



Renishaw is a world leading metrology company.

With our highly experienced team, we are confidently driving our future growth through innovative and patented products and processes, efficient, high-quality manufacturing and the ability to provide local support in our expanding global markets. 95% of our sales are outside the UK.

Our continuing investment in new product development, plant and equipment, and facilities (c.£100m in the last year) is the key to our confidence in the Group's long-term strategy and prospects.

**With more than 4,800 skilled and motivated people, we are at the leading edge of delivering innovative solutions globally.**

# Financial highlights

## Revenue

**£611.5m**

(2017: £536.8m)

## Adjusted\* profit before tax

**£145.1m**

(2017: £109.1m)

## Statutory profit before tax

**£155.2m**

(2017: £117.1m)

## Dividend per share

**60.0p**

(2017: 52.0p)

## Adjusted\* earnings per share

**170.5p**

(2017: 132.4p)

## Statutory earnings per share

**181.8p**

(2017: 141.3p)

\* Note 24, Alternative performance measures, defines how adjusted profit before tax and adjusted earnings per share are calculated.



For more information visit:

**[www.renishaw.com](http://www.renishaw.com)**

All dates within this document refer to financial years unless stated otherwise.

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# Renishaw at a glance

Renishaw is a global, high-precision metrology and healthcare technology group. We market our products through our subsidiaries in 36 countries and 80 locations.

## What we do

### Metrology products:

Our technology solutions help manufacturers to maximise production output, to significantly reduce the time taken to produce and inspect components, and to keep their machines running reliably. In the fields of industrial automation and motion systems, our high-quality position measurement and calibration systems allow machine builders to manufacture highly accurate and reliable products. We are a world leader in the field of additive manufacturing (also referred to as metal 3D printing) and the only UK business that designs and makes industrial machines which 'print' parts from metal powder.

### Healthcare products:

Our technologies are helping within applications such as craniomaxillofacial surgery, dentistry, neurosurgery, chemical analysis and nanotechnology research. These include engineering solutions for stereotactic neurosurgery, analytical tools that identify and characterise the chemistry and structure of materials, supply of implants to hospitals and specialist design centres for craniomaxillofacial surgery, and products and services that allow dental laboratories to manufacture high-quality dental restorations.

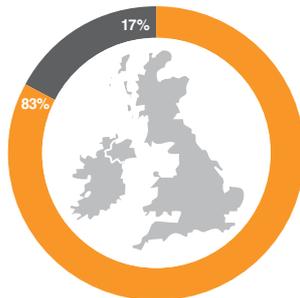
## Where we operate

### UK and Ireland

Locations  
14

Metrology revenue  
£25.5m

Healthcare revenue  
£5.0m

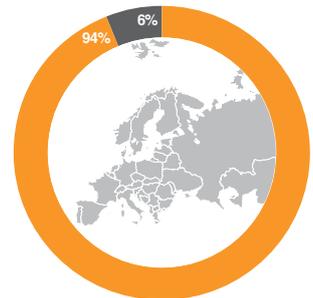


### Continental Europe

Locations  
24

Metrology revenue  
£144.4m

Healthcare revenue  
£9.8m

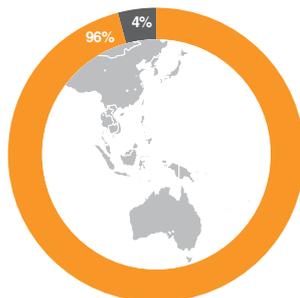


### Far East, including Australasia

Locations  
26

Metrology revenue  
£269.5m

Healthcare revenue  
£11.3m

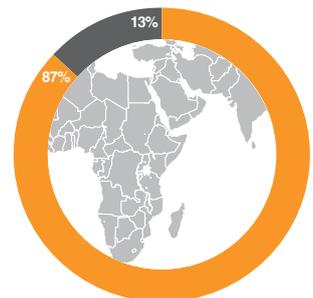


### Other regions

Locations  
7

Metrology revenue  
£16.8m

Healthcare revenue  
£2.6m

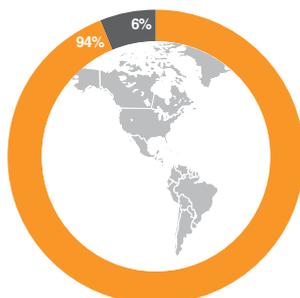


### North, South and Central America

Locations  
9

Metrology revenue  
£119.6m

Healthcare revenue  
£7.0m



## Our core markets



### Aerospace

- New aircraft production to meet growing global demand for civil air transport
- New fuel-efficient engines with complex parts requiring faster measurement
- Improvements to fuel efficiency by minimising airframe weight.



### Agriculture

- Increasing global demand for food products from developing nations
- Increasing global demand for biofuels
- Greater investment in machinery for intensive farming capabilities and Smart Farming.



### Automotive

- Continuing investment in manufacturing capacity to meet growing global demand
- Improved fuel efficiency requires tighter tolerances on powertrain components
- Cost efficiencies and automated processes required throughout the supply chain.



### Construction

- Major infrastructure projects driving heavy equipment sales
- Skills shortages requiring more automation in equipment manufacturers.



### Consumer products

- Ever shorter product life cycles require flexible manufacturing systems
- New generations of electronic devices demand precision manufacturing systems for form and function.



### Healthcare

- Neurological disorders require highly precise surgical therapies
- Growing demand for cosmetic dentistry with superior aesthetics
- Growing demand for patient-specific implants.



### Power generation

- Manufacture of components for civil nuclear, wind and solar energy
- Increasing focus on maximising output from machinery used in power generation
- Increasing research into energy storage.



### Resource exploration

- Equipment manufactured to stringent safety requirements requires accurate, cost-effective and traceable processes
- Non-renewable resources require exploration in demanding terrains and appropriate surveying tools
- Global population growth and urbanisation drive long-term demand for fossil fuels.

## 2018 in numbers

Revenue

£611.5m

Adjusted\* profit before tax

£145.1m

Statutory profit before tax

£155.2m

\* Note 24, Alternative performance measures, defines how adjusted profit before tax is calculated.

Total dividend for the year

60.0p

Number of employees at 30th June 2018

4,862

Patents – continual innovation in new technologies

1,800+

# Chairman's statement



**The Group is again reporting a very strong year with record revenue of £611.5m (2017: £536.8m) and record adjusted profit before tax of £145.1m (2017: £109.1m), an increase of 33%. On a statutory basis, profit before tax rose by 33% to £155.2m.**



Sir David McMurtry, Executive Chairman

## Introduction

I am pleased to report our 2018 annual results. We achieved a record turnover for the second successive year of £611.5m (2017: £536.8m) with revenue growth of 18% at constant exchange rates. We are also reporting a record adjusted\* profit before tax of £145.1m (2017: £109.1m), an increase of 33%. Our total shareholder return (TSR) during the year was 48%, ranking Renishaw 18th in the FTSE 250.

During the year, I took the decision to hand over my Chief Executive responsibilities. The Board and I were delighted to appoint Will Lee as Chief Executive from 1st February 2018. Will has demonstrated significant leadership capabilities in his time at Renishaw having joined in 1996 and having been appointed to the Board as Sales and Marketing Director in 2016. We have confidence that Will can inspire the next generation to build on Renishaw's heritage. The Board has prepared and agreed written statements of the key responsibilities of the Chief Executive and the Executive Chairman and they are available on our website at [www.renishaw.com/corporategovernance](http://www.renishaw.com/corporategovernance).

## Other Board changes

Kath Durrant is stepping down from the Board with effect from 31st July 2018. Kath, who was appointed to the Board in 2015 and is Chair of the Remuneration Committee, has made a considerable contribution to the Board and Renishaw and I would like to thank her and wish her well for the future with her senior executive role with Dublin based CRH plc.

We are pleased to announce the appointment of Catherine Glickman as an independent non-executive director with effect from 1st August 2018. Catherine will be a member of the Audit and Nomination Committees and Chair of the Remuneration Committee. She is an independent non-executive director and chair of the remuneration committee at Marston's plc. She is also a non-executive director at TheWorks.co.uk plc where she is chair of its remuneration committee and a member of its audit and nomination committees. Catherine brings extensive experience with her strong HR background, having previously been Group HR Director at Genus plc and Tesco plc, and will be a valuable addition to the Company's resources at Board level and particularly as chair of the Remuneration Committee.

In February 2018, we further strengthened our Executive Board with the appointment of Gareth Hankins, Director, Group Manufacturing Services Division, and Mark Moloney, Director and General Manager, Renishaw (Ireland) DAC. Both have over thirty years' experience with Renishaw focused on our significant investments in manufacturing processes to support increased volumes and developing capabilities for specific product lines.

### Innovation

Throughout Renishaw's history, innovation has been at the heart of our business, from the generation of new technologies to new manufacturing processes. As announced in January, having stepped down as Chief Executive, I will now focus on Group innovation and product strategy, supporting our engineering teams. During the year, we continued to invest in developing future technologies, with total engineering costs of £83.6m (before net capitalised development costs and the R&D tax credit), amounting to 14% of total revenue.

### Employees, diversity and corporate governance

On behalf of the Board, I would like to thank all our employees for their professionalism and dedication during the year.

The Board is committed to the highest standards of corporate governance to protect our business and its long-term success. We note the newly published Corporate Governance Code 2018 and will consider how to address the changes that it has introduced in the coming year. Further details are provided in the Directors' corporate governance report on pages 44 to 54. This culture is embedded in our Group Business Code and other policies.

We are also focused on gender diversity at all levels and published our Gender Pay Gap report on the Group's website (see page 39 for further details). We recognise this industry still has much work to do in this area and we will continue to build upon our education outreach programmes.

### Investor communications

Our fifth investor day was held on 10th May 2018, for existing and potential investors. This event included presentations on Group strategy, business segments and product lines as well as tours covering the Group's activities and an opportunity to meet the Board and senior management. There was also a Q&A session with the Board. The event was very well attended, and provided shareholders with another opportunity, in addition to the AGM, half-year and full-year webcasts, to learn more about Renishaw's business and strategy.

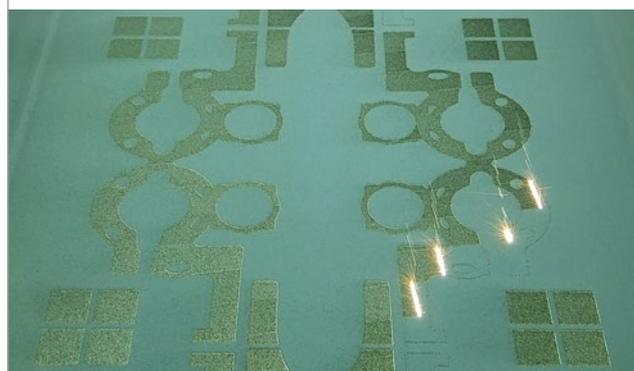
### Dividend

A final dividend of 46.0p net per share will be paid on 23rd October 2018, to shareholders on the register on 21st September 2018, giving a total dividend of 60.0p for the year, an increase of 15.0% over last year's 52.0p.



## RenAM 500Q

A key focus for innovation is additive manufacturing (AM) where in recent years we have filed the highest number of patent applications. During the year we launched the RenAM 500Q four laser system, which significantly improves the productivity of the most commonly used machine platform size.



### Outlook

The Group is in a strong financial position and continues to invest in the development of new products and applications, along with targeted investment in production, and sales and marketing facilities around the world. We have experienced strong growth in 2018 and, whilst noting ongoing uncertainty surrounding Brexit and currency exchange rate volatility, your directors remain confident in the long-term prospects for the Group due to our innovative product base, extensive global sales and marketing presence and relevance to high-value manufacturing. At this early stage in the year, we anticipate growth in both revenue and profit in the current financial year.

### Sir David McMurtry

Executive Chairman

26th July 2018

\* Note 24, Alternative performance measures, defines how adjusted profit before tax, adjusted earnings per share, adjusted operating profit and revenue at constant exchange rates are calculated.

# Chief Executive's review



**Under Sir David's leadership Renishaw has thrived. My role now is to build on this heritage and inspire the next generation to meet the opportunities and challenges of the changing global business environment.**



**Will Lee**, Chief Executive

I am delighted to have been asked to take over as Chief Executive of Renishaw and lead the Company into its next chapter.

Having joined the Company 22 years ago as a graduate, I have had the opportunity to experience a range of R&D, commercial and management roles within the organisation. I have also been fortunate to work closely with Sir David for many years, most recently in my role as Group Sales and Marketing Director. I look forward to continuing to work closely together. Under Sir David's leadership Renishaw has thrived. My role is to build on this heritage and inspire the next generation to meet the opportunities and challenges of the changing global business environment.

## Performance overview

As Sir David has already outlined (see page 4), this is a record year for turnover and adjusted operating profit for the Group. Having discontinued the activities of Renishaw Diagnostics Limited and the spatial measurement business in 2017, this year we have focused on developing the product range and customer solutions within the metrology and healthcare segments.

## Revenue

We achieved record revenue for the year ended 30th June 2018 of £611.5m, compared with £536.8m for last year, an increase of 14%. There was revenue growth of 18% at constant exchange rates. The geographical analysis of revenue is as follows:

	2018 £m	2017 £m	Change %	Constant fx change %
Far East, including Australasia	<b>280.8</b>	248.9	+13	+19
Continental Europe	<b>154.2</b>	129.9	+19	+17
North, South and Central America	<b>126.6</b>	113.6	+11	+19
UK and Ireland	<b>30.5</b>	27.6	+11	+11
Other regions	<b>19.4</b>	16.8	+15	+16
<b>Total Group revenue</b>	<b>611.5</b>	536.8	+14	+18

## Profit and earnings per share

The Group's adjusted profit before tax for the year was £145.1m, an increase of 33% compared with £109.1m last year. Adjusted\* earnings per share on continuing activities was 170.5p compared with 132.4p last year.

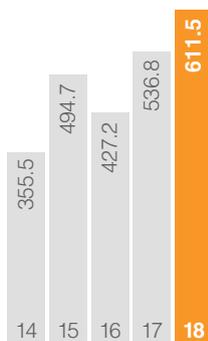
Statutory profit before tax for the year was £155.2m compared with £117.1m last year. Statutory earnings per share on continuing activities was 181.8p compared with 141.3p last year.

This year's tax charge on continuing operations amounts to £22.9m (2017: £14.3m) representing a tax rate of 14.7% (2017: 12.2%). The 2017 tax charge benefited from a reduction in the UK deferred tax rate to 17% from 2020 and a prior year credit of £3.0m.

### Revenue £m

£611.5m

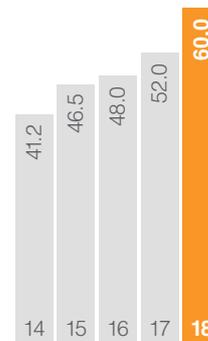
+14%



### Dividend per share pence

60.0p

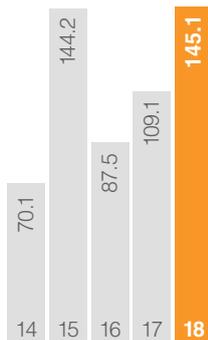
+15%



### Adjusted\* profit before tax £m

£145.1m

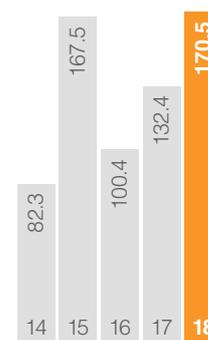
+33%



### Adjusted\* earnings per share pence

170.5p

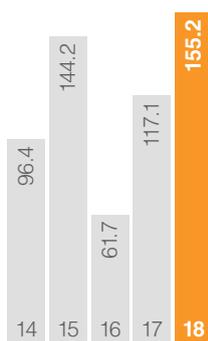
+29%



### Statutory profit before tax £m

£155.2m

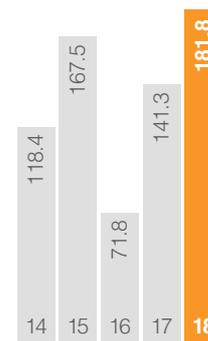
+33%



### Statutory earnings per share pence

181.8p

+29%



# Chief Executive's review continued

## Metrology

Revenue from our metrology business for the year was £575.8m, an increase of 14% compared with £503.4m last year. We have experienced revenue growth in all product lines and territories. The geographical analysis of revenue is set out below.

	2018 £m	2017 £m	Change %
Far East, including Australasia	<b>269.5</b>	237.9	+13
Continental Europe	<b>144.4</b>	121.5	+19
North, South and Central America	<b>119.7</b>	106.9	+12
UK and Ireland	<b>25.5</b>	23.2	+10
Other regions	<b>16.7</b>	13.9	+21
<b>Total metrology revenue</b>	<b>575.8</b>	503.4	+14

There was strong growth in our measurement and automation, co-ordinate measuring machine, machine tool and additive manufacturing product lines.

Adjusted\* operating profit for our metrology business was £142.8m (2017: £115.9m).

We have continued to invest in research and development (R&D), with total engineering costs in this business segment of £77.1m (before net capitalised development costs and the R&D tax credit) compared with £68.8m in 2017.

A number of new products were launched during the year. The additive manufacturing product line introduced the RenAM 500Q four laser additive manufacturing system, InfiniAM Spectral software for AM process monitoring and InfiniAM Central software for remote monitoring of AM builds. The RenAM 500Q significantly improves the productivity of the most commonly used machine platform size.

The machine tool product line launched an enhanced version of the NC4 non-contact tool setting system, the MP250 high-accuracy probe for grinding machines and SupaScan v3 with SPRINT scanning technology, which gives users a surface condition monitoring capability. A new larger version of the Equator™ gauging system, the Equator 500, was launched by our measurement and automation product line.

The encoder product line launched the QUANTIC™ super-compact, digital all-in-one incremental open optical encoder and the RESOLUTE™ FS (functional safety) encoder.

## Healthcare

Revenue from our healthcare business for the year was £35.7m, an increase of 7% over the £33.4m last year. We experienced growth in all our product lines.

There was an adjusted\* operating profit of £0.3m, compared with a loss of £7.2m last year. We restructured the neurological and medical dental businesses during the last year and are delighted to have moved this business sector into profit.

Healthcare also saw continued investment in R&D, with total engineering costs in this business segment of £6.5m (before net capitalised development costs and the R&D tax credit) compared with £9.2m in 2017.

During the year the USA's Food and Drug Administration (FDA) cleared the combined use of the neuromate® stereotactic robot with neuroinspire™ planning software. In Sweden and Finland, the first patients in a new clinical study were implanted with a novel drug delivery system, developed by Renishaw. This is a joint clinical study with Herantis Pharma to investigate the treatment of Parkinson's disease using Cerebral Dopamine Neurotrophic Factor (CDNF). The medical dental product line has experienced growth resulting from a continued focus on sales of additive manufacturing technologies into the healthcare market.

## Strategy and markets

Our strategy is fundamentally based on long-term investments in patented and innovative products and processes, high-quality manufacturing, and the provision of excellent local support to our customers in all our markets around the globe. This strategy is consistent across all the product lines and market sectors in which we operate (for more information see page 12).

Renishaw has moved in recent years from primarily being a supplier of products to capital equipment manufacturers, to becoming much more focused on understanding and solving our global clients' problems and delivering a full solution directly to end-users. This is helping to build brand loyalty and opening-up new revenue opportunities (see pages 16 and 17 for more information).

At the same time, we are seeing external market growth drivers – including global skills shortages, rising energy costs, a focus on reducing emissions and waste, population growth and rising life expectancy – that are creating positive opportunities for our business.

We are increasingly spreading risk through the diversification of our applications for product lines, our customer base and our routes to market.

## Our principal markets



**Aerospace**



**Agriculture**



**Automotive**



**Construction**



**Consumer products**



**Healthcare**



**Power generation**



**Resource exploration**

## Engineering opportunities for corporate social responsibility

As a socially responsible business, we recognise the importance of operating in a way that delivers long-term sustainable value for all stakeholders. This year we have: increased investment in developing the skills of our employees; assisted in supporting local organisations through charitable donations; reached more than 8,000 children with our education outreach programmes and donated over 13,000 hours of paid time to educational and other local organisations; recruited a record number of graduates and apprentices on our training schemes; reduced our CO<sub>2</sub> emissions by 24%; and reduced our accident frequency rate, all of which has been delivered whilst achieving strong organic growth. We have also introduced a new Key Performance Indicator (KPI) for greenhouse gases (GHG). Further information on our KPIs and GHG performance can be found on pages 15, 42 and 43.

## Continued investment for long-term growth

The Group continues its strategy to invest for the long term, expanding our global marketing and distribution infrastructure, along with increasing manufacturing capacity and R&D activities.

This year saw the completion of our new facility in Apodaca, Mexico, the refurbishment of our office in Italy and the purchase of two properties in Exeter and Edinburgh to facilitate expansion of our UK R&D function.

Capital expenditure on property, plant and equipment for the year was £34.9m (2017: £42.6m), of which £10.0m (2017: £24.2m) was spent on property and £24.9m (2017: £18.4m) on plant and equipment.



At the end of the year Renishaw Mexico moved to a new purpose-built facility in the city of Apodaca, which is home to the Mexican manufacturing operations of many international companies.

## Working capital

Group inventory increased from £87.7m at the start of the year to £110.6m reflecting increased trading levels and our expanded additive manufacturing product range. We continue to focus on working capital management whilst remaining committed to our policy of holding sufficient finished inventory to ensure customer delivery performance, given our short order book. Trade debtors increased from £137.5m to £154.6m, with debtor days outstanding at the end of the current year at 69 days (2017: 73 days).

Net cash balances at 30th June 2018 were £103.8m, compared with £51.9m at 30th June 2017. Additionally, there is an escrow account of £10.4m (2017: £12.9m) relating to the provision of security to the UK defined benefit pension scheme.

## Our people

Our workforce at the end of June 2018 was 4,862 (2017: 4,530) an increase of 7%. During the year, 122 apprentices and graduates were taken on as part of our ongoing commitment to train and develop skilled resource for the Group in the future. We also took on 105 new paid industrial and summer placements in the year.

I would like to express my thanks to all employees for their invaluable contribution to the success of the Group during the year.

### Will Lee

Chief Executive

26th July 2018

\* Note 24. Alternative performance measures, defines how adjusted profit before tax, adjusted earnings per share, adjusted operating profit and revenue at constant exchange rates are calculated.

# Our business model

We identify customer needs and then apply innovative engineering to deliver successful solutions.

## We have a simple business model...



### 1. Customer needs

All areas of our organisation seek to work in partnership with customers to understand and solve their current and anticipated real-life problems.

We aim to provide solutions that drive efficiency, improve performance and reduce costs.

 For more see pages 14 and 16 to 17



### 2. Innovative engineering

Renishaw's strategy of investment in R&D and engineering skills enables us to take a longer-term view of the viability of new technologies.

We are actively expanding our significant portfolio of innovative and patented products.

 For more see pages 13 and 24 to 31



### 3. Successful solutions

We are a highly vertically-integrated company, which helps us to deliver for our customers. We not only undertake design of innovative products, we also manufacture and sell them through our wholly-owned manufacturing and sales organisations.

 For more see pages 14 and 22 to 23

 Our key performance indicators are shown on page 15.

 Information on the risks associated with our business and how we manage them is contained on pages 34 to 37.

## ...generating value for a wide range of stakeholders

<b>Our customers</b>		
<ul style="list-style-type: none"> <li>27 new patent applications filed and 95 previously filed patents granted during the year</li> <li>We opened three new offices in the year in Mexico, China and Poland</li> <li>We continue to enhance customer support through investment in training and demonstration facilities as well as showrooms.</li> </ul>	<b>Increase in new product R&amp;D spend</b> <b>10%</b>	<b>Sales and marketing spend</b> <b>£121m</b>
<b>Our shareholders</b>		
<ul style="list-style-type: none"> <li>We have a strong balance sheet (see page 18)</li> <li>Shareholders' funds grew by 24% in the year</li> <li>Our total assets grew by 18% in the year</li> <li>We have a progressive dividend policy and paid a total dividend for the year of 60.0p.</li> </ul>	<b>Growth in dividend per share</b> <b>15%</b>	<b>Total shareholder return (TSR) over the past five years</b> <b>277%</b>
<b>Our people</b>		
<ul style="list-style-type: none"> <li>We employ more than 4,800 people across the Group</li> <li>Our lost working time injuries rate during the period was 0.7% against an industry average of 1.94% per million hours worked</li> <li>Our Group staff turnover was 8%</li> <li>5% of employees are apprentices, graduates or sponsored students on structured programmes.</li> </ul>	<b>Money invested in training</b> <b>£2.3m</b>	<b>Number of people on recognised training programmes</b> <b>399</b>
<b>Our suppliers</b>		
<ul style="list-style-type: none"> <li>We are signatories to the Prompt Payment Code</li> <li>We work with nearly 3,000 suppliers across 38 countries</li> <li>More than 80% of our tier one suppliers have been assessed for the risk of modern slavery.</li> </ul>	<b>Average payment days</b> <b>46</b>	<b>Tier one suppliers assessed for the risk of modern slavery</b> <b>&gt;80%</b>
<b>Global communities</b>		
<ul style="list-style-type: none"> <li>£182,000 donated to more than 280 projects during the year</li> <li>Our educational outreach work is supported by over 175 STEM Ambassadors</li> <li>Across the Group we support a number of care homes, orphanages, social organisations, hospitals, festivals, sports clubs, schools, educational and environmental projects</li> <li>We have engaged with more than 8,000 students through our education outreach programmes in the 2017 calendar year.</li> </ul>	<b>Charitable donations</b> <b>£182k</b>	<b>Paid hours donated within this reporting period</b> <b>13,044</b>

# Our strategy

Our strategy focuses on the key elements that keep our business model running.



## Examples of what we've achieved over the past year:

### 1. People



Our team in Sweden, where a joint clinical study is investigating Parkinson's disease using a drug delivery system developed by Renishaw



Some of our female STEM Ambassadors who supported a record number of education outreach activities during the year

- HR were restructured to support and partner with the business including an increased Training and Development team, allowing us to have greater focus on people development
- We expanded our recruitment team and implemented a new on-boarding and induction system
- We have invested a record amount of money into training this year and have a record number of people on recognised training programmes
- We increased our focus on attracting more women into the engineering sector including programmes for girls of primary school age and more activities to support International Women in Engineering Day
- 140 apprentices in training during the year and we recruited 60 people for our graduate programme
- Our four full-time education outreach staff, supported by over 175 STEM Ambassadors, engaged with a record 8,000 students during calendar year 2017.

### 2. Continual research and innovative products



During the year we spent £84m on R&D and engineering to drive innovation in our product lines

- A new easy to install encoder family for linear axes offers exceptionally wide installation tolerances and axis speeds of up to 24 m/s
- A newly augmented suite of on-machine apps allow probe routines to be swiftly and simply created, executed and reviewed, helping manufacturing organisations to minimise cycle times and maximise productivity
- A new larger version of the Equator gauging system, the Equator 500, enables the gauging of larger parts.

### 3. Efficient, high-quality manufacturing



A line of CNC machine tools at our Miskin facility in South Wales

- Although our manufacturing output has increased by around 24% this year, through our energy management and investment in renewable technologies, we have achieved a 37% decrease in GHG emissions from our manufacturing sites
- Within manufacturing, we continued to invest in people and resources to meet the output requirements demanded by growth in turnover and to improve our Cost of Sales performance for improved profitability
- We have invested in increased machining functionality at Miskin to support the additive manufacturing product line and to manufacture large mechanical components.

# Our strategy continued

## Examples of what we've achieved over the past year:

### 4. Global customer support



We refurbished our premises in Turin, Italy (pictured) to provide a high-quality demonstration and training facility for our Italian customers

- A new office was completed in the city of Apodaca, Mexico, which will help us to better serve the growing base of customers across multiple industrial sectors
- New facility opened in Baoshan near Shanghai, to enable us to work more closely with Chinese customers on their development projects
- We have launched a dedicated AM Guide information hub on our website to educate customers about the possibilities of additive manufacturing and its business impact.

### 6. Supplementing the business via niche acquisitions



We continue to invest in Detroit-based Renishaw Advanced Consulting and Engineering, Inc., which we acquired in 2014 to help support sales of CMM and gauging products in the USA. During the year, we formally opened a new 20,000 sq ft facility

- We continue to evaluate acquisitions as a means to expand our product portfolio, quicken market penetration and gain access to new patents, technologies and customers.

### 5. Focus on delivering solutions



Renishaw stand at EMO 2017, where we highlighted a range of integrated metrology solutions

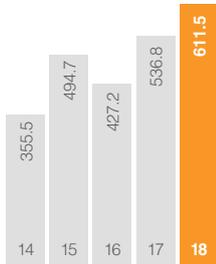
- Beijing Institute of Technology (BIT), China, has used Renishaw's XL-80 laser interferometer to develop a high precision instrument capable of simultaneously and reliably measuring all the key dimensional parameters of a spherical lens
- The US Food and Drug Administration (FDA) has recently cleared the use of Renishaw's neuromate® Gen III surgical robot with the neuroinspire™ surgical planning software in the USA
- A Danish research institute is using a Raman spectroscopy system, from Renishaw, to help its clients understand and reduce the amount of microplastics in the environment.

# Key performance indicators

## The main performance measures monitored by the Board are:

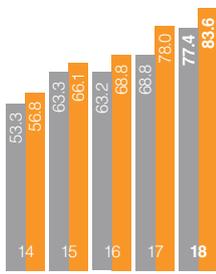
### Financial KPIs

#### Revenue £m



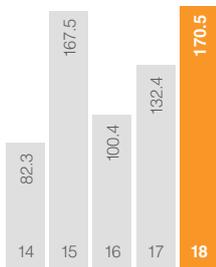
We are focused on growth in revenue, through increasing our market and geographic penetration and continually introducing new products. We have also made a number of acquisitions over the last five years which expand our product range and will support revenue growth by using the Group's worldwide marketing and distribution infrastructure to expand these businesses.

#### Total engineering costs including R&D £m



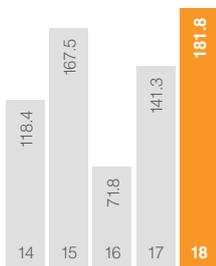
The growth of the business is fundamentally dependent on the continuing investment in engineering costs for the development of new products and processes. The Group continues to make significant investment in future products, with engineering costs equal to approximately 15% of Group revenue, and has also been accelerating new product development in certain areas.

#### Adjusted earnings per share pence

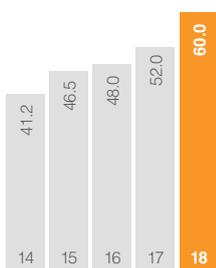


In order to provide an increasing return to shareholders, along with retaining adequate funds for reinvestment in the business, we aim to achieve year-on-year growth in adjusted earnings per share. Note 24, Alternative performance measures, defines how adjusted earnings per share is calculated and why the Board has adopted this measure.

#### Statutory earnings per share pence



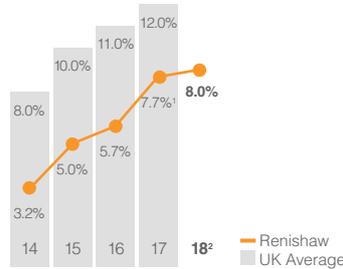
#### Dividend per share pence



We aim to achieve significant long-term returns to shareholders by maintaining a progressive dividend policy, whilst maintaining a solid capital base with sufficient working capital to support the forecast growth.

### Non-financial KPIs

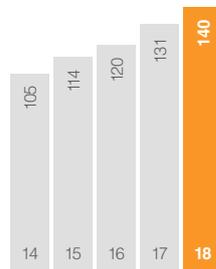
#### Employee turnover %



We continue to train, develop and reward our employees so that we retain skilled and effective teams. Our aim is to maintain our employee turnover rate below the UK average for the manufacturing and production sector.

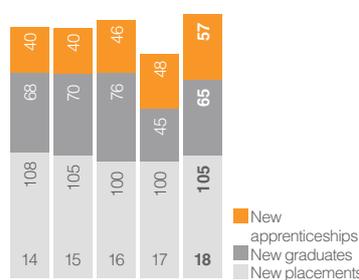
<sup>1</sup> Excludes discontinued operations.  
<sup>2</sup> Data not available at time of publishing.

#### Number of apprentices in training



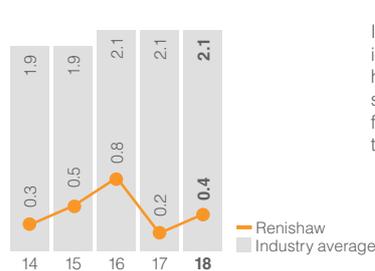
We believe we need to provide many options for career entry for young people. We are proud of our apprenticeship scheme and the success it has achieved, both for the apprentices that have trained with us and for Renishaw in terms of addressing skills gaps. In a period of growth, we intend to increase the number of apprentices taken into training each year.

#### Training



Number of new placements and members of the graduate and apprenticeship schemes (on a calendar year basis). Our strategy is to grow organically; developing students and taking on apprentices and graduates forms a key element of this strategy. Depending on economic conditions, we propose to increase year-on-year the number of new apprenticeships, graduate roles and student placements we offer.

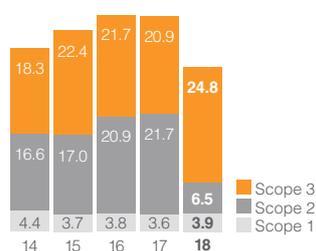
#### Health and safety



Total lost working time injuries per million hours worked.

In a manufacturing environment, it is crucial that we maintain high standards of health and safety. Our aim is to have zero fatalities and zero lost working time injuries.

#### Greenhouse gas emissions '000 tCO<sub>2</sub>e



We understand our business activities have an impact on the environment and are working hard to minimise this effect. We have reduced our GHG emissions through investment in on-site generation, energy efficiency projects and the purchasing of 49% of our electricity from 100% certifiable renewable generation sources.

## Our markets

We develop innovative products that significantly advance our customers' operational performance – from improving manufacturing efficiencies and raising product quality, to maximising research capabilities and improving the efficacy of medical procedures.



Our products enable customers to maximise the potential of their capital equipment; the REVO-2 measuring system for CMMs allows a range of inspection applications on a single machine, including dimensional and surface finish measurement.

Our products serve truly diverse markets across a wide range of industries, customer types and geographic regions. From the manufacture of jet engines and wind turbines, through to dentistry and brain surgery, our products, and our people who service them, are making a real difference to the capabilities of our manufacturing and healthcare clients. These benefits are extended to the end-consumer of our clients' products and services, whether using a smartphone, driving a car, riding a mountain bike or having a new dental crown fitted, many of these products rely on Renishaw's technology and applications expertise.

In the past Sir David McMurtry, Executive Chairman, has said, "We are confident that there are not many modern-day planes, trains or automobiles in the world that have not been touched in some way by Renishaw products."

On the page opposite we have listed our principal markets and the specific key drivers of growth within those markets for our products.

There are also more generic market growth drivers that are positive for our business:

- Global skills shortages – increased investments in automation, robotics and user-friendly technology.
- Rising energy costs – increased demand for products that maximise output.
- Focus on reducing emissions and waste – increased demand for high-performance products with ever tighter manufacturing tolerances and products that help minimise waste and rework.
- Global competitiveness – increased focus on costs demands increased speed of operation and reduced scrap/rework.
- Population growth and rising incomes – increased consumption in our principal markets.
- Life expectancy rising globally – increased demand for healthcare products and continuing demand for consumer products.

We are also increasingly spreading risk through the diversification of our applications for product lines, our customer base and our routes to market.

