensive income, in which case it is recognised in the Consolidated statement of comprehensive income and expense. Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustment to tax payable in previous years.

Deferred tax is provided on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The following temporary differences are not provided for: the initial recognition of goodwill; the initial recognition of assets or liabilities that affect neither accounting nor taxable profit other than in a business combination; and differences relating to investments in subsidiaries, to the extent that they will probably not reverse in the foreseeable future. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the balance sheet date.

Key estimate – Estimates of future profits to support the recognition of deferred tax assets

Deferred tax assets are recognised to the extent it is probable that future taxable profits (including the future release of deferred tax liabilities) will be available, against which the deductible temporary differences can be used, based on management's assumptions relating to the amounts and timing of future taxable profits. Estimates of future profitability on an entity basis are required to ascertain whether it is probable that sufficient taxable profits will arise to support the recognition of deferred tax assets relating to the corresponding entity.

Notes continued

7. Taxation (continued)

The following table shows an analysis of the tax charge:

	2022 £'000	2021 £'000
Current tax:		
UK corporation tax on profits for the year	9,288	7,535
UK corporation tax – prior year adjustments	(28)	(4,376)
Overseas tax on profits for the year	16,734	13,237
Overseas tax – prior year adjustments	(176)	27
Total current tax	25,818	16,423
Deferred tax:		
Origination and reversal of temporary differences	(1,372)	7,692
Prior year adjustments	166	4,438
Derecognition of previously recognised tax losses and excess interest	623	–
Recognition of previously unrecognised tax losses and excess interest	–	(3,909)
Effect on deferred tax for changes in tax rates	–	3,336
	(583)	11,557
Tax charge on profit	25,235	27,980

The tax for the year is lower (2021: higher) than the UK standard rate of corporation tax of 19% (2021: 19%). The differences are explained as follows:

	2022 £'000	2021 £'000
Profit before tax	145,586	139,439
Tax at 19% (2021: 19%)	27,661	26,493
Effects of:		
Different tax rates applicable in overseas subsidiaries	(1,834)	(150)
Permanent differences	978	1,431
Companies with unrelieved tax losses	–	100
Share of profits of associates and joint ventures	(825)	(320)
Tax incentives (patent box and capital allowances super-deduction)	(1,400)	–
Prior year adjustments	(38)	89
Effect on deferred tax for changes in tax rates	–	3,336
Recognition of previously unrecognised tax losses and excess interest	–	(3,909)
Derecognition of previously recognised tax losses and excess interest	623	–
Use of unrecognised losses	(25)	(162)
Irrecoverable withholding tax	2	1,052
Other differences	93	20
Tax charge on profit	25,235	27,980
Effective tax rate	17.3%	20.1%

We operate in many countries around the world and the overall effective tax rate (ETR) is a result of the combination of the varying tax rates applicable throughout these countries. In addition, the 2022 tax rate has benefited from patent box and capital allowances super-deduction tax incentives and higher profits from associates and joint ventures.

The Group's future ETR will mainly depend on the geographic mix of profits and whether there are any changes to tax legislation in the Group's most significant countries of operations.

Deferred tax

Deferred tax assets and liabilities are offset where there is a legally enforceable right of offset and there is an intention to net settle the balances. After taking these offsets into account, the net position of £78,000 asset (2021: £10,890,000 asset) is presented as a £22,893,000 deferred tax asset (2021: £21,292,000 asset) and a £22,815,000 deferred tax liability (2021: £10,402,000 liability) in the Consolidated balance sheet.

Where deferred tax assets are recognised, the Directors are of the opinion, based on recent and forecast trading, that the level of profits in current and future years make it more likely than not that these assets will be recovered.

7. Taxation (continued)

Deferred tax balances at the end of the year were:

	2022			2021		
	Assets £'000	Liabilities £'000	Net £'000	Assets £'000	Liabilities £'000	Net £'000
Property, plant and equipment	517	(19,966)	(19,449)	425	(17,546)	(17,121)
Intangible assets	–	(2,980)	(2,980)	–	(2,609)	(2,609)
Intragroup trading (inventories)	20,158	–	20,158	14,539	–	14,539
Intragroup trading (fixed assets)	1,457	–	1,457	1,252	–	1,252
Defined benefit pension schemes	125	(11,173)	(11,048)	4,548	(201)	4,347
Derivatives	3,508	–	3,508	–	(2,930)	(2,930)
Tax losses	3,893	–	3,893	8,365	–	8,365
Other	4,953	(414)	4,539	5,083	(36)	5,047
Balance at the end of the year	34,611	(34,533)	78	34,212	(23,322)	10,890

Other deferred tax assets include timing differences relating to inventory provisions totalling £1,774,000 (2021: £2,001,000), other provisions (including bad debt provisions) of £975,000 (2021: £683,000), and employee benefits relating to Renishaw KK of £853,000 (2021: £668,000), with the remaining balance relating to a number of other temporary differences.

The movements in the deferred tax balance during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	10,890	39,142
Movements in the Consolidated income statement	583	(11,557)
Movement in relation to the cash flow hedging reserve	6,155	(9,790)
Movement in relation to the currency translation reserve	–	902
Movement in relation to the defined benefit pension scheme liabilities	(17,650)	(7,705)
Total movement in the Consolidated statement of comprehensive income and expense	(11,495)	(16,593)
Currency translation	100	(102)
Balance at the end of the year	78	10,890

The deferred tax movement in the Consolidated income statement is analysed as:

	2022 £'000	2021 £'000
Property, plant and equipment	(2,328)	(3,193)
Intangible assets	(371)	(1,345)
Intragroup trading (inventories)	5,619	579
Intragroup trading (fixed assets)	205	(819)
Defined benefit pension schemes	2,255	156
Derivatives	284	(2,185)
Tax losses	(4,472)	(5,712)
Other	(609)	962
Total movement for the year	583	(11,557)

The Company has fully used the tax losses incurred in 2020, reducing the deferred tax asset in respect of losses from £3,299,000 at 30 June 2021 to nil at 30 June 2022. Deferred tax assets of £3,893,000 in respect of losses are recognised across other Group companies where it is considered likely that the business will generate sufficient future taxable profits.

Deferred tax assets have not been recognised in respect of tax losses carried forward of £4,815,000 (2021: £4,459,000), due to uncertainty over their offset against future taxable profits and therefore their recoverability. These losses are held by Group companies in France, Switzerland, Brazil, Australia and the US, where for 95% of the losses there are no time limitations on their utilisation.

In determining profit forecasts for each Group company, revenue forecasts have been estimated using consistently applied external and internal data sources, which is the key variable in the profit forecasts. Sensitivity analysis indicates that a reduction of 5% to relevant revenue forecasts would result in an impairment to deferred tax assets recognised in respect of losses and intragroup trading (inventories) of less than £100,000, while an increase of 5% would result in additions to deferred tax assets in respect of tax losses not recognised of less than £200,000.

It is likely that the majority of unremitted earnings of overseas subsidiaries would qualify for the UK dividend exemption. However, £61,204,000 (2021: £43,858,000) of those earnings may still result in a tax liability principally as a result of withholding taxes levied by the overseas jurisdictions in which those subsidiaries operate. The tax liabilities for the earnings for which management intend to repatriate in the foreseeable future are not material and consequently no deferred tax liability has been recognised.

Notes continued

8. Earnings per share

Basic earnings per share is the amount of profit generated in a financial year attributable to equity shareholders, divided by the weighted average number of shares in issue during the year.

Basic and diluted earnings per share are calculated on earnings of £120,351,000 (2021: £111,459,000) and on 72,774,147 shares (2021: 72,778,904 shares), being the number of shares in issue. The number of shares excludes 14,396 (2021: 9,639) shares held by the Employee Benefit Trust (EBT). On this basis, earnings per share (basic and diluted) is calculated as 165.4 pence (2021: 153.2 pence).

There is no difference between the weighted average earnings per share and the basic and diluted earnings per share.

For the calculation of adjusted earnings per share, per note 29, earnings of £120,351,000 (2021: £111,459,000) are adjusted by post-tax amounts for:

- fair value (gains)/losses on financial instruments not eligible for hedge accounting (reported in Revenue), which represents the amount by which revenue would change had all the derivatives qualified as eligible for hedge accounting, £1,672,000 gain;
- fair value (gains)/losses on financial instruments not eligible for hedge accounting (reported in Gains/(losses) from the fair value of financial instruments), £8,435,000 loss;
- a revised estimate of 2020 restructuring costs, £1,367,000 gain;
- a UK defined benefit pension scheme past service cost, £9,473,000 loss; and
- costs relating to the 2021 formal sales process, £200,000 gain.

9. Property, plant and equipment

The Group makes significant investments in distribution and in-house manufacturing infrastructure. During the year we completed a new distribution facility in South Korea and invested in our manufacturing equipment in the UK. We expect to significantly increase our investments in property, plant and equipment in the next few years.

Accounting policy

Freehold land is not depreciated. Other assets are stated at cost less accumulated depreciation and accumulated impairment losses, if any. Depreciation is provided to write off the cost of assets less their estimated residual value on a straight-line basis over their estimated useful economic lives as follows:

- freehold buildings, 50 years;
- plant and equipment, 3 to 25 years; and
- vehicles, 3 to 4 years.

Year ended 30 June 2022	Freehold land and buildings £'000	Plant and equipment £'000	Motor vehicles £'000	Assets in the course of construction £'000	Total £'000
Cost					
At 1 July 2021	216,783	242,432	7,421	7,109	473,745
Additions	5,715	16,756	1,150	7,144	30,765
Transfers of assets in the course of construction	2,800	3,972	–	(6,772)	–
Transfers to Investment properties	(11,563)	–	–	–	(11,563)
Disposals	97	(3,587)	(1,269)	–	(4,759)
Currency adjustment	3,988	3,984	218	–	8,190
At 30 June 2022	217,820	263,557	7,520	7,481	496,378
Depreciation					
At 1 July 2021	38,530	182,557	6,416	–	227,503
Charge for the year	4,623	20,029	1,056	–	25,708
Impairment	1,259	–	–	–	1,259
Transfers to Investment properties	(1,222)	–	–	–	(1,222)
Disposals	81	(2,837)	(1,180)	–	(3,936)
Currency adjustment	545	2,465	203	–	3,213
At 30 June 2022	43,816	202,214	6,495	–	252,525
Net book value					
At 30 June 2022	174,004	61,343	1,025	7,481	243,853
At 30 June 2021	178,253	59,875	1,005	7,109	246,242

During the year, a third-party valuation of one of our properties in the US resulted in an impairment of £1,259,000.

See note 11 for detail on the reclassification of Property, plant and equipment to Investment properties.

9. Property, plant and equipment (continued)

Year ended 30 June 2021	Freehold land and buildings £'000	Plant and equipment £'000	Motor vehicles £'000	Assets in the course of construction £'000	Total £'000
Cost					
At 1 July 2020	225,556	247,986	8,526	6,363	488,431
Additions	194	6,930	143	3,606	10,873
Transfers	345	2,515	–	(2,860)	–
Disposals	(136)	(9,628)	(951)	–	(10,715)
Currency adjustment	(9,176)	(5,371)	(297)	–	(14,844)
At 30 June 2021	216,783	242,432	7,421	7,109	473,745
Depreciation					
At 1 July 2020	35,842	175,864	6,676	–	218,382
Charge for the year	4,084	19,407	826	–	24,317
Disposals	(124)	(9,658)	(858)	–	(10,640)
Currency adjustment	(1,272)	(3,056)	(228)	–	(4,556)
At 30 June 2021	38,530	182,557	6,416	–	227,503
Net book value					
At 30 June 2021	178,253	59,875	1,005	7,109	246,242
At 30 June 2020	189,714	72,122	1,850	6,363	270,049

Additions to assets in the course of construction comprise £826,000 (2021: £817,000) for land and buildings and £6,318,000 (2021: £2,789,000) for plant and equipment.

Losses on disposals of Property, plant and equipment amounted to £157,000 (2021: £31,000).

At 30 June 2022, properties with a net book value of £54,208,000 (2021: £81,679,000) were subject to a fixed charge to secure the UK defined benefit pension scheme liabilities. The number of properties on fixed charge has decreased in the year, see note 23.

10. Right-of-use assets

The Group leases properties and cars from third parties and recognises an associated right-of-use asset where we are afforded control and economic benefit from the use of the asset.

Accounting policy

At the commencement date of a lease arrangement the Group recognises a right-of-use asset for the leased item and a lease liability for any payments due. Right-of-use assets are initially measured at cost, being the present value of the lease liability plus any initial costs incurred in entering the lease and less any incentives received. See note 20 for further detail on lease liabilities. Right-of-use assets are subsequently depreciated on a straight-line basis from the commencement date to the earlier of the end of the useful life or the end of the lease term.

Year ended 30 June 2022	Leasehold property £'000	Plant and equipment £'000	Motor vehicles £'000	Total £'000
Net book value				
At 1 July 2021	10,297	102	2,030	12,429
Additions	1,293	115	1,058	2,466
Depreciation	(2,805)	(102)	(1,298)	(4,205)
Impairment	(1,837)	–	–	(1,837)
Currency adjustment	1,107	2	(12)	1,097
At 30 June 2022	8,055	117	1,778	9,950
Year ended 30 June 2021	Leasehold property £'000	Plant and equipment £'000	Motor vehicles £'000	Total £'000
Net book value				
At 1 July 2020	10,287	–	2,385	12,672
Additions	3,548	232	1,234	5,014
Depreciation	(2,903)	(121)	(1,439)	(4,463)
Currency adjustment	(635)	(9)	(150)	(794)
At 30 June 2021	10,297	102	2,030	12,429

An impairment of £1,837,000 was recognised in the period relating to a leased property in Russia. See note 30 for further detail.

Notes continued

11. Investment properties

The Group's investment properties consist of four facilities in the UK, Ireland and India. During the year, we have transferred these to investment properties, from property, plant and equipment, following a change in use of the UK and India properties. This includes the occupation of these properties by rent-paying third parties during the year.

Accounting policy

Where property owned by the Group is deemed to be held to earn rentals or for long-term capital appreciation it is recognised as investment property.

Where a property is part-occupied by the Group, portions of the property are recognised as investment property if they meet the above description and if these portions could be sold separately and reliably measured. If the portions could not be sold separately, the property is recognised as an investment property only if a significant proportion is held for rental or appreciation purposes.

The Group has elected to value investment properties on a cost basis, initially comprising an investment property's purchase price and any directly attributable expenditure. Depreciation is provided to write off the cost of assets on a straight-line basis over their estimated useful economic lives, being 50 years. Amounts relating to freehold land is not depreciated.

Year ended 30 June 2022	Total £'000
Cost	
At 1 July 2021	–
Transfers from Property, plant and equipment	11,563
Additions	195
Disposals	(102)
Currency adjustment	249
At 30 June 2022	11,905
Depreciation	
At 1 July 2021	–
Transfers from Property, plant and equipment	1,222
Charge for the year	190
Disposals	(81)
Currency adjustment	6
At 30 June 2022	1,337
Net book value	
At 30 June 2022	10,568
At 30 June 2021	–

The Group has no restrictions on the realisability of its investment properties and no contractual obligations to purchase, construct or develop investment properties.

Amounts recognised in the Consolidated income statement relating to investment properties:

	2022 £'000
Rental income derived from investment properties	453
Direct operating expenses (including repairs and maintenance)	105
Profit arising from investment properties	348

The fair value of the Group's investment properties totalled £14,626,000 at 30 June 2022. Fair values of each investment property have been determined by independent valuers who hold recognised and relevant professional qualifications and have recent experience in the location and category of each investment property being valued.

12. Intangible assets

Our Consolidated balance sheet contains significant intangible assets, mostly in relation to goodwill, which arises when we acquire a business and pay a higher amount than the fair value of its net assets, and capitalised development costs. We make significant investments into the development of new products, which is a key part of our business model, and some of these costs are initially capitalised and then expensed over the lifetime of future sales of that product.