Renishaw's business has transitioned over recent years from primarily being a supplier of products to capital equipment manufacturers, to becoming much more focused on delivering a full solution directly to end-users. The experience gained by dealing direct with the users of our products on a global basis and gaining a deeper understanding of their problems is helping to inform the development of new products and services.

Today, many of our product lines including measurement and automation, calibration, additive manufacturing and healthcare lines are primarily sold direct to the end-user. This helps to build brand loyalty and open up new revenue opportunities including hardware and software upgrades, the cross-selling of complementary products and maintenance contracts.



## Aerospace

Aircraft are highly complex structures and key assemblies from engines and wings to control systems, control surfaces (e.g. flaps and rudders) and landing gear, rely on Renishaw products for process control and post-process inspection during their manufacture. Our products are applied throughout the supply chain in many application areas, including maintenance, repair and overhaul (MRO) and in materials research, where our additive manufacturing technologies are, for example, being used to produce lightweight components through lattice structures and part consolidation. Key drivers include the requirement for 41,000 new aircraft by 2036 to meet growing global demand for civil air transport (source: 2017 Boeing Global Market Forecast), new fuel-efficient engines with more complex parts that require faster measurement, and the requirement to improve fuel efficiency by minimising airframe weight.



## Agriculture

The majority of key components on high-end agricultural equipment are subject to process control using Renishaw products, whilst our encoders can be found on satellites assisting with Smart Farming techniques. The sector is being driven by increasing global demand for food products from developing nations, as well as increasing global demand for biofuels. This is requiring greater investment in machinery for intensive farming capabilities and new technology to bring greater efficiencies to deliver precision agriculture – making use of satellites to monitor crop condition and direct machinery for optimal performance, including the distribution of seed, fertilisers and pesticides.



## Automotive

We operate throughout the automotive supply chain. The majority of key components on domestic and commercial vehicles are subject to process control using Renishaw products. Key drivers include continuing investment in manufacturing capacity to meet growing global demand, improved fuel efficiency requiring ever tighter tolerances on powertrain components, plus cost efficiencies and automated processes required throughout the supply chain. We are also benefiting from increasing demand for sensors and dashboard digital displays.



## Construction

From heavy earthmoving equipment to mineral analysis, Renishaw's products are used in a diverse range of construction industry applications. These include the manufacture of large high-value components such as chassis where scrap is too costly to accept, the production of power plants to deliver improved reliability and reduced emissions, and materials identification of geological samples using Raman spectroscopy. Key market drivers include major infrastructure projects that increase the demand for heavy equipment and skills shortages within the sector that is requiring more automation within equipment manufacturers.



## Consumer products

The fast-paced nature of the consumer products market demands flexible manufacturing systems that can adapt to shorter lifecycles, yet still meet the requirements for high-quality, high-volume components. Consumer products and electronics continue to change at a rapid pace, with ever shorter lifecycles driven by fashion and functional requirements. Advances in technology, including more sophisticated hardware and sleeker physical designs, require precision manufacturing systems with multiple process control techniques to produce the high standard of fit and finish required for products such as mobile phones, computers and tablets. The higher demand for flat panel displays in consumer products, from watches and smartphones to digital cameras and hand-held gaming systems, has also boosted our motion control products.



## Healthcare

Our technologies are being applied to an ever-increasing number of applications within healthcare, including brain surgery, reconstructive surgery and dentistry. Life expectancy is increasing in both developed and developing markets leading to an increase of neurological disorders which require fast and precise surgical therapies to reduce waiting times. There is also a drive for more economical treatments, more patient-specific treatments, more cosmetic dentistry with superior aesthetics and safer procedures with reduced human errors.



## Power generation

From fossil fuels to renewable energy, Renishaw products are at the heart of associated manufacturing processes and are used to control the production of key componentry including power transmission systems, bearings, generators and pumps. We are also helping drive renewables development by reducing component lead times and helping to bring new components and technology to market faster. Key drivers include the manufacture of components for wind turbines and solar panels, an increasing focus on maximising the efficiency of machinery used in power generation and increasing research into energy storage, especially in relation to electric vehicles.



## Resource exploration

Equipment for oil and gas exploration has to be manufactured to stringent safety requirements, requiring accurate, cost-effective and traceable processes. Renishaw products give manufacturers this capability, whether using our calibration systems to check and verify the dimensional accuracy of large, high-value CNC machine tools, or using probe systems for setting operations and in-process verification.

The growth in the global population and increased urbanisation is driving the long-term demand for fossil fuels and therefore for the exploration of new sources or more research into optimal extraction from existing sites.

# Performance – financial review



Allen Roberts, Group Finance Director



**We have achieved record revenue and Adjusted profit before tax. We continually look to the long-term future of the Group.**

## Highlights

For the second successive year, we have achieved record revenue, amounting to £611.5m. Adjusted profit before tax of £145.1m is also a record and represents growth of 33% compared with the prior year. Statutory profit before tax was £155.2m. We have a strong balance sheet with total equity growing by £104.8m to £548.6m, with net cash balances of £103.8m (2017: £51.9m). The Board is proposing a 15% increase in dividends for the year.

## Revenue

We achieved a record turnover for the second successive year with revenue for the year of £611.5m, compared with £536.8m last year, a growth of 14%. We experienced revenue growth for the year of 18% at constant exchange rates.

## Revenue by region

The table below shows the analysis of Group revenue by geographical market.

In our metrology business segment, revenue was £575.8m, compared with £503.4m last year, an increase of 14%. Revenue in our healthcare business segment increased by 7% from £33.4m last year to £35.7m.

A geographical analysis of our metrology and healthcare businesses is shown on page 2.

## Revenue analysis by region

	2018 revenue at actual exchange rates £m	Change from 2017 %	2017 revenue at actual exchange rates £m	Underlying growth at constant exchange rates %
Far East, including Australasia	280.8	+13	248.9	+19
Continental Europe	154.2	+19	129.9	+17
North, South and Central America	126.6	+11	113.6	+19
UK and Ireland	30.5	+11	27.6	+11
Other regions	19.4	+15	16.8	+16
Total Group revenue	611.5	+14	536.8	+18

## Alternative performance measures

In 2017, the Board introduced alternative performance measures (adjusted profit before tax, adjusted operating profit and adjusted earnings per share) to report the results on the basis that all forward contracts are accounted for as effective hedges. These measures are the basis by which the Board evaluates the Group's performance as they better represent the underlying trading of the Group. The table below shows the details of the adjustments between statutory profit before tax and adjusted profit before tax. See note 24 for further details.

	2018 £m	2017 £m
Adjusted profit before tax	<b>145.1</b>	109.1
Fair value gains and losses on financial instruments not eligible for hedge accounting:		
- reported in revenue	<b>5.3</b>	11.6
- reported in losses from the fair value of financial instruments	<b>4.8</b>	(3.6)
Statutory profit before tax	<b>155.2</b>	117.1

## Profit and tax

The adjusted profit before tax amounted to £145.1m, an increase of 33% compared with £109.1m in 2017. Statutory profit before tax was £155.2m compared with £117.1m in the previous year. In our metrology business, adjusted operating profit was £142.8m, compared with £115.9m last year. I am pleased to report an adjusted operating profit of £0.3m in our healthcare business compared with a loss of £7.2m last year.

The overall effective rate of tax on continuing operations was 14.7% (2017: 12.2%). The Group operates 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 the UK, the tax charge for the current year benefited from a lower UK current corporation tax rate of 19.00% (2017: 19.75%) and a UK patent box benefit amounting to £5.7m. The 2017 tax charge benefited from a reduction in the UK deferred tax rate to 17% from 2020 and a prior year credit of £3.0m. Note 7 provides further analysis of the effective tax rate.

## Earnings per share and dividend

Adjusted earnings per share from continuing operations is 170.5p, an increase of 29% compared with 132.4p last year.

Statutory earnings per share from continuing operations is 181.8p, compared with 141.3p last year.

In line with the Group's progressive dividend policy, a final dividend of 46.0p net per share (2017: 39.5p) results in a total dividend for the year of 60.0p, an increase of 15.0% over the 52.0p in 2017. Dividend cover is 2.8 times (2017: 2.5 times) on an adjusted basis.

## Research and development

Gross expenditure on engineering costs, including R&D on new products, was £83.6m (2017: £78.0m). The capitalisation of development costs (net of amortisation charges) amounted to £2.1m (2017: £2.7m). The R&D tax credit in 2018 amounted to £4.1m compared with £6.7m in 2017 which included enhanced claims in respect of prior years. The net charge in the Consolidated income statement amounted to £77.4m compared with £68.8m in 2017. The gross charge amounts to 14% of Group revenue (2017: 15%).

Between the business segments gross expenditure on engineering costs was £77.1m (2017: £68.8m) in the metrology segment and £6.5m (2017: £9.2m) in our healthcare segment.

New product R&D expenditure amounted to £59.1m, which compares with £53.5m spent last year. There have been a number of new product releases in both our metrology and healthcare business segments as detailed in our business sector performance reviews, and a number of new product introductions are anticipated during the 2019 financial year.

## Group headcount

Group headcount has increased from 4,530 at 30th June 2017 to 4,862 at 30th June 2018, with the average for the year of 4,639, compared with 4,395 last year. The increase during the year of 332 comprised additional employees of 165 in the UK and 167 overseas. The increase in the UK included 57 apprentices and 65 graduates, and, in addition, we are funding the further education of 186 employees in engineering, software and commercial/business disciplines.

Labour costs, the most significant cost for the Group, increased by 7% to £226.8m (2017: £211.6m) reflecting an annual pay increase, the incremental cost of the employees recruited in both 2017 and 2018 and an increase in the employee bonus provision. Also, the directors' bonus increased this year from £1.7m in 2017 to £2.9m.

# Performance – financial review continued

## Consolidated balance sheet

The Group's shareholders' funds at the end of the year were £548.6m, compared with £443.8m at 30th June 2017. Reserves benefited from our trading results, with a retained profit after tax of £132.9m and were reduced by dividends paid of £38.9m.

Additions to property, plant and equipment totalled £34.9m, of which £10.0m was spent on property and £24.9m on plant and machinery and IT equipment and infrastructure.

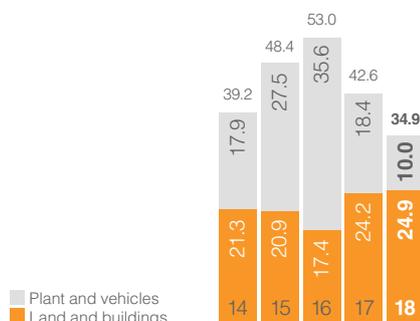
The main additions were:

- in the UK, acquisition of additional premises in Edinburgh and Exeter;
- in Mexico, completion of our new premises in Apodaca;
- in Italy, refurbishment of our existing premises; and
- in Germany, completion of our bespoke Solutions Centre.

### Capital expenditure £m

£34.9m

-18%



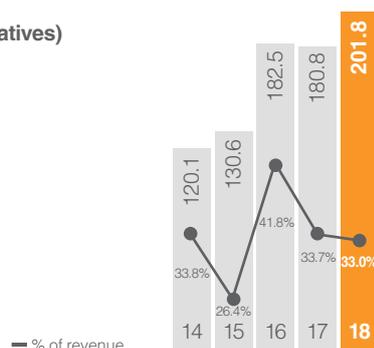
Within working capital, inventories increased to £110.6m from £87.7m at the beginning of the year reflecting our increased trading levels and our expanded additive manufacturing products range amongst other strategic inventory increases. We continue to focus on inventory management whilst remaining committed to our policy of holding sufficient finished goods to ensure customer delivery performance, given our short order book. This year we have seen finished goods and work in progress increase by £27.2m.

Trade debtors increased from £137.5m to £154.6m reflecting record revenue in the final quarter. Debtor days were 69 at the end of the year, compared with 73 at the end of last year.

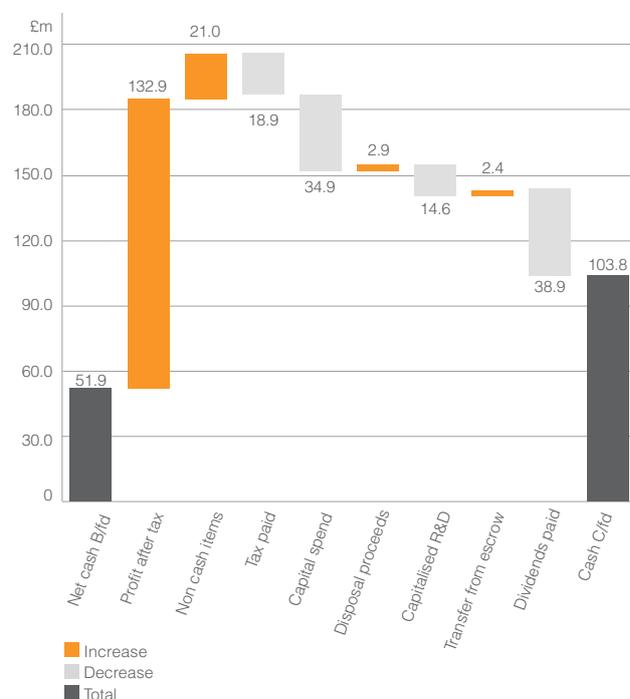
### Working capital £m (excluding cash and derivatives)

£201.8m

+12%



Net cash balances have more than doubled over the year with balances at 30th June 2018 of £103.8m (2017: £51.9m). The cash flow bridge below shows the significant items that reconcile opening to closing cash balances. There is also the pension scheme escrow account of £10.4m (2017: £12.9m).



## Pensions

At the end of the year, the Group's defined benefit pension schemes, now closed for future accrual, showed a deficit of £67.4m, compared with a deficit of £66.8m at 30th June 2017. Defined benefit pension schemes' assets at 30th June 2018 increased to £172.8m from £170.7m at 30th June 2017, representing investment performance during the year net of £12.9m benefit payments including transfers. Pension fund liabilities increased from £237.5m to £240.2m. For the UK defined benefit pension scheme, a guide to the sensitivity of the value of the respective liabilities is as follows:

Valuation sensitivity	Variation	Approximate effect on liabilities
UK – discount rate	Increase/decrease by 0.5%	–£20.0m/+£23.1m
UK – future inflation	Increase/decrease by 0.5%	+£16.4m/–£17.2m
UK – mortality	Increased life by one year	+£7.8m
UK – early retirement	One year earlier than assumed	+£6.2m

The current recovery plan in relation to the 2015 UK defined benefit pension scheme deficit was agreed between the Company and the trustees of the scheme in June 2016 and funds to self-sufficiency over the period to 2031; the pension fund has a charge over the cash escrow account (currently £10.4m) and certain UK properties valued during 2015 and 2016 at £62.3m as financial security for this recovery plan period and the Company has since made contributions to the scheme in line with the plan. The Company, trustees and their respective advisors concluded that the 2016 agreement was in the best interest of the scheme members. The agreement was subject to approval by The Pensions Regulator (TPR) and was submitted to TPR in July 2016.

TPR's October 2017 response to the recovery plan submission questioned whether the 2015 recovery plan provides greater security than the 2012 recovery plan which funded to technical provisions only but required an earlier cash injection. Both the Company and the trustees have held discussions with TPR to detail how each party satisfied itself that the 2016 recovery plan was preferred and to seek terms acceptable to all parties.

The Company and the trustees continue to engage with TPR. In the meantime, the Company and the trustees are complying with the terms of the current (2016) agreement. If the 2016 agreement terminates, the parties may be required to revert to the 2012 recovery plan. In this event the Company would be required to make a contribution to the scheme of approximately £45m adjusted for Company deficit repair contributions and the potential investment return had the contribution been invested in October 2016, and agree a new recovery plan with the trustees.

The next triennial valuation will be undertaken at 30th September 2018.

### Treasury policies

The Group's treasury policies are designed to manage financial risks to the Group that arise from operating in a number of foreign currencies and to maximise interest income on cash deposits. As an international group, the main exposure is in respect of foreign currency risk on the trading transactions undertaken by Group companies and on the translation of the net assets of overseas subsidiaries.

The following information includes disclosures which are required by IFRS and are an integral part of the financial statements. Weekly groupwide cash management reporting and forecasting is in place to facilitate management of this currency risk. The operations of Group Treasury, which is situated at head office, are governed by Board-approved policies.

All Sterling and foreign currency balances not immediately required for Group operations are placed on short-term deposit with leading international highly-rated financial institutions.

The Group uses forward exchange contracts to hedge a significant proportion of anticipated foreign currency cash inflows. There are forward contracts in place to hedge against the Group's Euro, US Dollar and Japanese Yen cash inflows. The Group does not speculate with derivative financial instruments.

The policy to hedge net overseas assets using foreign currency borrowings was ended in December 2017.

See note 16 for an analysis of cash balances at the year end.

### Investment for the future

We will continually look to the long-term growth of the Group and to invest in the R&D of new products, improving manufacturing and production processes to provide capacity for the future, and expanding our marketing and support presence around the world.

### Allen Roberts

Group Finance Director

26th July 2018

# Delivering global solutions

Across the world, manufacturers in a diverse range of industries rely on our products to manufacture highly accurate and reliable machinery, maximise process efficiency, significantly reduce the time taken to produce and inspect components, and carry out groundbreaking research.



**We consistently exceed the specifications of customers with Renishaw's encoders. We try to offer a best-in-class experience to our customers and attribute part of our continuing success to the technology advancements that companies like Renishaw offer.**

**William Land**  
Chief Technology Officer  
Aerotech, USA



**Howard Salt, USA**

## **Developing encoders which hold the key to ultra-accurate motion control**

Aerotech supplies high-precision positioning tables, stages and systems used in a variety of high-performance applications including industrial robots, semiconductor equipment, medical component laser machining and micromachining. A large portion of its business is custom designed motion systems requiring high precision and high throughput. One major concern and big influence on measurement performance is the distance between the measuring feedback device and the point of measurement. The compact Renishaw RLE laser interferometer encoder allows Aerotech to close the distance to the point of measurement, greatly minimising measurement uncertainty on precision machines [www.renishaw.com/aerotech](http://www.renishaw.com/aerotech).





**Roberto Rivetti, Italy**

## 50% faster turbine blade inspection

Checking critical dimensions of complex turbine and aero-engine blades can be difficult and time consuming, especially where 100% inspection is required. After retrofitting existing CMMs with Renishaw PH20 5-axis probe head and MODUS™ software, inspection cycle times at Europea Microfusioni Aerospaziali have been reduced by up to 50% [www.renishaw.com/ema](http://www.renishaw.com/ema).



**The relationship with Renishaw has been really good. What we like most is the wide range of options and the ability to customise every component.**

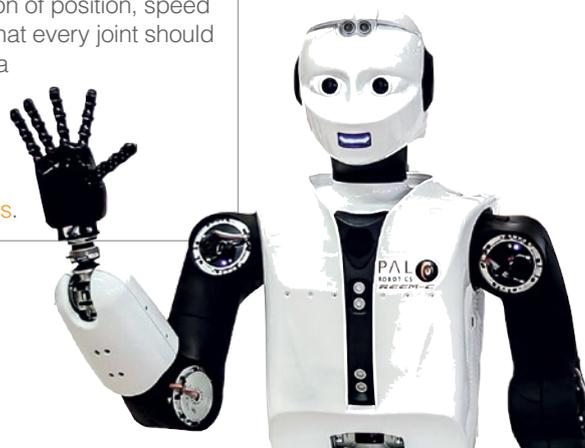
**Luca Marchionni**  
Chief Technology Officer  
PAL Robotics, Spain



**Victor Escobar, Spain**

## Integrating magnetic encoders to achieve balance

REEM-C is PAL Robotics' full-size biped humanoid robotics research platform which provides a fully customisable basis for research into areas such as navigation, machine vision, human-robot interaction, artificial intelligence, grasping, walking and speech recognition. The robot has fully articulated joints capable of performing a range of complex movements. Balance control is vital for stable biped robot walking and outputs from RLS magnetic encoders on each joint enable estimation of robot posture and generation of position, speed and acceleration references that every joint should follow. The encoders provide a flexible position measurement solution and can meet stringent space and performance requirements [www.renishaw.com/palrobotics](http://www.renishaw.com/palrobotics).



**Francesco Tivegna, China**

## Raman spectroscopy – an advanced technique for gemstone analysis

Counterfeiting has become increasingly common as demand for gemstones has risen. It can be exceptionally challenging to identify the authentic gems, even for the most experienced gemmologist. As the technologies used for creating counterfeits increase in complexity, so must the methods used to identify them. For almost two decades The National Gemstone Testing Center (NGTC), the authoritative gemstone testing facility in China, have been using Renishaw's high-performance confocal Raman microscopes to perform non-destructive identification and characterisation of gemstones, such as diamond and jade. The spectrometers can certify gem authenticity and determine whether gems are natural, synthetic or treated [www.renishaw.com/ngtc](http://www.renishaw.com/ngtc).

# Metrology – business sector

Our key markets include aerospace, automotive, construction, consumer products and power generation.



## Aerospace

We offer expertise in controlling the manufacture of specialist components. We specialise in performance, MRO, safety and innovative materials. For further information visit [www.renishaw.com/aerospace](http://www.renishaw.com/aerospace).



## Automotive

We have decades of experience in helping manufacturers improve their efficiency and performance, bringing new components to market faster than ever before. We specialise in new processes, automation, efficiency and performance. For further information visit [www.renishaw.com/automotive](http://www.renishaw.com/automotive).



## Construction

From construction and agriculture to rail and heavy plant, we work across all the heavy industries. For further information visit [www.renishaw.com/heavy-industry](http://www.renishaw.com/heavy-industry).



## Consumer products

From consumer electronic devices to high-precision components, we support improvements in manufacturing capabilities that cater to the demands of more sophisticated hardware, sleeker physical design and the requirement for ever-shorter life cycles. For further information visit [www.renishaw.com/electronics](http://www.renishaw.com/electronics).



## Power generation

We work across the entire energy sector. For further information visit [www.renishaw.com/energy](http://www.renishaw.com/energy).

Our metrology products help manufacturers to maximise production output, significantly reduce the time taken to produce and inspect components, and keep their machines running reliably. In the fields of industrial automation and motion systems, our position measurement and calibration systems allow machine builders to manufacture highly accurate and reliable products.

The product range includes:

### Additive manufacturing (AM)

Advanced metal AM systems for direct manufacturing of 3D-printed metallic components. A total solution is offered from systems, materials, ancillaries and software through to consultancy, training and support for a range of industries including industrial, healthcare and mould tooling.

### Co-ordinate measuring machine (CMM) products

Sensors, software and control systems for three-dimensional CMMs, including touch-trigger and scanning probes, automated probe changers, motorised indexing probe heads and 5-axis measurement systems, which enable the highly accurate measurement of manufactured components and finished assemblies.

### Machine tool probe systems

Sensors and software for computer numerically controlled (CNC) metal cutting machine tools that allow the automation of setting and on-machine measurement operations, leading to more productivity from existing machines and reductions in scrap and rework. These include laser tool setters, contact tool setters, tool breakage detectors, touch probes, contact scanning systems and high-accuracy inspection probes.

### Styli for probe systems

Precision styli that attach to probe sensors for CMMs, machine tools and Equator™ gauging systems to ensure that accurate measurement data is acquired at the point of contact.

### Performance testing products

Calibration and testing products to determine the positioning accuracy of a wide range of industrial and scientific machinery to international standards, including a laser interferometer, rotary axis calibrator, wireless telescoping ballbar and software for data capture and analysis.

## Gauging

The Equator gauging system enables process control by delivering highly repeatable, thermally insensitive, versatile and flexible gauging to the shop floor, both as a standalone device and as part of an automated manufacturing cell. Combined with IPC (intelligent process control) software, the Equator gauge provides the functionality to fully automate tool offset updates in CNC manufacturing processes.

## Fixtures

Modular and custom fixtures used to hold parts securely for dimensional inspection on CMM, vision and gauging systems.

## Position encoders

Position encoders that ensure accurate linear and rotary motion control in a wide range of applications from electronics, flat panel displays, robotics and semiconductors to medical, precision machining and print production. These include magnetic encoders, incremental optical encoders, absolute optical encoders and laser interferometer encoders.



# Equator 500

The new Equator 500 gauging system enables larger parts to be inspected on the shopfloor and for the manufacturing process to be automatically adjusted based on the results of inspection data.

## Metrology in numbers 2018

### Revenue

**£575.8m**

+14%

(2017: £503.4m)

### Adjusted operating profit

**£142.8m**

+23%

(2017: £115.9m)

### Percentage of Group revenue

**94%**

(2017: 94%)

# Metrology – performance

## Performance

It was a very good year for our metrology business with record revenue and profits, and all lines seeing growth compared to the previous year. There was strong growth in our measurement and automation, CMM, machine tool and AM product lines.

The measurement and automation product line, currently focused on the Equator gauging system, continues to see high levels of global success in the automotive, electronics and aerospace sectors, with integration within automation cells continuing to be a notable trend. To meet the demand for the gauging of larger parts, the Equator 500 system was launched in spring 2018, giving a working volume of 500 mm in diameter and up to 400 mm in height and supporting workpiece and fixturing with a total weight limit of 100 kg. Typical automotive applications include transmission and engine casings, conrods and differential housings, suspension castings, valves and pumps.

There is growing interest in AM as a production technology, where its ability to produce complex geometries and lightweight components is proving attractive to many industry sectors. Renishaw is being increasingly seen as a technology leader in this field as a result of our new hardware and software products that were launched during the year (see Key developments).

The position encoders line and our joint venture RLS, continue to derive particular benefit from the ongoing global drive towards industrial automation which aims to increase capacity and flexibility, whilst reducing manufacturing lead times and costs. This sector, like LED and flat panel display (FPD) manufacture, requires rapid, reliable and accurate measurement of position between moving parts. The market for industrial robots is also growing, with the introduction of Smart Factory concepts seeing the expansion of new robotic applications into light industries, such as product assembly (computing, communication and consumer) and other automatic production lines, where robots with high precision and high flexibility are required. The use of collaborative robots (cobots) is increasing and we are also seeing more research into humanoid robots (see page 23).

## Market conditions

We continue to see a very favourable environment for many of our metrology lines, especially the position encoders line due to ongoing significant investments in FPD manufacture in the Far East and the increasing use of sensors in the automotive sector. FPDs are widely used in consumer electronics including tablets, laptops and smartphones, and are increasingly used within the automotive sector especially for digital dashboard displays. Encoders are required for manufacturing machinery throughout the FPD production process, from glass trimming and OLED printing to photolithography and inspection.

General market drivers for position encoders are size, accuracy, speed and ease of use, and we continue to benefit from a combination of the right products to meet these demands, backed up by an excellent reputation for customer service.

As well as strong trade in the Far East electronics sector, on a global basis we are continuing to see ongoing investment in production systems and processes, including automation, aided by an increasing awareness of the benefits to be gained by adopting Industry 4.0 and Smart Factory philosophies. Key sectors such as aerospace, automotive and energy require Renishaw systems to meet their need for ever tighter production tolerances and cost controls.

The drivers for our metrology business are similar across the world. Many of our lines are benefiting from global skills shortages in the engineering sector, requiring increased investments in automation and robotics to offset the need for highly-skilled machine operators and demanding user interfaces and software that are easier to operate. Manufacturers are also faced with a relentless drive to reduce costs, shorten lead times, meet the need for increased complexity and closer tolerances in product design, and supply into markets where shorter product lifecycles are compressing times for process development. Renishaw technologies provide them with proven solutions to keep machines running reliably, maximise output from those machines, assist fast changeover between different products, and significantly reduce the time taken to inspect finished components.

Another key driver across our metrology businesses is the need to meet ever-shorter lead times, especially in the consumer electronics sector. Our ongoing investments in manufacturing capacity have given us a very competitive agile capability that allows us to quickly respond to such demands.

A key sector for Renishaw continues to be the civil aviation market. The Airbus and Boeing Global Market Forecasts in 2017 saw the need for between 35,000 and 41,000 new aircraft by 2036 to meet growing demands and the replacement of aircraft within the current commercial fleet. Growth is seen as being due to the large rise in middle-income families in developing markets such as China, India and the Middle East. Renishaw products are heavily used in the aerospace sector for high-levels of process control and part inspection to meet stringent safety standards.

## Strategy for growth

We continue to position Renishaw as a solutions provider. Our measurement and automation, calibration, AM, and accessory ranges, such as styli and fixtures, can be supplied direct to the end user, whilst we continue to strengthen our portfolio of hardware and software for users of CMMs, including the upgrades of measuring machines already installed.

We are focused on the long term and a key focus is on developing technologies that provide patented products and methods which support our product strategies, with £77.1m (before net capitalised development costs and the R&D tax credit) expenditure on R&D and engineering during the year. The current technology focus continues to be on products that help our customers to improve measurement performance, increase speed of operation, increase measurement capability and are easier to use.

These include: integrated process control solutions for automated manufacturing processes; the development of AM systems with faster processing capability and improved process control for large-scale manufacturing; miniaturised high-resolution position feedback systems that support the manufacture of high-precision electronics; simplified software, including apps, for machine tool and CMM probing, calibration and gauging; and a multi-sensor capability for CMMs.

Our wide portfolio of products gives us key advantages when competing for high-value orders, and both AM sales and automation projects are often with existing customers who understand Renishaw's holistic approach to manufacturing and the complementary products that can assist their part production. Our exhibition stands and our in-house demonstration facilities increasingly focus on the levels of integration that we can bring to a manufacturing environment, especially for companies looking to bring connectivity and the intelligent use of data within their manufacturing processes. We also utilise our existing technologies across different product lines to speed development times; for example, our MODUS™ metrology software platform, initially created for CMM applications, is also used with our Equator gauging systems where it allows CAD-driven programming and the gauging of complex profiles. Our optical position encoders are used on the Z-axis of our new range of RenAM 500 AM systems and the REVO®-2 measuring head for CMMs.



**Our encoders are required for manufacturing machinery throughout the flat panel display production process, from glass trimming and OLED printing to photolithography and inspection.**



Jean-Marc Meffre, Far East

## Key developments

In addition to new products already mentioned we introduced other metrology products, most notably within our AM line where at the formnext exhibition in November we introduced several important products including the RenAM 500Q system with four lasers, each of which can address the whole bed of the machine to improve productivity up to four times without increasing platform size; InfiniAM Spectral process monitoring which allows real-time analysis of laser energy input and melt-pool emissions; and InfiniAM Central for remote monitoring of AM manufacturing facilities, including system status and productivity levels. A special high temperature (HT) version of the AM 400 was also introduced that allows the build plate to be pre-heated to reduce residual stresses during production, allowing the processing of more challenging geometries and a wider range of materials.

Also launched during the year was SupaScan v3 with SPRINT scanning technology which allows surface condition monitoring on a machine tool, an enhanced version of the high-accuracy MP250 probe for grinding machines that allows the probe to be configured to suit the application requirements, and the new QUANTiC™ family of incremental all-in-one encoders which combine interpolation and digital signal processing inside the readhead and also offer ease of installation with our widest ever set-up tolerances.

## Outlook

Growth in the world's middle classes, with increasing disposable income, is forecast to drive demand in areas such as civil aviation, consumer products, agriculture, construction and power generation (including renewables). These trends should all result in increased demand for all our metrology product lines to help drive efficiencies, reduce waste, increase automation and aid product measurement traceability.

The continuing drive to automate manufacturing processes in many sectors, both to minimise labour costs and reduce the need for skilled labour, will benefit our position encoder, measurement and automation, and machine tool product lines, whilst we remain confident that there will be increased adoption of AM technologies by many of our existing customer groups.

# Healthcare – business sector

Our healthcare products are designed to improve medical research and surgical procedures.

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## Healthcare

Life expectancy is increasing in both developed and developing markets, meaning that key drivers include the requirement for faster procedures to reduce waiting times, more economical treatments, more patient-specific treatments (e.g. implants and personalised medicines), and safer procedures with reduced human errors. All our healthcare product lines are well placed to deliver on these requirements.

Our technologies are being applied to an ever increasing number of applications within healthcare, including brain surgery, reconstructive surgery and dentistry.

Our key markets are dental, neurological and craniomaxillofacial products as well as Raman spectroscopy. For further information visit [www.renishaw.com/healthcare](http://www.renishaw.com/healthcare).

Our technologies are helping within applications such as craniomaxillofacial surgery, dentistry, neurosurgery, chemical analysis and nanotechnology research. These include engineering solutions for stereotactic neurosurgery, analytical tools that identify and characterise the chemistry and structure of materials, the supply of implants to hospitals and specialist design centres for craniomaxillofacial surgery, and products and services that allow dental laboratories to manufacture high-quality dental restorations.

The product range includes:

### **Craniomaxillofacial custom-made implants**

Additively manufactured from titanium, custom-made craniomaxillofacial implants are structural implants that are used in the reconstruction of a patient's head, face or jaw. These are most commonly required after oncology treatment or as a result of traumas.

### **Neurosurgical robot**

A stereotactic robot that provides a platform solution for a broad range of functional neurosurgical procedures including deep brain stimulation (DBS), stereoelectroencephalography (SEEG), neuroendoscopy and stereotactic biopsies, and is being used within the context of clinical trials for both neurosurgical disorders and brain oncology.

### **Dental scanners**

3D contact scanners and non-contact optical scanners used for digitising of dental preparations and the measurement of implant locations for tooth-supported frameworks and custom abutments.

### **Dental computer-aided design (CAD) software**

Dental CAD software that allows set-up of scanning routines and enables laboratory staff to design abutments and structures for crowns and bridges, including powerful anatomic design functions.

### **Dental structures manufacturing service**

A central manufacturing service that can handle CAD files from a wide variety of dental CAD systems to produce structures for crowns, bridges and abutments in cobalt chrome.

### **Neurosurgical planning software**

Software that allows advanced planning of targets and trajectories for stereotactic neurosurgery.

### **Neurosurgical implants**

Implantable devices that allow surgeons to verify expected DBS electrode position relative to targeted anatomy using magnetic resonance imaging (MRI) for the treatment of Parkinson's disease, other movement disorders and neuropathic pain.

### Neurosurgical accessories

Specialist electrodes and instruments for use in epilepsy neurosurgery, manufactured by DIXI Medical.

### Raman microscopes

Research-grade inVia Raman microscope for the non-destructive chemical analysis and imaging of materials used by scientists and engineers worldwide. Its high-speed, high-quality results and upgradeability are valued in fields as diverse as nanotechnology, biology and pharmaceuticals.

### Hybrid Raman systems

Hybrid systems that unite the chemical analysis power of Raman spectroscopy with the high spatial resolution of other techniques, such as atomic force microscopy and scanning electron microscopy. These new instruments are vital tools for investigating materials and devices for nanotechnology applications.

### Turn-key Raman analysis

RA800 benchtop platform, which provides companies with a high-performance chemical imaging and analysis system that can be tailored for the needs of their customers. RA800 gives research-grade Raman microscopy performance in a Class 1 laser-safe, simple-to-use form.

### Pharmaceutical analysis

RA802 pharmaceutical analyser, a compact benchtop Raman imaging system designed exclusively for the pharmaceutical industry. It enables users to formulate tablets more efficiently by speeding up the analysis of tablet composition and structure.



## RA802

Our Raman instrumentation meets the high-performance requirements of a wide range of research applications. The RA802 pharmaceutical analyser speeds up the analysis of tablet composition and structure to enable users to formulate tablets more efficiently.

## Healthcare in numbers 2018

### Revenue

£35.7m

+7%

(2017: £33.4m)

### Adjusted operating profit

£0.3m

(2017: loss of £7.2m)

### Percentage of Group revenue

6%

(2017: 6%)

# Healthcare – performance

## Performance

There was growth from all our healthcare product lines (spectroscopy, neurological and medical dental) with strong growth in the neurosurgical product line.

The medical dental product line experienced growth from focusing on the sale of Renishaw AM machines configured for medical and dental applications. Through the Healthcare Centre of Excellence at the Miskin site, it collaborates with healthcare organisations to prove the potential for AM in medical applications. During the year, this included the first chest prosthesis to be manufactured and implanted into a patient in Britain at Morriston Hospital, Wales, and an implant for a dog that replaced hard tissue lost due to tumour removal.

There was another good year of sales for additively manufactured metal dental structures created from cobalt chrome powder using Renishaw AM machines. This came from a mix of LaserPFM™ frameworks (crowns and bridges), LaserRPD™ partial dentures and LinkAbutments™. The majority of manufacture of medical dental AM products takes place in the Healthcare Centre of Excellence, based at Miskin, which operates under an ISO13485 quality management system.

Our Raman instrumentation meets the high-performance requirements of a wide range of research applications. The issue of pollution caused by plastics has gained significant global coverage over the past year, including microplastics which have been identified within the food chain and water supplies. In Denmark, the Danish Technological Institute (DTI) is using a Renishaw inVia Raman spectroscopy system to help its clients understand and reduce the amount of microplastics in the environment.

DTI uses a range of advanced features of the inVia microscope to produce a comprehensive set of data on the number, size, shape, and chemical composition of the particles in waste water. It is expanding its research to also look at microplastics below 20 µm in size, rubber contamination from vehicle tyres in sewers and microplastic reduction at other local waste water sources, such as laundries.

There is an increasing use of our technology within medical research. For example, in the UK, we have collaborated with scientists at the John Radcliffe Hospital, Oxford to investigate the capability of Raman spectroscopy to classify gliomas, in terms of their genetic subtypes, using different pathological preparations. This work was presented at the recent Cancer Research UK Brain Tumour Conference and showed that Raman spectroscopy has the potential to provide a non-invasive and non-destructive tool to probe the unique molecular vibrations of tissue samples, allowing for rapid sample analysis to aid in clinical decision-making.



**We are seeing more neurosurgeons carrying out stereoelectroencephalography (SEEG) procedures with the assistance of a Renishaw neuromate stereotactic robot in the treatment of epilepsy.**



Rupert Jones, UK

During the year, the neurological product line achieved key sales of the neuromate® stereotactic robotic systems. The Walton Centre in Liverpool is the only NHS Trust in the UK dedicated to neuroscience and the staff includes many leaders in their areas of expertise. During the year, neurosurgeons at the Centre carried out their first stereoelectroencephalography (SEEG) procedures with the assistance of a Renishaw neuromate stereotactic robot. SEEG is a procedure used in the treatment of epilepsy; multiple intracerebral electrodes are inserted into the brain to gather data and map brain activity to identify which region of the brain is acting as a source for the epileptic seizures. Once the epileptogenic region has been identified neurosurgeons can follow up with a tailored resection to remove the problematic tissue.

Consultant neurosurgeons Prof. Paul Eldridge and Mr Jibril Osman-Farah, commented: “Since there are multiple trajectories to be both planned and executed it is highly suited to a robotic system fulfilling the requirement for a repetitive stereotyped activity. Without the robot it becomes impractical to consider such a series of multiple electrodes in a reasonable length of time for the procedure.”

Outside the UK, a neuromate robot was installed in the USA at the Boston Children’s Hospital (BCH), which hosts a National Association of Epilepsy Centers (NAEC) accredited Level 4 Epilepsy Center. The team will integrate the robot into their SEEG procedures and Dr. Scellig Stone, Director of Stereotactic and Functional Neurosurgery at BCH, commented: “The addition of the neuromate system to our workflow promises to significantly increase the efficiency of our stereotactic surgeries, lower the risk for human error in targeting, and complements other neurosurgical technologies that together allow us to stay at the cutting edge of paediatric neurosurgical therapies.”

Following the previous year's announcement of a phase I-II clinical trial with Herantis Pharma to investigate the treatment of Parkinson's disease using Cerebral Dopamine Neurotrophic Factor (CDNF), the first patients in Sweden and Finland were implanted with a novel drug delivery system, developed by Renishaw. CDNF aims to relieve the symptoms of Parkinson's disease by protecting and regenerating dopamine-producing neurons.

### Market conditions

Life expectancy is increasing in both developed and developing markets, meaning that key drivers include the requirement for faster procedures to reduce waiting times, more economical treatments, more patient-specific treatments (e.g. implants and personalised medicines), and safer procedures with reduced human errors. All our healthcare product lines are well placed to deliver on these requirements.

Whilst academic research funding has been reduced in some areas of the world due to global economic conditions, the worldwide demand for Raman products is growing due to research in key areas such as nanomaterials, biomedical and green energy. We are also seeing increased investment in research in developing nations and a growing acceptance of the benefits of Raman spectroscopy within industrial applications. Our high-end spectroscopy products, which offer ease-of-use, are well placed to service these growth areas.

### Strategy for growth

We aim to develop innovative healthcare products that will significantly advance our customers' operational performance by maximising research capabilities, reducing process times and improving the efficacy of medical procedures. We are also increasingly addressing the requirement for personalised healthcare treatments.

As a key focus is to develop technologies that provide patented products and methods, we invested £6.5m (before net capitalised development costs and the R&D tax credit) of expenditure on R&D and engineering during the year.

The regulatory requirements for healthcare products demand significant investment, but make barriers to entry high for competitive products.

Our metrology and healthcare businesses are interconnected and we employ core metrology technologies and manufacturing expertise to minimise technology risks. This is illustrated very clearly in our medical dental product line where we use our own AM machines in the manufacture of dental structures and medical implants to demonstrate the suitability of AM for this purpose, whilst also taking advantage of our knowledge of subtractive machining in the hybrid manufacture of LinkAbutments.

We actively seek out partnerships that will assist research and our routes to market, and we consider acquiring businesses and/or technologies that we feel are complementary to our existing healthcare products.

### Key developments

In the autumn of 2017, the US Food and Drug Administration (FDA) cleared the latest version of neuroinspire™ stereotactic neurosurgery planning standalone software for sale in the USA. This software fuses MRI and CT datasets into a 3D volume, enabling neurosurgeons to streamline complex neurosurgical procedures by identifying and outlining regions of interest, and determining the best available approach to the target. Thorough planning in the pre-operative stage can minimise the chance of hitting key anatomy during the procedure, and improve patient outcomes.

Neurosurgeons using neuroinspire can create plans based on procedure type, with planning tools tailored to the task in hand. Users can choose to work on a Deep Brain Stimulation (DBS) to reduce the symptoms of Parkinson's disease, a Stereoelectroencephalography (SEEG) to identify the area of the brain responsible for epileptic seizures or a biopsy to assist with the diagnosis of a brain tumour.

Towards the end of the year the FDA then cleared for use Renishaw's neuromate surgical robot with neuroinspire surgical planning software. Both were previously cleared for use separately in the USA, but not in combination. Before obtaining this latest clearance, surgical plans generated using neuroinspire could be manually transferred onto a traditional stereotactic frame. With this latest clearance, neurosurgeons across America can now export surgical plans from neuroinspire directly to the neuromate robot, allowing patients to benefit from improved procedures for Parkinson's disease, epilepsy and brain tumours.

### Outlook

Increased life expectancy on a global basis means greater incidences of degenerative neurological diseases, which will require surgical therapies. With appropriate regulatory approvals and increasing numbers of reference sites we are well-placed to supply neurosurgeons with the products and techniques to support such procedures.

In developing markets, levels of wealth are increasing at a national and individual level, which is driving demand for higher-quality medical treatments, often requiring more technologically advanced products.

The market for Raman spectroscopy continues to grow in fields such as nanotechnology, advanced materials, pharmaceutical, life sciences and medical research.

# Risk and risk management

Effective risk management is critical to the achievement of our strategic objectives. Risk management controls are integrated into all levels of our business and across all our operations. We continually assess our exposure to risk and seek to ensure that risks are appropriately mitigated.

## Overview of risk management

The Board is responsible for the overall stewardship of our system of risk management and internal control. It has established the level of risk that is appropriate for our business and acceptable in the pursuit of our strategic objectives and has therefore set appropriate policies. It has also set delegated authority levels to provide the framework for assessing risks and ensuring that they are escalated to the appropriate levels of management, including up to the Board where appropriate, for consideration and approval.

The roles and responsibilities of the Board, key committees and all levels of management from a risk management perspective are summarised in the infographic below. This process ensures that risks are not just the product of a bottom-up approach but are also examined from a top-down perspective via an integrated senior management process, which is closely aligned with the Group's strategy, in order to enhance the Group's approach to risk generally.

## Activities during the year

The executive risk committee met four times in the period and conducted a thorough review of our principal risks, as well as the relevant mitigation plans for each.

The overall effectiveness of the Group's risk management and mitigation processes is reviewed regularly by the Executive Board and the Audit Committee.

The internal audit team operates independently, reporting to the Audit Committee. Scheduled visits to Group companies were held and documented, with an executive summary provided to the Audit Committee and any significant shortcomings acted upon promptly. Process enhancements are worked upon by this team. All operating companies are required annually to complete self-certification questionnaires, regarding compliance with Group policies, procedures and requirements.

### Risk management framework – information and feedback flow



## Cyber threats

In relation to the continuing cyber security threat, we have trained several senior IT managers to a high level and rolled out further company-wide training. We have further strengthened our IT systems' resilience in key areas as well as the monitoring of emerging threats. Considerable resource has been allocated to ensure we meet the requirements of the General Data Protection Regulation that came into force in May 2018.

## Ethical business practices

Our Group Business Code reminds employees about the importance of 'doing the right thing' in all our activities. We also have an Anti-Bribery Policy and a Whistleblowing Policy facilitated by a confidential global telephone service run by Safecall, which together with employee training in these areas is a fundamental part of our programme to establish guidelines and promote a culture of ethical business across the globe. Training continues to be refreshed and refined to suit the risk profile in the business and is reviewed by an anti-bribery working group several times per year, which facilitates evaluating risk in this area. We have so far trained 2,090 employees on our anti-bribery training module. Key messages were also reinforced at our Subsidiary Conference in March 2018. Any calls to our whistleblowing line are rigorously followed up.

As reported last year, enhanced due diligence procedures have been implemented for routinely screening new and existing agents and distributors, utilising the services of a market-leading screening service, World Check. We have an Intermediary Due Diligence Policy together with a specific e-learning course, which explains to employees our requirements and the process to follow.

**i** Viability statement  
for more information see page 37

### Key focus areas for the 2018 financial year

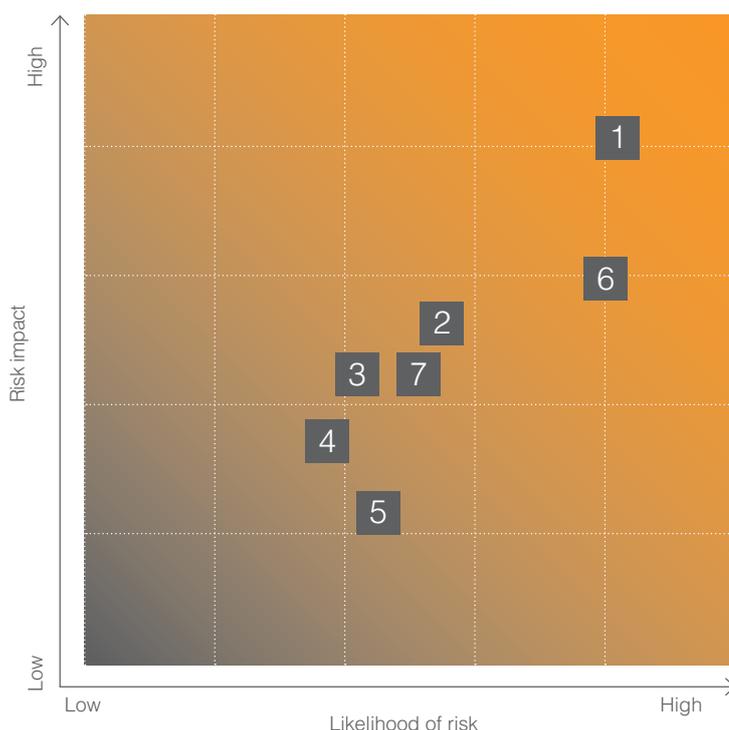
- A robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.
- Implementation of measures in response to the General Data Protection Regulation.
- Four meetings of the executive risk committee.
- Recruitment of a new General Counsel & Company Secretary.
- Consideration of the risks related to Brexit.
- Evaluation of and protection against cyber security threats.
- Anti-bribery due diligence enhancements.

## Risk likelihood and impact before mitigation

The diagram to the right shows the Board's analysis of the principal risks affecting the Group, before mitigation.

- 1 Current trading levels and order book
- 2 Research and development
- 3 Supply chain management
- 4 Regulatory legislation for healthcare products
- 5 Defined benefit pension schemes
- 6 Exchange rate fluctuations
- 7 Cyber security threats

**i** Further descriptions and associated mitigations are shown on pages 34 to 36.



# Principal risks and uncertainties

Our performance is subject to a number of risks – the principal risks and factors impacting on them are set out in the table below.

The Board has conducted a robust assessment of the principal risks facing the business.

The full business implications of Brexit remain uncertain, which will be the case for some time. The Board is closely monitoring the situation as it develops. Further commentary

on Brexit is provided on page 44. Currency fluctuations, trading arrangements, employment issues and other risks that become apparent over time will be monitored by the Board, the executive risk committee and the Brexit steering group, and mitigation put in place where possible.

**Strategic priorities** (see pages 12-14 for more information)

- 1** People
- 2** Continued research
- 3** Efficient high-quality manufacturing
- 4** Global customer support
- 5** Focus on delivering solutions
- 6** Niche acquisitions and investments

<b>1</b> Current trading levels and order book			
<p>Revenue growth is unpredictable and orders from customers generally involve short lead-times with the outstanding order book at any time being around one month's worth of revenue value.</p> <p>Related strategic priorities:</p> <p><b>2</b> <b>4</b> <b>5</b> <b>6</b></p>	<p><b>Potential impact</b></p> <p>Global market conditions continue to highlight risks to growth and demand that can lead to fluctuating levels of revenue.</p> <p>Whilst global investment in production systems and processes is expected to expand, future growth is difficult to predict, especially with such a short-term order book. This limited forward order visibility leaves the annual revenue forecasts uncertain.</p>	<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>The Group is expanding and diversifying its product range in order to maintain a world-leading position in its sales of metrology products. Targeted investment in sales and marketing resources continues in order to support the breadth of the product offerings.</li> <li>The Group is applying its measurement expertise to grow its healthcare and additive manufacturing business activities.</li> <li>The Group retains a strong balance sheet and has the ability to flex manufacturing resource levels and shift patterns.</li> </ul>	<p><b>Year-on-year change</b></p> 
<b>2</b> Research and development			
<p>The development of new products and processes involves risk, such as development timescales, meeting the required technical specification and the impact of alternative technology developments.</p> <p>Related strategic priorities:</p> <p><b>2</b> <b>5</b></p>	<p><b>Potential impact</b></p> <p>Being at the leading edge of new technology in metrology and healthcare, there are uncertainties whether new developments will provide an economic return.</p>	<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Patent and intellectual property generation is core to new product developments.</li> <li>R&amp;D programmes are regularly reviewed against milestones and, when necessary, projects are cancelled.</li> <li>Medium to long-term R&amp;D strategies are monitored regularly by both the Board and the Executive Board, including reviews of the allocation of R&amp;D resource to key projects.</li> <li>Product development processes around the Group are reviewed and aligned where possible to provide consistency and efficiency.</li> <li>New products involve beta testing at customers to ensure as much as possible that they will meet the needs of the market.</li> <li>Market developments are closely monitored.</li> <li>Enhanced collaboration and knowledge-sharing between R&amp;D teams.</li> </ul>	<p><b>Year-on-year change</b></p> 

### 3 Supply chain management

Customer deliveries may be threatened by a failure in the supply chain.

Related strategic priorities:

3

#### Potential impact

Inability to meet customer deliveries could result in loss of revenue and profit.

#### Mitigation

- Production facilities are maintained with fire and flood risk in mind.
- Critical production processes are replicated at different locations where practical.
- The Group is highly vertically integrated providing increased control over many aspects of the supply chain.
- The Group has the ability to flex manufacturing resource levels and shift patterns.
- Regular vendor reviews are performed for critical part suppliers.
- Stock policies are reviewed by the Board on a regular basis.
- Product quality is closely monitored.

Year-on-year change



### 4 Regulatory legislation for healthcare products

The expansion of the Group's healthcare business involves a significantly increased requirement to obtain regulatory approval prior to the sale of these products.

Related strategic priorities:

2

5

#### Potential impact

Regulatory approval can be very expensive and time-consuming. This area is also very complex and there is a risk that the correct approvals are not obtained.

#### Mitigation

- Specialist legal and regulatory employees are in place to support the healthcare business.
- The Group has experience of healthcare regulatory matters at Board level.
- Healthcare operations in the UK and France have ISO13485 certification for their quality management systems, with Ireland and other subsidiary healthcare operations falling under the UK quality management system.

Year-on-year change



### 5 Defined benefit pension schemes

Investment returns and actuarial valuations of the defined benefit pension fund liabilities are subject to economic and social factors that are outside the control of the Group.

Related strategic priorities:

1

#### Potential impact

Volatility in investment returns and actuarial assumptions can significantly affect the defined benefit pension scheme deficit, impacting on future funding requirements.

#### Mitigation

- The investment strategy is managed by the pension scheme trustees who operate in line with a statement of investment principles and take appropriate independent professional advice when necessary.
- A new recovery plan was agreed with the Trustees in June 2016 for the 2015 actuarial valuation based on funding to self-sufficiency. Discussions with The Pension Regulator are ongoing in relation to the timing of the scheme funding.

Year-on-year change



Increased



Decreased



No change

# Principal risks and uncertainties continued

## 6 Exchange rate fluctuations

Fluctuating foreign exchange rates may affect the results of the Group.

Related strategic priorities:

None

### Potential impact

With 95% of revenue generated outside the UK, there is an exposure to major currency fluctuations, mainly in respect of the US Dollar, Euro and Japanese Yen. Such fluctuations could adversely impact both the Group's income statement and balance sheet.

### Mitigation

- The Group enters into forward contracts in order to hedge varying proportions of forecast US Dollar, Euro and Japanese Yen revenue. Forward contracts which are ineffective for accounting purposes provide the protection against rate changes that management intended when entering the contracts.
- There is a monthly board review of currency rates and hedging position.

Year-on-year change



## 7 Cyber security threats

For the Group to operate effectively it requires continuous access to timely and reliable information at all times. We seek to ensure continuous availability, security and operation of information systems.

Related strategic priorities:



### Potential impact

Reduced service to customers due to lack of reliable management information putting the Group at a competitive disadvantage. Delay or impact on decision making through lack of availability of sound data or disruption in/denial of service. Loss of commercially sensitive and/or personal information leading to implications including reputational damage, claims or fines. Theft of commercial or sensitive information/data or fraud causing loss and disruption.

### Mitigation

- There is substantial resilience and back-up built into Group systems.
- An IT security committee exists, comprising IT and business leadership.
- Cyber risk and security is a regular topic for board discussion.
- External penetration testing is utilised on an appropriate basis.
- The Group operates central IT policies in all aspects of information security.
- Regular monitoring of all Group systems takes place with regular reporting and analysis.
- Operating systems are continuously updated and refreshed in line with current threats.
- The Group employs a number of physical, logical and control measures to protect its information and systems.
- E-learning courses are rolled out as required to all employees on all cyber risks.
- The Group has put considerable resource into ensuring compliance with the General Data Protection Regulation and is well placed to handle any Subject Access Requests that arise.

Year-on-year change



## Viability statement

The Board undertakes an annual review of the corporate strategy, which includes medium-term financial forecasts and an assessment of the major risks facing the business. In addition, current financial year forecasts are reviewed regularly by the Board, underpinned by regular briefings from its business sectors and subsidiaries on progress. The corporate strategy provides the foundations for monitoring of performance, budgets, risk and strategic actions by the Board.

The Board confirms that its assessment during the year of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency and/or liquidity, and which are set out in the Group's Principal risks and uncertainties on pages 34 to 36, was robust. In making the assessment, severe but plausible scenarios have been considered that estimate the potential impact of the principal risks on the financial forecasts over the assessment period.

In accordance with provision C.2.2 of the Governance Code, whilst the Board has no reason to believe the Group will not be viable over a longer period, the period over which the Board considers it possible to form a reasonable

expectation as to the Group's longer-term viability, based on the risk and sensitivity analysis undertaken, is the three-year period to 30th June 2021, taking account of the Group's current position, financial forecasts, future prospects and the potential impact of the Principal risks and uncertainties documented in the Strategic report. The Board believes that a three-year viability assessment period is appropriate as the timeframe is covered by the Group's corporate strategy, takes account of the Group's short order book and, together with the planning process set out above, gives management and the Board sufficient, realistic visibility of the future in the context of the industry and world economic environment.

On the basis of the above and other matters considered and reviewed by the Board during the year, the Board has a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period to 30th June 2021. In assessing the Group's viability over the next three years, it is recognised that all future assessments are subject to a level of uncertainty that increases for the latter part of the assessment period and that future outcomes cannot be guaranteed or predicted with any certainty.

- ⓘ Going concern for more information see page 53
- ⓘ For further explanation of our approach to risk management and internal control see pages 32 and 33

# Corporate social responsibility



**Allen Roberts**, Group Finance Director



**At Renishaw, CSR means focusing on material impacts that affect us and relevant stakeholders, so that we concentrate on subjects we are best placed to influence or control.**

## Strategy update

Our CSR programmes all operate under the overarching principles set out in our Group Business Code (the Code), which can be found at [www.renishaw.com/businesscode](http://www.renishaw.com/businesscode). The Code sets out the principles to which our business operates. We also communicate the Code to our suppliers and expect them to work to the spirit of the Code. The Code is split into five areas; Business Ethics, Employment, Health and Safety, Environmental and Management Systems, which are all managed by further policies.

The Annual report contains the information required for compliance with the Companies, Partnerships and Groups (and Non-Financial Reporting) Regulations 2016. The Non-Financial Information Statement comprises information found on pages 10 to 15 (business model), pages 32 to 36 (risks, anti-corruption and anti-bribery matters), and pages 38 to 43 (environmental matters, the Company's employees, social matters, respect for human rights).

## 2018 CSR targets and progress

Energy consumption 	
Target	Progress
<ul style="list-style-type: none"> <li>Decrease reliance on fossil fuel derived energy.</li> </ul> <p><b>i</b> For more see pages 42 and 43</p>	<ul style="list-style-type: none"> <li>49% (2017: 0%) of electricity purchased is from certified renewable sources.</li> <li>3.7% of total global electricity consumption is from on-site generation.</li> <li>New solar array commissioned in India.</li> </ul>
<p><b>1,521,391 kWh</b> of electricity generated this year (26% increase from last year).</p>	<p><b>40,707,226 kWh</b> of electricity consumed this year (4.8% increase from last year).</p>

GHG emissions 	
Target	Progress
<ul style="list-style-type: none"> <li>3% reduction in GHG emissions (tCO<sub>2</sub>e) per million pounds turnover compared to 2017.</li> </ul> <p><b>i</b> For more see pages 42 and 43</p>	<ul style="list-style-type: none"> <li>70% reduction of GHG emissions from purchased electricity (market based).</li> <li>19% decrease in GHG emissions from heating oil consumption.</li> </ul>
<p><b>64%</b> Decrease in market based GHG emissions (tCO<sub>2</sub>e) per £m turnover compared to 2017.</p>	<p><b>24%</b> Decrease in total absolute GHG emissions (market based), 6% increase using location based.</p>

Waste management 	
Target	Progress
<ul style="list-style-type: none"> <li>5% reduction of waste to landfill from global operations.</li> </ul> <p><b>i</b> For more see page 43</p>	<ul style="list-style-type: none"> <li>Just over 2,750 tonnes of waste from our global operations was diverted from landfill.</li> <li>Waste Champions team has been set up to increase employee engagement and reduce waste arising.</li> </ul>
<p><b>26% or 33 tonnes</b> increase of waste to landfill from our global operations.</p>	<p><b>94%</b> of all waste diverted from landfill.</p>

People 	
Target	Progress
<ul style="list-style-type: none"> <li>5% of our employees as apprentices, graduates or sponsored students on structured programmes.</li> </ul> <p><b>i</b> For more see page 39</p>	<ul style="list-style-type: none"> <li>399 people across the Group are on recognised training programmes.</li> <li>A record 227 apprentices, graduates and placements starting this summer.</li> </ul>
<p><b>5%</b> of our employees are apprentices, graduates or sponsored students on structured programmes.</p>	<p><b>£2.3m</b> invested in employee training across the Group in this reporting period.</p>

Group Business Code	5, 33, 38, 39, 44
Diversity and Inclusion Policy	5, 39, 45, 55
Whistleblowing Policy	33, 39, 57
Anti-Bribery Policy	33, 39, 44, 57
Environmental Policy	42
Waste Policy	42, 43
Anti-Slavery Policy	39
Employee Handbook	39
Health and Safety Policy	40

## People

Renishaw's people are central to the success of our business and, over the past 45 years, our innovative, hard-working and loyal employees have helped to make Renishaw a highly successful, globally respected company. We have policies and commitments around the way that we treat our people and adhere to an open and equal status culture, believing strongly that equality and fairness are critical to the success of our organisation.

We continue to promote and celebrate equality, diversity and fairness across the Group, undertaking initiatives to develop and support our cultural improvement. We seek to increase diversity at all levels of the organisation, with a particular focus on gender diversity.

To help achieve these aims, Renishaw has been actively involved for a number of years in education outreach projects, particularly those intended to engage young people in science, technology, engineering and maths (STEM) subjects.

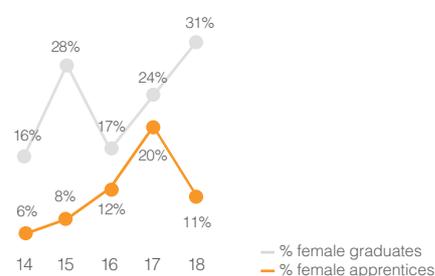
Renishaw's UK-based education outreach team continues to work with primary and secondary schools, as well as higher educational establishments, to encourage young people of all backgrounds to learn about engineering, discover what engineers do every day, and to encourage them to choose engineering as a career.

To allow us to support these education outreach activities across our key regions, we offer STEM outreach training to all our new graduates and second-year apprentices. We now have over 175 trained ambassadors involved in STEM activities, of whom around one-third are women. Our female-only STEM outreach events were attended by over 500 students in 2017. These efforts are already starting to have an impact on our recruitment, as shown by the improved gender diversity of our apprentice and graduate intakes in recent years.

Our remuneration practices are designed to reward and recognise skills, experience and achievement, and to be free of gender bias ensuring that employees are remunerated fairly for the work that they do.

Our global e-learning platform supports our training and compliance initiatives in areas such as Whistleblowing, Anti-Bribery and Renishaw's Group Business Code.

Percentage of female graduates and apprentices



## Human rights, equality and diversity

As a global company, Renishaw enjoys the advantages of a diverse workforce. With over 20 different nationalities represented within our senior management group, we benefit from the variety of expertise that they bring to the business. On 30th June 2018, we employed 4,862 people across the Group, an increase of 7% since last year. Of these, 3,728 (77%) are men and 1,134 (23%) are women. There are nine directors on the Board, consisting of seven men and two women. The senior management group is made up of 52 people, of which 51 (98%) are men and 1 (2%) is a woman. Renishaw regards its senior management group to be the Executive Board, the heads of each product line, sales territory, and manufacturing organisation that report directly into the Executive Board, and the directors of Renishaw's subsidiary undertakings.

We believe that equality and fairness are critical to the success of our organisation. As such we have several policies, including our Anti-Slavery Policy and our Employee Handbook, in place to ensure we foster a workplace that is open and fair to all. We have published our annual statements pursuant to the Modern Slavery Act and the Gender Pay Gap reporting requirements at [www.renishaw.com](http://www.renishaw.com).

We are introducing a comprehensive Diversity and Inclusion Policy across the Group that, together with the implementation of management development training, will highlight and help remove unconscious bias in respect of recruitment, promotion and reward.

# Corporate social responsibility continued

## Health and safety (H&S)

We continue to develop our health and safety management system and we are bringing more sites in line with our health and safety strategy. The overarching policy, HS201, details Renishaw's H&S management structure and processes, in line with industry best practice. The outcome of these policies is a clear and consistent approach to H&S that is used throughout the Group.

In order to provide due diligence, each division is internally audited against HS201 annually, with the Group H&S team being audited by the Group Quality and Compliance team.

The total number of accidents for the period was 233 (2017: 234) against a year-end headcount of 4,862 (2017: 4,530). This equates to an Accident Frequency Rate of 26.22 per million hours worked (2017: 30.79).

There were three reportable accidents under the UK RIDDOR reporting requirements: two musculoskeletal injuries and one leg fracture. This equates to a lost time injury rate of 0.37 per million hours worked compared with a UK manufacturing average for RIDDOR reportable accidents of 2.10 per million hours worked.

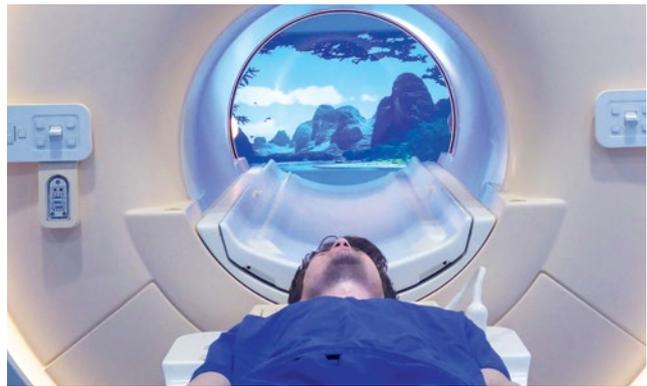
The main area of H&S risk with regards to business operations continues to lie with AM and its associated processes. These are tightly controlled and managed via training, policy and procedures, with the wider AM industry generally accepting Renishaw as one of the safest producers of AM machinery in operation.

## Charity

In the UK, the employee-led Renishaw Charities Committee (RCC) was formed in the 1980s to distribute funds to charitable and voluntary organisations in its local communities and support the individual fundraising efforts of all UK employees. It has a particular focus on assisting activities that help enrich the lives of children and adults, from toddler groups and sports clubs, through to organisations that support the disabled and the bereaved. A separate fund is administered by the RCC, which donates monies to aid the victims of global disasters.

During the year, the RCC made donations to 269 diverse organisations totalling £108,000 (2017: £98,000). The RCC also fully matches funds raised by employees for UK national fundraising events such as Children in Need and Red Nose Day and supports individual employee fundraising activities.

Significant donations of £2,000 or more were made during the year to support nine organisations, including Thornbury Oasis, a new supported housing project for formerly homeless people, Ruskin Mill in Nailsworth, which is a specialist provider of education to learners with complex needs, a new pony for St James City Farm and Riding School in Gloucester, and a new 3.0 Tesla MRI scanner for Cobalt Health based at Cheltenham Hospital which allows high-definition specialist neurology and musculoskeletal imaging.



# £10,000

A charitable donation of £10,000 was made towards the costs of a new 3.0 Tesla MRI scanner at Cheltenham Hospital in the UK, which allows high-definition specialist neurology and musculoskeletal imaging.

Globally, Renishaw is highly supportive of communities local to its operations. In the USA, we continue to support VetPowered LLC with technical assistance and the provision of metrology equipment. This organisation offers machining, fabrication, and maintenance and repair services to industry through a highly-trained veteran and wounded warrior workforce.

During the year, our subsidiary in India supported, through donations of more than £70,200, various care homes, orphanages and social organisations working in sectors including education, healthcare, child welfare, and environmental protection. This included continuing its support of Gurukulam, a residential school which provides education integrated with vocational training to 350 disadvantaged students in Pune. Renishaw India also donated an oxygen support system and 40 Fowler beds to the Pulmonary Ward of the Sassoon Hospital which treats economically disadvantaged patients, and also assisted the hospital with water purifiers, solar power plants and repairs to infrastructure.

## Community

We recognise the positive contribution that can be made to our local communities on a global basis through varied interactions with politicians, local residents, businesses, schools and not-for-profit organisations. This is especially true in the west of England and South Wales, where we are a significant employer.

To ensure a strong pipeline of future talent for Renishaw and the wider engineering community, we communicate a positive story about the role played by science, engineering and manufacturing to enhance the lives of the general populace and the attractive nature of a career within these sectors.

Across the Group we continue to host tour groups and give talks to a range of organisations including primary and secondary schools, universities and colleges, business clubs and societies. We actively support the business community regionally, nationally and internationally, by sponsoring award schemes and through membership of trade and lobbying associations such as the Additive Manufacturing Users Group (USA), the European Society for Precision Engineering & Nanotechnology, SAE International, the Confederation of British Industry (CBI), the Dental Laboratories Association (UK), the Association of British Healthcare Industries, Verein Deutscher Werkzeugmaschinenfabriken e.V. (Germany), UCIMU-SISTEMI PER PRODURRE (Italy) and the UK's Manufacturing Technologies Association (MTA) where two senior managers are Board members.

We are also a member of various industry research centres across the globe, including Canada Makes (Canada), PräziGen (Germany), Light Alliance (Germany), BazMod (Germany), Global 3D Printing Hub (Spain), IAM 3D HUB (Spain), The Manufacturing Technology Centre (UK) and the Advanced Manufacturing Research Centre (UK).

To further our aim of establishing awareness of Renishaw as a significant and engaged employer, we continue to support a wide range of festivals, sports clubs and organisations in the west of England and South Wales. During the year this included gifting our hot air balloon for tethered rides for wheelchair passengers at the National Star College's 50th anniversary event and the sponsorship of the Lechlade Music Festival.

The sport of rugby has an especially high profile in South Wales and the west of England. Recognising the similar cultural challenges of attracting women into rugby and engineering, during the year we became shirt sponsors of both the Gloucester-Hartpury and Scarlets women's rugby teams. We continue to sponsor Samson Lee (Scarlets and Wales), Ben Morgan (Gloucester) and Tomos Williams (Cardiff Blues and Wales). During the year we also sponsored South Korean international footballer Ki Sung-yueng and the Gloucestershire County Cricket Club's 2nd XI.



Renishaw is working hard to encourage more girls into an engineering career. This starts at a young age, including Brownies groups such as the 1st Llanharan Brownies in South Wales who all earned special 'Renishaw engineering' badges.

We are a technical and financial sponsor of numerous university student racing teams, where we utilise our AM expertise to supply key components. This includes teams in Italy, Australia, the UK and Germany. During the year the Cardiff Racing team was crowned the first ever UK winners of the European Formula Student competition, utilising Renishaw's metal AM technology in its car.

## Education

We work hard to inspire and motivate young people of all genders, ethnicity and backgrounds to study STEM subjects and consider engineering as a career. Our aim is to become a key educational resource for the hands-on learning of design, fabrication, manufacturing and engineering skills, helping to support schools with the national curriculum at a time of resource shortages.

In the calendar year 2017, we engaged with around 8,000 students through our various outreach programmes in South Wales and Gloucestershire/Bristol, managed by four full-time outreach staff and supported by our STEM Ambassadors.

With only 11% of the UK's engineering workforce being female, we are encouraging more girls to consider engineering as a career. During the year we worked with Brownies groups who earned 'Renishaw engineering' badges, we hosted activities for all of the Year 7 students from Stroud High School for Girls and we hosted a Girls only Rugby/Engineering camp with Gloucester Rugby. We also gifted 800 of the new 'Little Miss Inventor' books to all primary schools within our key catchment areas and arranged for some of our female STEM ambassadors to read these in selected schools during the week leading up to International Women in Engineering Day.