Accounting policy

Goodwill arising on acquisition represents the difference between the cost of the acquisition and the fair value of the net identifiable assets acquired, net of deferred tax. Identifiable intangibles are those which can be sold separately or which arise from legal rights regardless of whether those rights are separable.

Goodwill is stated at cost less any accumulated impairment losses. It is not amortised but is tested annually for impairment or earlier if there are any indications of impairment. The annual impairment review involves comparing the carrying amount to the estimated recoverable amount and recognising an impairment loss if the recoverable amount is lower. Impairment losses are recognised in the Consolidated income statement.

Intangible assets such as customer lists, patents, trade marks, know-how and intellectual property that are acquired by the Group are stated at cost less amortisation and impairment losses. Amortisation is charged to the Consolidated income statement on a straight-line basis over the estimated useful lives of the intangible assets. The estimated useful lives of the intangible assets included in the Consolidated balance sheet reflect the benefit derived by the Group and vary from five to 10 years.

Expenditure on research activities is recognised in the Consolidated income statement as an expense as incurred. Expenditure on development activities is capitalised if: the product or process is technically and commercially feasible; the Group intends and has the technical ability and sufficient resources to complete development; future economic benefits are probable; and the Group can measure reliably the expenditure attributable to the intangible asset during its development.

Development activities involve a plan or design for the production of new or substantially improved products or processes. The expenditure capitalised includes the cost of materials, direct labour and an appropriate proportion of overheads. Other development expenditure is recognised in the Consolidated income statement as an expense as incurred.

Capitalised development expenditure is amortised over the useful economic life appropriate to each product or process, ranging from five to 10 years, and is stated at cost less accumulated amortisation and less accumulated impairment losses. Amortisation commences when a product or process is available for use as intended by management. Capitalised development expenditure is removed from the balance sheet 10 years after being fully amortised.

All non-current assets are tested for impairment whenever there is an indication that their carrying value may be impaired. An impairment loss is recognised in the Consolidated income statement to the extent that an asset's carrying value exceeds its recoverable amount, which represents the higher of the asset's fair value less costs to sell and its value-in-use. An asset's value-in-use represents the present value of the future cash flows expected to be derived from the asset or from the cash-generating unit to which it relates. The present value is calculated using a discount rate that reflects the current market assessment of the time value of money and the risks specific to the asset concerned.

Goodwill and capitalised development costs are subject to an annual impairment test.

Key judgement – Whether a project meets the criteria for capitalisation

Product development costs are capitalised once a project has reached a certain stage of development and these costs are subsequently amortised over their useful economic life once ready for use. Costs are capitalised from the point the product has passed testing to demonstrate it meets the technical specifications of the project and it satisfies all applicable regulations. Judgements are required to assess whether the new product development has reached the appropriate point for capitalisation of costs to begin. Should a product be subsequently obsoleted, the accumulated capitalised development costs would need to be immediately written off in the Consolidated income statement.

Key estimate – Estimates of future cash flows used for impairment testing

Determining whether goodwill is impaired requires an estimation of the value-in-use of cash-generating units (CGUs) to which goodwill has been allocated. The value-in-use calculation involves an estimation of the future cash flows of CGUs and also the selection of appropriate discount rates, which involves judgement, to calculate present values. Similarly, determining whether capitalised development costs are impaired requires an estimation of their value-in-use which involves significant judgement.

Notes continued

12. Intangible assets (continued)

	Goodwill £'000	Other intangible assets £'000	Internally generated development costs £'000	Software licences and intellectual property £'000	Total £'000
Year ended 30 June 2022					
Cost					
At 1 July 2021	19,533	15,783	177,291	24,962	237,569
Additions	–	53	7,966	876	8,895
Write-off	–	–	–	(3,510)	(3,510)
Disposals	–	(11,211)	(17,045)	–	(28,256)
Currency adjustment	942	4	–	51	997
At 30 June 2022	20,475	4,629	168,212	22,379	215,695
Amortisation					
At 1 July 2021	9,028	13,254	151,807	19,685	193,774
Charge for the year	–	201	4,698	1,024	5,923
Disposals	–	(11,211)	(17,045)	–	(28,256)
Currency adjustment	–	(4)	–	40	36
At 30 June 2022	9,028	2,240	139,460	20,749	171,477
Net book value					
At 30 June 2022	11,447	2,389	28,752	1,630	44,218
At 30 June 2021	10,505	2,529	25,484	5,277	43,795
Year ended 30 June 2021					
Cost					
At 1 July 2020	20,518	15,829	167,447	22,063	225,857
Additions	–	–	9,844	3,000	12,844
Currency adjustment	(985)	(46)	–	(101)	(1,132)
At 30 June 2021	19,533	15,783	177,291	24,962	237,569
Amortisation					
At 1 July 2020	9,028	13,105	141,696	18,664	182,493
Charge for the year	–	101	9,019	1,104	10,224
Impairment	–	–	1,092	–	1,092
Currency adjustment	–	48	–	(83)	(35)
At 30 June 2021	9,028	13,254	151,807	19,685	193,774
Net book value					
At 30 June 2021	10,505	2,529	25,484	5,277	43,795
At 30 June 2020	11,490	2,724	25,751	3,399	43,364

Disposals of internally generated development costs have been recognised during the year in accordance with the Group's accounting policy to remove capitalised development expenditure from the balance sheet 10 years after being fully amortised.

Goodwill

Goodwill has arisen on the acquisition of a number of businesses and has an indeterminable useful life. It is therefore not amortised but is instead tested for impairment annually and at any point during the year when an indicator of impairment exists. Goodwill is allocated to cash generating units (CGUs), which are either the statutory entities acquired or the group-wide product line. This is the lowest level in the Group at which goodwill is monitored for impairment and is at a lower level than the Group's operating segments.

The analysis of goodwill is:

	2022 £'000	2021 £'000
itp GmbH	2,985	2,959
Renishaw Mayfield S.A.	2,055	1,873
Renishaw Fixturing Solutions, LLC	5,677	5,018
Other smaller acquisitions	730	655
Total goodwill	11,447	10,505

12. Intangible assets (continued)

The recoverable amounts of acquired goodwill are based on value-in-use calculations. These calculations use cash flow projections based on the financial business plans approved by management for the next five financial years. The cash flows beyond this forecast are extrapolated to perpetuity using a nil growth rate on a prudent basis, to reflect the uncertainties over forecasting beyond five years.

The following pre-tax discount rates have been used in discounting the projected cash flows:

Business acquired	CGU	2022 Discount rate	2021 Discount rate
itp GmbH	itp GmbH entity ('ITP')	11.3%	10.6%
Renishaw Fixturing Solutions, LLC	Renishaw fixturing product line ('RFS')	11.5%	10.2%
Renishaw Mayfield S.A.	Renishaw Mayfield S.A. entity ('Mayfield')	22.9%	21.4%

The Group post-tax weighted average cost of capital, calculated at 30 June 2022, is 9% (2021: 8%). Pre-tax discount rates for Manufacturing technologies CGUs (ITP and RFS) are calculated from this basis, given that they are aligned with the wider Group's industries, markets and processes. The Analytical instruments and medical devices CGU (Mayfield) has a higher risk weighting, reflecting the less mature nature of this segment. This risk weighting is unchanged from 2021.

For there to be an impairment in the RFS, ITP or Mayfield CGUs the discount rate would need to increase to at least 11.7%, 26% and 29% respectively. An increase of 5% in the discount rates would result in an impairment of around £1.2m in the RFS CGU. At 30 June 2022, there was headroom of £151,000 for the RFS CGU.

The following bases have been used in determining cash flow projections:

CGU	2022 Basis of forecast	2021 Basis of forecast
itp GmbH entity	five-year business plan	five-year business plan
Renishaw fixturing product line	five-year business plan	five-year business plan
Renishaw Mayfield S.A. entity	five-year business plan	five-year business plan

These five-year business plans are considered prudent estimates based on management's view of the future and experience of past performance of the individual CGUs, and are calculated at a disaggregated level. Within these plans, revenue forecasts are calculated with reference to external market data, Renishaw past outperformance, and new product launches, consistent with revenue forecasts across the Group. Production costs, engineering costs, distribution costs and administrative expenses are calculated based on management's best estimates of what is required to support revenue growth and new product development. Estimates of capital expenditure and working capital requirements are also included in the cash flow projections.

The key estimate within these business plans is the forecasting of revenue growth, given that the cost bases of the businesses can be flexed in line with revenue performance. Given the average revenue growth assumptions included in the five-year business plans, management's sensitivity analysis involves modelling a reduction in the forecast cash flows utilised in those business plans and therefore into perpetuity. For there to be an impairment there would need to be a reduction to these forecast cash flows of 60% for ITP, 2% for RFS and 24% for Mayfield. Management deems the likelihood of these reductions to be unlikely.

Internally generated development costs

During the period, management reassessed the useful economic life of certain capitalised projects from five to 10 years, to align with latest expectations of product lifecycles. As a result, amortisation during the period was £2,211,000 less than under the previous useful economic life.

The key assumption in determining the value-in-use for internally generated development costs is the forecast unit sales over the useful economic life, which is determined by management using their knowledge and experience with similar products and the sales history of products already available in the market. Resulting cash flow projections over five to 10 years, the period over which product demand forecasts can be reasonably predicted and internally generated development costs are written off, are discounted using pre-tax discount rates, which are calculated from the Group post-tax weighted average cost of capital of 9% (2021: 8%).

There were no impairments of internally generated development costs in the year (2021: £1,092,000).

For the largest projects, comprising over 95% of the net book value at 30 June 2022, a 10% reduction to forecast unit sales, or an increase in the discount rate by 5%, would result in an impairment of less than £100,000.

Notes continued

13. Investments in associates and joint ventures

Where we make an investment in a company which allows us significant influence but not full control, we account for our share of their post-tax profits in our financial statements. Following a full divestment in HiETA during the year, we now have joint venture arrangements with two companies, RLS and MSP.

The Group's investments in associates and joint ventures (all investments being in the ordinary share capital of the associate and joint ventures), whose accounting years end on 30 June, except where noted otherwise, were:

	Country of incorporation and principal place of business	Ownership % 2022	Ownership % 2021
RLS Merilna tehnika d.o.o. ('RLS') – joint venture	Slovenia	50.0	50.0
Metrology Software Products Limited ('MSP') – joint venture	England & Wales	70.0	70.0
HiETA Technologies Limited ('HiETA') (31 December) – associate	England & Wales	nil	33.3

In January 2022 an agreement was reached between Renishaw plc and Meggitt plc for the sale of Renishaw's 33.33% shareholding in HiETA Technologies Limited to Meggitt plc. This resulted in a net gain on disposal of £582,000, which was recognised in the Manufacturing technologies operating segment.

Although the Group owns 70% of the ordinary share capital of MSP, this is accounted for as a joint venture as the 'control' requirements of IFRS 10 are not satisfied. This is primarily because the shareholders agreement includes that for so long as the Group's holding is less than 75% of the total shares of MSP, Renishaw agrees to exercise its voting rights such that it only votes as if it has the same aggregate shareholding as the remaining Management Shareholders.

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	16,634	16,604
Additions	–	749
Dividends received	(525)	–
Share of profits of associates and joint ventures	4,342	1,683
Impairment	–	(1,674)
Exchange differences	119	(728)
Balance at the end of the year	20,570	16,634

Summarised financial information for joint ventures:

	RLS		MSP	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Assets	42,308	31,535	4,601	4,211
Liabilities	(7,422)	(3,719)	(963)	(1,056)
Net assets	34,886	27,816	3,638	3,155
Group's share of net assets	17,443	13,908	2,547	2,209
Revenue	35,247	25,145	2,492	2,239
Profit/(loss) for the year	7,886	4,800	570	(182)
Group's share of profit/(loss) for the year	3,943	2,400	399	(91)

For the nature of the activities, see note C.46.

The financial statements of RLS have been prepared on the basis of Slovenian Accounting Standards.

The financial statements of MSP have been prepared on the basis of FRS 102.

14. Leases (as lessor)

The Group acts as a lessor for Renishaw-manufactured equipment on finance and operating lease arrangements. This is principally for high-value capital equipment such as our additive manufacturing machines.

Accounting policy

Where the Group transfers the risks and rewards of ownership of lease assets to a third party, the Group recognises a receivable in the amount of the net investment in the lease. The lease receivable is subsequently reduced by the principal received, while an interest component is recognised as financial income in the Consolidated income statement. Standard contract terms are up to five years and there is a nominal residual value receivable at the end of the contract.

Where the Group retains the risks and rewards of ownership of lease assets, it continues to recognise the leased asset in Property, plant and equipment. Income from operating leases is recognised on a straight-line basis over the lease term and recognised as Revenue rather than Other revenue as such income is not material. Operating leases are on one to five year terms.

The total future lease payments are split between the principal and interest amounts below:

	2022			2021		
	Gross investment £'000	Interest £'000	Net investment £'000	Gross investment £'000	Interest £'000	Net investment £'000
Receivable in less than one year	3,703	355	3,348	1,919	156	1,763
Receivable between one and two years	2,882	252	2,630	2,641	215	2,426
Receivable between two and three years	2,015	148	1,867	2,129	173	1,956
Receivable between three and four years	1,779	70	1,709	1,365	111	1,254
Receivable between four and five years	770	15	755	696	91	605
Total future minimum lease payments receivable	11,149	840	10,309	8,750	746	8,004

The total of future minimum lease payments receivable under non-cancellable operating leases were:

	2022 £'000	2021 £'000
Receivable in less than one year	1,246	361
Receivable between one and four years	2,365	306
Total future minimum lease payments receivable	3,611	667

During the year, £1,184,000 (2021: £582,000) was recognised in Revenue from operating leases.

15. Cash and cash equivalents and bank deposits

We have always valued having cash in the bank to protect the Group from downturns and enable us to react swiftly to investment or market capture opportunities. We currently hold significant cash and bank deposits, which is mostly in the UK and spread across a number of banks with high credit ratings.

Accounting policy

Cash and cash equivalents comprise cash balances, and deposits with an original maturity of less than three months or with an original maturity date of more than three months where the deposit can be accessed on demand without significant penalty for early withdrawal and where the original deposit amount is recoverable in full.

Cash and cash equivalents

An analysis of cash and cash equivalents at the end of the year was:

	2022 £'000	2021 £'000
Bank balances and cash in hand	141,208	93,514
Short-term deposits	11,954	1,494
Balance at the end of the year	153,162	95,008

At 30 June 2021, the Company held a pension scheme escrow account amounting to £10,578,000 as part of the security given for the UK defined benefit pension scheme. Following agreement by the Company and Trustees in 2022 (see note 23), this amount is no longer subject to a registered floating charge, and is recognised in short-term deposits in cash and cash equivalents at 30 June 2022.

Bank deposits

Bank deposits at the end of the year amounted to £100,000,000 (2021: £120,000,000), of which £50,000,000 matured on 30 August 2022 and £50,000,000 is on a 90-day notice account.

Notes continued

16. Inventories

We have increased our inventories in the year, in line with increases in global demand and reflecting planned increases in certain component safety stock levels to mitigate global supply shortages, and remain committed to high customer delivery performance.

Accounting policy

Inventory and work in progress is valued at the lower of actual cost on a first-in, first-out (FIFO) basis and net realisable value. In respect of work in progress and finished goods, cost includes all production overheads and the attributable proportion of indirect overhead expenses that are required to bring inventories to their present location and condition. Overheads are absorbed into inventories on the basis of normal capacity or on actual hours if higher.

Key estimate – Determination of net realisable inventory value

Determining the net realisable value of inventory requires management to estimate future demand, especially in respect of provisioning for slow moving and potentially obsolete inventory. When calculating an inventory provision, management use historic usage levels (capped at 18 months), demand from customer orders and manufacturing build plans as a basis for estimating the future annual demand of individual stock items, except in the following instances:

- for key products and their components, provisions are typically made for quantities held in excess of three years' demand. A demand basis lower than three years is used for those key products and related components where the sales history is more volatile; and
- where strategic purchases of critical components have been made, an outlook beyond three years is considered where appropriate.