The Fabrication Development Centre (FDC), our dedicated education centre located at the Miskin site, was formally opened in March 2018; in calendar year 2017 it hosted 500 primary school pupils and 1,170 secondary school students, and with increasing interest from schools. Total numbers in 2018 are expected to be around 3,500 students.

We continued to expand our range of workshops available to schools, all of which are now bookable through the dedicated education outreach section of the corporate website, that was launched in autumn 2017.

In the USA, we are continuing to increase our focus on supporting education initiatives that will improve the available talent for our own skills requirements and that of our customers. During the 2018 Innovation Fest held at Renishaw Inc's headquarters in Illinois, we hosted local robotics teams and other young people to introduce them to a vast array of manufacturing technologies and try some hands-on activities. A new partnership has been formed with the Connecticut Center for Advanced Technology, which creates and implements bold ideas for applied technologies, energy solutions, STEM education, career development and export and cyber compliance.

# Corporate social responsibility continued

## Environment

Our environmental management activities are controlled by our Group Business Code which is supported by our Environmental and Waste policies. There are a variety of other policies and management controls as deemed appropriate dependant on the material impact to our business activities and the environment.

This year we have extended our Carbon Trust Standard certification for carbon to include all our UK locations and our manufacturing and assembly locations in Ireland and India. Through these efforts we now have 70% and 62% of our global energy consumption and greenhouse gas (GHG) emissions respectively, within the scope of this certification. This standard is independent confirmation that we have genuinely measured, managed, and reduced our GHG emissions.

Within this reporting period we have achieved an absolute reduction in our total GHG emissions of 24% (using market based calculations) and our normalised statutory emissions have decreased by 18% (location based calculations) and 64% (market based calculations). Renishaw is legally obliged to report on Scope 1 and 2 emissions (as defined by the Greenhouse Gas Protocol). However, through analysis, it is clear that our Scope 3 emissions amount to a significant proportion of our carbon footprint. The details of our GHG emissions for this year are shown in the table opposite.

To calculate our GHG emissions we have used the GHG Protocol Corporate Accounting and Reporting Standard (revised addition), data gathered for our Carbon Reduction Commitment submission, and the UK Government's GHG reporting guidance, as the basis of our methodology and the source of emissions factors. Our GHG emissions are based on actual data taken from bills, invoices, meter readings and expense claims wherever possible.



# 840,000 kWh

840,000 kWh of generating capacity has been installed at our assembly plant in Pune, India, which amounts to around 42% of the site's electricity consumption.

	2018 <sup>3</sup>	2017 <sup>1</sup>	2016
<b>Scope 1</b>			
Gas consumption	1,052.20	886.30	771.82
Owned transport	2,386.11	2,241.78	2,492.30
Generator diesel	33.24	28.67	26.38
Heating oil	188.00	231.48	234.00
Fugitive emissions	206.42	266.00	305.73
<b>Total Scope 1 (tCO<sub>2</sub>e)</b>	<b>3,865.97</b>	<b>3,654.23</b>	<b>3,830.24</b>
<b>Scope 2</b>			
<b>Location based</b>			
Purchased heat	13.40	4.50	19.88
Electricity	14,114.40	15,746.08	17,003.42
<b>Total Scope 2 (tCO<sub>2</sub>e)</b>	<b>14,127.80</b>	<b>15,750.57</b>	<b>17,023.30</b>
<b>Total statutory GHG emissions<sup>2</sup> (tCO<sub>2</sub>e)</b>	<b>17,993.77</b>	<b>19,404.80</b>	<b>20,853.54</b>
<b>Normalised statutory GHG emissions<sup>2</sup> by revenue (tCO<sub>2</sub>e/£m)</b>	<b>29.43</b>	<b>36.15</b>	<b>48.81</b>
<b>Scope 3</b>			
Business travel	3,638.61	2,638.79	4,717.04
Product distribution	13,519.21	11,048.65	9,534.18
Raw material purchase	2,022.38	1,517.53	1,260.40
Post and communications	857.33	773.11	774.00
WTT and T&D total <sup>6</sup>	4,809.99	4,964.78	5,352.59
<b>Total significant Scope 3 (tCO<sub>2</sub>e)</b>	<b>24,847.52</b>	<b>20,942.86</b>	<b>21,638.21</b>
<b>Total GHG emissions<sup>4</sup> (tCO<sub>2</sub>e)</b>	<b>42,841.29</b>	<b>40,347.66</b>	<b>42,491.75</b>
<b>Normalised total GHG emissions<sup>4</sup> by revenue (tCO<sub>2</sub>e/£m)</b>	<b>70.06</b>	<b>75.16</b>	<b>99.47</b>

### Further information

Scope 1 out of scope (biofuel blend)	57.08	55.68	60.85
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### Scope 2 market based

Electricity	6,452.89	21,659.34	20,853.54
<b>Total Scope 2 (tCO<sub>2</sub>e)<sup>5</sup></b>	<b>6,466.30</b>	<b>21,663.84</b>	<b>20,873.43</b>

Scope 3 out of scope (biofuel blend)	18.15	29.33	29.49
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<sup>1</sup> 2017 figures have been restated due to improvements in our methodology, updated GHG conversion factors and replacing the calculation used for the June 2017 data last year – see footnote 3.

<sup>2</sup> Statutory emissions are Scope 1 and 2 as required by the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

<sup>3</sup> To facilitate the timely capture of information, this disclosure uses internally reported data from July to May and the June data is given as an average of the previous three months. This will be restated next year if a significant difference is seen.

<sup>4</sup> Total GHG emissions include Scope 1 and 2 (statutory) and significant Scope 3 (voluntarily reported) emissions.

<sup>5</sup> Market based electricity is used where it is available to us. This is currently only within the UK and Europe. Where market based factors are not available location based factors are used in their place. Currently 85% of electricity consumed is covered by market based factors.

<sup>6</sup> Well to Tank and Transmission and Distribution losses total, use location based conversion factors for calculations.

For our Scope 1 and 2 emissions, less than 1% of the data is based on estimates from averaged data sets.

During this reporting period we commissioned our first overseas solar array, this was installed at our manufacturing facility in Pune. It has a potential generating capacity of 840,000 kWh per annum, which amounts to around 42% reduction of the site's energy demand.

During this year we have completed an energy saving project on our production machinery, which now puts it into an energy saving mode when not in use. This project has the potential to reduce our energy demand by around 900,000 kWh per annum.

As part of our continued efforts to reduce the environmental impact of our business activities, we changed our UK half-hourly electricity contract to a certified 100% renewable supply contract. This means that just over 49% of all electricity purchased across the Group is now from a renewable source.

As we have moved to renewable electricity for many of our UK sites we are able to report a 70% decrease of GHG emissions from our electricity consumption, when calculated using the market based method. During the year we have also self-generated around 3.7% of our electricity demand with our four solar arrays.

Whilst our production has increased over the past four years, our electricity demand has stayed fairly even; this is due to the investment we have made in energy efficiency and on-site generation. We intend to continue to roll out our high standards of insulation, double or triple glazing and low energy lighting, coupled with on-site generation where suitable. We believe that our results show that careful investment in appropriate technologies works, reducing cost and risk to the business.

We are pleased to report that our 2016 and 2017 GHG emissions figures have been independently verified by thinkstep ltd and they have found no material evidence to suggest it is not accurate. The methodology was also verified as being compliant with the GHG Protocol Corporate Accounting and Reporting Standard (revised addition).



# 94%

94% of the Group's waste is diverted away from landfill. By placing clearly signposted bins in the places where waste streams are generated, we have been able to effectively manage our waste segregation at source.

## Global waste totals (tonnes)

	2018	2017	2016 <sup>1</sup>
<b>Landfilled</b>	<b>162.93</b>	<b>129.52</b>	<b>146.07</b>
Reused	0.00	0.00	0.96
Composted	71.76	27.50	23.28
Incinerated	240.70	310.60	431.02
Recycled	2,437.67	2,151.00	2,216.71
<b>Total non-landfilled</b>	<b>2,750.12</b>	<b>2,489.10</b>	<b>2,671.97</b>
Percentage of waste sent to landfill	5.92%	5.20%	5.47%
<b>Total waste</b>	<b>2,913.06</b>	<b>2,618.62</b>	<b>2,818.04</b>

<sup>1</sup> Includes US data for the first time which accounts for 87.2 tonnes of landfill waste in 2016.



## Waste management

Our waste strategy, as defined in our Waste Policy, which we commenced in February 2014, has been further developed and this year we have assigned people across all our UK manufacturing sites as Waste Champions.

This team is enabling increased employee engagement and has been tasked with the oversight of reducing waste and increasing recycling. Our strategy continued to drive our efforts throughout the year, resulting in a further 2,750 tonnes of waste being diverted from landfill. Just under 87% of all waste generated this year originated from our UK sites which continue to maintain their certification to the Carbon Trust Waste Standard. These sites are recognised by the Carbon Trust for their efforts in moving waste away from landfill as a disposal choice, towards recovery, recycling, and reuse.

This year our target was 5% reduction of waste to landfill from our global operations. Despite our efforts to achieve our target, we have had an increase of around 33 tonnes (26% increase) of waste to landfill. This is due to increased accuracy in our data capture, increased manufacturing, some refurbishment work and an increase of one waste stream that we are currently only able to dispose of to landfill. Our Waste Champions team is working on finding alternative routes for this waste stream and others that are difficult to recycle; they are also investigating projects to cut waste at source. We are still reusing, recycling, or recovering more than 94% (2017: 95%) of our waste around the world.

### Allen Roberts

Group Finance Director

This Strategic report was approved by the Board on 26th July 2018 and signed on its behalf by

### Sir David McMurtry

Executive Chairman

# Directors' corporate governance report



Sir David Grant, Senior Independent Director



**The Board is ultimately responsible to shareholders for all the Group's activities, its strategy and financial performance, the efficient use of the Group's resources and social, environmental and ethical matters.**

## Introduction

The Board continues to be committed to the highest standards of corporate governance in order to protect our business and its long-term success.

During the year, we paid particular attention to succession planning for the Board and Executive Board as a result of Sir David McMurtry's decision to hand over his Chief Executive responsibilities. Will Lee took over as Chief Executive with effect from 1st February 2018, having demonstrated significant leadership capabilities in his time at Renishaw. Will has been with Renishaw since 1996 and was originally appointed to the Board as Group Sales and Marketing Director in 2016. The Board is confident that Will can inspire the next generation to build on Renishaw's heritage.

A description of the key roles and responsibilities of the Executive Chairman and myself in relation to corporate governance can be found in the description of the Executive Chairman's role at [www.renishaw.com/corporategovernance](http://www.renishaw.com/corporategovernance).

Kath Durrant is stepping down as an independent non-executive director effective 31st July 2018 and Catherine Glickman will be appointed as an independent non-executive director on 1st August 2018. With her extensive experience as a Group HR Director, Catherine will be a valuable addition to the Company's resources at Board level.

The full business implications of Brexit remain uncertain but it is possible that changes will need to be made in aspects of the Group's operations. However, with a strong direct presence in the EU, Renishaw is well placed to respond to changes in future trading arrangements between the UK and the EU. The executive risk committee, along with the Brexit steering group which was formed during the year, will be monitoring developments closely to assess required actions as the exit and trading negotiations become clearer later in 2018.

Cyber security continued to be a key focus for the Board this year, with regular updates being provided and new initiatives and investment being undertaken in order to mitigate cyber threats.

The Board takes seriously its responsibilities for making sure that all employees are aware of their obligations to act with openness, honesty and transparency. This strong anti-corruption culture is embedded in our Group Business Code and Anti-Bribery Policy which can be found at [www.renishaw.com/businesscode](http://www.renishaw.com/businesscode). In 2018, we have continued to closely monitor operational risks in key regions and are implementing additional compliance policies in certain areas. We held a Group Subsidiary Conference at our UK HQ in March 2018 where compliance, legal and finance training was provided to key subsidiary management to reinforce e-learning courses.

The Annual remuneration report for 2018 starting on page 67 sets out the details of directors' compensation throughout this financial year, which will be subject to the normal advisory vote at the AGM after a year of excellent business performance. Our Remuneration Policy 2017 remains unchanged.

With the assistance of the Audit Committee, the Board approves the Group's governance framework and reviews its risk management and internal control processes with a view to maintaining high standards of corporate governance throughout the Group.

Our executive risk committee conducted a thorough review of our principal risks together with mitigation plans. The Board also considered the viability statement in the context of risk and the viability statement is contained on page 37.

The Board has been updated on progress with our General Data Protection Regulation compliance and the new Reporting on Payment Practices and Performance Regulations 2017.

Another key activity this year was the internal Board effectiveness review. I am pleased that this internal evaluation of the Board and our Committees confirmed that the Board is collegiate, transparent and effective. A summary of the findings and recommendations are set out on pages 52 and 53 of this Report. The next external evaluation is set for 2019, in accordance with the UK Corporate Governance Code (Governance Code).

As a Group we are committed to gender diversity at Board and all levels and this will remain an important focus area. We published our Gender Pay Gap report on the Group's website, [www.renishaw.com/genderpaygap](http://www.renishaw.com/genderpaygap).

Details of how we interact with our stakeholders, including the communities in which we operate, and our environmental impact, are set out in the Corporate social responsibility section on pages 38 to 43.

The Board has been updated on corporate governance reform developments and will be focused on these as the new requirements become clear.

### Scope of disclosures

This corporate governance report has been prepared in accordance with the Governance Code. The Governance Code can be viewed at [www.frc.org.uk](http://www.frc.org.uk). This report, which incorporates the reports of the Audit Committee and Nomination Committee, together with the Directors' remuneration report, describes how we have applied the main principles of the Governance Code.

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

A review of the Group's business and likely future developments is given in the Chairman's statement and Chief Executive's review, pages 4 to 5 and 6 to 9 and the Strategic report. Segmental information by geographical market is given in note 2 to the Financial statements.

The UK Listing Authority's Disclosure Guidance and Transparency Rules (DTR), require the Annual report to include a management report which can be found in the Strategic report.

The Directors' corporate governance report and Other statutory and regulatory disclosures set out on pages 44 to 54 and 72 to 74 form the Directors' report.

For the purposes of the DTR, which require a corporate governance statement to be included in the Directors' report, the Company's corporate governance practices are set out in the Directors' corporate governance report, which forms part of the Directors' report.

For the purposes of the UK Listing Authority's Listing Rules (LR), certain information required to be provided to the shareholders is also contained in the Directors' corporate governance report, the Directors' remuneration report and the Other statutory and regulatory disclosures, including information relating to arrangements with controlling shareholders.

### Disclosure of information under Listing Rule 9.8.4R

The information that fulfils the reporting requirements under this rule can be found in 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 pages 60–71
(12)	Shareholder waivers of dividends	Not applicable
(13)	Shareholder waivers of future dividends	Not applicable
(14)	Agreements with controlling shareholders	Other statutory and regulatory disclosures pages 72–74

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.

# Board of directors

## Committees

- A** Audit Committee
- R** Remuneration Committee
- N** Nomination Committee
- \*** Denotes Chair of committee



1 | Sir David McMurtry **N\***



2 | John Deer



3 | William Lee



4 | Allen Roberts



5 | Geoff McFarland



6 | Carol Chesney **A\* R N**



7 | Kath Durrant (until 31st July 2018) **R\* N**



8 | Sir David Grant **A R N**



9 | John Jeans **A R N**



10 | Mark Noble

## 1 | Sir David McMurtry CBE, RDI, FRS, FEng, CEng, FIMechE

### Executive Chairman

- Formerly employed by Rolls-Royce plc, Bristol, for 17 years, holding the positions of Deputy Chief Designer and Assistant Chief of Engine Design for all Rolls-Royce engines manufactured at Filton, Bristol.
- Invented the original measuring probe in the early 1970s and co-founded Renishaw with John Deer in 1973.
- As an executive, responsible for Group technology.

## 2 | John Deer

### Deputy Chairman

- Trained as a mechanical engineer and worked for Rolls-Royce plc, Bristol, for 14 years.
- Co-founded Renishaw with Sir David McMurtry in 1973, serving as Managing Director from 1974 to 1989.
- Primarily involved in the commercial direction of the Group, with particular emphasis on marketing and the establishment of the Group's wholly-owned subsidiaries.
- Responsible for Group manufacturing.

## 3 | William Lee

### Chief Executive

- Joined the Renishaw graduate scheme in 1996.
- Holds a degree in physics from the University of Oxford and an MBA from the University of Bath.
- Became Director and General Manager for the Laser and Calibration Products Division in 2007 and subsequently Director and General Manager of the Machine Tool Products Division in 2014.
- Appointed to the new role of Director of Group Sales and Marketing in December 2015.
- Appointed to the Executive Board in 2015 and to the Board as Group Sales and Marketing Director in August 2016.
- Appointed Chief Executive, taking over from Sir David McMurtry, in February 2018.
- Responsible for the product divisions, overseas sales subsidiaries and human resources.

## 4 | Allen Roberts FCA

### Group Finance Director

- Qualified as a chartered accountant in 1972 and is a Fellow of the Institute of Chartered Accountants in England and Wales.
- Joined Renishaw in 1979 and appointed to the Board of Renishaw plc in 1980.
- Heads Group finance, business systems and Wotton Travel Ltd.
- Responsible for the metrology regulatory and quality assurance function.
- Reports to the Board on corporate social responsibility matters.

## 5 | Geoff McFarland BEng, DEng, MInstP, FEng

### Group Engineering Director

- Joined Renishaw after working for Motorola in 1994 as part of the Edinburgh based R&D team. Became the Director and General Manager of the CMM Products Division in 1999.
- Appointed to the Board of Renishaw plc in 2002.
- Responsible for Group engineering and Group IP, patents, R&D and the Additive Manufacturing Products Division.
- Member of the Institute of Physics, a visiting professor at the University of Bath, and an honorary professor at Heriot-Watt University.
- Elected to the Royal Academy of Engineering in 2017.
- Appointed non-executive director at Cambridge Mechatronics Ltd in March 2018.

## 6 | Carol Chesney FCA

### Independent Non-executive Director

- Appointed to the Board of Renishaw plc in October 2012.
- Chartered accountant who worked at Arthur Andersen for seven years in audit services.
- Currently Company Secretary of Halma plc, having also been Group Financial Controller.
- Worked as Group Accountant at English China Clays plc where she was responsible for transactions.
- Appointed non-executive director of Hunting plc in April 2018 and Biffa plc in July 2018.

## 7 | Kath Durrant (stepping down from the Board 31st July 2018)

### Independent Non-executive Director

- Appointed to the Board of Renishaw plc in January 2015.
- Currently Chief Human Resources Officer for CRH plc.
- Previously the Group HR Director at both Ferguson plc and Rolls-Royce plc.
- Held a variety of senior positions at AstraZeneca plc, including Vice President, HR and Communications for its research and development division.

## 8 | Sir David Grant CBE, PhD, FEng, FLSW, CEng, FIET

### Senior Independent Director

- Appointed to the Board of Renishaw plc in April 2012.
- Currently non-executive director of both IQE plc and the Defence Science and Technology Laboratory, and Chair of the National Physical Laboratory.
- Chair of STEMNET from December 2011 until August 2016 when it merged with STEM Learning.
- Vice-Chancellor of Cardiff University from 2001 to 2012.
- Previously held leadership positions at Dowty Group, GEC, the Royal Academy of Engineering and Innovate UK.
- Received a knighthood in the Queen's Birthday Honours 2016 for his contributions to engineering, technology and education.

## 9 | John Jeans CBE, CEng

### Independent Non-executive Director

- Appointed to the Board of Renishaw plc in April 2013.
- Currently chair of Edinburgh Molecular Imaging Ltd and the Scottish government's Digital Health & Care Institute at the University of Strathclyde.
- Non-executive director of Prometic Life Sciences Inc. and Prometic Pharma SMT Limited.
- Serves on several government bodies including the Ministerial Committee on Medical Technologies.
- Leads Innovate UK's Knowledge Transfer Network's (KTN) Health Board.
- Previously chair of Innovate UK's Stratified Medicine Steering Group, UK Biocentre Ltd and Imanova Ltd.
- Advisor to the Prime Minister at the Office of Life Sciences for a period of four years ending June 2018.

## 10 | Mark Noble

### General Counsel & Company Secretary

- Joined Renishaw on 8th January 2018 as General Counsel & Acting Company Secretary. On 24th July 2018 appointed as Company Secretary.
- Previously held a number of positions at National Grid plc including Deputy General Counsel and Head of Secretariat.
- Prior to that in private practice at Eversheds and SGH Martineau.

## Appointed after year end

## 11 | Catherine Glickman

### Independent Non-executive Director

- Appointed to the Board of Renishaw plc on 1st August 2018.
- Currently non-executive director at Marston's plc where she is chair of its remuneration committee, and TheWorks.co.uk plc where she is chair of its remuneration committee and a member of its audit and nomination committees.
- Retired as Group HR Director at Genus plc in February 2018, having previously held the same title at Tesco plc.
- Led retail management development and customer service training at Tesco plc, during a period of significant expansion in the UK and overseas.
- Worked closely with the remuneration committees at Genus and Tesco, developing reward structures that aligned leadership motivation with Group strategy.
- Previously held positions at Somerfield plc and The Boots Company plc.

# Executive Board



6 | Leo Somerville



7 | Dave Wallace



8 | Gareth Hankins



9 | Mark Moloney

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## 1 | William Lee (chair)

**Chief Executive** See page 47 for biography

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## 2 | Sir David McMurtry CBE, RDI, FRS, FEng, CEng, FIMechE

**Executive Chairman** See page 47 for biography

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## 3 | John Deer

**Deputy Chairman** See page 47 for biography

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## 4 | Allen Roberts FCA

**Group Finance Director** See page 47 for biography

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## 5 | Geoff McFarland BEng, DEng, MInstP, FEng

**Group Engineering Director** See page 47 for biography

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## 6 | Leo Somerville

**President, Renishaw Americas**

- Joined Renishaw in 1984.
- Initially served as business manager for machine tool probing and calibration products at Renishaw, Inc.
- Became President of Renishaw, Inc. in 1993 and appointed to the Executive Board in 2004.
- Appointed as a member of the International Sales and Marketing Board in 2008.
- Became President, Renishaw Americas in April 2018.

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## 7 | Dave Wallace

**Director and General Manager, CMM Products Division**

- Joined Renishaw in 1989 through Renishaw's sponsored student scheme.
- Holds a degree from the University of Oxford in Engineering and Management Science.
- Worked in various functions of the business including a one-year secondment at Renishaw's German subsidiary, before being appointed Director and General Manager for the CMM Products Division in 2002.
- Appointed to the Executive Board in 2008.
- Given Board responsibility for the Styli and Fixturing Products Division in 2014.

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## 8 | Gareth Hankins FIET

**Director, Group Manufacturing Services Division**

- Joined Renishaw in 1988 as an apprentice.
- Undertook various roles in engineering, production and operations management prior to being appointed to his current position.
- Appointed to the role of Director, Group Manufacturing Services Division in 2006.
- Appointed as an Honorary Visiting Professor at Cardiff University School of Engineering in 2013.
- Appointed to the Executive Board in February 2018.

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## 9 | Mark Moloney

**Director and General Manager, Renishaw (Ireland) DAC**

- Joined Renishaw in 1988 at its manufacturing plant in Dublin.
- Primary responsibilities over the last 30 years have been to increase manufacturing capabilities and resources in Ireland, to establish, direct and expand manufacturing facilities in Pune, India, and oversee the manufacture of the neuromate robot in France.
- Director of Renishaw Metrology Systems Ltd in Pune, India.
- Appointed to the Executive Board in February 2018.

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Further information on the Executive Board can be found on page 50. Members 1-5 above of the Executive Board are plc Board executive directors.

# International Sales and Marketing Board (ISMB)



4 | Sean Hymas



5 | Rainer Lotz



6 | Clive Martell



7 | Jean-Marc Meffre



8 | Rydian Pountney

## 1 | William Lee (chair)

**Chief Executive** See page 47 for biography

## 2 | John Deer

**Deputy Chairman** See page 47 for biography

## 3 | Allen Roberts FCA

**Group Finance Director** See page 47 for biography

## 4 | Sean Hymas

**President and Representative Director, Renishaw KK**

- Joined Renishaw in 1989 following a year's placement between 1987 and 1988.
- Over 25 years' experience of international sales, channel management and business development.
- Transferred to Renishaw KK in 2008 to further develop sales and new market sectors in Japan.
- Appointed President of Renishaw KK and to the International Sales and Marketing Board in 2012.

## 5 | Rainer Lotz

**Managing Director, Renishaw D-A-CH**

- Joined Renishaw in 2006.
- Over 20 years' experience in related positions.
- Responsible for Renishaw's operations in Germany, Austria and Switzerland.
- Appointed as a member of the International Sales and Marketing Board in 2008.

## 6 | Clive Martell

**Head of Global Additive Manufacturing**

- Joined Renishaw in 2015.
- Responsible for the strategy and direction of additive manufacturing.
- Over 30 years' experience in advanced engineering and international sales.
- Progressed from graduate engineer to CEO of Delcam plc, and managed the transition from AIM listed company to a division of Autodesk.
- Appointed as a member of the International Sales and Marketing Board in 2015.
- Represents Renishaw on the steering group for the UK National Strategy for Additive Manufacturing.

## 7 | Jean-Marc Meffre

**Managing Director, Renishaw APAC & EMEA**

- Joined Renishaw in 1988 as Managing Director of Renishaw France.
- Holds a master's degree in Economics and Marketing.
- In 1997, appointed Managing Director for all the operations in the Far East (excluding Japan).
- Appointed as a member of the International Sales and Marketing Board in 2008.
- In April 2018, appointed President for the APAC and EMEA regions.

## 8 | Rhydian Pountney

**Managing Director, Renishaw UK & ROW**

- Joined Renishaw in 1979.
- Appointed as a member of the International Sales and Marketing Board in 2008.
- Over 30 years' experience in sales and marketing. Responsible for sales in the UK and 11 overseas operations, including India and Russia.
- UK Chair of the Technology Collaboration in Advanced Engineering working group of the UK-India joint economic and trade committee.

Further information on the ISMB can be found on page 50.

# Directors' corporate governance report continued

## A. Leadership

### The role of the Board

The Board comprises four executive and four independent non-executive directors in addition to the Executive Chairman. The directors holding office at the date of this report, and short biographical details, are given on pages 46 to 47 (Kath Durrant will be stepping down, effective from 31st July 2018). Full biographical details are available at [www.renishaw.com](http://www.renishaw.com). Will Lee was appointed by the Board as Chief Executive with effect from 1st February 2018, and along with all other directors, will be retiring and putting themselves up for re-election at the AGM. The Company maintains liability insurance for its directors and officers, as disclosed in the Other statutory and regulatory disclosures.

There is a formal schedule of matters specifically reserved for its decision. These include the approval of annual and half-year results and trading statements, company and business acquisitions and disposals, major capital expenditure, borrowings, material agreements, director and company secretary appointments and removals, patent-related disputes and other material litigation, forecasts and major product development projects.

The Board meets as often as is necessary to discharge its duties effectively. In the financial year ended 30th June 2018, the Board met for nine scheduled meetings and the directors' attendance record at board and committee meetings is set out at the end of this report. In addition, the non-executive directors met a number of times without executive directors present.

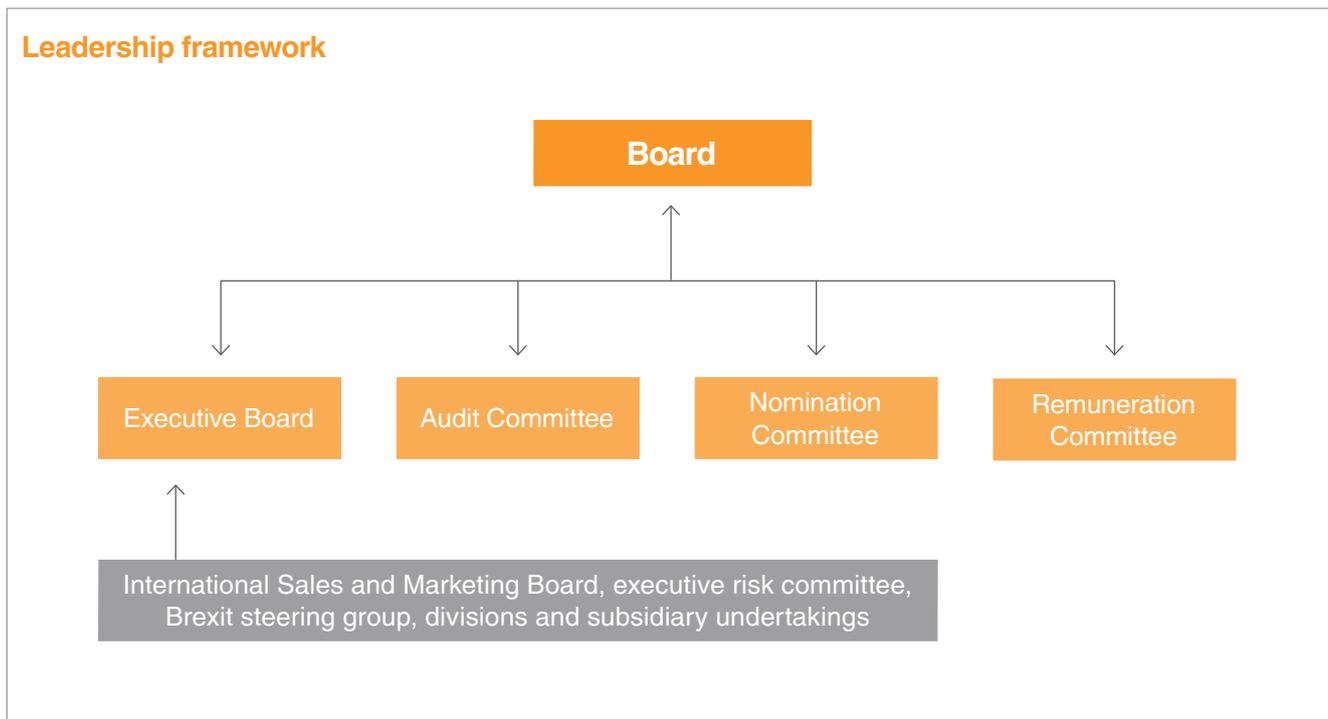
A high-level summary of subject areas discussed during the year is set out on page 51.

The Board has three formally constituted committees – the Audit Committee, the Remuneration Committee and the Nomination Committee.

There is an executive management committee known as the Executive Board that is responsible for the executive management of the Group's businesses. It is chaired by the Chief Executive and includes the executive directors and senior managers as noted on page 48. The Executive Board usually meets for one day on a monthly basis and considers the performance and strategic direction of the metrology and healthcare businesses and other matters of general importance to the Group. In addition, there is an executive sales and marketing committee known as the International Sales and Marketing Board which meets quarterly to determine the Group's sales and marketing policies and strategies and review its sales and marketing activities. This committee is chaired by the Chief Executive and includes the Deputy Chairman, the Group Finance Director, the managing directors of the five largest sales regions and the Head of Global Additive Manufacturing.

A framework of delegated authorities is in place that maps out the structure of delegation below the Board and includes the matters reserved to the Executive Board and the level of authorities given to management below the Executive Board.

An executive risk committee meets regularly to review risks which may impact on the Group's business and to implement mitigation actions. The framework for managing risk is set out on pages 32 to 33.



## Scheduled Board and committee meetings in the period



July 2017	
A	A R R B
R	

August 2017	

September 2017	
B	

October 2017	
B	

November 2017	

December 2017	
R	B

January 2018	
A	B N

February 2018	
R	B

March 2018	
B	N R

April 2018	

May 2018	
B	N

June 2018	
R	B N

### Key

- A** Audit Committee (3)
- R** Remuneration Committee (7)
- N** Nomination Committee (4)
- B** Board (9)

## High-level summary of subjects discussed by the Board during the year:

### Strategy

- Business strategy and organisation
- Reviewing potential acquisitions/disposals
- Review of investment in HiETA Technologies Ltd
- Products and technology
- Key business relationships

### Risk

- Group's risk analysis
- Patent litigation
- Tax risk register and updates
- Group quality
- Cyber security
- Brexit

### Governance

- Appointment of Chief Executive
- Legal updates
- Gender pay gap
- GDPR
- Board evaluation
- Committee terms of reference
- Controlling shareholder agreement
- Export control
- Whistleblowing policy
- Review of internal controls
- Government proposals on corporate governance changes

### Finance

- Forecasts and targets
- Oversight of the preparation and management of the financial statements
- Dividend policy
- Trading statements

### Stakeholder engagement

- AGM and other shareholder feedback
- Investor day

### HR

- Succession planning/executive management structure
- Pensions
- Remuneration policy
- Salary reviews
- Bonus
- Health and safety system and updates

# Directors' corporate governance report continued

## Division of responsibilities – the Chairman and Chief Executive

Throughout the year, the Board considered that there was a clear division of responsibilities at board level to ensure an appropriate balance of power and authority so that there is no one person with unfettered powers of decision. The Board and Executive Board meet on a sufficiently regular basis to make decisions of significance to the Group's business segments and review management actions.

Will Lee was appointed by the Board as Chief Executive with effect from 1st February 2018 in place of Sir David McMurtry. Sir David McMurtry retained his Executive Chairman role. As a result of this appointment, the roles of Chairman and Chief Executive are no longer combined.

Following Will Lee's appointment as Chief Executive, the Board has prepared and agreed written statements of the key responsibilities of the Chief Executive and the Executive Chairman. These are available on the Company's website at [www.renishaw.com/corporategovernance](http://www.renishaw.com/corporategovernance).

Sir David McMurtry has held the position of Executive Chairman of the Company since it listed in 1983. There has been a voting agreement in place between Sir David McMurtry and John Deer since 1983, further details of which are set out in the Other statutory and regulatory disclosures on page 72.

## Non-executive directors

Sir David Grant is the Senior Independent Director and is available to discuss material concerns with shareholders should the normal channels of the Executive Chairman, the Chief Executive or the Group Finance Director fail to resolve any concerns shareholders may have. The independent non-executive directors meet with the Executive Chairman without the other executive directors present, and the independent non-executive directors led by the Senior Independent Director also meet without the executive directors or Executive Chairman present, in each case to discuss performance, corporate governance, succession planning and other matters.

## B. Effectiveness

### Composition of the Board

All the non-executive directors are considered by the Board to be independent in character and judgement and there are no relationships or circumstances that are likely to affect a non-executive director's judgement. The Board considers that all the non-executive directors demonstrate commitment to their roles and are able to dedicate sufficient time to their duties at the Company. Their skills and experience are summarised in their biographies on page 47.

The Governance Code recommends that at least half the board, excluding the chairman, should comprise independent non-executive directors. The Board has complied with this requirement during the period.

### Appointments to the Board

A description of the structure and activities of the Nomination Committee is set out in the Nomination Committee report on page 55 where the Board's commitment to diversity is also affirmed.

## Commitment

The terms of appointment of the non-executive directors, which includes the expected time commitment and requirement to discuss any changes to other significant commitments with the Executive Chairman and Chief Executive in advance, are available for inspection at the AGM and the registered office upon written request.

None of the executive directors hold a directorship in a FTSE 100 company.

## Conflicts of interest

The Board has a conflicts of interest policy, putting in place procedures for the disclosure and review of any conflicts and potential conflicts, and authorisation by the Board (if considered appropriate). Authorisations granted and the terms of such are reviewed on an annual basis. New disclosures are made where applicable.

## Development

Directors are offered the opportunity to attend formal training courses to update their knowledge of their duties as directors. Guidance notes, papers and presentations on changes to law and regulations are provided as appropriate. Non-executive directors are invited to attend internal conferences, which provide information to the Group on new product development and marketing initiatives, as well as our investor days. Business presentations are given at board meetings to provide updates on, and opportunities to discuss, products and business strategies.

An induction pack is provided to new appointees to the Board, and the induction programme (together with the continuing development programme) includes site visits and briefings by senior managers, attendance at internal senior management conferences and external trade shows, as well as foreign subsidiary visits, as applicable.

## Information and support

The Board receives appropriate documentation, management accounts, forecasts and commentaries thereon in advance of each board meeting to enable its members to review the financial performance of the Group, current trading and key business initiatives. Regular financial updates are also provided between meetings. The General Counsel Company Secretary advises the Board on all governance matters. All directors have access to the General Counsel Company Secretary and to independent professional advice at the Company's expense, where necessary, to discharge their responsibilities as directors. The appointment and removal of the General Counsel Company Secretary is a matter reserved for the Board.

## Evaluation

The Board, its committees and each director are subject to an annual evaluation of their performance. The format of the evaluation varies each year.

For the financial year ending 30th June 2018, an internal evaluation process was undertaken. The main recommendations from 2018 are a continuing Board focus on key business initiatives, and succession, talent and diversity across the Group.

In 2016, Equity Communications Limited undertook interviews with the directors, discussing a list of subjects agreed by the Board. The next externally facilitated evaluation will be in 2019, as required by the Governance Code. Equity Communications Limited has no other connection with the Company.

### Re-election

In accordance with the Governance Code all the directors (with the exception of Kath Durrant) will retire from the Board at the next AGM and will offer themselves up for re-election or election (as the case may be) at the AGM.

## C. Accountability

### Audit Committee

A description of the membership and activities of the Audit Committee is set out in the Audit Committee report on pages 56 to 57.

### Financial and business reporting

The respective responsibilities of the directors and auditor in connection with the financial statements are explained in Directors' responsibilities on page 75 and the Independent auditor's report on pages 76 to 87.

### Fair, balanced and understandable

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.

### Going concern

The Group's strategy for delivering its objectives and business model, together with the factors likely to affect its future development and performance, are set out in the Strategic report, where details of the financial and liquidity positions are also given. In addition, note 20 to the Financial statements includes the Group's objectives and policies for managing its capital, details of its financial instruments and hedging activities and its exposures to credit risk and liquidity risk.

The Group has considerable financial resources at its disposal and the directors have considered the current financial projections. As a consequence, the directors believe that the Group is well placed to manage its business risks successfully.

After making enquiries, the directors have a reasonable expectation that both the Company and the Group have adequate resources to continue in operation for a period of at least 12 months from the date of approval of the Financial statements. Accordingly, they continue to adopt the going concern basis in preparing the Annual report and accounts.

### Risk management and internal control

The Board is responsible for the Company's systems of risk management and internal control, and for reviewing their effectiveness. Any system of internal control is designed to manage rather than eliminate the risk of failure to achieve business objectives and can only provide reasonable, but not absolute assurance against material misstatement or loss.

There are defined lines of responsibility and delegation of authorities. Established and centrally documented control procedures also exist, including, for example, capital and other expenditure, information and technology security and legal and regulatory compliance. These are applied throughout the Group.

The Group internal audit function provides independent and objective assurance that the control procedures are appropriate and effectively applied. The Group Audit Manager attends Audit Committee meetings to present annual internal audit plans and the results of such internal audits. Actions are monitored by the Audit Committee on an ongoing basis.

There is an established process for the review of business risks throughout the Group including an executive risk committee as explained on pages 32 to 33.

The Board ensures that there are effective internal controls over the financial reporting and consolidation processes. Monthly accounts and forecasts are presented to the Board for review. The Group internal audit function undertakes a review of subsidiaries' accounting processes and performance to provide assurance to the Board on the integrity of the information supplied by each company forming part of the Group's consolidated results.

The Board undertakes an annual formal review of the effectiveness of the Group's system of internal controls and an updated risk and controls analysis. The review covers all material controls, including financial, operational and compliance controls and risk management systems.

The Board has conducted a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity. The Board is satisfied that there is an ongoing process for identifying, evaluating and managing the significant risks facing the Group, which has been in place during the year, is regularly reviewed and accords with the FRC Guidance on Risk Management, Internal Control and Related Financial and Business Reporting. The Board confirms that necessary action has been or is being taken to remedy any significant failings or weaknesses identified from its review.

## D. Remuneration

The Directors' remuneration report explains how the Company applies the Governance Code principles relating to remuneration and includes a description of the membership and activities of the Remuneration Committee.

# Directors' corporate governance report continued

## E. Relations with shareholders

### Engagement with shareholders

Open webcasts of presentations on annual and half-year results are held and recordings of the presentations and the subsequent question and answer sessions made available after the webcast on the Company's website. Analysts' and brokers' reports are circulated to the Board.

The Board holds open discussions with any shareholder who wishes to share views with the directors at the AGM or the annual investor day at which presentations on Group strategy, business segments and product lines are given by members of the Board and senior management, as well as tours covering the Group's activities. This year, 108 visitors attended the Company's investor day, which included various Q&A sessions with the Board during the day as well as an opportunity to ask questions during tours, lunch and refreshment breaks.

### The AGM

The AGM takes place at the Company's headquarters or one of the Company's other sites and formal notification is sent to the shareholders at least 20 working days before the meeting. A business presentation is given and all directors are available for questions during and after the meeting, including the chairs of the Audit, Remuneration and Nomination Committees. Tours of the Company's facilities are offered.

Separate resolutions are proposed for each substantially separate issue, and all resolutions are taken on a poll. The Company reports on the number of votes lodged on 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 the Company's website following the meeting.

The Board notes that the shareholder vote on the re-election of Sir David McMurtry as a director of the Company at the AGM in 2017 received 21.13% votes against the resolution. The Company's overall approach to engagement with shareholders, and the opportunities for interacting with the Board are set out earlier in this section. The Board takes the views of shareholders seriously and, both following the AGM and subsequently, has considered and discussed the vote.

### Board and committee meeting attendance record

Shown against each director's name in the table below is the number of scheduled meetings of the Board and its committees at which the director was present, and, in brackets, the number of meetings that the director was eligible to attend during the year.

### Compliance statement

The Board considers that it has complied with the requirements of the Governance Code throughout the year except in relation to the following matters (an explanation relating to non-compliance is given in sections A and E of the report above):

- the combined role of Chairman and Chief Executive (provision A.2.1) (up to 1st February 2018); and
- an explanation of the actions the Board intends to take to understand the reasons behind a significant vote against a resolution at a general meeting (provision E.2.2).

### Board attendance record

The table below sets out attendance at the scheduled meetings of the Board and committees during the year.

Director	Board	Audit Committee	Remuneration Committee	Nomination Committee
Sir David McMurtry	9(9)	–	–	4(4)
John Deer	8(9) <sup>1</sup>	–	–	–
Will Lee	9(9)	–	–	–
Allen Roberts	9(9)	–	–	–
Geoff McFarland	9(9)	–	–	–
Carol Chesney	9(9)	3(3)	7(7)	4(4)
Kath Durrant	7(9) <sup>2</sup>	–	7(7)	4(4)
Sir David Grant	9(9)	3(3)	7(7)	4(4)
John Jeans	9(9)	3(3)	7(7)	4(4)

<sup>1</sup> John Deer was absent for the Board meeting on 6th December 2017 due to illness.

<sup>2</sup> Kath Durrant was absent for the Board meetings on 27th September 2017 due to unforeseen circumstances and 8th June 2018 due to a prior commitment.

### Sir David Grant

Senior Independent Director

26th July 2018

# Nomination Committee report



**Sir David McMurtry**, Chair of the Nomination Committee



**The Nomination Committee has an important role in leading the process for Board appointments and ensuring that the Board has the correct balance of experience, diversity and skills to support our business model and strategy.**

## Nomination Committee role and composition

The Nomination Committee, which meets on an ad hoc basis as required, is responsible for reviewing the size, structure and composition of the Board, including its balance of skills, knowledge and experience, succession planning for the Board and senior executives and nominating candidates for appointment to the Board and for the role of Company Secretary.

The members of the Nomination Committee are Sir David McMurtry (Chair), Carol Chesney, Kath Durrant, Sir David Grant and John Jeans. With the exception of Sir David McMurtry, all members of this Committee are independent non-executive directors. Details of attendance at meetings are shown on page 54 of the Directors' corporate governance report and the terms of reference are published on the Company's website.

## Boardroom diversity

Our aim is for the Board to consist of individuals with diverse skills and experience that can add value to our Board work and debates. We also recognise that diversity of gender, age, ethnicity, industry knowledge and education are important.

Female representation on the Board is currently at 22%. Whilst the Board continues to believe that it is not appropriate to set out any specific targets that may require positive discrimination for the appointment of women to the Board, it supports the aspiration on gender diversity in the Hampton-Alexander review and the Committee considers gender diversity when making appointment recommendations.

New Board appointments are subject to the Company's Equality, Diversity and Inclusion Policy, which was adopted in the period, formalising our commitment to diversity at all levels, including the Board. The Committee's procedures require it to first evaluate the balance of skills, knowledge, experience and diversity on the Board. The Committee agrees a role specification for Board appointments and if the position is not to be fulfilled internally, appoints recruitment consultants to produce a long-list of diverse candidates for the Committee's consideration.

Following this, the Committee will consider candidates on merit and against objective criteria, with due regard for the benefits of diversity on the Board.

## Activities during the year

The Committee met four times during the year with the main issue considered and recommended to the Board being the appointment of Will Lee as Chief Executive with effect from 1st February 2018, after an internal appointment process. This followed the decision by Sir David McMurtry that he wished to step down as Chief Executive, and is part of the Company's long-term succession plans. Will joined Renishaw in 1996 and following roles as Director and General Manager of the Laser and Calibration Products Division and Director and General Manager of the Machine Tool Products Division, was appointed to the Board as Group Sales and Marketing Director in 2016. The Committee and the Board were unanimous in recommending him as the outstanding candidate for the role of Chief Executive.

During the year, the Committee also considered independent non-executive director succession planning, the appointment to the Executive Board of Gareth Hankins and Mark Moloney and the recruitment of Mark Noble as General Counsel & Company Secretary.

As part of the Board's succession planning, a search consultancy, Stonehaven International, was engaged to seek appropriate candidates for appointment as an additional independent non-executive director. The Committee received a long list of potential candidates and prioritised candidates for interview. The shortlist for interviews was to include candidates having the required skills and experience and, where possible, at least one-third to be female candidates with diversity of ethnicity and background. The Committee recommended the appointment of Catherine Glickman, as an independent non-executive director through this process. On 25th July, following approval by the Board, we announced Catherine's appointment with effect from 1st August, with Kath Durrant stepping down from 31st July. Stonehaven International has no other connection with the Company.

## Sir David McMurtry

Chair of the Nomination Committee  
26th July 2018

-  Employees, diversity and policies for more information see pages 39 and 40
-  Senior management diversity for more information see page 39

# Audit Committee report



The Audit Committee has a vital role to play in ensuring the integrity of our financial statements, the effectiveness of our risk management processes and internal controls, and in evaluating the performance of the external audit process. During 2018 we also monitored the various changes to the Corporate Governance Code, agreed the content of the viability statement and reviewed the work undertaken, and disclosures made, in relation to the financial impact of IFRS 15 ‘Revenue from Contracts with Customers’.

**Carol Chesney**, Chair of the Audit Committee

## Audit Committee role and composition

The Audit Committee is appointed by the Board from the non-executive directors of the Company. The Audit Committee's terms of reference include all matters indicated by Disclosure and Transparency Rule 7.1 and the Governance Code. The terms of reference are considered annually by the Audit Committee and any changes are recommended to the Board for approval.

The Audit Committee reviews the Group's accounting policies and procedures, its final and half year financial statements before submission to the Board and its compliance with statutory requirements. The Audit Committee monitors the integrity of the Group's Financial statements and announcements relating to financial

performance and reviews the significant reporting judgements contained therein. It also reviews the scope, remit and effectiveness of the internal control systems and internal audit function. The terms of reference of Internal Audit are routinely reviewed with the next review to be undertaken in 2018/19.

The Audit Committee comprises three non-executive directors, Carol Chesney (Chair), Sir David Grant and John Jeans. The Board is satisfied that at least one member of the Committee has recent and relevant financial experience, being Carol Chesney. The members of the Audit Committee have competence in the sectors in which the Company operates as set out below. The terms of reference are available on the Company's website.

Member	Financial experience	Company and position	Sector
Carol Chesney	Chartered accountant	Company Secretary of Halma plc	Technology
	Worked at Arthur Andersen for 7 years	Non-executive director and audit committee chair of Hunting plc	Manufacturing
		Non-executive director and audit committee chair of Biffa plc	Support Services
	Previously group financial controller at Halma plc		
	Previously group accountant at English China Clays plc		
Sir David Grant		Senior independent director of IQE plc	Technology
		Director of Defence Science and Technology Laboratory	Technology
		Chair of National Physical Laboratory	Metrology
		Previously worked for Dowty Group	Manufacturing
		Previously group technical director of GEC plc	Engineering
		Previously vice-president of the Royal Academy of Engineering	Engineering
John Jeans		Chair of Edinburgh Molecular Imaging	Biotechnology
		Non-executive director of Prometic Life Sciences Inc and Prometic Pharma SMT Limited	Biopharmaceuticals
		Previously chair of GE Healthcare Limited	Healthcare
		Previously chair of UK Biocentre Limited	Healthcare
		Previously chair of Imanova Limited	Imaging services

## Governance

The Committee meets at least three times a year with the Chief Executive (first meeting July 2018), the Group Finance Director, the Head of Group Finance, the Group Financial Accountant, the Group Internal Audit Manager, the General Counsel & Company Secretary and the external auditor in attendance. After each meeting, the Committee holds separate discussions with the external auditor and with the Group Internal Audit Manager respectively without the executives. These executives work closely with the Chair of the Committee to ensure that transparency is maintained in both meeting papers and communications between meetings with the other Committee members, providing additional practical industry experience to aid discussions in and around meetings. The Committee Chair provides feedback on significant matters considered during meetings to the Board after each Committee meeting. A fourth meeting has been scheduled for autumn each year from 2018/19 onwards.

### Key issues and activities

In addition to reviewing the financial reporting of the Company, the Committee also spends a significant amount of time reviewing the effectiveness of the Group's internal control processes and its internal and external audit activities.

The principal activities in the year were:

Financial statements and reports	Risk management and internal controls	Internal audit	External auditor and non-audit work
<ul style="list-style-type: none"> <li>reviewed the effectiveness of the Group's risk management and internal controls and disclosures made in the 2018 Annual report;</li> <li>reviewed the 2018 Annual report and the 2018 Interim report. The Committee received a report from the external auditor on the audit of the 2018 Annual report;</li> <li>reviewed critical accounting judgements and estimation uncertainties in the Financial statements, being the capitalisation of development costs, the classification of discontinued activities, the carrying value of inventory, the assumptions used to determine the defined benefit pension schemes' liabilities and the amortisation and impairment of intangible assets;</li> <li>reviewed the effectiveness of the Group's hedging policy and its application;</li> <li>reviewed the accounting and disclosures in relation to the Group's defined benefit pension schemes;</li> <li>reviewed the effective tax rate in the Financial statements and provision for uncertain tax positions;</li> <li>reviewed the approach the external auditor took in respect of management override of controls;</li> <li>evaluated the controls in place to ensure the Group's revenue recognition policy has been correctly applied; and</li> <li>reviewed the work undertaken, and disclosures made, in relation to the financial impact of IFRS 15 'Revenue from Contracts with Customers'.</li> </ul>	<ul style="list-style-type: none"> <li>reviewed the output from the Group's risk review process to identify, evaluate and mitigate risks and considered whether changes in risk profile were complete and adequately addressed;</li> <li>monitored the effectiveness of the Group's internal controls and fraud risk;</li> <li>reviewed and agreed the content of the viability statement (see page 37) and the process undertaken, including an assessment of the stress testing performed, in order to approve both it and the going concern statement (see page 53);</li> <li>received updates on compliance with the Group's anti-bribery and corruption policy;</li> <li>monitored the effectiveness of the Group's global whistle-blowing and serious misconduct policy; and</li> <li>review of the Group's published tax strategy.</li> </ul>	<ul style="list-style-type: none"> <li>evaluated the scope of work to be undertaken by the internal audit function;</li> <li>reviewed progress on recommendations brought forward and considered recommendations arising during the year;</li> <li>considered the resource levels available to the internal audit function; and</li> <li>reviewed the effectiveness of the internal audit process through discussion with the Group Finance Director, the Head of Group Finance and members of the Audit Committee.</li> </ul>	<ul style="list-style-type: none"> <li>managed the relationship with the external auditor;</li> <li>reviewed, considered and agreed the scope and methodology of the 2018 audit work to be undertaken by the external auditor;</li> <li>evaluated the independence and objectivity of the external auditor;</li> <li>agreed the terms of engagement and approved the fees to be paid to the external auditor for the audit of the 2018 financial statements;</li> <li>reviewed the level and nature of non-audit services provided by the external auditor;</li> <li>undertook an effectiveness review of the external audit process; and</li> <li>reconfirmed the non-audit services policy.</li> </ul>

# Audit Committee report continued

## Significant issues in relation to the financial statements

As part of the reporting and review process, the Committee has regular discussions with management and the external auditor relating to significant issues. For the current year the Committee concluded that the treatment of forward exchange contracts for hedging purposes and the judgements made in relation to the Group's defined benefit pension schemes' liabilities were the two significant issues relating to the financial statements.

In 2017, it was identified that certain of the Group's hedging instruments did not comply with IAS 39 and therefore could not be treated as qualifying hedging instruments. At the start of the current year, the Committee received confirmation that all new hedging instruments entered into by the Group would be IAS 39 compliant. The Committee confirmed by way of discussions with management that the required hedging documentation is in place, including prospective and retrospective effectiveness testing. The Committee satisfied itself that the work undertaken by management was appropriate and agreed with the conclusions reached and accounting entries and disclosures made. The Committee also reviewed the ongoing use of the adjusted profit before tax alternative performance measure, which excludes the profit/loss arising on hedging instruments entered into in previous years that do not qualify for hedge accounting, and concluded that this alternative performance measure should be retained in order to provide stakeholders with a better measure of underlying performance; one which is consistent with management's own assessment of performance.

The Committee then reviewed the judgements made in relation to the Group's defined benefit pension schemes' liabilities, with particular focus on the discount rate, inflation rate and mortality assumptions along with an assessment of the appropriateness of the application of IFRIC 14. The Committee also considered the disclosures in respect of the ongoing discussions between the Company, the trustees of the UK pension scheme and The Pensions Regulator in relation to the 2016 recovery plan. The Committee made enquiries of management to understand the process undertaken for determining the appropriate actuarial assumptions and to understand the basis for the application of IFRIC 14, which was underpinned by an external legal review of the trust deed. The Committee satisfied itself that the judgements reached by management were appropriate.

The Committee discussed these issues with the external auditor and was satisfied that its conclusions were consistent with those of the external auditor.

## Approach to auditor appointment and audit quality

The Committee has primary responsibility for making the recommendation on the appointment, reappointment and removal of the external auditor, which the Board puts to shareholders for approval at the AGM.

This is the second financial year that the Annual report and accounts have been audited by Ernst & Young LLP following their appointment at the AGM in October 2016. The contract for external audit will be put out to tender at least every 10 years.

The Committee has monitored the audit approach undertaken by Ernst & Young LLP by way of updates provided at Audit Committee meetings and further routine discussions between the Committee Chair, company finance representatives, the Group Internal Audit Manager and the senior representatives of Ernst & Young LLP.

When the Committee assesses the effectiveness of the external audit process and the quality of the audit work throughout the year it considers:

- any issues arising from the prior year audit;
- the proposed audit plan including the identification of risks specific to the Group, audit scope and materiality thresholds;
- the delivery of the audit in line with the plan;
- the communication of matters arising during the audit to the Committee;
- meetings with the external auditor without management being present;
- the independence and objectivity of the auditor; and
- feedback from executive management.

## Independence of external auditor

In order to safeguard the independence and objectivity of the external auditor, the Committee reviews the nature and extent of the non-audit services supplied, receiving reports on the balance of audit to non-audit fees.

The non-audit services policy reflects the extended list of prohibited services as set out in the latest EU audit regulation. There are also specified services which require the prior approval of the Group Finance Director and Chair of the Audit Committee before the auditor may be appointed to provide such services. In addition, there are specified levels of authorisation to be obtained before the auditor may be permitted to tender for non-audit services.

For 2018, the external auditor has provided £567 of non-audit work in relation to a piece of assurance work in India required under that country's legislation.

An analysis of fees paid to Ernst & Young LLP is included in note 5 to the Group financial statements.

## Risk management and internal controls

The Committee monitors the effectiveness of the Group's internal controls and risk management processes, with support from Internal Audit and the executive risk committee, which allows it to maintain a good understanding of the business performance and key areas of judgement and decision making within the Group.

The Internal Audit team report and follow up on control and operational weaknesses, and support management in making improvements where required. Further, an Annual Declaration of compliance with internal controls and processes is completed by senior management from each subsidiary company.

Internal Audit began using data analytics techniques during the current year and will be further increasing their use from the start of the 2018/19 financial year, thus increasing the work undertaken in the year and complementing the regular subsidiary visits. The Committee determined that the Internal Audit function is effective following the review detailed in the key issues and activities section of this report.

Following a period of strong growth, the Committee commissioned a review of the Group Internal Control Manual last year to ensure that Renishaw's policies exceed best practice for an organisation of Renishaw's size and structure. The review is largely complete and in the process of being communicated to subsidiaries. The Audit Committee continue to monitor the progress of the roll out of the Group Internal Control Manual.

During the year, the Committee commissioned a review of the Company's procedures in relation to training and development of its employees, in particular in the areas of risk management and compliance, to include a review of the Company's procedures to avoid bribery related to the activities of the Group. Following the review, a separate Training and Development team has been formed, allowing them to focus solely on this area.

Details of risk management and internal controls are set out on pages 32, 33 and 53.

## Fair, balanced and understandable report and accounts

One of the key governance requirements is for the Annual report to be fair, balanced and understandable and that it provides the shareholders with sufficient information to assess the Company's performance, business model and strategy. Ensuring that this standard is met requires continuous assessment of the financial reporting issues affecting the Group on a year-round basis in addition to a number of focused exercises that take place during the accounts production process within a strict timeframe.

The processes adopted in relation to the Annual report included the following:

- overall management of the report was the responsibility of the Group Finance Director and the General Counsel & Company Secretary who instigated a comprehensive review of the disclosures and then assigned specific ownership and responsibility for the individual sections;
- during the compilation period, regular meetings were held with key contributors from Group Finance, Group Secretariat, CSR and Corporate Communications, all of whom are primary authors of the Annual report. These meetings ensured that there was appropriate linkage between the various sections of the report and that reporting was balanced;
- an extensive review was undertaken to ensure factual accuracy;
- a qualitative review of the entire Annual report was undertaken to ensure that it promotes consistency and balance between the component elements;
- at the first of the Committee's meetings in July 2018, the Committee reviewed an initial draft of the Annual report, during which it probed and tested certain disclosures;
- at the second of the Committee's meetings in July 2018, the Committee challenged the fair, balanced and understandable assessment and examined whether appropriate balance and equal prominence had been given to favourable and unfavourable events; and
- following review and comment by both the Committee and the Board, the Annual report was subject to final approval by the Board.

The Committee was satisfied with the process undertaken in preparing the Annual report. Following discussions at its July 2018 meetings, the Committee advised the Board that the Annual report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the performance, strategy and business model of the Company.

The directors' statement on a fair, balanced and understandable Annual report is set out on page 53.

### Carol Chesney

Chair of the Audit Committee

26th July 2018

# Directors' remuneration report



**Kath Durrant**, Chair of the Remuneration Committee



**We are again reporting a very strong year with record revenue of £611.5m and record adjusted profit before tax of £145.1m, an increase of 33%. On a statutory basis, profit before tax also rose by 33% to £155.2m.**

## Remuneration Committee role and composition

The Remuneration Committee is responsible for deciding the Company's framework for executive remuneration, determining the remuneration for each of the executive directors, reviewing and approving remuneration for other direct reports to the Chief Executive, and overseeing remuneration policy across the Company. A key aim of the Committee is to help attract, retain and motivate talented executives by ensuring competitive remuneration and motivating incentives. The incentives are linked to the overall performance of the Group and, in turn, to the interests of all shareholders.

The Committee reviews executive directors' remuneration annually in the context of the Group's performance. It also reviews the remuneration structure and packages for the next level of senior leaders to ensure they are competitive and fair, and that there is appropriate progression for those identified as potential successors to the Board and executive team.

All members of the Committee are independent non-executive directors: Kath Durrant (Committee Chair), Sir David Grant, Carol Chesney and John Jeans. The terms of reference for the Committee are published on the Company's website. Executive directors may attend meetings of the Committee by invitation for parts of the agenda, as appropriate, and independent advisers are used as required.

## Statement from the Chair of the Remuneration Committee

### Introduction

On behalf of the Board, I am pleased to present the Directors' remuneration report for 2018.

This report complies with the requirements for reporting on directors' pay introduced in October 2013 and is split into the following three sections:

1. this introductory statement;
2. the remuneration policy (pages 62 to 65) as approved by shareholders at the 2017 AGM; and
3. the annual report on remuneration (pages 66 to 71), setting out information on directors' remuneration during the year ended 30th June 2018, and how our policy will be implemented in the year ending 30th June 2019. This part of the report will be submitted to an advisory vote at the 2018 AGM.

This remuneration report has been prepared in accordance with Part 3 of the Large and Medium sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013, 9.8.8R of the Listing Rules and the UK Corporate Governance Code.

### Context for remuneration at Renishaw

The Committee welcomes the high level of shareholder support at the 2017 AGM for our revised remuneration policy. In addition to a number of minor changes, we introduced a new deferred equity incentive plan, alongside minimum shareholding requirements for all executive directors. Both of these elements are designed to increase the level of alignment with shareholder interests. The Committee has agreed with Sir David McMurtry and John Deer that they will not participate in this new plan. The year ended 30th June 2018 was the first year during which this new policy applied and the Committee will continue to keep the remuneration policy and its implementation under review in the context of shareholder feedback, the evolving governance landscape, and our need to continue to attract, motivate and retain the talent required to underpin Renishaw's continued growth and long-term shareholder value creation.

## Key remuneration discussions during the year

### Appointments

As detailed elsewhere in this Annual report, during the year Renishaw announced the appointment of Will Lee as Chief Executive, with Sir David McMurtry focusing on his role as Executive Chairman with additional responsibilities for Group innovation and product strategy. The Committee carefully considered the implications of these role changes on remuneration, taking in to account market relativities, the specific nature of the roles at Renishaw and the way in which value is created from both of these roles. As a consequence, it was determined that Will Lee's new salary be initially set at £550,000 from 1st February 2018, to reflect his promotion to Chief Executive. This decision is in line with our policy of preferring the salary of new appointees to be brought gradually up to the market median level over time, subject to the demonstrated performance of the individual in the role over that period. It is the Committee's intention therefore to consider future increases to Will's salary in line with this policy and, if appropriate, to award increases to move his pay closer to a more market competitive position over time. This may involve a salary increase above the average salary increase for the UK employee population as a whole. In order to further strengthen the alignment of Will's interests with those of shareholders, the Committee also decided to increase his shareholding requirement to 200% of salary. The Committee expects this level of shareholding to be built up over time. In addition, a modest change to Will's pension contribution was authorised to correct an anomaly and align him with the other non-founder executive directors. All other aspects of Will's remuneration package remain unchanged.

The Committee also considered Sir David's remuneration and decided that his remuneration should remain unchanged. This decision reflects the substantial value he contributes to the Group in terms of innovation and product strategy, his extensive market knowledge and his executive chairmanship of the Board.

It was also determined that Sir David's and Will's remuneration will next be reviewed in 2019.

### Performance and reward

We believe that our remuneration arrangements, while different in certain respects from those adopted by other listed companies, are effective, closely aligned with performance and appropriately reinforce the actions and behaviours needed to continue to create long-term value for all our shareholders. In setting targets the Committee considers both the opportunities and risks associated with the Company's annual business plan and the Board's discussions regarding long-term strategy and its ambitions for the business. Consequently, at the start of the year, stretching targets were set that required:

- c.10% profit growth to be achieved for threshold bonus payout;
- c.24% profit growth for an on-target cash bonus payout; and
- c.28% profit growth to warrant the start of payment under the additional deferred annual equity incentive plan.

As set out earlier in this Annual report, Renishaw performance in FY2018 was very strong. Adjusted profit before tax – a KPI of our business performance and the measure used in our executive incentives – grew by 33% to £145.1m. Renishaw's total shareholder return (TSR) continued to outpace the FTSE 250. Over the year to 30th June 2018, TSR was 48% (compared to a TSR of 11% for the FTSE 250); over the last five years, Renishaw's TSR of 277% outperformed the FTSE 250 by 17% per annum. In this context, the Committee believes the payments under the annual cash bonus (100% of maximum, equating to 100% of salary for executive directors) and, for the first time in FY2018, the deferred annual equity incentive plan (85.1% of maximum, or 42.5% of salary) appropriately reflects Renishaw's performance over the year.

### Workforce considerations

The Committee reviews and discusses with the Chief Executive the remuneration arrangements and management decisions regarding base pay and bonuses for all staff at the next levels of management.

The Committee also considers the base pay and bonus arrangements for all other staff in Renishaw. Shareholders will note that a base pay budget of 4.4% was made available for application (on a performance and market-related basis) across the workforce. Those executive directors in receipt of an annual base pay increase this year received 2.7%.

Additionally, the Committee has provided active support and advice to the Chief Executive as he considers the remuneration policy and practice for the workforce globally.

### Review of the Remuneration Committee's activities

The Committee met seven times during the year. Its main activities included:

- implementing the deferred equity incentive plan;
- setting targets for the annual bonus and deferred equity incentive plan at the start of the year, with reference to the Company's budgets and forecasts (as disclosed later in this report);
- reviewing remuneration arrangements across the Group;
- reviewing director salaries and approving bonuses for the year;
- approving Sir David McMurtry's expenses;
- reviewing the salaries of Will Lee and Sir David McMurtry following the changes in their respective roles and responsibilities; and
- reviewing gender pay gap reporting.

On behalf of Renishaw and the Remuneration Committee, I would like to thank you for your continued support and feedback. The Committee looks forward to meeting as many of you as possible at the forthcoming AGM, and hope that we can count on your support for this year's remuneration report.

### Kath Durrant

Chair of the Remuneration Committee

26th July 2018

# Directors' remuneration report continued

## Remuneration policy

This section of the Directors' remuneration report sets out the directors' remuneration policy of the Company.

### Executive directors' policy table

Set out below is a table describing each component of the remuneration package for executive directors. This policy remains unchanged from that published in last year's Directors' remuneration report and approved by shareholders at the 2017 AGM, save for minor changes to aid clarity and improve transparency, including updated performance scenario charts, to reflect FY2019 remuneration and additional disclosure under the section titled 'Statement of consideration of shareholder views'.

Total remuneration policy	Purpose and relevance to strategy	Operation	Maximum	Performance measures
Total remuneration	To attract, motivate and retain talented executive directors to support delivery of Renishaw's strategy and maximise long-term shareholder value.	Executive director remuneration is designed to be simple, conservative, and aligned with shareholder interests.	A cap on total remuneration at upper quartile of the relevant market for the position in question, will apply.	Described below in relation to each constituent element of remuneration.

Our total remuneration policy comprises the following constituent elements:

Base salary	To provide a competitive remuneration package to motivate and retain executive directors of the required quality to help the Group meet its objectives to deliver the Group's strategy.	Renishaw aims to pay base salaries between median and upper quartile, reflecting that its variable pay opportunities remain significantly below market. Executive director salaries are benchmarked against equivalent positions for relevant industrial sectors based on factors such as sector, size and location. Base salaries are reviewed annually taking into account the average increase across the Group, and specifically the UK where executive directors are located in the UK.	Salaries are set to deliver total remuneration in accordance with the policy defined above. Base salary increases will normally be capped at the level of salary increases for the broader workforce, unless the Committee in its absolute discretion determines that a higher increase is appropriate. Example circumstances include: to reflect a significant change in a director's role or responsibilities, or if (in shareholders' interests) a director was intentionally appointed on a below-market total remuneration opportunity initially and their subsequent performance in the role warrants an above-average salary increase. The rationale for any above-average increase will be disclosed in the relevant Annual remuneration report.	Continued good performance
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Element of remuneration	Purpose and relevance to strategy	Operation	Maximum	Performance measures
Benefits	To provide market-competitive benefits to motivate and retain executive directors and to support them to give maximum attention to their role.	Benefits provided on an ongoing basis include: <ul style="list-style-type: none"> <li>• a car or car allowance;</li> <li>• private medical insurance;</li> <li>• life assurance;</li> <li>• long-term disability cover;</li> <li>• home telephone costs.</li> </ul> If, on the appointment of a new executive director, relocation is required to the director's place of work, the necessary relocation support may be provided.	Excluding accommodation and relocation costs, benefits are capped at £50,000 per annum.	Not applicable.
Annual cash bonus	To incentivise and reward execution of the Group's objectives.	The Committee sets Group performance targets, including a threshold below which no bonus is earned increasing from zero on a straight-line basis to a target at which 75% of salary would be earned, and to a cap at which a maximum 100% of salary could be earned. Part or all of any bonus paid may be subject to repayment in the event of any material financial misstatement, error in calculation or misconduct.	100% of salary	Based on Group performance, primarily measured by profit before tax (the key measure of Group performance used by shareholders and by the Board). The Committee may introduce other metrics (financial and non-financial) to reflect the Group's priorities, or make adjustments to appropriately reflect underlying performance, provided that the bonus will always be subject to achievement of the threshold financial performance. Targets will be set around the Group's internal strategic plan. Any non-financial metrics shall not form more than 25% of the overall bonus opportunity.
Deferred annual equity incentive plan	To incentivise and reward outperformance beyond the annual bonus maximum, and encourage executive director share ownership.	If performance exceeds the level at which a maximum annual short-term bonus is earned, incremental profit growth beyond this level may be rewarded through a deferred annual equity incentive. Any such award is deferred in shares for a period of three years. Dividends may accrue on deferred shares over the	50% of salary	As per the annual cash bonus above.

# Directors' remuneration report continued

Element of remuneration	Purpose and relevance to strategy	Operation	Maximum	Performance measures
		deferral period and, if so, will be paid as additional shares (or a cash equivalent) on vesting. Part or all of any deferred annual equity award may be subject to repayment in the event of any material financial misstatement, error in calculation or misconduct.		
Pension	To provide a competitive pension as appropriate to motivate and retain executive directors of the required quality to meet the Group's objectives	<p>Each of Allen Roberts and Geoff McFarland receives a payment of 15% of salary, being the amount that would otherwise be contributed to a pension scheme on their behalf.</p> <p>Will Lee is entitled to an annual pension contribution of 15% of salary to the Company's defined contribution scheme, but, as agreed by the Committee, most of this is taken as a salary supplement, with the level of pension contribution dependent on the value of his pension pot from time to time and the annual allowance.</p> <p>For any new executive director, annual contributions of 15% of salary would be made to the Company's defined contribution scheme or all or part as an allowance paid in lieu, as agreed by the Committee.</p> <p>Will Lee and Geoff McFarland are deferred members of the Company's defined benefit scheme which closed for future accruals on 5th April 2007. Sir David McMurtry and John Deer receive no pension contribution or allowance in lieu.</p>	The maximum contribution to the defined contribution scheme, or, where applicable, additional salary payment in lieu of contributions is 15% of base salary.	Not applicable
Minimum shareholding guideline	Supports the alignment of executive and shareholder interests	<p>Executive directors are expected to build up and maintain a level of share ownership of at least 50% of base salary.</p> <p>50% of any net vested share awards (after sales to meet tax liabilities) must be retained until the minimum shareholding guideline is met.</p>	Not applicable	Not applicable

## Approach to recruitment remuneration

When agreeing the remuneration package for a new executive director, the Committee will apply the policy for the existing executive directors to ensure a consistent approach, except as set out below.