An analysis of inventories at the end of the year was:

	2022 £'000	2021 £'000
Raw materials	56,034	38,973
Work in progress	31,002	21,750
Finished goods	75,446	52,840
Balance at the end of the year	162,482	113,563

During the year, the amount of inventories recognised as an expense in the Consolidated income statement was £211,209,000 (2021: £177,963,000) and the amount of write-down of inventories recognised as an expense in the Consolidated income statement was £481,000 (2021: £269,000). At the end of the year, the gross cost of inventories which had provisions held against them totalled £17,520,000 (2021: £17,389,000).

17. Provisions

A provision is a liability recorded in the Consolidated balance sheet, where there is uncertainty over the timing or amount that will be paid, and is therefore often estimated. The main provisions we hold are in relation to warranties provided with the sale of our products.

Accounting policy

The Group provides a warranty from the date of purchase, except for those products that are installed by the Group where the warranty starts from the date of completion of the installation. This is typically for a 12-month period, although up to three years is given for a small number of products. A warranty provision is included in the Group financial statements, which is calculated on the basis of historical returns and internal quality reports.

Warranty provision movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	6,259	5,591
Created during the year	1,975	2,500
Unused amounts reversed	(1,688)	–
Utilised in the year	(2,302)	(1,832)
	(2,015)	668
Balance at the end of the year	4,244	6,259

The warranty provision has been calculated on the basis of historical return-in-warranty information and other internal reports. It is expected that most of this expenditure will be incurred in the next financial year and all expenditure will be incurred within three years of the balance sheet date.

Included within the warranty provision is £1,912,000 (2021: £4,200,000) where the warranty cost has been reassessed to be the cost of replacing certain AM machines where the business will not have the capability to honour the warranty on these machines going forward as a result of restructuring activities in 2020. As we will not have the ability to repair or maintain these machines, the warranty cost reflects the cost of replacing these machines. It was expected that these warranty costs would be incurred in 2021, however this is now expected to be in 2023. During 2022, a revised estimate of the number of machines we are more-likely-than-not to replace, in addition to a revision to the cost of replacement, resulted in a net reduction to this provision of £1,688,000.

18. Contract liabilities

Contract liabilities relate to where we have obligations to transfer goods or services to a customer, where we have already received consideration. Our balances mostly comprise advances received from customers and payments for services yet to be completed.

Balances at the end of the year were:

	2022 £'000	2021 £'000
Goods, capital equipment and installation	1,470	1,431
Aftermarket services	4,471	4,689
Deferred revenue	5,941	6,120
Advances received from customers	7,015	–
Balance at the end of the year	12,956	6,120

Advances received from customers have increased this year. As the balance at 30 June 2022 was material, we have included these within Contract liabilities. In previous years, they were included within Other payables, and amounted to £3,922,000 in 2021.

The aggregate amount of the transaction price allocated to performance obligations that are unsatisfied at the end of the year is £12,956,000 (2021: £6,120,000). Of this, £1,620,000 (2021: £1,682,000) is not expected to be recognised in the next financial year.

19. Other payables

Separate to our trade payables and contract liabilities, which directly relate to our trading activities, our Other payables mostly comprises amounts payable to employees, or relating to employees.

Balances at the end of the year were:

	2022 £'000	2021 £'000
Payroll taxes and social security	6,823	7,924
Performance bonuses	16,179	13,208
Holiday pay and retirement accruals	7,810	7,200
Indirect tax payable	1,762	200
Other creditors and accruals	19,375	23,184
Total other payables	51,949	51,716

Holiday pay accruals are based on a calculation of the number of days' holiday earned during the year, but not yet taken.

Other creditors and accruals includes £1,312,000 (2021: £3,365,000) of receivables in payable positions where there is no right of offset, and a number of other smaller accruals.

20. Leases (as lessee)

The Group leases mostly distribution properties and cars from third parties and recognises an associated lease liability for the total present value of payments the lease contracts commits us to.

Accounting policy

At the commencement date of a lease arrangement the Group recognises a right-of-use asset for the leased item and a lease liability for any payments due. Lease liabilities are initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the incremental borrowing rate of the applicable entity. The lease liability is subsequently measured at amortised cost using the effective interest method and is remeasured if there is a change in future lease payments arising from a change in an index or rate (such as an inflation-linked increase) or if there is a change in the Group's assessment of whether it will exercise an extension or termination option. When this happens there is a corresponding adjustment to the right-of-use asset. Where the Group enters into leases with a lease term of 12 months or less, these are treated as 'short-term' leases and are recognised on a straight-line basis as an expense in the Consolidated income statement. The same treatment applies to low-value assets, which are typically IT equipment and office equipment.

Lease liabilities are analysed as below:

	2022			
	Leasehold property £'000	Plant and equipment £'000	Motor vehicles £'000	Total £'000
Due in less than one year	2,916	33	930	3,879
Due between one and two years	1,857	18	523	2,398
Due between two and three years	805	10	278	1,093
Due between three and four years	624	9	78	711
Due between four and five years	553	3	7	563
Due in more than five years	3,611	–	–	3,611
Total future minimum lease payments payable	10,366	73	1,816	12,255
Effect of discounting	(1,993)	(1)	(81)	(2,075)
Lease liabilities	8,373	72	1,735	10,180

Notes continued

20. Leases (as lessee) (continued)

	Leasehold property £'000	Plant and equipment £'000	Motor vehicles £'000	Total £'000
2021				
Due in less than one year	3,022	42	1,110	4,174
Due between one and two years	2,497	15	591	3,103
Due between two and three years	1,638	9	249	1,896
Due between three and four years	728	5	55	788
Due between four and five years	571	4	1	576
Due in more than five years	5,026	–	–	5,026
Total future minimum lease payments payable	13,482	75	2,006	15,563
Effect of discounting	(2,936)	(2)	(63)	(3,001)
Lease liabilities	10,546	73	1,943	12,562

Lease liabilities are also presented as a £3,714,000 (2021: £3,904,000) current liability and a £6,466,000 (2021: £8,658,000) non-current liability in the Consolidated balance sheet.

Amounts recognised in the Consolidated income statement relating to leases were:

	2022 £'000	2021 £'000
Depreciation expense of right-of-use assets	4,205	4,463
Impairment of right-of-use assets	1,837	–
Derecognition of lease liabilities	(1,985)	–
Interest expense on lease liabilities	481	335
Expenses relating to short-term and low-value leases	51	139
Total expense recognised in the Consolidated income statement	4,589	4,937
Total cash outflows for leases	4,613	5,289

During the year we decided to withdraw from Russia, including moving out of a leased property by August 2022. We have therefore derecognised amounts relating to the leased property totalling £1,985,000, with a corresponding impairment to the right-of-use asset of £1,837,000. See note 30 for further detail.

21. Borrowings

The Group's only source of external borrowing is a fixed interest loan facility in our Japanese subsidiary, entered into to directly finance the purchase of a new distribution facility in Japan in 2019.

Third party borrowings at 30 June 2022 consist of a five year loan entered into on 31 May 2019 by Renishaw KK, with original principal of JPY 1,447,000,000 (£10,486,000). Principal of JPY 12,000,000 is repayable each month, with a fixed interest rate of 0.81% also paid on monthly accretion. The residual principal at 31 May 2024 of JPY 739,000,000 can either be repaid in full at that time, or extended for another five years. All covenants have been complied with during the year.

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	7,449	11,543
Additions	–	636
Interest	52	69
Repayments	(974)	(3,477)
Currency adjustment	(448)	(1,322)
Balance at the end of the year	6,079	7,449

Borrowings are also presented as a £919,000 (2021: £992,000) current liability and a £5,160,000 (2021: £6,457,000) non-current liability in the Consolidated balance sheet. Borrowings are held at amortised cost.

There is no significant difference between the book value and fair value of borrowings, which is estimated by discounting contractual future cash flows, which represents level 2 of the fair value hierarchy defined in note 25.

22. Changes in liabilities arising from financing activities

	1 July 2021	Cash flows	Other	Currency	30 June 2022
Lease liabilities	12,562	(4,081)	513	1,186	10,180
Borrowings	7,449	(974)	52	(448)	6,079
	20,011	(5,055)	565	738	16,259
	1 July 2020	Cash flows	Other	Currency	30 June 2021
Lease liabilities	13,166	(4,815)	4,815	(604)	12,562
Borrowings	11,543	(2,841)	69	(1,322)	7,449
	24,709	(7,656)	4,884	(1,926)	20,011

See notes 20 and 21 for further details on borrowing and leasing activities.

23. Employee benefits

The Group operates contributory pension schemes, largely for UK, Ireland and USA employees, which were of the defined benefit type up to 5 April 2007, 31 December 2007 and 30 June 2012 respectively, at which time they ceased any future accrual for existing members and were closed to new members. The Group's largest defined benefit scheme is in the UK.

Accounting policy

Defined benefit pension schemes are administered by trustees who are independent of the Group finances. Investment assets of the schemes are measured at fair value using the bid price of the unitised investments, quoted by the investment manager, at the reporting date. Pension scheme liabilities are measured using a projected unit method and discounted at the current rate of return on a high-quality corporate bond of equivalent term and currency to the liability. Remeasurements arising from defined benefit schemes comprise actuarial gains and losses, the return on scheme assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest). The Company recognises them immediately in Other comprehensive income and all other expenses related to defined benefit schemes are included in the Consolidated income statement.

The pension schemes' surpluses, to the extent that they are considered recoverable, or deficits are recognised in full and presented on the face of the Consolidated balance sheet under Employee benefits. Where a guarantee is in place in relation to a pension scheme deficit, liabilities are reported in accordance with IFRIC 14 'The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction'. To the extent that contributions payable will not be available as a refund after they are paid into the plan, a liability is recognised at the point the obligation arises, which is the point at which the minimum funding guarantee is agreed. Overseas-based employees are covered by a combination of state, defined benefit and private pension schemes in their countries of residence. Actuarial valuations of overseas pension schemes were not obtained, apart from Ireland and USA, because of the low number of members.

For defined contribution schemes, the amount charged to the Consolidated income statement represents the contributions payable to the schemes in respect of the accounting period.

Key estimate – Valuation of defined benefit pension schemes' liabilities

Determining the value of the future defined benefit obligation requires estimation in respect of the assumptions used to determine the present values. These include future mortality, discount rate and inflation. Management makes these estimates in consultation with independent actuaries.

The total pension cost of the Group for the year was £21,988,000 (2021: £19,759,000), of which £121,000 (2021: £111,000) related to Directors and £5,292,000 (2021: £5,256,000) related to overseas schemes.

The latest full actuarial valuation of the UK defined benefit pension scheme was carried out as at 30 September 2021 and updated to 30 June 2022 by a qualified independent actuary. The mortality assumption used for 2022 is the S3PxA base tables and CMI 2021 model, with long-term improvements of 1% per annum. Adjustments have been made to both the core base tables and CMI 2021 model to allow for the scheme's membership profile and best estimate assumptions of future mortality improvements.

Major assumptions used by actuaries for the UK, Ireland and US schemes were:

	30 June 2022			30 June 2021		
	UK scheme	Ireland scheme	US scheme	UK scheme	Ireland scheme	US scheme
Rate of increase in pension payments	3.05%	2.45%	–	3.10%	1.70%	–
Lump sum – assumed settlement rate	–	–	4.50%	–	–	0.75%
Discount rate	3.60%	3.20%	4.50%	1.85%	1.10%	2.85%
Inflation rate (RPI)	3.10%	2.45%	–	3.20%	1.70%	–
	2.10% pre-2030			2.20% pre-2030		
Inflation rate (CPI)	3.10% post-2030	–	–	3.10% post-2030	–	–
Retirement age	64	65	65	64	65	65

The life expectancies for the UK scheme implied by the mortality assumption at age 65 and 45 are:

	2022 years	2021 years
Male currently aged 65	21.5	22.0
Female currently aged 65	23.8	23.9
Male currently aged 45	22.2	22.7
Female currently aged 45	24.7	24.9

The weighted average duration of the UK defined benefit obligation is around 22 years.

Notes continued

23. Employee benefits (continued)

The assets and liabilities in the defined benefit pension schemes were:

	30 June 2022 £'000	% of total assets	30 June 2021 £'000	% of total assets
Market value of assets:				
Equities	111,025	51	140,717	61
Multi-asset funds	82,442	38	63,017	27
Credit and fixed income funds	19,489	9	18,833	8
Fixed interest gilts	1,502	1	1,457	1
Index linked gilts	1,489	1	1,843	1
Property	–	–	802	–
Cash and other	802	–	4,686	2
	216,749	100	231,355	100
Actuarial value of liabilities	(174,504)	–	(255,053)	–
Surplus/(deficit) in the schemes	42,245	–	(23,698)	–
Deferred tax thereon	(11,048)	–	4,347	–

Note C.41 gives the analysis of the UK defined benefit pension scheme. For the other schemes, the market value of assets at the end of the year was £22,888,000 (2021: £26,396,000) and the actuarial value of liabilities was £20,973,000 (2021: £30,930,000). The UK and US schemes were both in net surplus positions at 30 June 2022 (2021: both net deficit positions), totalling £43,241,000, and are therefore presented in non-current assets in the Consolidated balance sheet. The Ireland scheme was in a net deficit position at 30 June 2022 (2021: net deficit position), totalling £996,000, and is therefore presented in non-current liabilities.

Equities are held in externally-managed funds and primarily relate to UK and US equities. Credit and fixed income funds, fixed interest gilts, and index linked gilts relate to UK, US and Eurozone government-linked securities, again held in externally-managed funds. The fair values of these equity and fixed income instruments are determined using the bid price of the unlisted investments, quoted by the investment manager, at the reporting date and therefore represent 'Level 2' of the fair value hierarchy defined in note 25. Multi-asset funds are also held in externally-managed funds, with active asset allocation to diversify growth across asset classes such as equities, bonds and money-market instruments. The fair value of these funds is determined on a comparable basis to the equity and fixed income funds, and therefore are also 'Level 2' assets.

The UK scheme is closed for future accrual and is expected to mature over the coming years, and therefore while the focus of the investment strategy remains on growth the trustees are gradually de-risking the investment portfolio when appropriate.

The agreed target investment strategy for the UK scheme as at 30 June 2022 was to hold 54% of investment assets in equities, 30% in diversified growth funds, 10% in multi-asset credit and 6% in defensive fixed income (government and corporate bonds). Contributions over the year were predominantly invested in multi-asset credit, which in combination with a disinvestment from equities has brought the mandate up to the target allocation of 10% of assets. Post 30 June 2022, the Trustees and Company have agreed to disinvest 10% of assets from the diversified growth fund allocation, with a view to making a new investment into a Liability Driven Investment mandate that looks to hedge the sensitivities of the liabilities to interest rates and inflation, thereby reducing the volatility of the funding position. No scheme assets are directly invested in the Group's own equity.