For an external hire, base salary will be set in line with the factors set out in the policy table, taking into account the individual's experience and the amount required to attract the individual to join the Company. The Committee may also consider paying compensation to new hires who forfeit any award under the variable remuneration arrangements with a previous employer. Any such buyout awards would have a fair value no higher than that of the awards being replaced, and would be structured as far as possible to replicate the awards being forfeited, in terms of vesting horizons and performance linkage.

Where a new executive director is required to relocate from their home location to take up their role, the Committee may provide reasonable relocation assistance and other appropriate allowances if business needs require it.

When an internal appointment is made, any pre-existing obligations will be honoured and payment will be permitted under the policy.

### Committee discretion in exceptional circumstances

The Committee retains discretion in exceptional circumstances to offer a long-term incentive to support Renishaw in securing the best executive director candidate if the Committee considers it to be in shareholders' best interests to do so. Any use of this discretion would be limited by our internal policy for the aggregate of all incentive opportunities (as a percentage of salary) not to exceed market median, and for an individual executive director's total remuneration not to exceed upper quartile. Any use of this discretion would be accompanied by a full rationale in the relevant annual remuneration report

## Service contracts and policy on payment for loss of office

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 the Company's 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 is required to be considered, such as on a settlement agreement, the Committee will consider all relevant commercial factors affecting the specific case.

### Statement of consideration of employment conditions elsewhere in the Group

The Committee takes into account the pay and employment conditions of the Group in the country in which the executive director resides, and is satisfied that the approach taken is fair and reasonable based on market conditions and practice and the best interests of shareholders. When considering the annual salary review, the average base salary increase awarded to employees provides a guide when determining the salaries of the executive directors (located in the same country).

The Company does not specifically consult with employees on its executive director remuneration policy.

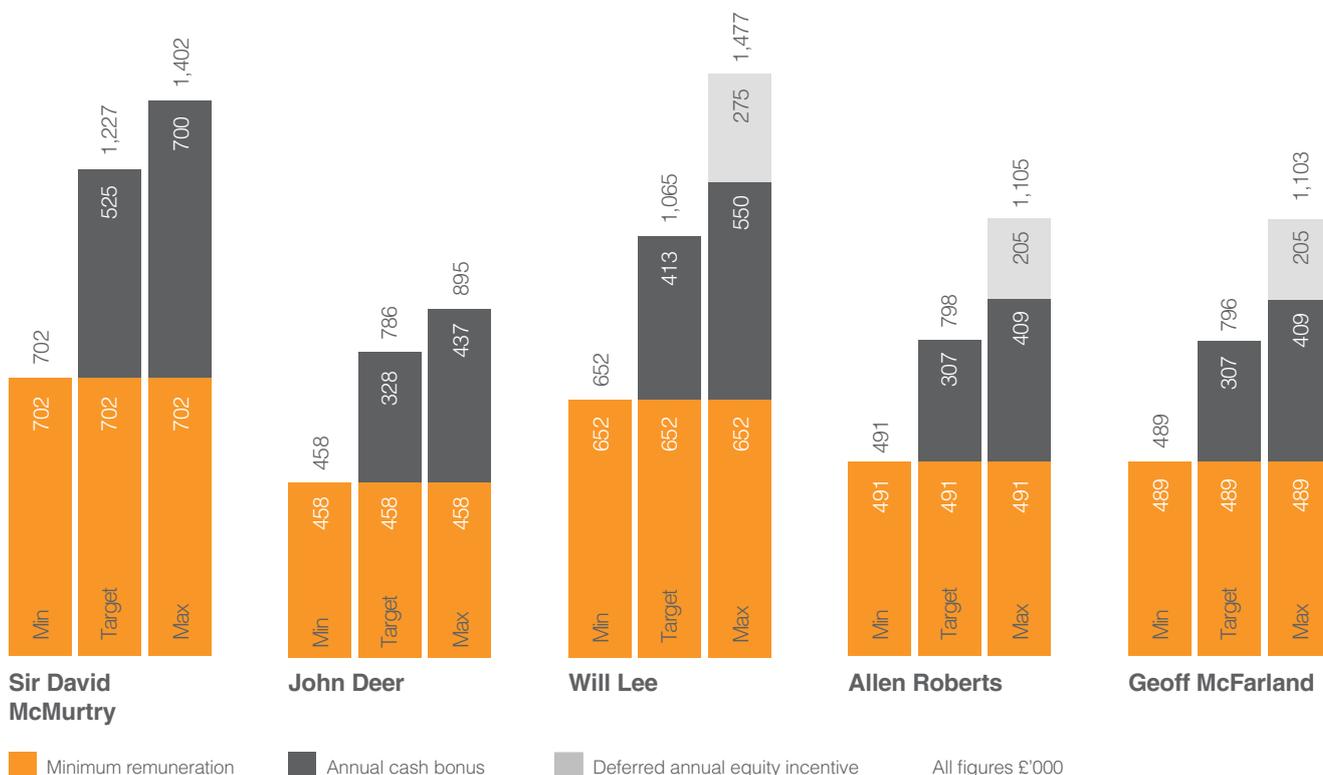
### Statement of consideration of shareholder views

The Committee has taken into account feedback provided by external shareholders when drawing up the remuneration policy. At the AGM in 2017, the binding vote on the remuneration policy received proxy votes of 98.94% in favour and the advisory vote on the Directors' remuneration report received proxy votes of 99.60% in favour.

# Directors' remuneration report continued

## Illustrations of application of remuneration policy

The bar charts set out below for each executive director show: firstly, the minimum remuneration payable in respect of salary, benefits and pension; secondly, the remuneration payable if performance is in line with the Company's expectations; and thirdly, the remuneration payable if the maximum bonus and deferred annual equity incentive is payable for the financial year ending 30th June 2019. Note that deferred equity incentive plan awards granted in a year will not normally vest until the third anniversary of the date of grant, and the projected value excludes the impact of share price movement.



## Non-executive directors' policy table

The remuneration of the non-executive directors is determined by the executive directors and consists of a board fee only. There is no entitlement to any additional fees nor any bonus, incentive plans or pension. Set out below is a table showing the fees for the non-executive directors of the Company:

Element of remuneration	Purpose and relevance to strategy	Operation	Maximum	Performance measures
Board fees	To provide a competitive fee to attract and retain non-executive directors of the required quality to meet the Group's objectives.	All non-executive directors are paid the same fee, irrespective of membership of, or their chairing of, board committees. The fees are reviewed annually with reference to fees payable to non-executive directors of companies of a similar size and complexity. Reasonable expenses that are incurred by directors in undertaking their duties as a director are reimbursed.	The maximum aggregate non-executive director fees payable are set by the Company's Articles of Association, currently an aggregate of £300,000 per annum.	Not applicable

The non-executive directors are appointed for an initial three-year period subject to annual performance review and re-election at AGMs, unless terminated earlier by either party on one month's written notice. Appointments will not normally continue beyond nine years in office.

## Annual remuneration report

This section of the report sets out the remuneration of the directors in the year ended 30th June 2018 and also contains details of how we intend to implement the policy for the forthcoming financial year. The information on pages 67 to 71 has been audited where required under the regulations and is indicated as audited where applicable.

### Single total figure table (audited)

	Salary/fees		Benefits		Bonus <sup>2</sup>		Pension		Total	
	2018 £'000	2017 £'000	2018 £'000	2017 £'000	2018 £'000	2017 £'000	2018 £'000	2017 £'000	2018 £'000	2017 £'000
Sir David McMurtry	700	681	2	2	700	524	n/a	n/a	1,402	1,207
John Deer	425	411	21	20	425	316	n/a	n/a	871	747
Will Lee <sup>1</sup>	461	313	19	18	658	242	61	43	1,199	616
Allen Roberts	398	385	21	20	567	296	60	58	1,046	759
Geoff McFarland	398	385	19	19	567	296	60	58	1,044	758
Carol Chesney	52	50	0	2	n/a	n/a	n/a	n/a	52	52
Kath Durrant	52	50	0	1	n/a	n/a	n/a	n/a	52	51
Sir David Grant	52	50	0	0	n/a	n/a	n/a	n/a	52	50
John Jeans	52	50	1	3	n/a	n/a	n/a	n/a	53	53

<sup>1</sup> Will Lee was appointed to the Board on 1st August 2016, and promoted to the role of Chief Executive with effect from 1st February 2018. His remuneration shown in the table above in relation to 2017 reflects the part-year from the date of his appointment to the Board to 30th June 2017. His remuneration in relation to 2018 reflects the change to his remuneration on promotion to Chief Executive with effect from 1st February 2018, as set out in the Annual statement from the Chair of the Remuneration Committee at the start of this Directors' remuneration report.

<sup>2</sup> For 2018, 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 deferred annual equity incentive in respect of the year ended 30th June 2018. Deferred shares will normally vest on the third anniversary of grant, subject to continued employment.

### Benefits

	Car allowance £'000	Private medical cover applies to all executive directors and home telephone costs, insurance on personal cars and M4 bridge toll fees apply to some directors £'000
Sir David McMurtry	n/a	2
John Deer	19	2
Will Lee	19	<1
Allen Roberts	19	2
Geoff McFarland	19	<1

### Incentive outcomes for FY2018

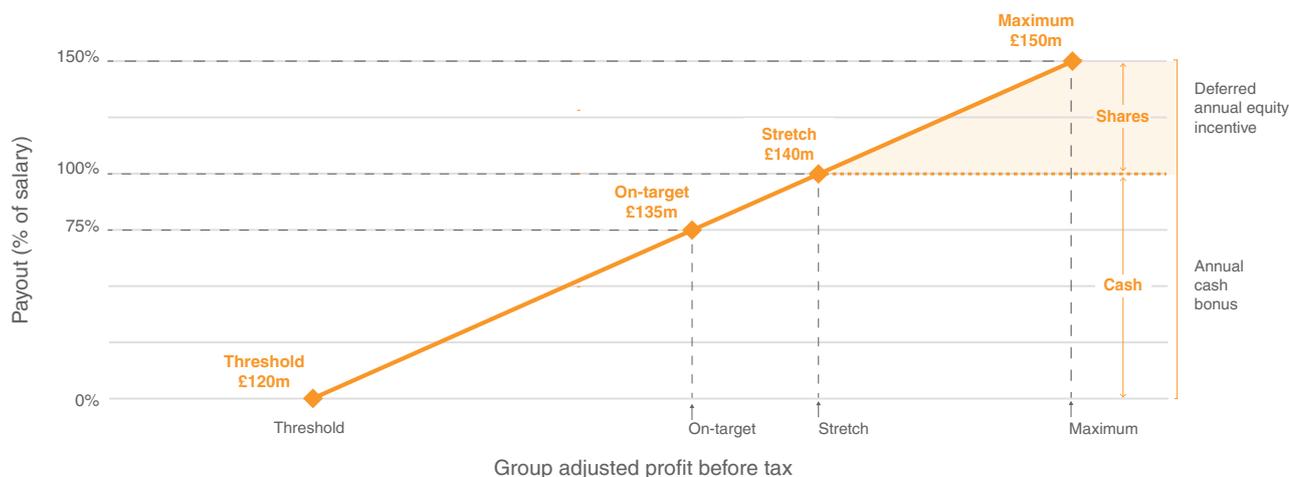
Under the remuneration policy approved at the 2017 AGM, executive directors are eligible for an annual cash bonus of up to 100% of base salary in FY2018. In addition, executive directors who are participants in the new deferred annual equity incentive plan are eligible for an award over shares with a face value of up to 50% of base salary if the annual cash bonus maximum performance level is exceeded.

For FY2018, the annual cash bonus and deferred annual equity incentive plan were based on a single financial measure, being the Group's adjusted profit before tax; no non-financial measures were included.

The Committee established targets for the annual cash bonus and deferred annual equity incentive plan taking into account the profit growth expectations for the business, other financial parameters and strategic objectives to be achieved. The targets for the deferred annual equity incentive plan start at the maximum performance level for the annual cash bonus, as set out overleaf:

# Directors' remuneration report continued

## Annual cash bonus and deferred annual equity incentive plan



The outcome of the annual cash bonus and deferred annual equity incentive plan for FY2018 was determined by Renishaw's adjusted profit before tax (before the cost of the executive directors' annual bonus). For FY2018, adjusted profit before tax calculated on this basis was £148.5m. This outcome was between the Stretch and Maximum levels of performance set for FY2018, and resulted in a payment level of 100% of salary for the annual cash bonus plan. This level of performance also results in a grant of share awards over 42.5% of salary under the deferred annual equity incentive plan, which will be made later in 2018 and details of which will be disclosed in next year's Annual report on remuneration. Sir David McMurtry and John Deer participate in the annual cash bonus plan, but the Committee has agreed with both of them that they will not participate in the deferred annual equity incentive plan.

### Total pension entitlements

Will Lee and Geoff McFarland are members of the Company's closed defined benefit scheme. The normal retirement age is 65. On death, pension benefits would pass to that member's dependants.

Since the closure of the defined benefit scheme, contributions have been made to a defined contribution scheme or paid in cash.

At 30th June 2018:	Value of defined benefit pension entitlement	Pension contributions
Will Lee	£8,942 per annum	Paid in cash
Geoff McFarland	£29,819 per annum	Paid in cash

### Payments to past directors

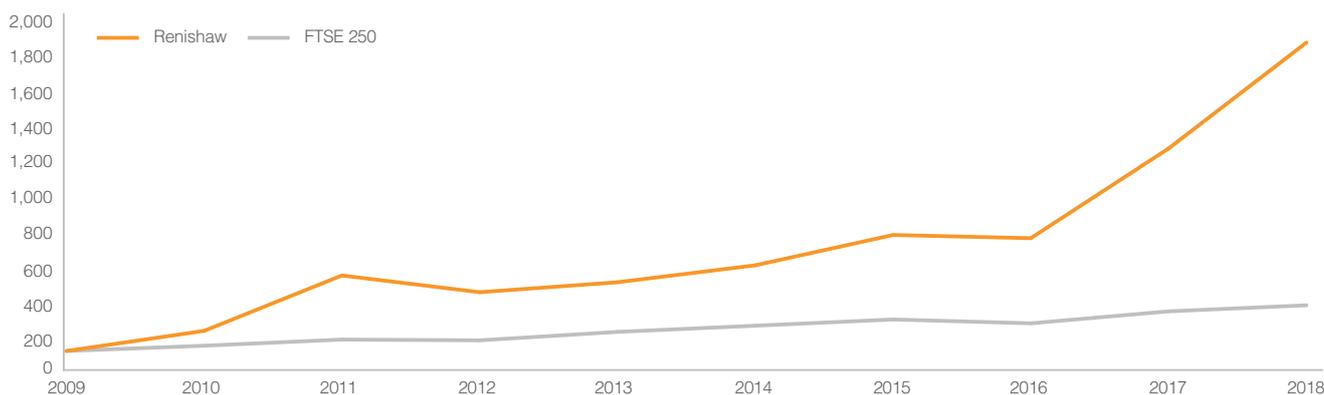
No payments were made to past directors during the year.

### Loss of office payments

There were no loss of office payments during the year.

### Performance graph

The graph below shows the Company's total shareholder return (TSR) performance, compared with the FTSE 250 index, which the Committee believes is the most appropriate broad index for comparison, as Renishaw is a constituent of this index. TSR performance has been rebased to 100 at 30th June 2009.



## 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	2018	2017	2016	2015	2014	2013	2012	2011	2010
Will Lee (from 1st February 2018)									
Single figure of total remuneration (£'000)	594								
Annual bonus payout (includes annual cash bonus and deferred equity incentive) % of maximum	95%								
Long-term incentive vesting % of maximum	n/a								
Sir David McMurtry (until 31st January 2018)									
Single figure of total remuneration (£'000)	818	1,207	668	1,298	632	663	969	1,066	472
Annual bonus payout % of maximum	100%	77%	0%	100%	0%	10%	69%	100%	0%
Long-term incentive vesting % of maximum	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

## Executive directors serving as non-executive directors of other companies

During the year none of the executive directors served as a non-executive director of any other company in respect of which any remuneration was received other than Geoff McFarland, who was appointed to the board of Cambridge Mechatronics Limited with effect from 14th March 2018 and receives a fee of £25,000 per annum which he retains.

## 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 2017 includes a minimum shareholding guideline for executive directors. As at 30th June 2018 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 30th June 2018)	Unvested and subject to continued employment (awarded under the deferred equity incentive plan)	Minimum shareholding guideline	Current shareholding <sup>1</sup>	Minimum shareholding guideline met
Sir David McMurtry	26,377,291	n/a	0.5x salary	1,997x salary	Yes
John Deer	12,233,040	n/a	0.5x salary	1,526x salary	Yes
Will Lee	1,000	-	2x salary	0.10x salary	Building
Allen Roberts	5,165	-	0.5x salary	0.69x salary	Yes
Geoff McFarland	2,000	-	0.5x salary	0.27x salary	Building
Carol Chesney	500	n/a	n/a	n/a	n/a
Kath Durrant	198	n/a	n/a	n/a	n/a
Sir David Grant	-	n/a	n/a	n/a	n/a
John Jeans	440	n/a	n/a	n/a	n/a

<sup>1</sup> Current shareholdings for comparison with the shareholding requirements for executive directors are calculated based on salary as at 30th June 2018 and by reference to the closing share price on that date (5,300p).

There were no share-based payments made during the year. Executive directors, excluding Sir David McMurtry and John Deer, were eligible to receive an award under the deferred equity incentive plan for performance over the year under review. The details of these awards – which at the date of this Annual remuneration report have yet to be granted – will be reflected in the above table in next year's Annual remuneration report.

# Directors' remuneration report continued

## Percentage change in remuneration of the Chief Executive

The following table sets out the percentage change in the Chief Executive's remuneration compared to the percentage change in average remuneration of UK employees from 2017 to 2018:

	2018 £'000	2017 £'000	Chief Executive % change	UK employees (average) % change
Salary	638 <sup>1</sup>	681	-6	+5.0
Benefits	2	2	-23 <sup>2</sup>	+2.4
Annual bonus	735	524	+40	+32.5

<sup>1</sup> Represents the salary received by Sir David McMurtry in relation to this role (£700,000 per annum for the period to 31st January 2018), and by Will Lee for the period from 1st February 2018 (£550,000 per annum).

<sup>2</sup> Reflects differences in the benefits received by Will Lee and Sir David McMurtry, rather than changes in the cost of those benefits year-on-year. The value shown for 2018 excludes the car allowance received by Will Lee (Sir David McMurtry does not receive a car allowance).

UK employees have been chosen as a comparator group in order to avoid the impact of exchange rate movements over the year. UK employees make up 62.4% of the total number of Group employees.

## Relative importance of spend on pay

The following table sets out the total amount spent in the current financial year and the previous year on remuneration to all Group employees and on dividends to shareholders:

	2018 £'000	2017 £'000	change %
Employee remuneration	226,809	211,572	+7.2
Shareholder dividends paid	38,942	34,939	+11.5

Except as shown above, no other distributions have been made to shareholders or other payments or uses of profit or cash flow which impact on the understanding of the relative importance of spend on pay.

## Statement of implementation of remuneration policy in the next year

Executive directors

### Base salary

The Committee determined the salaries for Sir David McMurtry and Will Lee for the year ending 30th June 2019 would be unchanged. Salaries for each of the other executive directors, John Deer, Allen Roberts and Geoff McFarland, will be increased by 2.7%. This is at a rate that is less than the average for the UK workforce, being 4.4%. The salaries will be as follows from 1st July 2018:

	1st July 2018 £'000	30th June 2018 £'000
Sir David McMurtry	700	700
John Deer	437	425
Will Lee	550	550
Allen Roberts	409	398
Geoff McFarland	409	398

### Annual cash bonus

As set out in the remuneration policy, the maximum bonus opportunity for the year ending 30th June 2019 will continue to be 100% of salary for executive directors. The bonus for the year ending 30th June 2019 will be based on financial targets. The bonus scheme targets have been set based on the appropriate part of the policy as set out in the remuneration policy table, and will be disclosed in next year's Annual remuneration report.

### Deferred annual equity incentive

For the 2019 financial year, non-founder executive directors will again be eligible for an award of up to 50% of salary under the deferred annual equity incentive, subject to stretching targets (in excess of the level required for the annual cash bonus to pay out in full) being achieved. Any award under this plan will be delivered in Renishaw shares that normally vest on the third anniversary of grant, subject to continued employment over that period. The targets set in relation to the deferred annual equity incentive will be disclosed in next year's Annual remuneration report.

## Non-executive directors

The fee paid to each of the non-executive directors has been increased to £55,000 per annum for the year ending 30th June 2019 (£51,600 for the year ending 30th June 2018). 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:

Kath Durrant

Carol Chesney

Sir David Grant

John Jeans

Mercer Kepler assisted the Committee in reviewing and benchmarking the executive director and senior management remuneration arrangements.

Mercer Kepler 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. Total professional fees and expenses paid to Mercer Kepler for advice received in the year were £37,880. Mercer Kepler was appointed by the Committee and have not advised the Company on any other matters. During the year, the actuarial advisory division of Mercer Limited (Mercer Kepler's parent company) provided advice to the trustees of the Company's UK defined benefit pension scheme and in relation to the defined contribution scheme. This work is entirely separate from the work undertaken by Mercer Kepler for the Committee.

The Committee is of the opinion that the advice received from Mercer Kepler is objective and independent.

The Company Secretary acts as secretary to the Committee. Executive directors may attend meetings of the Committee by invitation for parts of the agenda, as appropriate, and independent advisers are used as required.

### Statement of voting at general meeting

At the AGM held on 20th October 2017, 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	60,902,216	98.94%	654,533	1.06%	61,556,749	1,187,755

The votes cast in respect of the Directors' remuneration report at the same meeting were as follows:

Resolution	Votes for	% for	Votes against	% against	Total votes cast	Votes withheld
Approval of remuneration report	61,697,021	99.60%	250,317	0.40%	61,947,338	797,166

This report was approved by the Board and has been signed on its behalf by:

#### Kath Durrant

Chair of the Remuneration Committee

26th July 2018

# 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, 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.

The principal activities of the Company are the design, manufacture, sale, distribution and service of metrology and healthcare products and solutions outlined on page 2 of the Strategic report. The Group has established and acquired overseas manufacturing, marketing and distribution subsidiaries to manufacture some of the Group's products and to provide support to customers in our major markets in the following regions outside the UK:

- Europe: Austria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Poland, Spain, Sweden and Switzerland;
- Americas: Brazil, Canada, Mexico and USA;
- Far East: Australia, China, Hong Kong, Japan, Malaysia, Singapore, South Korea and Taiwan; and
- other regions: India, Israel, Russia and Turkey.

There are also representative offices in Indonesia, Slovakia, Thailand and Vietnam and a joint venture in Slovenia, RLS Merilna tehnika d.o.o. (RLS).

Also part of the Group is a subsidiary in Slovenia which designs and arranges the procurement of application-specific integrated circuits for the Group and for RLS.

Further information is available on the Company's website: [www.renishaw.com](http://www.renishaw.com).

## Dividends

The directors propose a final dividend of £33,482,730 or 46.0p per share (2017: £28,751,474 or 39.5p per share) which, together with the interim dividend of £10,190,396 or 14.0p per share (2017: £9,098,568 or 12.5p) makes a total amount of dividends for the year of £43,673,126 or 60.0p per share, compared to £37,850,042 or 52.0p per share for the previous year.

## Directors and their interests

The directors at the end of the year together with their interests in the share capital of the Company (with the equivalent number of voting rights), as notified to the Company are listed on page 69.

All the interests were beneficially held with the exception of 2,434,411 shares (2017: 2,434,411 shares) which were non-beneficially held by John Deer but in respect of which he has voting rights.

There has been no change in the holdings shown on page 69 in the period 1st July 2018 to 26th July 2018. In accordance with the provisions of the Governance Code all directors will retire and, being eligible, offer themselves for re-election at the Annual General Meeting (AGM) to be held on 18th October 2018. Details of directors who offer themselves up for re-election or election, as the case may be, are shown on pages 46 to 47 and full biographical details are available at [www.renishaw.com](http://www.renishaw.com).

Sir David McMurtry, as one party, and John Deer and Mrs M E Deer, as the other party, have entered into an agreement relating to the way each party would vote in respect of his or her shares if requested by the other party to do so. Under this agreement Sir David McMurtry, John Deer and Mrs M E Deer 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 25th May 2023 or the deaths of both Sir David McMurtry and John Deer.

The rules on appointment, reappointment and retirement by rotation of the directors and their powers are set out in the Company's Articles of Association. There are no powers given to the directors that are regarded as unusual.

## Directors' and officers' indemnity insurance

Subject to the provisions of the Companies Act 2006, the Company's Articles of Association provide for the directors and officers of the Company to be appropriately indemnified. The Company maintains insurance for its directors and officers in respect of their acts and omissions during the performance of their duties.

## Share capital and change of control

Details of the Company's share capital, including rights and obligations, is given in note 19 to the Financial statements. The Company is not a party to any significant agreements that might terminate upon a change of control of the Company.

A shareholder authority for the purchase by the Company of a maximum of 10% of its own shares was in existence during the 2018 financial year. However, the Company did not purchase any of its own shares during that time.

## Auditor

A resolution to reappoint Ernst & Young LLP as the auditor of the Company will be proposed at the forthcoming AGM.

## 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 the Company's auditor is unaware, and 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 the Company's auditor is aware of that information.

## Annual General Meeting

The notice convening the AGM and an explanation of the resolutions sought are set out in a separate circular. At the meeting, the Company will be seeking shareholder approval for, amongst other things, the appointment of Catherine Glickman and the ability to make market purchases of its own ordinary shares, up to a total of 10% of the issued share capital.

The directors consider that all the resolutions proposed are in the best interests of the Company, and its shareholders as a whole, and unanimously recommend that shareholders vote in favour of the resolutions, as they intend to do in respect of their own holdings.

## Substantial shareholdings

Apart from the shareholdings (and corresponding voting rights) of Sir David McMurtry and John Deer (36.23% and 16.80% respectively), the table below discloses the voting rights that have been notified to the directors under the requirements of the UK Listing Authority's Disclosure Guidance and Transparency Rules DTR 5, which represent 3% or more of the voting rights attached to issued shares in the Company, as at 30th June 2018. It should be noted that these holdings are likely to have changed since being notified to the Company. However, notification of any change is not required until an applicable threshold is crossed.

Substantial shareholdings	% of issued share capital	Number of shares
Baillie Gifford & Co	5.25%	3,846,993
BlackRock, Inc.	4.92%	3,578,133
Capital Research and Management Company	4.76%	3,465,730
Standard Life Investments Limited	4.99%	3,631,612

## Research and development

The Group has a continuing commitment to a high level of R&D. The expenditure involved is directed towards the R&D of new products relating to metrology, including computer-aided design and manufacturing systems, and relating to healthcare products, including Raman spectroscopy systems, dental and craniomaxillofacial implants and certain areas in the medical devices field. Further information on the expenditure on R&D is contained in the Performance – financial review section of the Strategic report.

## Employees

The retention of highly-skilled employees is essential to the future of the business, and the directors place great emphasis on the continuation of the Company's approved training policy. Health and safety matters are given special attention by the directors and well-established systems of safety management are in place throughout the Group to safeguard employees, customers and visitors.

Employment policies are designed to provide equal opportunities irrespective of race, religion, gender, age, disability or sexual orientation. Proper consideration is given to applications for employment from disabled people where suitable for appropriate vacancies. Employees who become disabled whilst with the Company will be given every opportunity to continue their employment through reasonable adjustment to their working conditions, equipment, or where this is not possible, re-training for other positions. They will also be afforded opportunities to continue training and gain promotion on the same basis as any other employee.

Details on information provided to employees on the performance of the business, consultation with employees and performance incentives are contained in the description of corporate social responsibility activities set out on pages 38 to 43.

There are no agreements with employees providing for compensation for any loss of employment that occurs because of a takeover bid.

## Donations

No political donations were made during the year.

## Events after the balance sheet date

There have been no material events affecting the Company since the year end.

## Financial risk management, objectives and policies

Descriptions of the use of financial instruments and the Group's financial risk management objectives and policies, and exposure to market risk, including credit and liquidity risk, can be found in note 20 to the Consolidated financial statements on pages 108 to 111.

## Other statutory and regulatory disclosures continued

### Controlling shareholders' arrangements

The Listing Rules require that premium listed companies with "controlling shareholders" (defined as 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 the Company's general meeting) must enter into a relationship agreement containing specific independence provisions.

The independence provisions required by the Listing Rules 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 Listing Rules; 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 Listing Rules.

By virtue of his shareholding in the Company, Sir David McMurtry (Executive Chairman 36.23% shareholder) is a controlling shareholder. John Deer (Deputy Chairman, together with his wife, 16.80%) is also a controlling shareholder by virtue of a long-standing voting agreement between John Deer (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 Listing Rules. The Financial Conduct Authority (FCA) has been notified of this, as required by the Listing Rules. The controlling shareholders have informed the Board that they are not willing to enter into a relationship agreement because 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 a result of there being no relationship agreement in place, the Listing Rules provide that certain enhanced oversight measures will apply to the Company.

This means that, unless and to the extent that the FCA agrees otherwise, all transactions with the controlling shareholders must be approved by the Company's shareholders (excluding the controlling shareholders) in accordance with the related party transaction requirements of the Listing Rules, and none of the normal exemptions apply.

Guidance has been received from the FCA about the application of the enhanced oversight measures to the remuneration and benefits received by the controlling shareholders in their capacity as executive directors (in accordance with the Company's approved remuneration policy) as well other ordinary course corporate matters, such as the payment of dividends by the Company to all shareholders. The FCA has confirmed that either, these are not transactions or arrangements that fall within the enhanced oversight measures or, that the FCA will permit a modification of the enhanced oversight measures so that they will not apply, provided that the arrangements remain in the ordinary course of business and, in the case of salary reviews and bonuses, provided that they fall within the small transaction exemption in the Annex to LR 11. This guidance continues to apply in respect of remuneration awarded under the existing remuneration policy, if approved at the AGM.

### Greenhouse gas emissions

The disclosures concerning greenhouse gas emissions required by law are set out in the Corporate social responsibility report on page 42.

Signed on behalf of the Board.

### Mark Noble

General Counsel & Company Secretary  
26th July 2018

Renishaw plc  
Registered number 01106260  
England and Wales

# Directors' responsibilities

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 have prepared the Group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU) and have prepared the Company Financial statements in accordance with UK Accounting Standards, including FRS 101 'Reduced Disclosure Framework'.

Under company law the directors must not approve the Financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and 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;
- for the Group Financial statements, state whether they have been prepared in accordance with IFRSs as adopted by the EU, subject to any material departures disclosed and explained in the Financial statements;
- for the Company Financial statements, state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the Company Financial statements; 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 taking such steps as are reasonably open to them to safeguard the assets of the Group and the Company to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the directors are also responsible for preparing a strategic report, directors' report, directors' remuneration report and corporate governance statement that comply with that law and those regulations.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

## Responsibility statement of the directors in respect of the annual financial report

We confirm that to the best of our knowledge:

- the Financial statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group and of the Company and the undertakings; 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 Company and the Group at the year end, together with a description of the principal risks and uncertainties that they face.

We consider the Annual report and accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy.

Signed on behalf of the Board.

### Allen Roberts

Group Finance Director

26th July 2018

# 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 2018 and of the group's profit for the year then ended;
- the group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the parent company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006, and, as regards the group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements of Renishaw plc which comprise:

Group	Parent company
Consolidated balance sheet as at 30 June 2018	Balance sheet as at 30 June 2018
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 C1 to C40 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 flows for the year then ended	
Related notes 1 to 24 to the financial statements, including a summary of significant accounting policies	

The financial reporting framework that has been applied in the preparation of the group financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union. The financial reporting framework that has been applied in the preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

## Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the group and parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

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

## Conclusions relating to principal risks, going concern and viability statement

We have nothing to report in respect of the following information in the annual report, in relation to which the ISAs (UK) require us to report to you whether we have anything material to add or draw attention to:

- the disclosures in the annual report set out on pages 34 to 36 that describe the principal risks and explain how they are being managed or mitigated;
- the directors' confirmation set out on page 34 in the annual report that they have carried out a robust assessment of the principal risks facing the entity, including those that would threaten its business model, future performance, solvency or liquidity;
- the directors' statement set out on page 53 about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them, and their identification of any material uncertainties to the entity's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements;
- whether the directors' statement in relation to going concern required under the Listing Rules in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit; or
- the directors' explanation set out on page 37 in the annual report as to how they have assessed the prospects of the entity, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the entity will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

## Overview of our audit approach

Key audit matters	<ul style="list-style-type: none"> <li>• Revenue recognition due to susceptibility to management override through inappropriate manual journals.</li> <li>• Assessment of hedging activities in accordance with IAS 39.</li> <li>• Accounting for the liabilities associated with defined benefit pension schemes.</li> </ul>
Audit scope	<ul style="list-style-type: none"> <li>• We performed an audit of the complete financial information of eight components and audit procedures on specific balances for a further five components.</li> <li>• The components where we performed full or specific audit procedures accounted for 95% of Profit before tax, 89% of Revenue and 88% of Total assets.</li> </ul>
Materiality	<ul style="list-style-type: none"> <li>• Overall Group materiality of £6.5m which represents 4.2% of Group profit before tax for both continuing and discontinued operations.</li> </ul>

### Key audit matters

Key audit matters are those matters that, in our professional judgment, 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.

#### Revenue recognition due to the susceptibility to management override through inappropriate manual entries.

Refer to the Audit Committee Report (page 57); Accounting policies (page 92); and Note 2 of the Consolidated Financial Statements (pages 95 to 96).

We consider that the vast majority of Renishaw's revenue transactions reported under existing IFRS guidance are routine, non-complex, and systems driven, with no judgement applied over the recorded amount.

However, the accounting for revenues is susceptible to management override through the recording of manual topside journal entries either in the underlying ledgers or during the consolidation process.

We focused on this area due to the manual nature of the consolidation process and the non-routine judgemental nature of some of the manual journals posted.

We performed walkthroughs of the consolidation process at various month ends throughout the year, including the interim and year end to assess the design and implementation of key controls over the manual consolidation process.

For a number of reporting units, which covered 35% of total revenue, as part of our overall revenue recognition testing we used data analysis tools on 100% of revenue transactions in the year to test the correlation of revenue to cash receipts to verify the occurrence of revenue. We tested non-correlating entries with detailed testing of a sample of sales transactions to ensure that revenue had been appropriately recognised.

For those in-scope locations where we did not use data analysis tools we performed more focused journal entry testing on manual journal entries to revenue.

Other audit procedures specifically designed to address the risk of management override included using data extracted from the accounting system to test the appropriateness of journal entries impacting revenue, as well as other adjustments made in the preparation of the financial statements, with a focus on selecting and testing manual journals.

For all full and specific scope locations we independently verified the results of the consolidated entities used in the manual consolidation by agreeing the results included in the consolidation directly to the results audited by the component audit teams. For a sample of the remaining entities we verified the results of the consolidated entities to the underlying source data.

We selected all consolidation journals exceeding 15% of performance materiality and obtained evidence to verify the validity and accuracy of the journals being posted.