The movements in the schemes' assets and liabilities were:

	Assets £'000	Liabilities £'000	Total £'000
Year ended 30 June 2022			
Balance at the beginning of the year	231,355	(255,053)	(23,698)
Contributions paid	8,866	–	8,866
Interest on pension schemes	4,337	(4,643)	(306)
Remeasurement loss from augmentation of members' benefits	–	(11,695)	(11,695)
Remeasurement gain/(loss) under IAS 19, the asset ceiling and IFRIC 14	(17,264)	86,342	69,078
Benefits paid	(10,545)	10,545	–
Balance at the end of the year	216,749	(174,504)	42,245
Year ended 30 June 2021			
Balance at the beginning of the year	188,619	(253,514)	(64,895)
Contributions paid	8,866	–	8,866
Interest on pension schemes	2,933	(3,809)	(876)
Remeasurement loss from GMP equalisation	–	(78)	(78)
Remeasurement gain/(loss) under IAS 19, the asset ceiling and IFRIC 14	36,824	(3,539)	33,285
Benefits paid	(5,887)	5,887	–
Balance at the end of the year	231,355	(255,053)	(23,698)

23. Employee benefits (continued)

The analysis of the amount recognised in the Consolidated statement of comprehensive income and expense was:

	2022 £'000	2021 £'000
Actuarial gain/(loss) arising from:		
Changes in demographic assumptions	3,860	(2,669)
Changes in financial assumptions	67,442	4,643
Experience adjustment	(7,818)	2,631
Adjustment related to the application of revaluation and late retirement factors	–	14,300
Return on plan assets excluding interest income	(17,264)	36,823
Adjustment for the asset ceiling	3,280	(3,280)
Adjustment to liabilities for IFRIC 14	19,578	(19,163)
Total amount recognised in the Consolidated statement of comprehensive income and expense	69,078	33,285

The cumulative amount of actuarial gains and losses recognised in the Consolidated statement of comprehensive income and expense was a loss of £22,419,000 (2021: loss of £91,497,000).

The net surplus of the Group's defined benefit pension schemes, on an IAS 19 basis, has increased from a £23,698,000 liability at 30 June 2021 to a £42,245,000 asset at 30 June 2022, primarily reflecting the net effect of:

- an increase in the discount rates of the UK and Irish schemes, based on increases in corporate bond yields;
- changes to the UK scheme rules which allows recognition of a surplus position; and
- an adjustment for changes in the UK scheme rules relating to members' benefits, which is discussed further below.

For the UK scheme, the latest actuarial report prepared in September 2021 shows a deficit of £52,800,000, which is based on funding to self-sufficiency and uses prudent assumptions. IAS 19 requires best estimate assumptions to be used, resulting in the IAS 19 net surplus being higher than the actuarial deficit.

For the UK defined benefit scheme, a guide to the sensitivity of the value of the respective liabilities is as follows:

	Variation	Approximate effect on liabilities
UK – discount rate	Increase/decrease by 0.5%	-£12.9m/+£14.6m
UK – future inflation	Increase/decrease by 0.5%	+£11.5m/-£11.3m
UK – mortality	Increased/decreased life by one year	+£5.9m/-£5.9m

In October 2020, the Trustees of the Renishaw Pension Fund ('the UK defined benefit scheme') notified the Company of a difference between the calculated estimate of liabilities in the scheme for administration purposes and for accounting purposes. Specifically, this discrepancy related to the application of revaluation and early and late retirement factors. In May 2021, following joint instruction from the Trustees and Company, a Queen's Counsel (QC) opinion was given on the correct interpretation of the Trust Deed and Rules of the Fund in relation to this matter. The most significant part of QC's opinion was that no revaluation increases should be applied between ages 60 and 65 (or earlier retirement). The 2021 financial statements reflected the impact that would arise from correcting the benefits in payment and the valuation of future benefits to be in line with QC's opinion, with a gain of £14,300,000 recognised in the Consolidated statement of comprehensive income and expense.

In 2022, the Company agreed to an augmentation of members' benefits to reflect current and historic administrative revaluation practice. The augmentation is a change to the benefits provided in the UK scheme, which has been effected in the Rules through a Deed of Amendment to the Trust Deed and Rules, signed by the Trustees and Company on 20 June 2022. The impact on liabilities of this plan amendment, totalling £11,695,000, has been recognised as a past service cost in the Consolidated income statement. This amount has been excluded from adjusted profit measures, see note 29 for further detail.

The deficit funding plan for the UK defined benefit pension scheme is unaffected by the changes to the Rules. Under the plan, the Company is paying £8,700,000 per annum into the scheme for five years with effect from 1 October 2018. However, the Deed of Amendment granted the Company the unconditional right to a refund of any surplus on wind-up of the UK scheme. IFRIC 14 is an interpretation of IAS 19 which requires consideration of minimum funding commitments a company has made to its pension scheme and whether this gives rise to additional liabilities. In particular, whether a company has an unconditional right to a refund of surplus from a scheme dictates whether there is an impact on the accounting. As a result of the change to the Rules to allow recognition of a surplus, a gain of £3,280,000 has been recognised in the year in respect of the removal of the asset ceiling restriction in place in 2021, and a gain of £19,578,000 recognised in respect of not needing to recognise an additional liability in consideration of minimum funding considerations.

The Company and Trustees also agreed reductions to the charges the scheme has on the Company's assets. An escrow bank account with a balance of £10,578,000 at 30 June 2021 is no longer subject to a registered floating charge, while the number of UK properties owned by the Company subject to registered fixed charges has decreased. The net book value of properties subject to fixed charges at 30 June 2022 was £54,208,000 (2021: £81,679,000).

Notes continued

23. Employee benefits (continued)

The current agreement will continue until 30 June 2031 and any outstanding deficit paid at that time. The agreement will end sooner if the actuarial deficit (calculated on a self-sufficiency basis) is eliminated in the meantime.

The charges may be enforced by the Trustees if one of the following occurs: (a) the Company does not pay funds into the scheme in line with the agreed plan; (b) an insolvency event occurs in relation to the Company; or (c) the Company does not pay any deficit at 30 June 2031.

Under the Ireland defined benefit pension scheme deficit funding plan, a property owned by Renishaw Ireland (DAC) is subject to a registered fixed charge to secure the Ireland defined benefit pension scheme's deficit.

24. Share-based payments

The Group provides share-based payment arrangements to certain employees in accordance with the Renishaw plc deferred annual equity incentive plan. The Governance section provides information of how these awards are determined.

Accounting policy

Renishaw shares are granted in accordance with the Renishaw plc deferred annual equity incentive plan (the Plan). The share awards are subject only to continuing service of the employee and are equity settled. The fair value of the awards at the date of grant, which is estimated to be equal to the market value, is charged to the Consolidated income statement on a straight-line basis over a three-year vesting period, with appropriate adjustments made to reflect expected or actual forfeitures. The corresponding credit is to Other reserve.

The number of shares to be awarded is calculated by dividing the relevant amount of annual bonus under the Plan by the average price of a share during a period determined by the Remuneration Committee of not more than five dealing days ending with the dealing day before the award date. These shares must be purchased on the open market and cannot be satisfied by issuance of new shares or transfer of existing treasury shares.

The Renishaw Employee Benefit Trust (EBT) is responsible for purchasing shares on the open market on behalf of the Company to satisfy the Plan awards. These are held by the EBT until transferring to the employee, which will normally be on the third anniversary of the award date, subject to continued employment. Malus and clawback provisions can be operated by the Committee within five years of the award date. During the vesting period, no dividends are payable on the shares. However, upon vesting, employees will be entitled to additional shares or cash, equivalent to the value of dividends paid on the awarded shares during this period. This amount is accrued over the vesting period.

Own shares held are recognised as an element in equity until they are transferred at the end of the vesting period, and such shares are excluded from earnings per share calculations.

The total cost recognised in the 2022 Consolidated income statement in respect of the Plan was £180,000 (2021: £173,000). See note 26 for reconciliations of amounts recognised in Equity.

In accordance with the Plan, amounts equivalent to £1,915,000 (2021: £734,317) of shares are to be awarded in respect of 2022.

See the Directors' Remuneration Report for further details of the Plan and awards granted.

25. Financial instruments

The Group has exposure to credit risk, liquidity risk and market risk arising from its use of financial instruments. This note presents information about the Group's exposure to these risks, along with the Group's objectives, policies and processes for measuring and managing the risks.

Accounting policy

The Group measures financial instruments such as forward exchange contracts at fair value at each balance sheet date in accordance with IFRS 9 'Financial Instruments'. Fair value, as defined by IFRS 13 'Fair Value Measurement', is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This note provides detail on the IFRS 13 fair value hierarchy.

Trade and other current receivables are initially recognised at fair value and are subsequently held at amortised cost less any provision for bad and doubtful debts and expected credit losses according to IFRS 9. Loans to associates and joint ventures are initially recognised at fair value and are subsequently held at amortised cost. Trade and other current payables are initially recognised at fair value and are subsequently held at amortised cost.

Financial liabilities in the form of loans are initially recognised at fair value and are subsequently held at amortised cost. Financial liabilities are assessed for embedded derivatives and whether any such derivatives are closely related. If not closely related, such derivatives are accounted for at fair value in the Consolidated income statement.

25. Financial instruments (continued)

Foreign currency derivatives are used to manage risks arising from changes in foreign currency rates relating to overseas sales and foreign currency-denominated assets and liabilities. The Group does not enter into derivatives for speculative purposes. Foreign currency derivatives are stated at their fair value, being the estimated amount that the Group would pay or receive to terminate them at the balance sheet date, based on prevailing foreign currency rates.

Changes in the fair value of foreign currency derivatives which are designated and effective as hedges of future cash flows are recognised in Other comprehensive income and in the Cash flow hedging reserve, and subsequently transferred to the carrying amount of the hedged item or the Consolidated income statement. Realised gains or losses on cash flow hedges are therefore recognised in the Consolidated income statement within revenue in the same period as the hedged item.

Hedge accounting is discontinued when the hedging instrument expires or when the hedging instrument or hedged item no longer qualify for hedge accounting. If the forecast transaction is still expected to occur, but is no longer highly probable, the cumulative gain or loss in the cash flow hedge reserve remains in that reserve until the transaction occurs. If the forecast transaction is no longer expected to occur, the cumulative gain or loss in the cash flow hedge reserve is immediately reclassified to the Consolidated income statement.

Changes in fair value of foreign currency derivatives, which are ineffective or do not meet the criteria for hedge accounting in IFRS 9, are recognised in the Consolidated income statement within Gains/losses from the fair value of financial instruments.

In addition to derivatives held for cash flow hedging purposes, the Group uses short-term derivatives not designated as hedging instruments to offset gains and losses from exchange rate movements on foreign currency-denominated assets and liabilities. Gains and losses from currency movements on underlying assets and liabilities, realised gains and losses on these derivatives, and fair value gains and losses on outstanding derivatives of this nature are all recognised in Financial income and expenses in the Consolidated income statement.

Key estimate – Estimates of highly probable forecasts of the hedged item

Derivatives are effective for hedge accounting to the extent that the hedged item is 'highly probable' to occur, with 'highly probable' indicating a much greater likelihood of occurrence than the term 'more likely than not'. Determining a highly probable sales forecast for Renishaw plc and Renishaw UK Sales Limited, being the hedged item, over a multiple year time period, requires judgement of the suitability of external and internal data sources and estimations of future sales.

Fair value

There is no significant difference between the fair value of financial assets and financial liabilities and their carrying value in the Consolidated balance sheet. All financial assets and liabilities are held at amortised cost, apart from the forward foreign currency exchange contracts, which are held at fair value, with changes going through the Consolidated income statement unless subject to hedge accounting.

The fair values of the forward foreign currency exchange contracts have been calculated by a third-party expert, discounting estimated future cash flows on the basis of market expectations of future exchange rates, representing level 2 in the IFRS 13 fair value hierarchy. The IFRS 13 level categorisation relates to the extent the fair value can be determined by reference to comparable market values. The classifications are: level 1 where instruments are quoted on an active market; level 2 where the assumptions used to arrive at fair value have comparable market data; and level 3 where the assumptions used to arrive at fair value do not have comparable market data.

Credit risk

The Group's liquid funds are substantially held with banks with high credit ratings and the credit risk relating to these funds is therefore limited. The Group carries a credit risk relating to non-payment of trade receivables by its customers. The Group's policy is that credit evaluations are carried out on all new customers before credit is given above certain thresholds. There is a spread of risks among a large number of customers with no significant concentration with one customer or in any one geographical area. The Group establishes an allowance for impairment in respect of trade receivables where recoverability is considered doubtful.

An analysis by currency of the Group's financial assets at the year end is as follows:

Currency	Trade & finance lease receivables		Other receivables		Cash and bank deposits	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Pound Sterling	21,391	16,915	19,565	23,752	201,668	174,905
US Dollar	45,433	39,603	867	815	13,965	9,511
Euro	28,314	23,476	1,568	1,144	8,712	8,118
Japanese Yen	19,480	16,568	457	173	5,720	3,786
Other	23,242	26,103	4,611	4,137	23,097	18,688
	137,860	122,665	27,068	30,021	253,162	215,008

Short-term loans to associates and joint ventures and contract assets are mostly denominated in Pound Sterling.

Notes continued

25. Financial instruments (continued)

The above trade receivables, finance lease receivables, other receivables and cash are predominately held in the functional currency of the relevant entity, with the exception of £21,271,000 of US Dollar-denominated trade receivables being held in Renishaw (Hong Kong) Limited and £1,852,000 of Euro-denominated trade receivables being held in Renishaw UK Sales Limited, along with some foreign currency cash balances which are of a short-term nature.

The ageing of trade receivables past due at the end of the year was:

	2022 £'000	2021 £'000
Past due zero to one month	9,548	10,537
Past due one to two months	3,879	2,704
Past due more than two months	5,252	6,283
Balance at the end of the year	18,679	19,524

Movements in the provision for impairment of trade receivables during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	3,826	5,965
Changes in amounts provided	(834)	(1,994)
Amounts used	(452)	(145)
Balance at the end of the year	2,540	3,826

The Group applies the simplified approach when measuring the expected credit loss for trade receivables, with a provision matrix used to determine a lifetime expected credit loss.

For this provision matrix, trade receivables are grouped into credit risk categories, with category 1 being the lowest risk and category 5 the highest. Risk scores are allocated to the customer's country of operation, their type (such as distributor, end-user and OEM), their industry and the proportion of their debt that was past due at the year-end. These scores are then weighted to produce an overall risk score for the customer, with the lowest scores being allocated to category 1 and the highest scores to category 5. The matrix then applies an expected credit loss rate to each category, with this rate being determined by adjusting the Group's historic credit loss rates to reflect forward-looking information.

Where certain customers have been identified as having a significantly elevated credit risk these have been provided for on a specific basis. Both elements of expected credit loss are shown in the matrix below and have been shown separately so as not to distort the expected credit loss rate.

Year ended 30 June 2022	Risk category 1 £'000	Risk category 2 £'000	Risk category 3 £'000	Risk category 4 £'000	Risk category 5 £'000	2022 Total £'000
Gross trade receivables	2,742	51,598	70,298	5,453	–	130,091
Expected credit loss rate	0.19%	0.20%	0.22%	0.24%	–	0.21%
Expected credit loss allowance	5	104	154	13	–	276
Specific loss allowance	–	–	1,502	762	–	2,264
Total expected credit loss	5	104	1,656	775	–	2,540
Net trade receivables	2,737	51,494	68,642	4,678	–	127,551
Year ended 30 June 2021	Risk category 1 £'000	Risk category 2 £'000	Risk category 3 £'000	Risk category 4 £'000	Risk category 5 £'000	2021 Total £'000
Gross trade receivables	9,154	38,759	65,870	3,806	898	118,487
Expected credit loss rate	0.28%	0.31%	0.31%	0.36%	0.39%	0.31%
Expected credit loss allowance	26	119	205	14	3	367
Specific loss allowance	–	–	2,080	1,138	241	3,459
Total expected credit loss	26	119	2,285	1,152	244	3,826
Net trade receivables	9,128	38,640	63,585	2,654	654	114,661

Finance lease receivables are subject to the same approach as noted above for trade receivables, while contracts assets and short-term loans to associates and joint ventures are not material to the Group.

Derivative assets are assessed based on the credit risk of the banks counterparty to the forward contracts.

Other receivables include mostly prepayments, a proportion of the R&D tax credit receivable, and indirect tax receivables. Prepayment balances are reviewed at each reporting period to confirm that prepaid goods or services are still expected to be received, while tax balances are reviewed for recoverability.

25. Financial instruments (continued)

Other receivables at the year end comprised:

	2022 £'000	2021 £'000
Indirect tax receivable	9,010	7,458
Software maintenance	7,430	4,917
Grants	1,250	624
R&D tax credit recoverable	442	8,352
Other prepayments	8,936	8,670
Total other receivables	27,068	30,021

The total R&D tax credit recoverable has reduced from £8,352,000 at 30 June 2021 to £4,337,000 at 30 June 2022. As the Company can now offset the tax credit against its corporation tax liability, £3,895,000 of the total balance at 30 June 2022 has been recognised in current tax assets, with £442,000 remaining in Other receivables at 30 June 2022.

The maximum exposure to credit risk is £425,211,000 (2021: £389,817,000), comprising the Group's trade, finance and other receivables, cash and cash equivalents and derivative assets.

The maturities of non-current other receivables, being only derivatives, at the year end were:

	2022 £'000	2021 £'000
Receivable between one and two years	–	12,484
Receivable between two and five years	–	–
	–	12,484

Liquidity risk

Our approach to managing liquidity is to ensure, as far as possible, that we will always have sufficient liquidity to meet our liabilities when due, without incurring unacceptable losses or risking damage to the Group's reputation. We use monthly cash flow forecasts on a rolling 12-month basis to monitor cash requirements.

With net cash and bank deposits at 30 June 2022 totalling £253,162,000, an increase of £38,154,000 from 30 June 2021, the Group's liquidity has improved in the period.

In respect of net cash and bank deposits, the carrying value is materially the same as fair value because of the short maturity of the bank deposits. Bank deposits are affected by interest rates that are either fixed or floating, which can change over time, affecting the Group's interest income. An increase of 1% in interest rates would result in an increase in interest income of approximately £1,000,000.

The contractual maturities of financial liabilities at the year end were:

Year ended 30 June 2022	Carrying amount £'000	Effect of discounting £'000	Gross maturities £'000	Contractual cash flows		
				Up to 1 year £'000	1–2 years £'000	2–5 years £'000
Trade payables	30,947	–	30,947	30,947	–	–
Other payables	51,949	–	51,949	51,949	–	–
Borrowings	6,079	82	6,161	926	5,235	–
Forward exchange contracts	27,353	–	27,353	17,890	9,463	–
	116,328	82	116,410	101,712	14,698	–

Year ended 30 June 2021	Carrying amount £'000	Effect of discounting £'000	Gross maturities £'000	Contractual cash flows		
				Up to 1 year £'000	1–2 years £'000	2–5 years £'000
Trade payables	24,715	–	24,715	24,715	–	–
Other payables	51,716	–	51,716	51,716	–	–
Borrowings	7,449	144	7,593	992	6,601	–
Forward exchange contracts	5,949	–	5,949	5,594	355	–
	89,829	144	89,973	83,017	6,956	–

Notes continued

25. Financial instruments (continued)

Market risk

As noted in the Strategic Report under Principal risks and uncertainties, the Group operates in a number of foreign currencies with the majority of sales being made in these non-Sterling currencies, but with most manufacturing being undertaken in the UK, Ireland and India.

A large proportion of sales are made in US Dollar, Euro and Japanese Yen, therefore the Group enters into US Dollar, Euro and Japanese Yen derivative financial instruments to manage its exposure to foreign currency risk, including:

- i. forward foreign currency exchange contracts to hedge a significant proportion of the Group's forecasted US Dollar, Euro and Japanese Yen revenues over the next 24 months;
- ii. foreign currency option contracts, entered into alongside the forward contracts above until May 2018 as part of the Group hedging strategy, are ineffective for cash flow hedging purposes. Note 29, 'Alternative performance measures', gives an adjusted measure of profit before tax to reflect the original intention that these derivatives were entered into for hedging purposes. The final option contract matured in November 2021; and
- iii. one-month forward foreign currency exchange contracts to offset the gains/losses from exchange rate movements arising from foreign currency-denominated intragroup balances of the Company.

The amounts of foreign currencies relating to these forward contracts and options are, in Sterling terms:

	2022		2021	
	Nominal value £'000	Fair value £'000	Nominal value £'000	Fair value £'000
US Dollar	306,270	(26,249)	399,065	4,192
Euro	129,799	1,711	146,120	6,040
Japanese Yen	37,941	4,306	68,938	5,942
	474,010	(20,232)	614,123	16,174

The following are the exchange rates which have been applicable during the financial year:

Currency	2022		2021			
	Average forward contract rate	Year end exchange rate	Average exchange rate	Average forward contract rate	Year end exchange rate	Average exchange rate
US Dollar	1.34	1.22	1.33	1.37	1.38	1.36
Euro	1.12	1.16	1.18	1.09	1.17	1.14
Japanese Yen	132	165	156	136	154	145

Hedging

In relation to the forward currency contracts in a designated cash flow hedge, the hedged item is a layer component of forecast sales transactions. Forecast transactions are deemed highly probable to occur and Group policy is to hedge around 75% of net foreign currency exposure for USD, EUR and JPY. The hedged item creates an exposure to receive USD, EUR or JPY, while the forward contract is to sell USD, EUR or JPY and buy GBP. Therefore, there is a strong economic relationship between the hedging instrument and the hedged item. The hedge ratio is 100%, such that, by way of example, £10m nominal value of forward currency contracts are used to hedge £10m of forecast sales. Fair value gains or losses on the forward currency contracts are offset by foreign currency gain or losses on the translation of USD, EUR and JPY based sales revenue, relative to the forward rate at the date the forward contracts were arranged. Foreign currency exposures in HKD and USD are aggregated and only USD forward currency contracts are used to hedge these currency exposures. Sources of hedge ineffectiveness according to IFRS 9 Financial Instruments include: changes in timing of the hedged item; reduction in the amount of the hedged sales considered to be highly probable; a change in the credit risk of Renishaw or the bank counterparty to the forward contract; and differences in assumptions used in calculating fair value.

During 2020, global macroeconomic uncertainty resulted in a reduction to the 'highly probable' revenue forecasts of Renishaw plc and Renishaw UK Sales Limited, being the hedged item, which resulted in proportions of forward contracts failing hedge effectiveness testing, with nominal value amounting to £247,547,000. Following maturities during 2021 and 2022, the remaining nominal value of ineffective forward contracts at 30 June 2022 totalled £63,045,000 (2021: £153,585,000), with fair value losses of £11,551,000 (2021: £22,824,000 gain) recognised in the Consolidated income statement relating to movements in the mark-to-market valuations of these outstanding contracts.

In 2021 and 2022, improvements in global macroeconomic conditions and business performance have resulted in subsequent increases to the 'highly probable' revenue forecasts of the hedged item, such that no additional contracts have become ineffective. A decrease of 10% in the highly probable forecasts would result in no additional forward contracts becoming ineffective.

25. Financial instruments (continued)

For both the Group and the Company, the following table details the fair value of these forward foreign currency derivatives according to the categorisations of instruments noted on page 162:

	2022		2021	
	Nominal value £'000	Fair value £'000	Nominal value £'000	Fair value £'000
Forward currency contracts in a designated cash flow hedge (i)				
Non-current derivative assets	–	–	172,165	9,865
Current derivative assets	77,460	7,077	127,548	7,512
Current derivative liabilities	128,950	(12,046)	74,652	(3,063)
Non-current derivative liabilities	179,149	(9,463)	34,245	(322)
	385,559	(14,432)	408,610	13,992
Amounts recognised in the Consolidated statement of comprehensive income and expense	–	28,423	–	51,590
Forward currency contracts ineffective as a cash flow hedge (i)				
Non-current derivative assets	–	–	56,357	2,619
Current derivative assets	–	–	31,011	428
Current derivative liabilities	63,045	(5,504)	59,529	(1,653)
Non-current derivative liabilities	–	–	6,687	(33)
	63,045	(5,504)	153,585	1,361
Amounts recognised in Gains/(losses) from the fair value of financial instruments in the Consolidated income statement	–	(11,551)	–	22,824
Foreign currency options ineffective as a cash flow hedge (ii)				
Non-current derivative assets	–	–	–	–
Current derivative assets	–	–	–	1,699
Current derivative liabilities	–	–	–	(216)
Non-current derivative liabilities	–	–	–	–
	–	–	–	1,483
Amounts recognised in Gains/(losses) from the fair value of financial instruments in the Consolidated income statement	–	1,138	–	(846)
Forward currency contracts not in a designated cash flow hedge (iii)				
Current derivative assets	4,880	44	–	–
Current derivative liabilities	20,526	(340)	51,929	(662)
	25,406	(296)	51,929	(662)
Amounts recognised in Financial income/(expense) in the Consolidated income statement	–	98	–	2,781
Total forward contracts and options				
Non-current derivative assets	–	–	228,522	12,484
Current derivative assets	82,340	7,121	158,559	9,639
Current derivative liabilities	212,521	(17,890)	186,110	(5,594)
Non-current derivative liabilities	179,149	(9,463)	40,932	(355)
	474,010	(20,232)	614,123	16,174

For the Group's foreign currency forward contracts at the balance sheet date, if Sterling appreciated by 5% against the US Dollar, Euro and Japanese Yen, this would increase pre-tax equity by £18,360,000 and increase profit before tax by £4,212,000, while a depreciation of 5% would decrease pre-tax equity by £20,293,000 and decrease profit before tax by £4,655,000.

Notes continued

26. Share capital and reserves

The Group defines capital as being the equity attributable to the owners of the Company, which is captioned on the Consolidated balance sheet. The Board's policy is to maintain a strong capital base and to maintain a balance between significant returns to shareholders, with a progressive dividend policy, while ensuring the security of the Group is supported by a sound capital position. The Group may adjust dividend payments due to changes in economic and market conditions which affect, or are anticipated to affect, Group results. This note presents figures relating to this capital management, along with an analysis of all elements of Equity attributable to shareholders and non-controlling interests.

Share capital

	2022 £'000	2021 £'000
Allotted, called-up and fully paid 72,788,543 ordinary shares of 20p each	14,558	14,558

The ordinary shares are the only class of share in the Company. Holders of ordinary shares are entitled to vote at general meetings of the Company and receive dividends as declared. The Articles of Association of the Company do not contain any restrictions on the transfer of shares nor on voting rights.

Dividends paid

Dividends paid comprised:

	2022 £'000	2021 £'000
2021 final dividend paid of 52.0p per share (2020: nil)	37,850	–
Interim dividend paid of 16.0p per share (2021: 14.0p)	11,644	10,189
Total dividends paid	49,494	10,189

A final dividend of 56.6p per share is proposed in respect of 2022, which will be payable on 5 December 2022 to shareholders on the register on 4 November 2022.

Own shares held

The EBT is responsible for purchasing shares on the open market on behalf of the Company to satisfy the Plan awards, see note 24 for further detail. Own shares held are recognised as an element in equity until they are transferred at the end of the vesting period.

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	(404)	(404)
Disposal of own shares on vesting of awards	404	–
Acquisition of own shares	(750)	–
Balance at the end of the year	(750)	(404)

On 10 December 2018, 9,639 shares were purchased on the open market by the EBT at a price of £41.66, costing a total of £404,348. The fair value of these awards at the grant date, being 2 August 2018, was £519,542. These shares vested during the period on 2 August 2021 with no forfeitures.

On 25 November 2021, 14,396 shares were purchased on the open market by the EBT at a price of £52.10, costing a total of £750,017. The fair value of these awards at the grant date, being 28 October 2021, was £734,317. These shares will vest on 28 October 2024, with no forfeitures expected at 30 June 2022.

Other reserve

The other reserve relates to additional investments in subsidiary undertakings and share-based payments charges according to IFRS 2 in relation to the Plan.

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	44	(129)
Share-based payments charge in respect of shares vesting in 2022	16	–
Transfer of own shares on vesting of awards	(404)	–
Share-based payments charge in respect of shares vesting in 2024	164	173
Balance at the end of the year	(180)	44

Further explanations for these movements can be found in the above Own shares held section and note 24.

26. Share capital and reserves (continued)

Currency translation reserve

The currency translation reserve comprises all foreign exchange differences arising from the translation of the financial statements of the overseas operations and currency movements on intragroup loan balances classified as net investments in overseas operations.

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	3,719	17,729
Gain/(loss) on net assets of foreign currency operations	3,529	(7,009)
Transfer of accumulated loss relating to net assets of Russian operation	575	–
Gain/(loss) on intragroup loans classified as net investments in foreign operations	8,047	(7,743)
Tax on translation of net investments in foreign operations	(1,529)	1,470
Gain/(loss) in the year relating to subsidiaries	10,622	(13,282)
Currency exchange differences relating to associates and joint ventures	118	(728)
Balance at the end of the year	14,459	3,719

See notes 5 and 30 for further information on intragroup loans classified as net investments and the cessation of activities in Russia.

Cash flow hedging reserve

The cash flow hedging reserve, for both the Group and the Company, comprises all foreign exchange differences arising from the valuation of forward exchange contracts which are effective hedges and mature after the year end. These are valued on a mark-to-market basis, are accounted for in Other comprehensive income and expense and accumulated in Equity, and are recycled through the Consolidated income statement and Company income statement when the hedged item affects the income statement, or when the hedging relationship ceases to be effective. See note 25 for further detail.

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	11,345	(30,455)
Losses on contract maturity recognised in revenue during the year	(3,385)	(608)
Revaluations during the year	(25,038)	52,198
Deferred tax movement	6,155	(9,790)
Balance at the end of the year	(10,923)	11,345

Non-controlling interest

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	(577)	(577)
Share of profit for the year	–	–
Balance at the end of the year	(577)	(577)

The non-controlling interest represents the minority shareholdings in Renishaw Diagnostics Limited – 7.6%.

27. Capital commitments

At the end of a financial year, we typically have obligations to make payments in the future, for which no provision is made in the financial statements. This year, we have committed to the expansion of one of our production facilities in Wales, UK, which is expected to cost around £64m over the next three years.

Authorised and committed capital expenditure at the end of the year were:

	2022 £'000	2021 £'000
Freehold land and buildings	65,328	412
Plant and equipment	22,760	3,255
Motor vehicles	319	79
Software licences and intellectual property	–	68
Total committed capital expenditure	88,407	3,814

Notes continued

28. Related parties

We report our two joint venture companies, RLS Merilna tehnika d.o.o. and Metrology Software Products Limited, as related parties. A previous associate company, HiETA Technologies Limited, was entirely sold to a third party during the year.

Associates, joint ventures and other related parties had the following transactions and balances with the Group:

	Joint ventures		Associate	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Purchased goods and services from the Group during the year	553	711	711	642
Sold goods and services to the Group during the year	29,355	22,175	–	–
Paid dividends to the Group during the year	525	–	–	–
Amounts owed to the Group at the year end	1	146	–	2,747
Amounts owed by the Group at the year end	3,950	2,556	–	–
Loans owed to the Group at the year end	350	598	–	–

There were no bad debts relating to related parties written off during 2022. Loans and finance leases owed to the Group by an associate totalling £3,030,000 were impaired in 2021.

By virtue of their long-standing voting agreement, Sir David McMurtry (Executive Chairman 36.23% shareholder) and John Deer (Non-executive Deputy Chairman, together with his wife, 16.59%), are the ultimate controlling party of the Group. See page 112 of the Governance Report for further details in relation to this. The only significant transactions between the Group and these parties are in relation to their respective remuneration, as detailed in the Governance Report.

29. Alternative performance measures

There are sometimes infrequently occurring events which impact on our financial statements, recognised according to applicable IFRS, that we believe should be excluded from adjusted performance measures in order to give readers a more understandable and comparable view of our underlying performance.

In accordance with Renishaw's alternative performance measures (APMs) policy and ESMA Guidelines on Alternative Performance Measures (2015), APMs are defined as - Revenue at constant exchange rates, Adjusted profit before tax, Adjusted earnings per share and Adjusted operating profit.

Revenue at constant exchange rates is defined as revenue recalculated using the same rates as were applicable to the previous year and excluding forward contract gains and losses.