We performed full and specific scope audit procedures over this risk area in nine locations, which covered 89% of the Group's revenue, of which the Primary Team performed the procedures in three locations which covered 35% of the Group's revenue.

Based on the audit procedures performed manual entries were appropriate, including post close adjustments during the consolidation process.

Our journal entry testing procedures did not identify instances of inappropriate management override in the recognition of revenue 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
<p><b>Assessment of hedging activities in accordance with IAS 39 (£19.4m, FY17: £31.0m).</b></p> <p>Refer to the Audit Committee Report (page 58); Accounting policies (page 92); and Note 20 of the Consolidated Financial Statements (pages 108 to 111).</p> <p>The group uses derivative financial instruments to manage risks arising from changes in foreign currency exchange rates relating to forecast sales.</p> <p>The Group designates certain derivatives as hedges of a particular risk associated with a recognised asset or liability or a highly probable forecast transaction (cash flow hedge). Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting.</p> <p>Changes in the fair value of foreign currency derivatives which are ineffective or do not meet the criteria for hedge accounting in IAS 39 are recognised in the income statement.</p> <p>Given the complexity of hedge accounting, the criteria for hedge effectiveness documentation under the provisions of IAS 39 and the material differences identified during our FY17 audit which impacted the FY16 results we continued to focus on this area.</p>	<p>We gained an understanding of the key controls and processes in place to assess the hedging effectiveness of forward currency contracts.</p> <p>We ensured that the requirements of IAS 39 Financial Instruments: Recognition and Measurement (IAS 39) were met by:</p> <ul style="list-style-type: none"> <li>• ensuring the appropriateness of the methodology used by management to hedge account. Through the involvement of our treasury specialists we reviewed a sample, spanning all banks and counterparties that Renishaw has deals with, of the terms and conditions of the different categories of forward currency contracts open at the year end and determined whether hedge accounting was permissible under IAS 39.</li> <li>• using our treasury specialists to evaluate management's documentation and assessment of hedge effectiveness for a sample of hedge effectiveness model types.</li> <li>• ensuring that the financial statement disclosures were in accordance with accounting standards.</li> </ul>	<p>Based on the audit procedures performed we confirmed that the group's assessment of hedging activities for the year ended 30 June 2018 and the disclosures within Note 20 were in accordance with the requirements of IAS 39, Financial Instruments: Recognition and Measurement.</p>

Risk	Our response to the risk	Key observations communicated to the Audit Committee
<p><b>Accounting for the liabilities associated with defined benefit pension schemes (£240.2m, FY17: £237.5m).</b></p> <p>Refer to the Audit Committee Report (page 58); Accounting policies (page 94); and Note 14 of the Consolidated Financial Statements (pages 104 to 106).</p> <p>A defined benefit pension liability of £240.2m has been recorded on the balance sheet at 30 June 2018 in respect of Group schemes. As a result of the quantum of this liability, the level of judgement involved in calculating the closing liability, and the fact that relatively small movements in assumptions can result in a material impact to the financial statements there is an increased risk of material misstatement.</p> <p>Whilst management utilises the services of third party actuarial advisors to determine their key assumptions, there is a risk that the discount rate, rate of inflation and mortality assumptions used in the calculation are inappropriate.</p>	<p>We understood and walked through management's process and methodology for calculating the pension liability to gain an understanding of the design and implementation of key control.</p> <p>We evaluated the competence and objectivity of management's external actuarial experts.</p> <p>We obtained the IAS 19 actuarial valuations for the UK and Irish Pension Schemes as prepared by management's experts and considered the reasonableness and consistency of the methodology used to calculate the pension liabilities through involvement of our actuarial specialists.</p> <p>We used our internal actuarial specialists to assess and challenge the appropriateness of the significant assumptions used in determining the defined benefit pension liabilities including the discount rate, RPI and CPI inflation assumptions and mortality assumptions. Specifically, we ensured these fell within an acceptable range on benchmarking these against our internally accepted actuarial assumptions.</p> <p>We assessed the appropriateness and adequacy of the disclosures in respect of the defined pension liability in Note 14 of the annual report.</p>	<p>Based on the audit procedures performed we are satisfied that the closing liability is materially correct and that in combination the judgements made in relation to the underlying actuarial assumptions are appropriate.</p> <p>We are satisfied that the disclosure in Note 14 is aligned with the requirements of IAS 19.</p>

We have omitted the following areas in the auditor's report that were included in the prior year: revenue recognition as a result of inappropriate cut off via manipulation of timing of revenue recognition, the valuation of the Group's forward currency derivatives, and the carrying value of goodwill. Whilst we determined that these were areas of increased risk for our audit they were not assessed as being areas subject to significant Management judgement or areas where there were significant findings in our audit.

# Independent auditor's report to the members of Renishaw plc continued

## An overview of the scope of our audit

### Tailoring the scope

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for each entity within the Group. Taken together, this enables us to form an opinion on the consolidated financial statements. We take into account size, risk profile, the organisation of the Group and effectiveness of Group-wide controls, changes in the business environment and other factors such as recent Internal audit results when assessing the level of work to be performed at each entity.

In assessing the risk of material misstatement to the Group's financial statements, and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, of the 50 reporting components of the Group, we selected 13 components covering entities in China, France, Germany, Hong Kong, India, Ireland, Italy, Japan, South Korea, United Kingdom and United States of America, which represent the principal business units within the Group.

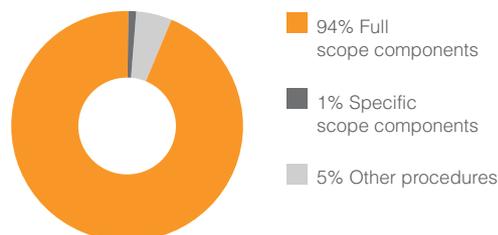
Of the 13 components selected, we performed an audit of the complete financial information of eight components ("full scope components") which were selected based on their size or risk characteristics. For the remaining five components ("specific scope components"), we performed audit procedures on specific 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 95% (2017: 94%) of the Group's Profit before tax, 89% (2017: 92%) of the Group's Revenue and 88% (2017: 90%) of the Group's Total assets. For the current year, the full scope components contributed 94% (2017: 93%) of the Group's Profit before tax, 87% (2017: 87%) of the Group's Revenue and 83% (2017: 81%) of the Group's Total assets. The specific scope components contributed 1% (2017: 1%) of the Group's Profit before tax, 2% (2017: 5%) of the Group's Revenue and 5% (2017: 9%) 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.

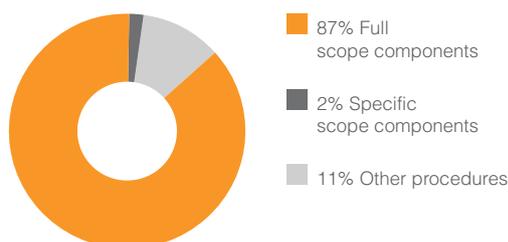
Of the remaining 37 components that together represent 5% of the Group's Profit before tax, none are individually greater than 5% of the Group's Profit before tax. For a sample of these components, we performed other procedures, including analytical review to respond to any potential risks of material misstatement to the Group's financial statements.

The charts opposite illustrate the coverage obtained from the work performed by our audit teams.

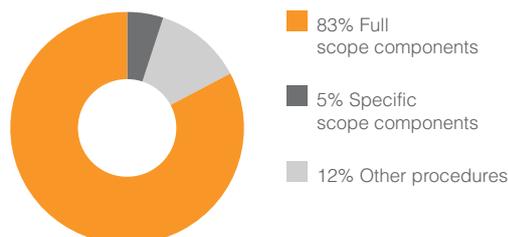
### Profit before tax



### Revenue



### Total assets



### Changes from the prior year

There were the following changes in scope from the prior year to ensure that we performed sufficient work to be able to give an opinion on the financial statements as a whole taking into account the structure of the Group and company and the level of activity of each group company within the year: Renishaw UK Sales Limited, a new fully active business unit, was designated as a full scope component for the current year audit, Renishaw SAS and itp GmbH were designated as specific scope components for the current year audit, review scope in the prior year, while the scope for Renishaw Mexico was reduced from specific scope in the prior year to review scope in the current year, and Renishaw Iberica and Renishaw Shanghai Management Limited were not scoped in in the current year, both were specific scope in the prior 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 audit team, and of the five specific scope components audit procedures were performed on three of these directly by the primary audit team. For the remaining five full scope components and two specific scope components, 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.

During the current year's audit cycle, visits were undertaken by the primary audit team to the component teams in Ireland and the United States of America. These visits involved discussing the audit approach with the component teams, discussing key risk areas, meeting with local management, and attending planning meetings. The primary team interacted regularly with the component teams where appropriate during various stages of the audit, reviewed key working papers, attended all closing meetings via video conferencing facilities and were responsible for the scope and direction of the audit process. This, together with the additional procedures performed at Group level, gave us appropriate evidence for our opinion on the Group financial statements.

### Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

#### Materiality

The magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Group to be £6.5 million (2017: £4.7 million), which is 4.2% (2017: 4.6%) of Group Profit before tax for continuing and discontinued operations. We believe that Group Profit before tax for continuing and discontinued operations provides us with a consistent year-on-year basis for determining materiality and is a generally accepted auditing benchmark for listed entities.

We determined materiality for the Parent Company to be £2.5 million (2017: £2.8 million), which is 3.0% of Profit before tax and dividends received, (2017: 5.0% of Profit before tax, dividends received and other one-off items). We believe that Profit before tax and dividends received provides us with a consistent year-on-year basis for determining materiality.

#### 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% (2017: 75%) of our planning materiality, namely £4.875m (2017: £3.5m). We have set performance materiality at this percentage due to the past history of few misstatements in routine non-complex areas 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 £0.3m to £3m (2017: £0.5m to £2.3m).

#### 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 £0.325m (2017: £0.235m), 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 74, including the Strategic Report, set out on pages 1 to 43, Governance, set out on pages 44 to 74, and Shareholder information, set out on pages 126 to 128, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact.

We have nothing to report in this regard.

In this context, we also have nothing to report in regard to our responsibility to specifically address the following items in the other information and to report as uncorrected material misstatements of the other information where we conclude that those items meet the following conditions:

# Independent auditor's report to the members of Renishaw plc continued

- **Fair, balanced and understandable set out on page 53** – the statement given by the directors that they consider the annual report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the group's performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or
- **Audit committee reporting set out on pages 56 to 59** – the section describing the work of the audit committee does not appropriately address matters communicated by us to the audit committee or
- **Directors' statement of compliance with the UK Corporate Governance Code set out on page 54** – the parts of the directors' statement required under the Listing Rules relating to the company's compliance with the UK Corporate Governance Code containing provisions specified for review by the auditor in accordance with Listing Rule 9.8.10R(2) do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.

## Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

## Matters on which we are required to report by exception

In the light of the knowledge and understanding of the group and the parent company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

## Responsibilities of directors

As explained more fully in the directors' responsibilities statement set out on page 75, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group and parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

## Explanation as to what extent the audit was considered capable of detecting irregularities, including fraud

The objectives of our audit, in respect to fraud, are; to identify and assess the risks of material misstatement of the financial statements due to fraud; to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and to respond appropriately to fraud or suspected fraud identified during the audit. However, the primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and management.

Our approach was as follows:

- We obtained an understanding of the legal and regulatory frameworks that are applicable to the group and determined that the most significant are those that relate to the reporting framework (IFRS, IFRS 101 and the Companies Act 2006, the Financial Reporting Council (FRC) and the UK Corporate Governance Code) and the relevant tax compliance regulations in the UK and overseas jurisdictions in which the Group operates as referred to in the 'Tailoring the Scope' paragraph above. 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, the Data Protection Act, 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 enquires of the Group's legal counsel and internal audit of known instances of non-compliance or suspected non-compliance with laws and regulations. We corroborated our enquiries through review of correspondence with regulatory bodies. We designed our audit procedures to identify non-compliance with such laws and regulations identified in the paragraph above. As well as enquiry and attendance at meetings, our procedures involved a review of board meetings and other committee minutes to identify any non-compliance with laws and regulations. Our procedures also involved journal entry testing, with a focus on journals meeting our defined risk criteria based on our understanding of the business.
- 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/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, Group Internal Audit Manager and Audit Committee Chair. 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. Our procedures involved making enquiries of key management and legal counsel, reviewing key policies, inspecting correspondence with regulators and reading key management meeting minutes. We also completed procedures to conclude on the compliance of significant disclosures in the Annual Report and Accounts with the requirements of the relevant accounting standards, UK legislation and the UK Corporate Governance Code.
- We communicated regularly with component teams, management and legal counsel 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

- We were appointed by the company at its annual general meeting on 13 October 2016 to audit the financial statements for the year ended 30 June 2017 and subsequent financial periods.
- The period of total uninterrupted engagement including previous renewals and reappointments is two years, covering the years ended 30 June 2017 to 30 June 2018.
- The non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the parent company and we remain independent of the group and the parent company in conducting the audit.
- The audit opinion is consistent with the additional report to the audit committee.

## 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.

### Paul Mapleston]

(Senior statutory auditor)

for and on behalf of Ernst & Young LLP, Statutory Auditor  
Bristol

26 July 2018

#### Notes:

<sup>1</sup> The maintenance and integrity of the Renishaw plc web site is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the web site.

<sup>2</sup> Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

# 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 75.

The Independent auditor's report to the members of Renishaw plc (starting on page 76) provides more detail about how our auditors have planned and conducted their audit, as well as their views on significant matters they have noted and that were discussed by the Audit Committee.

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. The basis of preparation section (see note 1) provides details of accounting policies that apply to transactions and balances in general.

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# Consolidated income statement

for the year ended 30th June 2018

from continuing operations	notes	2018 £'000	2017 £'000
<b>Revenue</b>	2	<b>611,507</b>	536,807
Cost of sales		<b>(284,889)</b>	(251,384)
<b>Gross profit</b>		<b>326,618</b>	285,423
Distribution costs		<b>(121,352)</b>	(112,691)
Administrative expenses		<b>(56,911)</b>	(52,376)
Gains/(losses) from the fair value of financial instruments		<b>4,834</b>	(3,601)
<b>Operating profit</b>		<b>153,189</b>	116,755
Financial income	4	<b>653</b>	766
Financial expenses	4	<b>(1,587)</b>	(2,256)
Share of profits of associates and joint ventures		<b>2,970</b>	1,836
<b>Profit before tax</b>	5	<b>155,225</b>	117,101
Income tax expense	7	<b>(22,870)</b>	(14,343)
<b>Profit for the year from continuing operations</b>		<b>132,355</b>	102,758
Profit/(loss) for the year from discontinued operations	8	<b>582</b>	(13,931)
<b>Profit for the year</b>		<b>132,937</b>	88,827
<b>Profit attributable to:</b>			
Equity shareholders of the parent company		<b>132,924</b>	88,955
Non-controlling interest	19	<b>13</b>	(128)
<b>Profit for the year</b>		<b>132,937</b>	88,827
		<b>pence</b>	pence
<b>Dividend per share arising in respect of the year</b>	19	<b>60.0</b>	52.0
<b>Dividend per share paid in the year</b>		<b>53.5</b>	48.0
<b>Earnings per share from continuing operations (basic and diluted)</b>	6	<b>181.8</b>	141.3
<b>Earnings/(losses) per share from discontinued operations (basic and diluted)</b>	6	<b>0.8</b>	(19.1)
<b>Earnings per share from continuing and discontinued operations (basic and diluted)</b>		<b>182.6</b>	122.2

All discontinued operations relate to operations discontinued as at June 2017. See note 8 'Discontinued operations' for further details.

# Consolidated statement of comprehensive income and expense

for the year ended 30th June 2018

	notes	2018 £'000	2017 £'000
<b>Profit for the year</b>		<b>132,937</b>	88,827
<b>Other items recognised directly in equity:</b>			
<b>Items that will not be reclassified to the Consolidated income statement:</b>			
Remeasurement of defined benefit pension scheme liabilities	14	<b>(3,813)</b>	(1,608)
Deferred tax on remeasurement of defined benefit pension scheme liabilities		<b>783</b>	(835)
<b>Total for items that will not be reclassified</b>		<b>(3,030)</b>	(2,443)
<b>Items that may be reclassified to the Consolidated income statement:</b>			
Exchange differences in translation of foreign operations		<b>2,107</b>	3,889
Comprehensive income and expense of associates and joint ventures		<b>48</b>	173
Effective portion of changes in fair value of cash flow hedges, net of recycling	19	<b>14,470</b>	8,495
Deferred tax on effective portion of changes in fair value of cash flow hedges	19	<b>(2,810)</b>	(1,573)
<b>Total for items that may be reclassified</b>		<b>13,815</b>	10,984
<b>Total other comprehensive income and expense, net of tax</b>		<b>10,785</b>	8,541
<b>Total comprehensive income and expense for the year</b>		<b>143,722</b>	97,368
<b>Attributable to:</b>			
Equity shareholders of the parent company		<b>143,709</b>	97,496
Non-controlling interest	19	<b>13</b>	(128)
<b>Total comprehensive income and expense for the year</b>		<b>143,722</b>	97,368

# Consolidated balance sheet

## at 30th June 2018

	notes	2018 £'000	2017* £'000
<b>Assets</b>			
Property, plant and equipment	9	232,557	228,050
Intangible assets	10	54,511	54,507
Investments in associates and joint ventures	11	9,822	7,311
Long-term loans to associates and joint ventures	11,20	4,207	3,080
Deferred tax assets	12	27,428	25,437
Derivatives	13	9,578	3,546
<b>Total non-current assets</b>		<b>338,103</b>	<b>321,931</b>
<b>Current assets</b>			
Inventories	15	110,563	87,697
Trade receivables	20	154,587	137,507
Current tax		730	2,276
Other receivables	20	21,988	15,907
Derivatives	13	1,368	–
Pension scheme cash escrow account	14	10,413	12,850
Cash and cash equivalents	16,20	103,847	51,942
<b>Total current assets</b>		<b>403,496</b>	<b>308,179</b>
<b>Current liabilities</b>			
Trade payables		25,232	19,544
Current tax		9,256	2,803
Provisions	17	3,453	2,960
Derivatives	13	22,478	25,261
Other payables	18	47,979	37,304
<b>Total current liabilities</b>		<b>108,398</b>	<b>87,872</b>
<b>Net current assets</b>		<b>295,098</b>	<b>220,307</b>
<b>Non-current liabilities</b>			
Employee benefits	14	67,378	66,787
Deferred tax liabilities	12	188	166
Derivatives	13	17,041	31,471
<b>Total non-current liabilities</b>		<b>84,607</b>	<b>98,424</b>
<b>Total assets less total liabilities</b>		<b>548,594</b>	<b>443,814</b>
<b>Equity</b>			
Share capital	19	14,558	14,558
Share premium		42	42
Currency translation reserve	19	12,665	10,510
Cash flow hedging reserve	19	(19,389)	(31,049)
Retained earnings		541,755	450,803
Other reserve		(460)	(460)
<b>Equity attributable to the shareholders of the parent company</b>		<b>549,171</b>	<b>444,404</b>
Non-controlling interest	19	(577)	(590)
<b>Total equity</b>		<b>548,594</b>	<b>443,814</b>

\*2017 deferred tax has been reclassified between assets and liabilities to reflect the right of offset, see note 12.

These financial statements were approved by the Board of directors on 26th July 2018 and were signed on its behalf by:

**Sir David McMurtry**      **Allen Roberts**  
Directors

# Consolidated statement of changes in equity

for the year ended 30th June 2018

	Share capital £'000	Share premium £'000	Currency translation reserve £'000	Cash flow hedging reserve £'000	Retained earnings £'000	Other reserve £'000	Non-controlling interest £'000	Total £'000
<b>Year ended 30th June 2017</b>								
Balance at 1st July 2016	14,558	42	6,448	(37,971)	401,930	(460)	(3,162)	381,385
Profit/(loss) for the year	-	-	-	-	88,955	-	(128)	88,827
<b>Other comprehensive income and expense (net of tax)</b>								
Remeasurement of defined benefit scheme pension liabilities	-	-	-	-	(2,443)	-	-	(2,443)
Foreign exchange translation differences	-	-	3,889	-	-	-	-	3,889
Relating to associates and joint ventures	-	-	173	-	-	-	-	173
Changes in fair value of cash flow hedges	-	-	-	6,922	-	-	-	6,922
<b>Total other comprehensive income and expense</b>	-	-	4,062	6,922	(2,443)	-	-	8,541
<b>Total comprehensive income and expense</b>	-	-	4,062	6,922	86,512	-	(128)	97,368
Acquisition of non-controlling interest	-	-	-	-	(2,700)	-	2,700	-
Dividends paid	-	-	-	-	(34,939)	-	-	(34,939)
<b>Balance at 30th June 2017</b>	14,558	42	10,510	(31,049)	450,803	(460)	(590)	443,814
<b>Year ended 30th June 2018</b>								
Profit for the year	-	-	-	-	132,924	-	13	132,937
<b>Other comprehensive income and expense (net of tax)</b>								
Remeasurement of defined benefit scheme pension liabilities	-	-	-	-	(3,030)	-	-	(3,030)
Foreign exchange translation differences	-	-	2,107	-	-	-	-	2,107
Relating to associates and joint ventures	-	-	48	-	-	-	-	48
Changes in fair value of cash flow hedges	-	-	-	11,660	-	-	-	11,660
<b>Total other comprehensive income and expense</b>	-	-	2,155	11,660	(3,030)	-	-	10,785
<b>Total comprehensive income and expense</b>	-	-	2,155	11,660	129,894	-	13	143,722
Dividends paid	-	-	-	-	(38,942)	-	-	(38,942)
<b>Balance at 30th June 2018</b>	<b>14,558</b>	<b>42</b>	<b>12,665</b>	<b>(19,389)</b>	<b>541,755</b>	<b>(460)</b>	<b>(577)</b>	<b>548,594</b>

More details of share capital and reserves are given in note 19.

# Consolidated statement of cash flow

for the year ended 30th June 2018

	notes	2018 £'000	2017 £'000
<b>Cash flows from operating activities</b>			
Profit for the year		132,937	88,827
Adjustments for:			
Amortisation of development costs	10	12,483	13,645
Amortisation of other intangibles	10	2,142	10,230
Impairment of goodwill		1,559	–
Depreciation	9	26,140	22,192
Loss on sale of property, plant and equipment		37	2,085
Gains from the fair value of financial instruments		(10,143)	(8,022)
Share of profits from associates and joint ventures	11	(2,970)	(1,836)
Financial income	4	(653)	(766)
Financial expenses	4	1,587	2,256
Tax expense	7	22,870	13,132
		53,052	52,916
Decrease/(increase) in inventories		(22,866)	7,262
Increase in trade and other receivables		(25,921)	(21,062)
Increase in trade and other payables		17,770	14,699
Increase in provisions	17	493	585
		(30,524)	1,484
Defined benefit pension contributions		(4,471)	(4,204)
Income taxes paid		(18,882)	(23,768)
<b>Cash flows from operating activities</b>		<b>132,112</b>	<b>115,255</b>
<b>Investing activities</b>			
Purchase of property, plant and equipment		(34,852)	(42,637)
Development costs capitalised	10	(14,602)	(15,886)
Purchase of other intangibles		(1,700)	(754)
Sale of property, plant and equipment		2,889	5,526
Sale of property, plant and equipment relating to discontinued activities		–	960
Interest received	4	653	766
Dividends received from associates and joint ventures	11	507	356
Payments from pension scheme escrow account		2,437	2,429
<b>Cash flows from investing activities</b>		<b>(44,668)</b>	<b>(49,240)</b>
<b>Financing activities</b>			
Interest paid	4	(338)	(696)
Dividends paid	19	(38,942)	(34,939)
<b>Cash flows from financing activities</b>		<b>(39,280)</b>	<b>(35,635)</b>
<b>Net increase in cash and cash equivalents</b>		<b>48,164</b>	<b>30,380</b>
Cash and cash equivalents at the beginning of the year		51,942	21,303
Effect of exchange rate fluctuations on cash held		3,741	259
<b>Cash and cash equivalents at the end of the year</b>	16	<b>103,847</b>	<b>51,942</b>

# Notes (forming part of the financial statements)

## 1. Accounting policies

### Basis of preparation

Renishaw plc (the Company) is a company incorporated in the UK. The Group financial statements consolidate those of the Company and its subsidiaries (together referred to as the Group) 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 International Financial Reporting Standards as adopted by the EU (adopted IFRS). 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.

Renishaw GmbH, Pliezhausen, Germany has chosen to exercise the right under section 264 – sub-section 3 of the German Commercial Code (HGB) on exemption and preparation. The consolidated financial statements of the Group include the financial statements of Renishaw GmbH, Pliezhausen, Germany.

### Basis of accounting

The financial statements have been prepared under the historical cost convention, subject to fair value items referred to in the derivative financial instruments note below. The accounting policies set out below have been consistently applied in preparing both the 2017 and 2018 financial statements.

### Critical accounting judgements and estimation uncertainties

The preparation of financial statements in conformity with adopted 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 which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may 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 listed below:

#### Critical accounting judgements

##### (i) Capitalisation of development costs

Product development costs are capitalised once a project has reached a certain stage of development and these costs are subsequently amortised over a five-year period. 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.

##### (ii) Discontinued activities

The closure of certain lines of business have been treated as discontinued operations on the basis that the directors are of the opinion that the underlying performance of the business is better reflected by classifying these items as discontinued.

#### Key sources of estimation uncertainty

##### (i) Inventory

Determining the value of inventory requires judgement, especially in respect of provisioning for slow moving and potentially obsolete inventory. Management consider historic and future forecast sales patterns of individual stock items when calculating inventory provisions. For most inventory lines, provisions are based on the excess levels held compared to a maximum three year outlook. Where strategic purchases of critical components have been made, an outlook beyond three years is considered where appropriate. The sensitivities around estimates vary significantly from product to product.

##### (ii) Defined benefit pension scheme liabilities

Determining the value of the future defined benefit obligation requires judgement in respect of the assumptions used to calculate present values. These include future mortality, discount rate, inflation and salary increases. Management makes these judgements in consultation with independent actuaries. Details of the estimates and judgements in respect of the current year are given in note 14. Based on a review of the terms of the UK scheme trust deed, management has concluded that there are no likely circumstances which would result in the Company having an unconditional right to a refund in the event of a fund surplus.

##### (iii) Amortisation of intangibles and impairment

The periods of amortisation of intangible assets require judgements to be made on the estimated useful lives of the intangible assets to determine an appropriate rate of amortisation. Future assessments of impairment may lead to the writing off of certain

## 1. Accounting policies (continued)

amounts of intangible assets and the consequent charge in the Consolidated income statement for the accelerated amortisation. Capitalised development costs are written off over five years, the period over which demand forecasts can be reasonably predicted.

### (iv) Impairment of goodwill

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 (see note 10).

### Basis of consolidation

**Subsidiaries** – 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.

**Application of the equity method to associates and joint ventures** – 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.

**Transactions eliminated on consolidation** – Intragroup balances and transactions, and any unrealised income and expenses arising from intragroup transactions, are eliminated. 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.

### New, revised or changes to existing accounting standards

The following accounting standards have been issued but are not yet effective for the Group and have not been applied in these financial statements:

IFRS 15 'Revenue from Contracts with Customers' is effective for accounting periods beginning on or after 1st January 2018 and therefore the Annual report and accounts for the year ended 30th June 2019 will be the first Annual report published in accordance with IFRS 15. Based on our assessment explained below that the impact of IFRS 15 on the Group's results and net assets is not material, the Group intends to adopt a modified retrospective transition, such that the primary statements for the year ended 30th June 2018 will not be restated but instead a cumulative catch-up adjustment will be made to retained earnings, with disclosure made on a financial statement line basis as to how this adjustment has arisen. The half year results for the period to 31st December 2018 will also be prepared in accordance with IFRS 15.

In assessing that the impact of IFRS 15 is not material, the Group has reviewed the following:

- Individually-significant contracts by value
- Customers with cumulatively-significant contracts
- Variable consideration arrangements
- Warranty arrangements, analysing such arrangements between assurance-type warranties already accounted for under IAS 37 and 'service-type' warranties as defined by IFRS 15, to which revenue should be attributed to and deferred over the service period
- Sale of software licences and maintenance

Whilst the impact of IFRS 15 is not considered to be material with regards to the Group's revenue or net assets, the new Standard will increase the quantitative and qualitative disclosures in the notes to the financial statements. IFRS 15 also requires certain costs relating to the fulfilment of contracts with customers to be recognised as an asset, and whilst such costs are incurred in parts of the business, the resulting contract assets are not expected to be material.

IFRS 9 'Financial Instruments' is also effective for accounting periods beginning on or after 1st January 2018 and therefore the Annual report and accounts for the year ended 30th June 2019 will be the first Annual report published in accordance with IFRS 9. The Standard introduces new requirements for the classification and measurement of financial assets, impairment of financial assets and hedge accounting. The classification and measurement and impairment requirements will be applied retrospectively from 1st July 2018 without the restatement of comparative periods, and accordingly an adjustment to opening reserves will be made.

# Notes continued

## 1. Accounting policies (continued)

The Group has undertaken an assessment of the impact of the new Standard had it applied to the year ended 30th June 2018 and has concluded that for the classification and measurement requirements, there would have been no material changes arising from IFRS 9. For the new impairment requirements, the Group will be required to recognise an 'expected credit loss' for trade receivables under the Standard's 'simplified approach' and the impact assessment has concluded that this would also not be material to the Group. The introduction of IFRS 9 is not expected to impact hedge accounting in the Group's financial statements because the Group uses foreign currency contracts to hedge the forward rate.

IFRS 16 Leases is effective for accounting periods beginning on or after 1st January 2019. Where the Group acts as a lessee, the new Standard will eliminate the classification of leases as either operating or finance leases and instead the Group will recognise a right-to-use asset and a lease liability for all leases (except for low-value assets and leases under 12 months), similar to the accounting for finance leases under IAS 17. The standard is not expected to have a material effect on the profit in any year.

### Revenue

Revenue from the sale of goods is recognised in the Consolidated income statement when the significant risks and rewards of ownership have been transferred to the buyer, which is normally at the time of despatch. Where certain products require installation, part of the revenue may be deferred until the installation is complete. No revenue is recognised if there are significant uncertainties regarding the possible return of goods. Revenue from the sale of services is recognised over the period to which the service relates. Where goods and services are sold as a bundle, the fair value of services is deferred and recognised over the period to which the service relates, with the remaining revenue recognised on despatch.

### Fair value measurements

The Group measures financial instruments such as forward exchange contracts at fair value at each balance sheet date in accordance with IAS 39. Fair value, as defined by IFRS 13, 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. Note 20, Financial instruments, provides detail on the IFRS 13 Fair value hierarchy.

### Foreign currencies

Consolidation – Foreign subsidiaries' results are translated into Sterling at weighted average exchange rates for the year, which is effected by translating each foreign 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 ruling at that date. Differences on exchange resulting from the translation of overseas assets and liabilities are recognised in Other comprehensive income and accumulated in equity.

Transactions and balances – 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.

Hedging of net investments in foreign operations – Gains and losses arising on currency borrowings used to hedge the foreign currency exposure on the net assets of the foreign operations are recognised in Other comprehensive income and expense and accumulated in equity, to the extent that hedge accounting criteria are met and are included in the Consolidated statement of comprehensive income and expense. Any ineffective portion is recognised immediately in the Consolidated income statement. The effectiveness of the hedging is tested monthly.

### Foreign currency derivative cash flow hedges

Foreign currency derivatives are used to manage risks arising from changes in foreign currency rates relating to overseas sales. 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 expense and in the currency 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 no longer qualifies for hedge accounting. At that time, any cumulative gain or loss on the hedging instrument previously recognised in equity is retained in equity until the hedged transaction occurs. If the hedged transaction is no longer expected to occur, the net cumulative gain or loss recognised in equity is then transferred 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 IAS 39 'Financial instruments: recognition and measurement', are recognised in the Consolidated income statement within gains/losses from the fair value of financial instruments.

## 1. Accounting policies (continued)

### Pension scheme cash escrow account

The Company holds a pension scheme escrow account as part of the security given for the UK defined benefit pension scheme. This account is shown within current assets in the Consolidated balance sheet as it may be used to settle pension scheme liabilities immediately upon enforcement of the charge over the account.

### Cash and cash equivalents

Cash and cash equivalents comprise cash balances and short-term (with an original maturity of less than three months) deposits. Bank overdrafts that are repayable on demand form part of cash and cash equivalents for the purpose of the Consolidated statement of cash flow.

### Other financial instruments

Long-term loans to associates and joint ventures are initially recognised at fair value and are subsequently held at amortised cost. 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.

### Goodwill and other intangible assets

Costs related to the acquisition, other than those associated with the issue of debt or equity securities, are expensed as incurred. Deferred consideration relating to acquisitions is subject to discounting to the date of acquisition and subsequently unwound to the date of the final payment. 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.

Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group.

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 through 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 ten years.

### Intangible assets – research and development costs

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 and 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 five years and is stated at cost less accumulated amortisation and less accumulated impairment losses. Capitalised development expenditure is removed from the balance sheet ten years after being fully amortised.

### Intangible assets – software licences

Intangible assets, comprising software licences that are acquired by the Group, are stated at cost less accumulated amortisation and impairment losses. Amortisation is charged on a straight-line basis over the estimated useful life of the assets. The useful life of each of these assets is assessed on an individual basis and they range from 2 to 10 years.

### Property, plant and equipment

Freehold land is not depreciated. Other 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, Vehicles 3 to 4 years.

# Notes continued

## 1. Accounting policies (continued)

### Impairment on non-current assets

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 net realisable value 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.

### Inventory and work in progress

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.

### Warranty provisions

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 financial statements, which is calculated on the basis of historical returns and internal quality reports.

### Discontinued activities

Where a line of the Group's business is treated as a discontinued operation, the financial statements have been re-presented and restated where required as if operations discontinued during the current year had been discontinued from the start of the comparative year. Discontinued operations are excluded from the results of continuing operations and are presented as a single amount as a profit or loss after tax from discontinued operations in the Consolidated income statement.

### 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 in order 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 investors in providing a basis for measuring our operational performance. Our management uses these financial measures, along with the most directly comparable GAAP financial measures, in evaluating our performance (see note 24).

### Employee benefits

The Group operates contributory pension schemes, largely for UK, Ireland and USA employees, which were of the defined benefit type up to 5th April 2007, 31st December 2007 and 30th June 2012 respectively, at which time they ceased any future accrual for existing members and were closed to new members.

The schemes are administered by trustees who are independent of the Group finances. Pension scheme assets of the defined benefit schemes 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. 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. 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. Foreign-based employees are covered by state, defined benefit and private pension schemes in their countries of residence. Actuarial valuations of foreign pension schemes were not obtained, apart from Ireland and USA, because of the limited 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.

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 the annual performance bonus.

## 1. Accounting policies (continued)

### Going concern

The Group's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Strategic report, where details of the financial and liquidity positions are also given. In addition, note 20 in the financial statements includes the Group's objectives and policies for managing its capital, details of its financial instruments and hedging activities and its exposures to credit risk and liquidity risk. The Group has considerable financial resources at its disposal and the directors have considered the current financial projections. As a consequence, the directors believe that the Group is well placed to manage its business risks successfully.

After making enquiries, the directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for a period of at least 12 months from the date of approval of the financial statements. Accordingly, they continue to adopt the going concern basis in preparing the Annual report and accounts.

### Government grants

Government grants, comprising R&D tax credits, are recognised in the Consolidated income statement as a deduction against expenditure.

### Taxation

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. A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised.