	2022 £'000	2021 £'000
Revenue at constant exchange rates:		
Statutory revenue as reported	671,076	565,559
Adjustment for forward contract gains	(744)	(1,427)
Adjustment to restate current year at previous year exchange rates	(2,682)	–
Revenue at constant exchange rates	667,650	564,132
Year-on-year revenue growth at constant exchange rates	+18.3%	–

Year-on-year revenue growth at constant exchange rates for 2021 was +13.0%.

Adjusted profit before tax, Adjusted earnings per share and Adjusted operating profit are defined as the profit before tax, earnings per share and operating profit after excluding costs relating to a revision to a provision made in 2020 relating to restructuring, third-party costs relating to the formal sales process ('FSP'), a UK defined benefit pension scheme past service cost, and gains and losses in fair value from forward currency contracts which did not qualify for hedge accounting and which have yet to mature.

Restructuring costs, where applicable during a year, are reported separately in the Consolidated income statement and excluded from adjusted measures on the basis that they relate to matters that do not frequently recur. During 2022, a revised estimate of a warranty provision relating to restructuring in 2020 resulted in a reduction to this provision of £1,688,000. As this provision was initially excluded from adjusted measures, the revised estimate has also been excluded.

Third-party legal and advisory costs relating to the 2021 FSP were excluded from adjusted measures in 2021. During 2022, £200,000 was released from an accrual made in respect of these costs relating to indirect tax, which has been excluded this year.

In 2022, the Company agreed to an augmentation of UK defined benefit pension scheme members' benefits. This was effected in the scheme Rules through a Deed of Amendment to the Trust Deed and Rules, signed by the Trustees and Company on 20 June 2022, therefore relates to a matter which is not expected to frequently recur. The impact on liabilities of this plan amendment, totalling £11,695,000, have therefore been recognised as a past service cost, reported separately in the Consolidated income statement and excluded from adjusted profit measures. See note 23 for further detail.

29. Alternative performance measures (continued)

From 2017, the gains and losses from the fair value of financial instruments not effective for cash flow hedging have been excluded from statutory profit before tax, statutory earnings per share and statutory operating profit in arriving at Adjusted profit before tax, Adjusted earnings per share and Adjusted operating profit to reflect the Board's intent that the instruments would provide effective hedges. This is classified as 'Fair value (gains)/losses on financial instruments not eligible for hedge accounting (i)' in the following reconciliations. The amounts shown as reported in revenue represent the amount by which revenue would change had all the derivatives qualified as eligible for hedge accounting.

Gains and losses which recycle through the Consolidated income statement as a result of contracts deemed ineffective during 2020, as described in note 25, are also excluded from adjusted profit measures, on the basis that all forward contracts are still expected to be effective hedges for Group revenue, while the potentially high volatility in fair value gains and losses relating to these contracts will otherwise cause confusion for users of the financial statements wishing to understand the underlying trading performance of the Group. This is classified as 'Fair value (gains)/losses on financial instruments not eligible for hedge accounting (ii)' in the following reconciliations.

The Board considers these alternative performance measures to be more relevant and reliable in evaluating the Group's performance.

	2022 £'000	2021 £'000
Adjusted profit before tax:		
Statutory profit before tax	145,586	139,439
Revised estimate of 2020 restructuring provisions	(1,688)	–
Third-party FSP costs	(200)	3,222
UK defined benefit pension scheme past service cost	11,695	–
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (i):		
– reported in revenue	2,621	1,882
– reported in (gains)/losses from the fair value of financial instruments	(1,138)	846
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (ii):		
– reported in revenue	(4,685)	(2,899)
– reported in (gains)/losses from the fair value of financial instruments	11,551	(22,824)
Adjusted profit before tax	163,742	119,666
Adjusted earnings per share:		
Statutory earnings per share	165.4 pence	153.2 pence
Revised estimate of 2020 restructuring provisions	(0.3)	–
Third-party FSP costs	(1.9)	4.4
UK defined benefit pension scheme past service cost	13.0	–
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (i):		
– reported in revenue	2.9	2.1
– reported in (gains)/losses from the fair value of financial instruments	(1.3)	0.9
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (ii):		
– reported in revenue	(5.2)	(3.2)
– reported in (gains)/losses from the fair value of financial instruments	12.9	(25.4)
Adjusted earnings per share	185.5	132.0
Adjusted operating profit:		
Statutory operating profit	143,250	138,341
Revised estimate of 2020 restructuring provisions	(1,688)	–
Third-party FSP costs	(200)	3,222
UK defined benefit pension scheme past service cost	11,695	–
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (i):		
– reported in revenue	2,621	1,882
– reported in (gains)/losses from the fair value of financial instruments	(1,138)	846
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (ii):		
– reported in revenue	(4,685)	(2,899)
– reported in (gains)/losses from the fair value of financial instruments	11,551	(22,824)
Adjusted operating profit	161,406	118,568

Notes continued

29. Alternative performance measures (continued)

Adjustments to the segmental operating profit:

	2022 £'000	2021* £'000
Manufacturing technologies		
Operating profit before losses from fair value of financial instruments and UK defined benefit pension scheme past service cost	162,549	111,978
Revised estimate of 2020 restructuring provisions	(1,688)	–
Third-party FSP costs	(197)	3,061
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (i):		
– reported in revenue	2,576	1,797
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (ii):		
– reported in revenue	(4,605)	(2,734)
Adjusted manufacturing technologies operating profit	158,635	114,102
Analytical instruments and medical devices		
Operating profit before losses from fair value of financial instruments and UK defined benefit pension scheme past service cost	2,809	4,385
Third-party FSP costs	(3)	161
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (i):		
– reported in revenue	45	86
Fair value (gains)/losses on financial instruments not eligible for hedge accounting (ii):		
– reported in revenue	(80)	(166)
Adjusted analytical instruments and medical devices operating profit	2,771	4,466

* Results relating to sales of additive manufacturing machines to medical and dental customers are no longer recognised in the Analytical instruments and medical devices operating segment. Comparative figures have been reclassified accordingly, see note 2.

30. Cessation of operations in Russia

The Group has now ceased all operations in Russia, which were previously carried out through our wholly owned subsidiary, OOO Renishaw. This has not been classified as a discontinued operation as the results of the company were not material to the Group.

Following the start of the Russian invasion of Ukraine in February 2022, the Group immediately took measures to reduce its operations in Russia through its wholly owned subsidiary, OOO Renishaw. This included:

- stopping the supply of goods from the Renishaw Group to OOO Renishaw;
- returning advanced payments to customers where local stock was not available to fulfil orders;
- giving notice on the leased office property in Moscow, which was vacated in August 2022; and
- relocating or offering redundancy to all employees of OOO Renishaw.

By 30 June 2022, all trading operations had ceased, and by August 2022 the subsidiary was effectively wound up. The following amounts were recognised in 2022 accordingly:

- cash held locally, with an equivalent value of £1,392,000, was unable to be repatriated and has been fully impaired;
- outstanding amounts relating to the leased property equivalent to £1,985,000 were released from lease liabilities, with a corresponding impairment to the right-of-use asset of £1,837,000;
- fixed assets mostly relating to fit-out and furnishings of the leased property were impaired, totalling £636,000;
- remaining net assets of the subsidiary equivalent to £98,000 were impaired; and
- cumulative translation losses relating to the company on consolidation, totalling £575,000, were removed from the currency translation reserve and realised in the Consolidated income statement, according to IAS 21.

The net impact on the Consolidated income statement in 2022 totalled £2,553,000, and net assets and equity relating to OOO Renishaw totalled nil at 30 June 2022. There is not expected to be any impact of operations in Russia on future financial statements.

Company balance sheet

at 30 June 2022

	notes	2022 £'000	2021 £'000
Assets			
Property, plant and equipment	C.32	133,171	136,091
Right-of-use assets		1,814	1,828
Investment property		5,657	–
Intangible assets	C.33	28,442	29,228
Investments in subsidiaries	C.34	288,174	288,548
Investments in associates and joint ventures	C.35	1,453	1,453
Long-term loans to Group undertakings		95,919	89,621
Employee benefits	C.41	40,331	–
Derivatives	25	–	12,484
Total non-current assets		594,961	559,253
Current assets			
Inventories	C.37	100,034	68,462
Trade receivables	C.38	81,864	68,309
Short-term loans to Group undertakings		774	725
Short-term loans to associates and joint ventures		302	598
Current tax		7,501	674
Other receivables		18,437	22,409
Derivatives	25	7,121	9,639
Pension scheme cash escrow account	23	–	10,578
Bank deposits	15	100,000	120,000
Cash and cash equivalents		111,162	53,921
Total current assets		427,195	355,315
Current liabilities			
Trade payables		21,618	16,408
Short-term loans from Group undertakings		1,026	5,956
Provisions	C.39	3,727	5,795
Lease liabilities		15	8
Derivatives	25	17,890	5,594
Other payables	C.40	54,046	51,176
Total current liabilities		98,322	84,937
Net current assets		328,873	270,378
Non-current liabilities			
Employee benefits	C.41	–	19,163
Deferred tax liabilities	C.36	24,944	11,687
Lease liabilities		1,797	1,806
Long-term loans to Group undertakings		346	313
Derivatives	25	9,463	355
Total non-current liabilities		36,550	33,324
Total assets less total liabilities		887,284	796,307
Equity			
Share capital	C.42	14,558	14,558
Share premium		42	42
Own shares held	26	(750)	(404)
Cash flow hedging reserve	26	(10,923)	11,345
Retained earnings		884,077	770,262
Other reserve		280	504
Total equity		887,284	796,307

The Company reported a profit for the financial year ended 30 June 2022 of £115,520,000 (2021: £149,434,000).

These financial statements were approved by the Board of Directors on 15 September 2022 and were signed on its behalf by:

Sir David McMurtry

Allen Roberts

Directors



Company statement of changes in equity

for the year ended 30 June 2022

	Share capital £'000	Share premium £'000	Own shares held £'000	Cash flow hedging reserve £'000	Retained earnings £'000	Other reserve £'000	Total £'000
Year ended 30 June 2021							
Balance at 1 July 2020	14,558	42	(404)	(30,455)	605,137	331	589,209
Profit for the year	-	-	-	-	149,434	-	149,434
Other comprehensive income and expense (net of tax)							
Remeasurement of defined benefit pension scheme liabilities	-	-	-	-	25,880	-	25,880
Changes in fair value of cash flow hedges	-	-	-	41,800	-	-	41,800
Total other comprehensive income and expense	-	-	-	41,800	25,880	-	67,680
Total comprehensive income and expense	-	-	-	41,800	175,314	-	217,114
Share-based payments charge	-	-	-	-	-	173	173
Dividends paid	-	-	-	-	(10,189)	-	(10,189)
Balance at 30 June 2021	14,558	42	(404)	11,345	770,262	504	796,307
Year ended 30 June 2022							
Profit for the year	-	-	-	-	115,520	-	115,520
Other comprehensive income and expense (net of tax)							
Remeasurement of defined benefit pension scheme liabilities	-	-	-	-	47,789	-	47,789
Changes in fair value of cash flow hedges	-	-	-	(22,268)	-	-	(22,268)
Total other comprehensive income and expense	-	-	-	(22,268)	47,789	-	25,521
Total comprehensive income and expense	-	-	-	(22,268)	163,309	-	141,041
Share-based payments charge	-	-	-	-	-	180	180
Own shares transferred on vesting	-	-	404	-	-	(404)	-
Own shares purchased	-	-	(750)	-	-	-	(750)
Dividends paid	-	-	-	-	(49,494)	-	(49,494)
Balance at 30 June 2022	14,558	42	(750)	(10,923)	884,077	280	887,284

Notes to the Company financial statements

C.31. Accounting policies

The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the financial statements of the Company.

Basis of preparation

The financial statements were prepared in accordance with the Companies Act 2006 and Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101).

The Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

- a cash flow statement and related notes;
- comparative period reconciliations for share capital, tangible fixed assets and intangible fixed assets;
- disclosures in respect of transactions with wholly-owned subsidiaries;
- disclosures in respect of capital management;
- the effects of new but not yet effective IFRS; and
- disclosures in respect of the compensation of key management personnel.

As the consolidated financial statements of the Company include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of certain disclosures required by IFRS 13 'Fair Value Measurement' and the disclosures required by IFRS 7 'Financial Instruments: Disclosures'.

The financial statements have been prepared on the historical cost basis, except for the fair value of financial instruments. Historical cost is based on the fair value of the consideration given in exchange for the assets. The principal accounting policies are set out below.

Under section 408 of the Companies Act 2006 the Company is exempt from the requirement to present its own profit and loss account.

Critical accounting judgements and estimation uncertainties

The areas of key estimation uncertainty and critical accounting judgement that have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities in the next financial year for the Company are consistent with those of the Group, as summarised on page 134.

Going concern

In preparing these financial statements, the Directors have adopted the going concern basis. The decision to adopt the going concern basis was made as part of the assessment of the Group's going concern status, details of which are set out on page 135.

Having considered the impact on the Company of the same factors set out on page 135, and the Company's business model, risk management and principal risks, and significant financial resources and cash balances, the Directors have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the period to 30 September 2023. Accordingly, they continue to adopt the going concern basis in preparing these financial statements.

Investments

Investments in subsidiary and associated undertakings are stated at cost less any provision for permanent impairment losses.

Property, plant and equipment, and depreciation

Property, plant and equipment assets are stated at cost less accumulated depreciation. Depreciation is provided to write off the cost of assets less their estimated residual value on a straight-line basis over their estimated useful economic lives as follows:

- freehold buildings, 50 years;
- plant and equipment, 3 to 25 years;
- motor vehicles, 3 to 4 years; and
- no depreciation is provided on freehold land.

Inventories

Inventories are valued at the lower of actual cost (on a FIFO basis) and net realisable value. Cost comprises direct materials and labour plus overheads applicable to the stage of manufacture reached.

Research and development

Expenditure on research activities is recognised in the income statement as an expense as incurred. Expenditure on development activities is capitalised if the product or process is technically and commercially feasible and the Company intends and has the technical ability and sufficient resources to complete development, future economic benefits are probable and the Company can measure reliably the expenditure attributable to the intangible asset during its development.

Notes to the Company financial statements continued

C.31. Accounting policies (continued)

Taxation

The charge for taxation is based on the Company's profit for the year. Deferred tax is provided on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

Deferred tax assets are recognised to the extent that it is regarded as probable that they will be recovered.

Employee benefits

The Company operated a contributory pension scheme, of the defined benefit type up to 5 April 2007, after which this scheme was closed for future accruals to existing members and was closed to new members. Since 5 April 2007, the Company has operated a defined contribution scheme.

The scheme is administered by trustees who are independent of the Company finances.

Pension scheme assets in the defined benefit scheme are measured at fair value using market value. Pension scheme liabilities are measured using a projected unit method and discounted at the current rate of return on a high-quality corporate bond of equivalent term and currency to the liability. The expected return on the scheme's assets and the interest on the scheme's liabilities arising from the passage of time are included in other finance income.

The pension scheme's surplus, to the extent that it is considered recoverable, or deficit is recognised in full and presented on the face of the balance sheet. Where a guarantee is in place in relation to a pension scheme deficit, liabilities are reported in accordance with IFRIC 14. To the extent that contributions payable will not be available as a refund after they are paid into the plan, a liability is recognised at the point the obligation arises, which is the point at which the minimum funding guarantee is agreed.

Accruals are made for holiday pay, based on a calculation of the number of days' holiday earned during the year, but not yet taken and also for performance bonuses, if applicable.

Derivative financial instruments

In accordance with its treasury policy, the Company does not hold or issue derivative financial instruments for speculative purposes.

The Company uses forward exchange contracts to hedge its exposure to foreign exchange risk arising from operational and financing activities. Forward exchange contracts are recognised at fair value, being the estimated amount that the Company would pay or receive to terminate them at the balance sheet date based on prevailing foreign currency rates. Changes in the fair value of foreign currency derivatives which are designated and effective as hedges of future cash flows are recognised in Other comprehensive income and in the currency hedging reserve, and subsequently transferred to the carrying amount of the hedged item or the income statement. The ineffective part of any gain or loss is recognised in the income statement immediately.

Other financial instruments

Loans to associates and joint ventures are initially recognised at fair value and are subsequently held at amortised cost.

Loans to Group undertakings are initially recognised at fair value and are subsequently held at amortised cost using the effective interest rate method. Where such intercompany loans are repayable on demand the Company determines whether any impairment provision is required by assessing the company's ability to repay the loan. Where it is determined that a recipient company does not have the capacity to repay the loan at the balance sheet date, or the loan is not repayable on demand, an expected credit loss model is used to calculate the impairment provision required.

Trade and other current receivables are initially recognised at fair value and are subsequently held at amortised cost less any provision for bad and doubtful debts. Trade and other current payables are initially recognised at fair value and are subsequently held at amortised cost.

Warranty on the sale of products

The Company provides a warranty from the date of purchase, except for those products that are installed by the Company where the warranty starts from the date of completion of the installation. This is typically for a 12-month period, although up to three years is given for a small number of products. A warranty provision is included in the accounts, which is calculated on the basis of historical returns and internal quality reports.

Foreign currencies

Transactions in foreign currencies are translated at the rate of exchange prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated into Sterling at the foreign exchange rate prevailing at that date. Foreign exchange differences arising on such translation are recognised in the income statement.

C.32. Property, plant and equipment

Year ended 30 June 2022	Freehold land and buildings £'000	Plant and equipment £'000	Motor vehicles £'000	Assets in the course of construction £'000	Total £'000
Cost					
At 1 July 2021	112,744	183,637	3,582	5,020	304,983
Additions	726	13,437	828	6,804	21,795
Transfers of assets in the course of construction	134	4,308	–	(4,442)	–
Transfers to Investment property	(6,490)	–	–	–	(6,490)
Disposals	–	(413)	(567)	–	(980)
At 30 June 2022	107,114	200,969	3,843	7,382	319,308
Depreciation					
At 1 July 2021	22,500	143,175	3,217	–	168,892
Charge for the year	2,473	15,589	832	–	18,894
Transfers to Investment property	(723)	–	–	–	(723)
Released on disposals	–	(359)	(567)	–	(926)
At 30 June 2022	24,250	158,405	3,482	–	186,137
Net book value					
At 30 June 2022	82,864	42,564	361	7,382	133,171
At 30 June 2021	90,244	40,462	365	5,020	136,091

At 30 June 2022, properties with a net book value of £54,208,000 (2021: £81,769,000) were subject to a fixed charge to secure the UK defined benefit pension scheme liabilities. See note 23 for additional information.

Additions to assets in the course of construction comprise:

	2022 £'000	2021 £'000
Freehold land and buildings	826	220
Plant and equipment	5,978	2,423
	6,804	2,643

C.33. Intangible assets

Year ended 30 June 2022	Goodwill £'000	Internally generated development costs £'000	Software licences, intellectual property and other intangible assets £'000	Total £'000
Cost				
At 1 July 2021	9,305	172,026	28,181	209,512
Additions	–	7,661	584	8,245
Write-off	–	–	(3,510)	(3,510)
Disposals	–	(17,303)	–	(17,303)
At 30 June 2022	9,305	162,384	25,255	196,944
Depreciation				
At 1 July 2021	9,305	150,358	20,621	180,284
Charge for the year	–	4,430	1,091	5,521
Disposals	–	(17,303)	–	(17,303)
At 30 June 2022	9,305	137,485	21,712	168,502
Net book value				
At 30 June 2022	–	24,899	3,543	28,442
At 30 June 2021	–	21,668	7,560	29,228

Disposals of internally generated development costs have been recognised during the year in accordance with the Company's and Group's accounting policy to remove capitalised development expenditure from the balance sheet 10 years after being fully amortised.

Notes to the Company financial statements continued

C.34. Investments in subsidiaries

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	288,548	288,548
Additions	–	–
Impairment	(374)	–
Balance at the end of the year	288,174	288,548

Details of the Company's subsidiaries are given in note C.45.

C.35. Investments in associates and joint ventures

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	1,453	2,999
Additions	–	749
Impairment	–	(2,295)
Balance at the end of the year	1,453	1,453

Details of the Company's associates and joint ventures are given in note C.46.

In January 2022 an agreement was reached between the Company and Meggitt plc for the sale of the Company's 33.33% shareholding in HiETA Technologies Limited to Meggitt plc. The investment had a value of nil at 30 June 2022.

C.36. Deferred tax

Balances at the end of the year were:

	2022			2021		
	Assets £'000	Liabilities £'000	Net £'000	Assets £'000	Liabilities £'000	Net £'000
Property, plant and equipment	–	(15,792)	(15,792)	–	(14,295)	(14,295)
Intangible assets	–	(2,311)	(2,311)	–	(1,986)	(1,986)
Defined benefit pension scheme	–	(10,474)	(10,474)	3,877	–	3,877
Derivatives	3,508	–	3,508	–	(2,930)	(2,930)
Losses	–	–	–	3,299	–	3,299
Other	125	–	125	348	–	348
Balance at the end of the year	3,633	(28,577)	(24,944)	7,524	(19,211)	(11,687)

Deferred tax assets and liabilities are offset where there is a legally enforceable right of offset and there is an intention to net settle the balances. After taking these offsets into account, the net position of £24,944,000 liability (2021: £11,687,000 liability) is presented as a deferred tax liability in the Company's balance sheet. Where deferred tax assets are recognised, the Directors are of the opinion, based on recent and forecast trading, that the level of profits in current and future years make it more likely than not that these assets will be recovered.

Movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	(11,687)	18,509
Movements during the year	(13,257)	(30,196)
Balance at the end of the year	(24,944)	(11,687)

C.37. Inventories

An analysis of inventories at the end of the year was:

	2022 £'000	2021 £'000
Raw materials	43,845	28,463
Work in progress	30,672	21,406
Finished goods	25,517	18,593
Balance at the end of the year	100,034	68,462

C.38. Trade receivables

An analysis of trade receivables at the end of the year was:

	2022 £'000	2021 £'000
Trade receivables	13	46
Amounts owed by Group undertakings	81,851	68,263
Balance at the end of the year	81,864	68,309

C.39. Provisions

Warranty provision movements during the year were:

	2022 £'000	2021 £'000
Balance at the beginning of the year	5,795	1,681
Created in the year	1,860	5,881
Unused amounts reversed	(1,688)	–
Used in the year	(2,240)	(1,767)
	(2,068)	4,114
Balance at the end of the year	3,727	5,795

The warranty provision has been calculated on the basis of historical return-in-warranty information and other quality reports. It is expected that most of this expenditure will be incurred in the next financial year and all expenditure will be incurred within three years of the balance sheet date. See note 17 for further detail.

C.40. Other payables

An analysis of other payables due within one year at the end of the year was:

	2022 £'000	2021 £'000
Amounts owed to Group undertakings	26,373	28,384
Amounts owed to associated undertakings and joint ventures	150	130
Other taxes and social security	3,849	3,235
Other creditors and accruals	23,677	19,427
Balance at the end of the year	54,049	51,176

Other creditors and accruals includes £10,054,000 (2021: £8,361,000) relating to performance bonus accruals.

C.41. Employee benefits

The Company operated a defined benefit pension scheme, which, at 5 April 2007, ceased any future accrual for current members and was closed to new members. Employees of the Company are now covered by a defined contribution scheme. See note 23 regarding details of charges relating to the UK defined benefit pension scheme liabilities.

The total pension cost of the Company for the year was £15,891,000 (2021: £13,768,000), of which £121,000 (2021: £111,000) related to Directors. The latest full actuarial valuation of the scheme was carried out at 30 September 2021 and updated to 30 June 2022 by a qualified independent actuary.

The major assumptions used by the actuary for the scheme were:

	30 June 2022	30 June 2021
Rate of increase in pension payments	3.05%	3.10%
Discount rate	3.60%	1.85%
Inflation rate (RPI)	3.10%	3.20%
Inflation rate (CPI)	2.10%	2.20%
Retirement age	64	64

The mortality assumption used for 2022 is the S3Px base tables and CMI 2021 model, with long-term improvements of 1% per annum. Adjustments have been made to both the core base tables and CMI 2021 model to allow for the scheme's membership profile and best estimate assumptions of future mortality improvements. The weighted average duration of the defined benefit scheme obligation is around 22 years. See note 23 for further details of mortality assumptions and sensitivities.

Notes to the Company financial statements continued

C.41. Employee benefits (continued)

The assets and liabilities in the scheme were:

	30 June 2022 £'000	% of total assets	30 June 2021 £'000	% of total assets
Market value of assets:				
Equities	102,859	53	127,456	62
Multi-asset fund	79,613	41	60,220	29
Credit and fixed income funds	9,147	5	10,758	5
Index linked gilts	1,489	1	1,843	1
Cash and other	754	0	4,682	3
	193,862	100	204,959	100
Actuarial value of liabilities	(153,531)	–	(224,122)	–
Surplus/(deficit) in the scheme	40,331	–	(19,163)	–
Deferred tax thereon	(10,474)	–	3,877	–

All equities have quoted prices in active markets in the UK, North America, Europe, Asia Pacific, Japan and emerging markets.

The movements in the scheme were:

	Assets £'000	Liabilities £'000	Total £'000
Year ended 30 June 2022			
Deficit in scheme at the beginning of the year	204,959	(224,122)	(19,163)
Contributions	8,702	–	8,702
Interest on pension scheme	3,812	(4,086)	(274)
Remeasurement loss from augmentation of members' benefits	–	(11,695)	(11,695)
Remeasurement gain/(loss) under IAS 19, the asset ceiling and IFRIC 14	(16,809)	79,570	62,761
Benefits paid	(6,802)	6,802	–
Surplus in scheme at the end of the year	193,862	(153,531)	40,331
Year ended 30 June 2021			
Deficit in scheme at the beginning of the year	162,940	(221,566)	(58,626)
Contributions	8,702	–	8,702
Interest on pension scheme	2,471	(3,286)	(815)
Remeasurement loss from GMP equalisation	–	(78)	(78)
Remeasurement gain/(loss) under IAS 19, the asset ceiling and IFRIC 14	35,970	(4,316)	31,654
Benefits paid	(5,124)	5,124	–
Deficit in scheme at the end of the year	204,959	(224,122)	(19,163)

The analysis of the amount recognised in Other comprehensive income and expense was:

	2022 £'000	2021 £'000
Actuarial gain/(loss) arising from:		
Changes in demographic assumptions	3,987	(2,839)
Changes in financial assumptions	59,797	4,045
Experience adjustment	(7,072)	2,621
Adjustment related to the application of revaluation and late retirement factors	–	14,300
Return on plan assets excluding interest income	(16,809)	35,970
Adjustment for the asset ceiling	3,280	(3,280)
Adjustment to liabilities for IFRIC 14	19,578	(19,163)
Total recognised in the Other comprehensive income and expense	62,761	31,654

C.42. Share capital

	2022 £'000	2021 £'000
Allotted, called-up and fully paid 72,788,543 ordinary shares of 20p each	14,558	14,558

The ordinary shares are the only class of share in the Company. Holders of ordinary shares are entitled to vote at general meetings of the Company and receive dividends as declared. The Articles of Association of the Company do not contain any restrictions on the transfer of shares nor on voting rights.

C.43. Related parties

During the year, related parties, these being the Group's associates and joint ventures (see note 13), had the following transactions and balances with the Company:

	Joint ventures		Associate	
	2022 £'000	2021 £'000	2022 £'000	2021 £'000
Purchased goods and services from the Company during the year	76	99	209	78
Sold goods and services to the Company during the year	3,898	3,618	–	–
Paid dividends to the Company during the year	–	–	–	–
Amounts owed by the Company at the year end	150	130	–	–
Loans owed to the Company at the year end	350	598	–	–

C.44. Capital commitments

Capital commitments at the end of the year, for which no provision has been made in the financial statements, were:

	2022 £'000	2021 £'000
Authorised and committed	87,299	2,555

C.45. Subsidiary undertakings

The following are the subsidiary undertakings of Renishaw plc as at 30 June 2022, all of which are wholly-owned and held by a subsidiary undertaking, unless otherwise stated. The country in which each subsidiary has its registered/principal office is its domicile and country of incorporation. The accounting year-end for each subsidiary undertaking is 30 June unless otherwise stated. The shareholdings in all the subsidiary undertakings are in the ordinary share capital of those undertakings. The principal activities for all the subsidiary undertakings are those of the Company, as set out in the Other statutory and regulatory disclosures on page 111, except as indicated below:

^o Dormant company [^] 31 December year end

^h Holding company [†] Ordinary-A shares

[†] Travel agency [‡] Ordinary-C shares

^{*} 31 March year end

Company	Registered Office
Owned by Renishaw plc	
MTT Investments Limited ^o	
Renishaw Advanced Materials Limited ^o	
Renishaw International Limited ^h	
Renishaw Medical Limited ^o	
Renishaw PT Limited ^o	New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR United Kingdom
Renishaw Software Limited ^o	
Renishaw Transducer Systems Limited ^o	
Renishaw UK Sales Limited	
Wotton Travel Limited [†]	
Measurement Devices Limited ^o	Research Park North, Riccarton, Edinburgh, Scotland, EH14 4AP United Kingdom
Renishaw Diagnostics Limited ^{††} (92.4%)	
Renishaw Tehnicni Inženiring d.o.o.	4th Floor, Faculty of Electrical Engineering, University of Ljubljana, Tržaška cesta 25, Ljubljana, 1000 Slovenia
Renishaw Neuro Solutions Limited	Wotton Road, Charfield, Wotton-under-Edge, Gloucestershire, GL12 8SP United Kingdom

Notes to the Company financial statements continued

C.45. Subsidiary undertakings (continued)

Company	Registered Office
Owned by MTT Investments Limited	
MTT Technologies Limited ^D	New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR United Kingdom
Owned by Renishaw International Limited	
itp GmbH	Rathausstraße 75-79, 66333, Völklingen Germany
OOO Renishaw ^A	Kantemirovskaya Ulitsa, 58, 115477, Moskva, Russian Federation
Renishaw (Austria) GmbH	Industriestraße 9, Top 4.2, 2353, Guntramsdorf Austria
Renishaw (Canada) Limited	2196 Dunwin Drive, Mississauga, Ontario, L5L 1C7 Canada
Renishaw (Hong Kong) Limited	Ever Gain Plaza Tower 2, 28/F, 88 Container Port Road, Kwai Chung Hong Kong
Renishaw (Ireland) DAC	Swords Business Park, Mountgorry, Swords, County Dublin, K67 FX67 Ireland
Renishaw (Israel) Limited	HaTnufa Street 3, Kraytek Building, PO Box 4, Yokne'am Illit, 2069204 Israel
Renishaw (Korea) Limited	RM#1314, Woolim e-Biz Center, 28 Digital-ro 33-gil, Guro-gu, Seoul Republic of Korea
Renishaw AB	Biskop Henriks väg 2, 176 76, Järfälla Sweden
Renishaw AG	Stachelhofstrasse 2, 8854, Siebnen, Schübelbach Switzerland
Renishaw ApS	c/o Azets Insight A/S, Lyskær 3CD, Lyskær 3, 2730, Herlev Denmark
Renishaw Benelux BV	Nikkelstraat 3, 4823 AE, Breda Netherlands
Renishaw GmbH (5.1% owned by Renishaw plc)	Karl-Benz Straße 12, 72124, Pliezhausen Germany
Renishaw Healthcare, Inc.	c/o C T Corporation System (Chicago), 208 South LaSalle Street, Suite 814, Cook County, Chicago IL 60604 United States
Renishaw Hungary Kft	Gyár utca 2, Budaörs, 2040 Hungary
Renishaw Ibérica S.A.U.	Gavà Park, Carrer de la Recerca, 7, Gavà, 08850, Barcelona Spain
Renishaw K.K.	4 Chome-29-8 Yotsuya, Shinjuku-ku, Tokyo, 160-0004 Japan
Renishaw Latino Americana Ltda. ^A	Calçada dos Cravos, 141, Alphaville Comercial, Barueri, São Paulo, 06453-053 Brazil
Renishaw Metrology Systems Limited*	S.No.283, Hissa no.2, S.No.284, Hissa no.2 & 3A, Raisoni Industrial Estate, Village Mann, Taluka Mulshi, Pune, 411057 India
Renishaw México S. de R.L. de C.V. ^A (0.001% owned by Renishaw, Inc.)	Iridium 5004, Parque Industrial Milenium, Apodoca, Nuevo León, 66600 Mexico

C.45. Subsidiary undertakings (continued)

Company	Registered Office
Renishaw Oceania Pty Limited	c/o KPMG, Tower Two, Collins Square, 727 Collins Street, Docklands VIC 3008 Australia
Renishaw Oy	c/o WaBuCo Oy, Energiakuja 3, Helsinki, 00180 Finland
Renishaw S.A.S.	15 Rue Albert Einstein, 77420, Champs-sur-Marne France
Renishaw S.p.A.	Via dei Prati 5, 10044 Pianezza, Torino Italy
Renishaw s.r.o.	Olomoucká 1164/85, Brno-Černovice, Brno, 627 00 Czech Republic
Renishaw Sp. z o.o.	ul. Osmańska 12, 02-823, Warszawa Poland
Renishaw SRL (0.1% owned by Renishaw UK Sales Limited)	Section A.2.13, 2nd Floor, Building A, Central Business Park, Calea Șerban Vodă 133, București, 040205 Romania
Renishaw Teknoloji Çözümleri LŞ	Turgut Özal Blv. No:193, Şerifali Mahallesi, Dudullu Osb, Ümraniye, İstanbul, 34775 Turkey
Renishaw US Holdings, Inc. ¹⁴	c/o The Corporation Trust Company, 1209 Orange Street - Corporation Trust Center, New Castle County, Wilmington DE 19801 United States
Renishaw, Inc.	c/o C T Corporation System (Chicago), 208 South LaSalle Street, Suite 814, Cook County, Chicago IL 60604 United States
Owned by Renishaw (Hong Kong) Limited	
Renishaw (Malaysia) Sdn. Bhd.	Upper Penthouse, Wisma RKT, 2, Jalan Raja Abdullah, Chow Kit, 50300 Kuala Lumpur, Wilayah Persekutuan Malaysia
Renishaw (Shanghai) Management Company Limited ^a	288 Jiang Chang San Lu, Zhabei Qu, Shanghai, 20436 China
Renishaw (Shanghai) Trading Company Limited ^a	286 Jiang Chang San Lu, Zhabei Qu, Shanghai, 20436 China
Renishaw (Singapore) PTE Limited	988 Toa Payoh North, #06-07/08, 319002 Singapore
Renishaw (Taiwan) Inc	2F. No. 2, Jingke 7th Road, Nantun District, Taichung, 40852 Taiwan

Notes to the Company financial statements continued

C.45. Subsidiary undertakings (continued)

Company	Registered Office
Owned by Renishaw US Holdings, Inc.	
Renishaw Fixturing Solutions, LLC	c/o The Corporation Company, 40600 Ann Arbor Road East, Suite 201, Plymouth, MI, 48170 United States
Renishaw Properties, Inc.	c/o The Corporation Trust Company, 1209 Orange Street - Corporation Trust Center, New Castle County, Wilmington DE 19801 United States
Owned by Renishaw (Ireland) DAC	
Renishaw Mayfield SA	Stachelhofstrasse 2, 8854, Siebnen, Schübelbach Switzerland
Owned by Renishaw Mayfield SA	
Renishaw Mayfield SARL	31 Rue Ampère, 69680, Chassieu France
Owned by Renishaw Medical Limited	
Renishaw Medical AM Solutions Limited ^P	New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR United Kingdom

C.46. Associated undertakings and joint ventures

The following are the associated undertakings and joint ventures of Renishaw plc at 30 June 2022. The country in which each entity has its registered/principal office is its domicile and country of incorporation. The accounting year-end for each associate undertaking and joint venture is 30 June unless otherwise stated. The shareholdings in all the associated undertakings are in the ordinary share capital of those undertakings unless otherwise stated. The principal activities for all the associate undertakings and joint ventures are those of the Company, as set out in the Other statutory and regulatory disclosures on page 111.

Company	Registered Office
Owned by Renishaw plc	
Metrology Software Products Limited (70%)	6F Greensfield Court, Alnwick, Northumberland, NE66 2DE United Kingdom
Owned by Renishaw International Limited	
RLS Merilna tehnika d.o.o. (50%)	Poslovna cona Žeje pri Komendi, Pod vrbami 2, Komenda, 1218 Slovenia

10-year financial record

	note 2022 £'000	note 2021 £'000	note 2020 £'000	note 2019 £'000	note 2018 £'000	note 2017 £'000	note 2016 £'000	2015 £'000	note 2014 £'000	note 2013 £'000
Results										
Overseas revenue	639,540	538,636	482,784	539,915	580,940	509,212	404,472	469,221	331,682	326,213
UK and Ireland revenue	31,536	26,923	27,431	34,044	30,567	27,595	22,752	25,499	23,816	20,668
Total revenue	671,076	565,559	510,215	573,959	611,507	536,807	427,224	494,720	355,498	346,881
Adjusted operating profit	161,406	118,568	51,700	93,711	143,045	108,733	86,952	143,924	70,388	79,071
Adjusted profit before tax	163,742	119,666	48,614	103,862	145,081	109,079	87,475	144,196	70,106	79,193
Taxation (excluding adjusted items)	28,685	23,611	11,547	16,557	20,942	12,819	14,880	22,850	10,720	15,046
Profit for the year (excluding adjusted items and tax on adjusted items)	135,057	96,055	37,067	87,305	124,139	96,260	72,595	121,346	59,386	64,147
Capital employed										
Share capital	14,558	14,558	14,558	14,558	14,558	14,558	14,558	14,558	14,558	14,558
Share premium	42	42	42	42	42	42	42	42	42	42
Reserves	800,570	688,730	532,264	568,677	533,994	429,214	366,785	413,918	336,163	262,119
Total equity	815,170	703,330	546,864	583,277	548,594	443,814	381,385	428,518	350,763	276,719
Statistics										
Overseas revenue as a percentage of total revenue	95.3%	95.2%	94.6%	94.1%	95.0%	94.9%	94.7%	94.8%	93.3%	94.0%
Adjusted earnings per share	185.5p	132.0p	51.0p	119.9p	170.5p	132.4p	100.4p	167.5p	82.3p	88.9p
Proposed dividend	72.6p	66.0p	0.0p	60.0p	60.0p	52.0p	48.0p	46.5p	41.2p	40.0p

Note

The results and adjusted earnings per share for the years 2013, 2014, 2016, 2017, 2018, 2019, 2020, 2021 and 2022 exclude certain items. These were: 2013 – gain on deferred consideration settlement (£2.9m); 2014 – profit on disposal of shareholding in Delcam plc (£26.3m); and 2016 (£25.8m pre tax loss), 2017 (£8.0m pre tax gain), 2018 (£10.1m pre tax gain), 2019 (£6.1m pre tax gain), 2020 (£21.6m pre tax loss), 2021 (£23.0m pre tax gain) and 2022 (£8.3m pre-tax loss) – gains and losses from financial instruments not effective for cash flow hedging; 2020 (£23.8m loss) and 2022 (£1.7m gain) – restructuring costs; 2021 (£3.2m loss) and 2022 (£0.2m gain) – third-party FSP costs; and 2022 – UK defined benefit pension scheme past service cost (£11.7m loss). No years prior to 2016 have been adjusted for gains and/or losses from financial instruments not effective for cash flow hedging.

Glossary

AGM	– Annual General Meeting
AM	– additive manufacturing (3D printing)
APAC	– Asia Pacific
APMs	– alternative performance measures
ASIC	– application-specific integrated circuit
BEIS	– Department for Business, Energy and Industrial Strategy
Brexit	– UK exit from the EU
Governance Code	– UK Corporate Governance Code 2018
the Code	– Group Business Code
Company	– Renishaw plc
CMM	– co-ordinate measuring machine
CNC	– computer numerically controlled
CPI	– consumer price index
DTR	– the FCA's Disclosure Guidance and Transparency Rules
EBT	– Employee Benefit Trust
EMEA	– Europe, Middle East and Africa
enei	– Employers Network for Equality & Inclusion
EPS	– earnings per share
ERP	– enterprise resource planning
EU	– European Union
EUR	– Euro
EY	– Ernst & Young LLP
FCA	– Financial Conduct Authority
FRC	– Financial Reporting Council
FX	– foreign exchange
GBP	– Great British Pound or Pound Sterling
GHG	– greenhouse gas
GMP	– Guaranteed minimum pension
Group	– Renishaw plc and its subsidiaries
H&S	– health and safety
HKD	– Hong Kong Dollar
HQ	– headquarters
HR	– human resources
IFRIC	– International Financial Reporting Interpretations Committee
IFRS	– International Financial Reporting Standards
IOSH	– Institution of Occupational Safety and Health
IP	– intellectual property
IPCC	– Intergovernmental Panel on Climate Change
JPY	– Japanese Yen

KPI(s)	– key performance indicator(s)
kW	– kilowatt – an amount of power equal to 1,000 watts
kWh	– kilowatt hour – an amount of energy equivalent to delivering 1 kW of power for an hour
LR	– the FCA's Listing Rules
M&A	– mergers and acquisitions
NCI	– non-controlling interest
OCI	– other comprehensive income
P&L	– profit and loss account
PBT	– profit before tax
QA RA	– Quality Assurance and Regulatory Affairs
RIS	– Regulatory Information Service
R&D	– research and development
RCC	– Renishaw Charities Committee
RIDDOR	– Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013
RNS	– Regulatory News Service
Scope 1	– Direct GHG emissions occur from sources that are owned or controlled by the Company, for example, emissions from combustion in owned or controlled boilers, generators, vehicles, etc
Scope 2	– GHG emissions from the generation of purchased electricity consumed by the Company
Scope 3	– indirect GHG emissions are a consequence of the activities of the Company, but occur from sources not owned or controlled by the Company
SEEG	– stereoelectroencephalography
SEM	– scanning electron microscopy
STEM	– science, technology, engineering and mathematics
tCO₂e	– tonnes of carbon dioxide equivalent
TCFD	– Task Force on Climate-related Financial Disclosures
TPR	– The Pensions Regulator
TSR	– total shareholder return, calculated as change in share price, assuming dividends are immediately reinvested
WISE	– Women Integrity for Society Empowerment Organisation
UK	– The United Kingdom of Great Britain and Northern Ireland
USD/US\$	– United States Dollar
US	– United States of America

Trade marks

The following registered and unregistered trade marks, which are owned by Renishaw plc and its subsidiaries, appear throughout this Annual Report.

FORTiS™ Equator™ neuroinspire™ RESOLUTE™ neuromate® REVO® Virsa™

Shareholder information

Ordinary shares

The Company has one class of ordinary 20p shares listed on the London Stock Exchange under code RSW, ISIN number GB0007323586.

Registrars

For all enquiries about shareholders' holdings, transfer and registration of shares and changes of name and address, contact the Company's registrars, Equiniti Limited:

Equiniti
Aspect House
Spencer Road
Lancing
West Sussex
BN99 6DA

Telephone: 0371 384 2169 (UK callers)
+44 121 415 7047 (international callers)

Website: www.shareview.co.uk

Calls are charged at the standard geographic rate. Calls outside the UK will be charged at the applicable international rate. Lines are open from 8:30am to 5:30pm (UK time), Monday to Friday (excluding English and Welsh public holidays).

AGM

Our 2022 AGM will be held on Wednesday 30 November 2022 at our headquarters at New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR at 10am. Further details can be found in the Notice of Meeting which is set out in a separate circular to shareholders in due course. Shareholders holding shares in the Company through a nominee service should arrange to be appointed as a corporate representative or a proxy in respect of their shareholding in order to attend and vote at the meeting.

Financial reports

The Annual Report and copies of previous financial reports are available at www.renishaw.com/investor. The half-year results and the preliminary announcement of the full-year results are published on our website promptly after they have been released through a Regulatory Information Service.

Electronic communications

All shareholder communications, including the Company's Annual Report, are made available on the Renishaw website, and you may opt to receive email notifications informing you when shareholder communications are available to view and download rather than receiving paper copies through the post. Receiving communications electronically provides certain advantages to shareholders and Renishaw, including accessing documents more quickly, reducing our environmental impact and reducing the cost of printing and delivery of documents. If you would like to sign up for this service, visit Equiniti's Shareview Portfolio website. You may change the way you receive communications at any time by contacting Equiniti.

Dividend mandate

Shareholders can arrange to have their dividends paid directly into their bank or building society account by completing a bank mandate form. This is the most secure and efficient method of payment. A mandate form can be obtained from Equiniti or you will find one on your last dividend confirmation.

Financial calendar

Annual General Meeting

30 November 2022

Half year

31 December 2022

Half-year results

February 2023

Trading update

May 2023

Interim dividend (provisional)

Ex-div date 9 March 2023
Record date 10 March 2023
Payment date 11 April 2023

Final dividend

Ex-div date 3 November 2022
Record date 4 November 2022
Payment date 5 December 2022

Registration details and Company Secretary

General Counsel & Company Secretary

Jacqueline Conway

Registered office

New Mills
Wotton-under-Edge
Gloucestershire
GL12 8JR

Telephone: +44 (0)1453 524524
Email: companysecretary@renishaw.com
Website: www.renishaw.com/investor

Registered number

01106260 (England and Wales)

Auditor and corporate advisers

Auditor

Ernst & Young LLP

Solicitors

Norton Rose Fulbright LLP
Herbert Smith Freehills LLP

Corporate broker

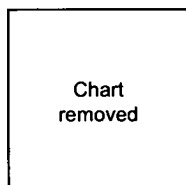
UBS

Principal bankers

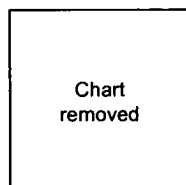
Lloyds Bank
BNP Paribas
HSBC

Shareholder information continued

Shareholder profile



Shareholdings	%
1 1 – 5,000	1.20
2 5,001 – 25,000	2.67
3 25,001 – 50,000	2.64
4 50,001 – 100,000	2.83
5 100,001 – 500,000	15.72
6 500,001 – 1,000,000	7.17
7 1,000,001 – 3,000,000	12.10
8 more than 3,000,000	55.67



Shareholdings	%
1 Directors	52.85
2 Individuals	1.04
3 Institutions	46.11

Share fraud

We are aware some of our shareholders have received unsolicited calls or correspondence, offering to buy or sell their shares for a price in excess of the current market price. The callers can be very persuasive and extremely persistent and often have professional websites and telephone numbers to support their activities. These callers will sometimes imply a connection to Renishaw and provide incorrect or misleading information. Please be aware this is likely to be a scam – the safest thing to do is hang up.

You are advised to be wary of unsolicited advice or offers to buy shares. See www.fca.org.uk/scamsmart/how-avoid-investment-scams for further advice.

Find out more or report suspected fraud to the FCA on their consumer helpline 0800 111 6768 (overseas callers dial +44 207 066 1000) or using the share fraud reporting form available at www.fca.org.uk/consumers/report-scam-us.

If you have already paid money to share fraudsters contact Action Fraud on 0300 123 2040 (overseas callers dial +44 300 123 2040) or their online fraud reporting tool at www.actionfraud.police.uk/reporting-fraud-and-cyber-crime.

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