## 2. Segmental analysis

The Group manages its operations in two segments, comprising metrology and healthcare products. The results of these segments are regularly reviewed by the Board to allocate resources to segments and to assess their performance. The Group evaluates performance of the segments on the basis of profit before interest, tax and discontinued operations. Within the operating segment of metrology, there are multiple product offerings with similar economic characteristics, and where the nature of the products and production processes and their customer bases are similar. More details of the Group's products and services are given in the Strategic report.

	Metrology £'000	Healthcare £'000	Total £'000
<b>Year ended 30th June 2018</b>			
Revenue	<b>575,839</b>	<b>35,668</b>	<b>611,507</b>
Depreciation and amortisation	<b>38,690</b>	<b>2,075</b>	<b>40,765</b>
Operating profit before gains from fair value of financial instruments	<b>147,841</b>	<b>514</b>	<b>148,355</b>
Share of profits from associates and joint ventures	<b>2,970</b>	<b>–</b>	<b>2,970</b>
Net financial expense	<b>–</b>	<b>–</b>	<b>(934)</b>
Gains from the fair value of financial instruments	<b>–</b>	<b>–</b>	<b>4,834</b>
<b>Profit before tax</b>	<b>–</b>	<b>–</b>	<b>155,225</b>
<b>Year ended 30th June 2017</b>			
Revenue	503,378	33,429	536,807
Depreciation and amortisation	32,983	3,831	36,814
Operating profit/(loss) before losses from fair value of financial instruments	126,830	(6,474)	120,356
Share of profits from associates and joint ventures	1,836	–	1,836
Net financial expense	–	–	(1,490)
Losses from the fair value of financial instruments	–	–	(3,601)
<b>Profit before tax</b>	<b>–</b>	<b>–</b>	<b>117,101</b>

There is no allocation of assets and liabilities to operating segments. Depreciation is included within certain other overhead expenditure which is allocated to segments on the basis of the level of activity.

## Notes continued

## 2. Segmental analysis (continued)

The analysis of revenue by geographical market was:

	2018 £'000	2017 £'000
Far East, including Australasia	280,759	248,905
Continental Europe	154,179	129,941
North, South and Central America	126,638	113,577
UK and Ireland	30,566	27,595
Other regions	19,365	16,789
Total Group revenue	611,507	536,807

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:

	2018 £'000	2017 £'000
China	150,183	134,984
USA	108,118	95,927
Germany	64,394	56,403
Japan	60,855	52,166

There was no revenue from transactions with a single external customer which amounted to more than 10% of the Group's total revenue.

The following table shows the analysis of non-current assets, excluding deferred tax and derivatives, by geographical region:

	2018 £'000	2017 £'000
UK	183,874	183,102
Overseas	117,223	109,846
Total non-current assets	301,097	292,948

No overseas country had non-current assets amounting to 10% or more of the Group's total non-current assets.

## 3. Personnel expenses

The aggregate payroll costs for the year were:

	2018 £'000	2017 £'000
Wages and salaries	183,873	171,993
Compulsory social security contributions	21,809	19,341
Contributions to defined contribution pension schemes	21,127	20,238
Total payroll costs	226,809	211,572

The average number of persons employed by the Group during the year was:

	2018 Number	2017 Number
UK	2,934	2,842
Overseas	1,705	1,553
Average number of employees	4,639	4,395

Key management personnel have been assessed to be the directors of the Company. The total remuneration of the directors was:

	2018 £'000	2017 £'000
Short-term employee benefits	5,589	4,223
Post-employment benefits	180	165
Total remuneration of the directors	5,769	4,388

Full details of directors' remuneration are given in the Directors' remuneration report.

## 4. Financial income and expenses

	2018 £'000	2017 £'000
<b>Financial income</b>		
Interest receivable	653	766
<b>Financial expenses</b>		
Net interest on pension schemes' liabilities (note 14)	1,249	1,560
Bank interest payable	338	696
Total financial expenses	1,587	2,256

## 5. Profit before tax

Included in the profit before tax are the following costs/(income):

	notes	2018 £'000	2017 £'000
Depreciation of property, plant and equipment	(a)	26,140	22,098
Amortisation of intangible assets	(a)	14,625	14,945
Research and development expenditure	(b)	59,127	53,544
Research and development tax credit	(b)	(4,149)	(6,692)
Impairment of goodwill	(c)	1,559	–
Loss on sale of property, plant and equipment	(c)	37	1,917
Foreign currency losses	(c)	604	301
Auditor:			
Audit of these financial statements	(c)	212	177
Audit of subsidiary undertakings pursuant to legislation	(c)	253	230
Audit assurance	(c)	4	5
All other non-audit fees	(c)	1	15

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 cost of sales; and (c) within administrative expenses.

## 6. Earnings per share

Basic and diluted earnings per share from continuing operations are calculated on earnings of £132,342,000 (2017: £102,886,000) and on 72,788,543 shares, being the number of shares in issue during both years. Basic and diluted earnings and losses per share from discontinued operations are calculated on profits of £582,000 (2017: £13,931,000 loss) and on 72,788,543 shares, being the number of shares in issue during both years. There is no difference between the weighted average earnings per share and the basic and diluted earnings per share.

## 7. Income tax expense

	2018 £'000	2017 £'000
<b>Current tax:</b>		
UK corporation tax on profits for the year	10,806	6,418
UK corporation tax – prior year adjustments	(411)	610
Overseas tax on profits for the year	16,142	12,997
Total current tax	26,537	20,025
<b>Deferred tax:</b>		
Origination and reversal of temporary differences	(2,548)	(1,589)
Prior year adjustments	(665)	(3,647)
Recognition of previously unrecognised tax losses	(1,855)	–
Effect on deferred tax for changes in tax rates	1,401	(446)
	(3,667)	(5,682)
Tax charge on profit	22,870	14,343
	2018 £'000	2017 £'000
<b>Total tax charge:</b>		
Income tax expense reported in the Consolidated income statement	22,870	14,343
Tax attributable to discontinued operations	80	(1,211)
	22,950	13,132

## Notes continued

## 7. Income tax expense (continued)

The tax for the year is lower (2017: lower) than the UK standard rate of corporation tax of 19% (2017: 19.75%).

The differences are explained as follows:

	2018 £'000	2017 £'000
Profit before tax from continuing operations	155,225	117,101
Profit/(loss) before tax from discontinued operations	662	(15,142)
Total profit before tax	155,887	101,959
Tax at 19% (2017: 19.75%)	29,619	20,137
Effects of:		
Different tax rates applicable in overseas subsidiaries	(849)	(1,886)
UK patent box	(5,678)	(4,025)
Expenses not deductible for tax purposes	672	310
Companies with unrelieved tax losses	448	1,960
Share of profits of associates and joint ventures	(534)	(363)
Items with no tax effect	195	589
Prior year adjustments	(283)	(3,037)
Effect on deferred tax for change in tax rates	1,401	(446)
Recognition of previously unrecognised tax losses	(1,855)	–
Recognition of previously unrecognised deductible temporary differences	(767)	–
Other differences	581	(107)
Tax charge on profit	22,950	13,132
Effective tax rate	14.7%	12.9%

The Group's future effective tax rate (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. The UK patent box benefit has a significant impact on the ETR and is unpredictable due to factors such as currency rate movements and the level of capital allowances claimed in any given year. The Group is not materially impacted by the changes to the international tax landscape resulting from the package of measures developed under the OECD base erosion and profit shifting project.

Deferred tax assets and liabilities have been calculated at the rate expected to be applicable when the relevant item reverses. A reduction in the UK rate of corporation tax to 17% (from 1st April 2020) has previously been substantively enacted, and on 22nd December 2017, the United States enacted the Tax Cuts and Jobs Act. This legislation reduced the headline rate of federal income tax in the United States to 21% (from 35%) from 1st January 2018. These changes have resulted in a reduction in deferred tax assets due to tax rate changes of £1,401,000. This is offset by a credit due to recognition of deferred tax assets in respect of prior year losses of £1,855,000, resulting in a combined net reduction in the ETR of 0.3%.

## 8. Discontinued operations

In October 2016, the Group decided to discontinue operations at Renishaw Diagnostics Limited (healthcare segment) and in June 2017, to discontinue the spatial measurements business (metrology segment), on the basis of continued losses.

Certain assets of the business were sold. Financial information relating to the discontinued operations is set out below:

	2018 £'000	2017 £'000
Revenue	4,326	7,217
Expenses	(3,664)	(13,914)
Goodwill impairment	–	(8,445)
Profit/(loss) before tax	662	(15,142)
Tax (charge)/credit	(80)	1,211
Profit/(loss) for the year from discontinued operations	582	(13,931)
<b>Cash flow</b>	<b>2018</b>	<b>2017</b>
	<b>£'000</b>	<b>£'000</b>
Profit/(loss) for the year	582	(13,931)
Adjustments for operating activities	(250)	12,155
Cash flows from/(used in) operating activities	332	(1,776)
Cash flows from investing activities	–	420
Net increase/(decrease) in cash and cash equivalents from discontinued operations	332	(1,356)

## 9. Property, plant and equipment

Year ended 30th June 2018	Freehold land and buildings £'000	Plant and equipment £'000	Motor vehicles £'000	Assets in the course of construction £'000	Total £'000
<b>Cost</b>					
At 1st July 2017	165,661	201,022	9,893	8,222	384,798
Additions	4,516	21,853	1,361	7,122	34,852
Transfers	6,340	2,204	–	(8,544)	–
Disposals	(1,115)	(6,580)	(1,409)	–	(9,104)
Currency adjustment	(1,246)	(481)	(109)	–	(1,836)
<b>At 30th June 2018</b>	<b>174,156</b>	<b>218,018</b>	<b>9,736</b>	<b>6,800</b>	<b>408,710</b>

### Depreciation

At 1st July 2017	28,462	121,611	6,675	–	156,748
Charge for the year	3,181	21,545	1,414	–	26,140
Released on disposals	(644)	(4,320)	(1,213)	–	(6,177)
Currency adjustment	(223)	(260)	(75)	–	(558)
<b>At 30th June 2018</b>	<b>30,776</b>	<b>138,576</b>	<b>6,801</b>	<b>–</b>	<b>176,153</b>

### Net book value

<b>At 30th June 2018</b>	<b>143,380</b>	<b>79,442</b>	<b>2,935</b>	<b>6,800</b>	<b>232,557</b>
At 30th June 2017	137,199	79,411	3,218	8,222	228,050

At 30th June 2018, properties with a net book value of £66,759,000 (2017: £66,606,000) were subject to a fixed charge to secure the UK defined benefit pension scheme liabilities.

Additions to assets in the course of construction of £7,122,000 (2017: £21,910,000) comprise £3,034,000 (2017: £17,972,000) for freehold land and buildings and £4,088,000 (2017: £3,938,000) for plant and equipment.

Year ended 30th June 2017	Freehold land and buildings £'000	Plant and equipment £'000	Motor vehicles £'000	Assets in the course of construction £'000	Total £'000
<b>Cost</b>					
At 1st July 2016	142,665	187,048	9,600	14,886	354,199
Additions	6,273	13,336	1,118	21,910	42,637
Transfers	23,050	5,524	–	(28,574)	–
Disposals	(8,267)	(6,489)	(1,067)	–	(15,823)
Currency adjustment	1,940	1,603	242	–	3,785
At 30th June 2017	165,661	201,022	9,893	8,222	384,798

### Depreciation

At 1st July 2016	27,241	107,045	5,996	–	140,282
Charge for the year	2,976	17,727	1,489	–	22,192
Released on disposals	(2,292)	(4,000)	(960)	–	(7,252)
Currency adjustment	537	839	150	–	1,526
At 30th June 2017	28,462	121,611	6,675	–	156,748

### Net book value

At 30th June 2017	137,199	79,411	3,218	8,222	228,050
At 30th June 2016	115,424	80,003	3,604	14,886	213,917

## Notes continued

## 10. Intangible assets

Year ended 30th June 2018	Goodwill on consolidation £'000	Other intangible assets £'000	Internally generated development costs £'000	Software licences and intellectual property £'000	Total £'000
<b>Cost</b>					
At 1st July 2017	19,919	11,647	117,349	23,066	171,981
Additions	–	104	14,602	1,596	16,302
Currency adjustment	(156)	44	–	(4)	(116)
<b>At 30th June 2018</b>	<b>19,763</b>	<b>11,795</b>	<b>131,951</b>	<b>24,658</b>	<b>188,167</b>

<b>Amortisation</b>					
At 1st July 2017	6,661	11,187	81,327	18,299	117,474
Charge for the year	–	69	12,483	2,073	14,625
Impairments	1,559	–	–	–	1,559
Currency adjustment	–	–	–	(2)	(2)
<b>At 30th June 2018</b>	<b>8,220</b>	<b>11,256</b>	<b>93,810</b>	<b>20,370</b>	<b>133,656</b>

<b>Net book value</b>					
<b>At 30th June 2018</b>	<b>11,543</b>	<b>539</b>	<b>38,141</b>	<b>4,288</b>	<b>54,511</b>
At 30th June 2017	13,258	460	36,022	4,767	54,507

Year ended 30th June 2017	Goodwill on consolidation £'000	Other intangible assets £'000	Internally generated development costs £'000	Software licences and intellectual property £'000	Total £'000
<b>Cost</b>					
At 1st July 2016	21,268	11,249	101,463	22,587	156,567
Additions	–	300	15,886	454	16,640
Disposals	(1,784)	–	–	–	(1,784)
Currency adjustment	435	98	–	25	558
At 30th June 2017	19,919	11,647	117,349	23,066	171,981

<b>Amortisation</b>					
At 1st July 2016	–	10,939	67,682	16,691	95,312
Charge for the year	–	198	13,645	1,587	15,430
Impairments	8,445	–	–	–	8,445
Released on disposal	(1,784)	–	–	–	(1,784)
Currency adjustment	–	50	–	21	71
At 30th June 2017	6,661	11,187	81,327	18,299	117,474

<b>Net book value</b>					
At 30th June 2017	13,258	460	36,022	4,767	54,507
At 30th June 2016	21,268	310	33,781	5,896	61,255

Goodwill acquired has arisen on the acquisition of a number of businesses and has an indeterminable useful life. Therefore it is not amortised but is tested for impairment annually and at any point during the year when an indicator of impairment exists. Goodwill is allocated to the CGUs, which are mainly the statutory entities acquired. 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. In the following table, only the goodwill relating to the acquisition of Renishaw Metrology Fixturing Solutions, LLC is expected to be subject to tax relief.

The goodwill impairment of £1,559,000 relates to the carrying value from the acquisition of Renishaw Software Limited, reported within the metrology segment. Following the value in use calculation, using a discount rate of 12%, the carrying value has been impaired to £nil.

## 10. Intangible assets (continued)

The analysis of acquired goodwill on consolidation is:

	2018 £'000	2017 £'000
itp GmbH	3,065	3,038
Renishaw Mayfield S.A.	1,725	1,823
Renishaw Metrology Fixturing Solutions, LLC	5,247	5,327
Renishaw Software Limited	–	1,559
Other smaller acquisitions	1,506	1,511
Total acquired goodwill	11,543	13,258

The recoverable amounts of acquired goodwill are based on value in use calculations. These calculations use cash flow projections based on either the financial business plans approved by management for next five financial years, or estimated growth rates over the five years, which are set out below. 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 further than five years.

### Rates applied to key assumptions

The rates applied to key assumptions utilised in the value in use calculations are:

#### Discount rate

The following pre-tax discount rates have been used in discounting the projected cash flows:

	2018 Discount rate	2017 Discount rate
itp GmbH	12%	12%
Renishaw Software Limited	12%	12%
Renishaw Metrology Fixturing Solutions, LLC	12%	12%
Renishaw Mayfield S.A.	15%	15%

#### Forecast cash flows and future growth rates

	2018 Basis of forecast	2017 Basis of forecast
itp GmbH	5% growth rate	5% growth rate
Renishaw Software Limited	5% growth rate	5% growth rate
Renishaw Metrology Fixturing Solutions, LLC	5 year business plan	5 year business plan
Renishaw Mayfield S.A.	5 year business plan	5 year business plan

These forecast cash flows 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. The key judgement 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.

The average growth rates included in the significant CGUs' business plans are as follows:

	2018 Average revenue growth	2017 Average revenue growth
Renishaw Metrology Fixturing Solutions, LLC	20%	14%

These business plans are recognised as key inputs to the impairment calculation. They are monitored by management regularly and updated for expected variances in future performance.

### Sensitivity to key assumptions

Management have performed sensitivity analysis on the key assumptions detailed above.

#### Discount rate

An increase of 5% in the discount rate would not result in an impairment on any of the CGUs. Management believe the likelihood of any increase in discount rates above 5% to be remote.

## Notes continued

## 10. Intangible assets (continued)

## Forecast cash flows and future growth rates

Given the average revenue growth assumptions included in the five-year business plans, management's sensitivity analysis involves a reduction of 10% 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 of 35% for Renishaw Metrology Fixturing Solutions, LLC.

Management deem the likelihood of this reduction to be remote.

## 11. Investments in associates and joint ventures

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 30th June, except where noted otherwise, were:

	Country of incorporation and principal place of business	Ownership 2018 %	Ownership 2017 %
RLS Merilna tehnika d.o.o.	Slovenia	50.0	50.0
Metrology Software Products Limited	England & Wales	50.0	50.0
HiETA Technologies Limited (31st December)	England & Wales	24.9	24.9

For the nature of the activities, see note C.40.

Movements during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	7,311	5,658
Dividends received	(507)	(356)
Share of profits of associates and joint ventures	2,970	1,836
Other comprehensive income and expense	48	173
Additions	–	–
Balance at the end of the year	9,822	7,311

The Group has recognised its share of losses in its associate in its share of profits of associates and joint ventures reported above to the extent of its interest in the associate.

Summarised aggregated financial information for associates and joint ventures:

	Joint ventures		Associate	
	2018 £'000	2017 £'000	2018 £'000	2017 £'000
Assets	23,567	18,024	2,114	1,243
Liabilities	4,722	4,774	5,720	3,196
Net assets/(liabilities)	18,845	13,250	(3,606)	(1,953)
Group's share of net assets/(liabilities)	9,423	6,625	(868)	(486)
Revenue	23,414	17,458	816	222
Profit/(loss) for the year	6,442	4,232	(1,655)	(1,124)
Other comprehensive income and expense	96	346	–	–
Total comprehensive income and expense for the year	6,538	4,578	(1,655)	(1,124)
Group's share of profit/(loss) for the year	3,221	2,116	(251)	(280)
Group's share of other comprehensive income and expense	48	173	–	–
Group's share of total comprehensive income and expense for the year	3,269	2,289	(251)	(280)

## 12. Deferred tax assets and liabilities

Balances at the end of the year were:

	2018			2017		
	Assets £'000	Liabilities £'000	Net £'000	Assets £'000	Liabilities £'000	Net £'000
Property, plant and equipment	184	(8,896)	(8,712)	–	(8,908)	(8,908)
Intangible assets	17	(3,456)	(3,439)	–	(4,330)	(4,330)
Intragroup trading (inventory)	17,394	–	17,394	16,016	–	16,016
Intragroup trading (fixed assets)	2,322	–	2,322	939	–	939
Defined benefit pension schemes	11,233	(138)	11,095	11,024	–	11,024
Derivatives	5,410	–	5,410	10,146	–	10,146
Tax losses	1,855	–	1,855	–	–	–
Other	1,330	(15)	1,315	561	(177)	384
Balance at the end of the year	39,745	(12,505)	27,240	38,686	(13,415)	25,271

The movements in the deferred tax balance during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	25,271	18,997
Reallocation to current tax	–	3,000
Reallocation from current tax	329	–
Movements in the Consolidated income statement	3,667	5,682
Movement in relation to the cash flow hedging reserve	(2,810)	(1,573)
Movement in relation to the defined benefit pension schemes	783	(835)
Total movement in the Consolidated statement of comprehensive income and expense	(2,027)	(2,408)
Balance at the end of the year	27,240	25,271

The deferred tax movement in the Consolidated income statement is analysed as:

	2018 £'000	2017 £'000
Property, plant and equipment	196	(2,368)
Intangible assets	891	3,731
Intragroup trading (inventory)	1,378	2,562
Intragroup trading (fixed assets)	1,383	939
Defined benefit pension schemes	(712)	(669)
Tax losses	1,855	–
Other	(1,324)	1,487
Total movement for the year	3,667	5,682

Deferred tax assets have not been recognised in respect of tax losses carried forward of £21,809,000 (2017: £22,147,000), of which approximately half are time limited, due to uncertainty over their offset against future taxable profits and therefore their recoverability.

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 £27,240,000 asset (2017: £25,271,000 asset) is presented as a £27,428,000 deferred tax asset (2017: £25,437,000 asset) and a £188,000 deferred tax liability (2017: £166,000 liability) in the Group's 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.

## 13. Derivatives

For both the Group and the Company:

Derivatives comprising the fair value of outstanding forward contracts with positive fair values were:

	2018 £'000	2017 £'000
Derivatives designated as hedging instruments	6,562	2,083
Derivatives not designated as hedging instruments	4,384	1,463
Total derivatives with positive fair values	10,946	3,546

## Notes continued

## 13. Derivatives (continued)

	2018 £'000	2017 £'000
Total current	1,368	–
Total non-current	9,578	3,546
Total derivatives with positive fair values	10,946	3,546

Derivatives comprising the fair value of outstanding forward contracts with negative fair values were:

	2018 £'000	2017 £'000
Derivatives designated as hedging instruments	38,436	41,560
Derivatives not designated as hedging instruments	1,083	15,172
Total derivatives with negative fair values	39,519	56,732

	2018 £'000	2017 £'000
Total current	22,478	25,261
Total non-current	17,041	31,471
Total derivatives with negative fair values	39,519	56,732

## 14. Employee benefits

The Group operates a number of pension schemes throughout the world. As noted in the accounting policies, actuarial valuations of foreign pension schemes are not obtained for the most part because of the limited number of members. The major scheme, which covers qualifying UK-based employees, is of the defined benefit type. This scheme, along with the Ireland and USA defined benefit pension schemes, has ceased any future accrual for current members and these schemes are closed to new members. UK, Ireland and USA employees are now covered by defined contribution schemes.

The latest full actuarial valuation of the UK defined benefit pension scheme was carried out as at 30th September 2015 and updated to 30th June 2018 by a qualified independent actuary. The mortality assumption used for 2018 is S2PMA and S2PFA tables, CMI (core) 2017 model with long-term improvements of 1% per annum. Major assumptions used by the actuary for the UK and Ireland schemes were:

	30th June 2018		30th June 2017		30th June 2016	
	UK scheme	Ireland scheme	UK scheme	Ireland scheme	UK scheme	Ireland scheme
Rate of increase in pension payments	3.3%	2.0%	3.3%	1.6%	3.2%	1.5%
Discount rate	2.8%	1.9%	2.7%	2.2%	3.2%	2.0%
Inflation rate (RPI)	3.4%	2.0%	3.4%	1.6%	3.3%	1.5%
Inflation rate (CPI)	2.4%	–	2.4%	–	2.3%	–
Retirement age	64	65	64	65	64	65

The assets and liabilities in the defined benefit pension schemes were:

	30th June 2018 £'000	% of total assets	30th June 2017 £'000	% of total assets
Market value of assets:				
Equities, analysed as:	107,982	62	108,600	64
AQUILA LIFE GBL DEV FUNDAMENTAL S1 <sup>UK scheme</sup>	50,832	29	52,091	31
AQ LFE CCY HEDG WRLD EX-UK EQ S1 <sup>UK scheme</sup>	45,475	26	44,879	26
VANGUARD GLOBAL STOCK INDEX FUND <sup>Ireland scheme</sup>	7,007	4	6,391	4
AQUILA LIFE UK EQUITY INDEX FD S1 <sup>UK scheme</sup>	4,668	3	5,239	3
Multi-asset funds, analysed as:	50,559	29	48,684	29
BLACKROCK DYNAMIC ALL FD CLS X ACC <sup>UK scheme</sup>	48,389	28	46,440	28
GLOBAL ABSOLUTE RETURN STRATEGIES FUND <sup>Ireland scheme</sup>	2,170	1	2,244	1
Bonds	13,433	8	13,264	7
Cash and other	868	1	160	–
	172,842	100	170,708	100
Actuarial value of liabilities	(240,220)	–	(237,495)	–
Deficit in the schemes	(67,378)	–	(66,787)	–
Deferred tax thereon	11,096	–	11,024	–

All equities have quoted prices in active markets in the UK, North America, Europe, Asia Pacific, Japan and emerging markets.

## 14. Employee benefits (continued)

Note C.35 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 £21,065,000 (2017: £20,386,000) and the actuarial value of liabilities was £27,564,000 (2017: £24,312,000).

The weighted average duration of the defined benefit obligation is around 24 years.

The total pension cost of the Group for the year was £21,127,000 (2017: £20,238,000), of which £180,000 (2017: £165,000) related to directors and £5,983,000 (2017: £6,292,000) related to overseas schemes.

For a sensitivity analysis of certain elements of the UK defined benefit pension scheme, see the Performance – financial review section of the Strategic report. It is expected that contributions to defined benefit schemes for the next financial year will be at a similar level to the current year.

For the UK scheme, whilst the trustees have the ultimate power to set the investment strategy, the current strategy has been set following agreement with the Company and the Company is consulted on significant investment changes. The main investment objective is to ensure members' accrued benefits can be paid as they fall due. Currently, the scheme is considered to be relatively immature and the focus of the investment strategy is growth. The strategy is to hold 64% of the assets in equities; 35% in Diversified Growth Funds; and 1% in index-linked gilts. The actual allocations measured at fair value may vary from this due to market price movements and intervals between rebalancing the portfolio.

The movements in the schemes' assets and liabilities were:

	Assets £'000	Liabilities £'000	Total £'000
<b>Year ended 30th June 2018</b>			
Balance at the beginning of the year	170,708	(237,495)	(66,787)
Contributions paid	4,471	–	4,471
Interest on pension schemes	4,573	(5,822)	(1,249)
Remeasurement gain/(loss)	5,979	(9,792)	(3,813)
Benefits paid	(12,889)	12,889	–
Balance at the end of the year	172,842	(240,220)	(67,378)
<b>Year ended 30th June 2017</b>			
Balance at the beginning of the year	149,227	(217,050)	(67,823)
Contributions paid	4,204	–	4,204
Interest on pension schemes	4,681	(6,241)	(1,560)
Remeasurement gain/(loss)	19,028	(20,636)	(1,608)
Benefits paid	(6,432)	6,432	–
Balance at the end of the year	170,708	(237,495)	(66,787)

The analysis of the amount recognised in the Consolidated statement of comprehensive income and expense was:

	2018 £'000	2017 £'000
Actuarial gain/(loss) arising from:		
– Changes in demographic assumptions	1,533	1,797
– Changes in financial assumptions	556	(25,471)
– Experience adjustment	2,601	4,127
Return on plan assets excluding interest income	6,797	18,739
Adjustment to liabilities for IFRIC 14	(15,300)	(800)
Total amount recognised in the Consolidated statement of comprehensive income and expense	(3,813)	(1,608)

The cumulative amount of actuarial gains and losses recognised in the Consolidated statement of comprehensive income and expense was a loss of £111,077,000 (2017: loss of £107,264,000).

The life expectancies implied by the mortality assumption at age 65 are:

	2018 years	2017 years
Male currently aged 65	21.8	21.9
Female currently aged 65	23.7	23.7
Male currently aged 45	22.8	23.0
Female currently aged 45	24.9	25.0

## Notes continued

## 14. Employee benefits (continued)

An agreement was entered into in 2016 with the trustees of the UK defined benefit pension scheme in relation to deficit funding plans which supersede all previous arrangements. The Company has agreed to pay all monthly pensions payments and lump sum payments, and transfer payments up to a limit of £1,000,000 in each year (Benefits in Payment).

A number of UK properties owned by the Company are subject to fixed charges. One or more of the properties may be released from the fixed charge if, on a subsequent valuation, the value of all properties under charge exceed 120% of the deficit.

The Company has also established an escrow bank account, which is subject to a floating charge. The balance of this account was £10,413,000 at the end of the year (2017: £12,850,000). The funds will be released back to the Company from the escrow account over a period of five years.

The agreement continues until 30th June 2031, but may end sooner if the deficit (calculated on a self-sufficiency basis as defined in the agreement) is eliminated in the meantime. At 30th June 2031 the Company is obliged to pay any deficit at that time. All properties will be released from charge when the deficit no longer exists. The charges may be enforced by the trustees if one of the following occurs: (a) the Company does not pay any Benefits in Payment; (b) an insolvency event occurs in relation to the Company; or (c) the Company does not pay any deficit at 30th June 2031.

The Company, trustees and their respective advisors concluded that the 2016 agreement was in the best interests of the scheme members. The agreement was subject to approval by tPR (the regulator) and was submitted to the regulator in July 2016. The regulator's October 2017 response to the recovery plan submission questioned whether the 2015 recovery plan provides greater security than the 2012 recovery plan which funded to technical provisions only but required an earlier cash injection. Both the Company and the trustees have held discussions with the regulator to detail how each party satisfied itself that the 2016 agreement was preferred and to seek terms acceptable to all parties. The Company and the trustees continue to engage with the regulator. In the meantime the Company and the trustees are complying with the terms of the 2016 agreement. If this agreement terminates the parties may be required to revert to the 2012 recovery plan. In this event the Company would be required to make a contribution to the scheme of approximately £45m, adjusted for company deficit repair contributions and the potential investment return had the contribution been invested in October 2016, and agree a new recovery plan with the trustees. The next triennial valuation will be undertaken at 30th September 2018.

The present value of projected future contributions under the 2016 agreement relating to the UK defined benefit scheme at 30th June 2018 was £60,900,000 (2017: £62,900,000) which exceeded the value of the deficit at the year end, therefore, under IFRIC 14, the UK defined benefit pension scheme's liabilities have been increased by £31,500,000 (2017: £16,200,000), to represent the maximum discounted liability as at 30th June 2018. The IAS 19 deficit reduced in the year primarily due to the return on scheme assets exceeding the 2017 discount rate and the effect of the 0.1% increase in the discount rate compared to 2017.

The IAS 19 deficit of the UK scheme is £29,400,000 at 30th June 2018, compared with the net present value of projected future contributions under the 2016 agreement of £60,900,000 and compared with the deficit of £100,700,000 from the last actuarial valuation in September 2015. The latest actuarial report prepared in September 2017 shows a deficit of £107,600,000. The September 2015 actuarial valuation and September 2017 update are based on funding to self-sufficiency and use prudent assumptions. IAS 19 requires best estimate assumptions to be used, resulting in the IAS 19 deficit being lower than the actuarial deficit.

Under the Ireland defined benefit pension scheme deficit funding plan, a property owned by Renishaw (Ireland) Designated Activity Company is subject to a registered fixed charge to secure the Ireland defined benefit pension scheme's deficit.

No scheme assets are directly invested in the Group's own equity.

## 15. Inventories

An analysis of inventories at the end of the year was:

	2018 £'000	2017 £'000
Raw materials	28,094	32,477
Work in progress	29,193	19,705
Finished goods	53,276	35,515
Balance at the end of the year	110,563	87,697

During the year, the amount of inventories recognised as an expense in the Consolidated income statement was £187,834,000 (2017: £167,395,000) and the amount of write-down of inventories recognised as an expense in the Consolidated income statement was £6,995,000 (2017: £6,466,000). At the end of the year, the gross cost of inventories which had provisions held against them totalled £14,126,000 (2017: £15,413,000).

## 16. Cash and cash equivalents

An analysis of cash and cash equivalents at the end of the year was:

	2018 £'000	2017 £'000
Bank balances and cash in hand	63,417	46,492
Short-term deposits	40,430	5,450
Balance at the end of the year	103,847	51,942

The UK defined benefit pension scheme cash escrow account is shown separately within current assets. £35,000,000 of the Group short-term deposits balance is held in the Company, maturing on 15th October 2018.

## 17. Provisions

### Warranty provision

Movements during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	2,960	2,375
Created during the year	2,775	2,195
Utilised in the year	(2,282)	(1,610)
	493	585
Balance at the end of the year	3,453	2,960

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.

## 18. Other payables

Balances at the end of the year were:

	2018 £'000	2017 £'000
Payroll taxes and social security	7,297	7,642
Other creditors and accruals	40,682	29,662
Total other payables	47,979	37,304

Other creditors and accruals include increases in the Group bonus payable, deferred income and pension contributions payable. The Group's exposure to currency and liquidity risk related to trade and other payables is disclosed in note 20.

## 19. Share capital and reserves

### Share capital

	2018 £'000	2017 £'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.

### Currency translation reserve

The currency translation reserve comprises all foreign exchange differences arising from the translation of the financial statements of the foreign operations, offset by foreign exchange differences on bank liabilities which have been accounted for in Other comprehensive income and expense and accumulated in equity, on account of them being classified as hedging instruments. The policy to hedge net overseas assets was ended in December 2017. Movements in the currency translation reserve after this date therefore only arise from translation of financial statements of foreign operations.

## Notes continued

## 19. Share capital and reserves (continued)

Movements during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	10,510	6,448
Gain on net assets of foreign currency operations	4,008	4,848
Loss on foreign currency overdrafts held for the purpose of net investment hedging	(1,901)	(959)
Gain in the year relating to subsidiaries	2,107	3,889
Currency exchange differences relating to associates and joint ventures	48	173
Balance at the end of the year	12,665	10,510

## 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. The forward contracts mature over the next three and a half years.

Movements during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	(31,049)	(37,971)
Losses on contract maturity recognised in revenue during the year	14,598	13,358
(Gains)/losses transferred to the Consolidated income statement during the year	(4,834)	3,601
Deferred tax transferred to the Consolidated income statement	1,927	1,525
Revaluations during the year	2,779	(9,989)
Deferred tax movement	(2,810)	(1,573)
Balance at the end of the year	(19,389)	(31,049)

## Dividends paid

Dividends paid comprised:

	2018 £'000	2017 £'000
2017 final dividend paid of 39.5p per share (2016: 35.5p)	28,752	25,840
Interim dividend paid of 14.0p per share (2017: 12.5p)	10,190	9,099
Total dividends paid	38,942	34,939

A final dividend in respect of the current financial year of £33,482,729 (2017: £28,751,474) at the rate of 46.0p net per share (2017: 39.5p) is proposed to be paid on 23rd October 2018 to shareholders on the register on 20th September 2018.

## Non-controlling interest

Movements during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	(590)	(3,162)
Acquisition of remaining shareholding in Renishaw Mayfield S.A.	–	2,700
Share of profit/(loss) for the year	13	(128)
Balance at the end of the year	(577)	(590)

The non-controlling interest represents the minority shareholdings in Renishaw Diagnostics Limited – 7.6%.

## 20. 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.

## 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 exchange contracts, which are held at fair value, with changes going through the Consolidated income statement unless subject to hedge accounting.

## 20. Financial instruments (continued)

The fair values of the forward 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. 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 receivables		Other receivables		Cash (including overdraft)	
	2018 £'000	2017 £'000	2018 £'000	2017 £'000	2018 £'000	2017 £'000
Pound Sterling	7,917	8,122	11,466	8,464	67,649	142,493
US Dollar	76,139	41,751	1,034	745	7,693	(45,149)
Euro	25,944	22,784	3,540	3,117	10,005	(37,744)
Japanese Yen	20,463	16,343	691	386	4,516	(16,366)
Other	24,124	48,507	5,257	3,195	13,984	8,708
	<b>154,587</b>	137,507	<b>21,988</b>	15,907	<b>103,847</b>	51,942

The above trade receivables, other receivables and cash are predominately held in the functional currency of the relevant entity, with the exception of £123,000 and £5,243,000 of Euro-denominated trade receivables being held in the Company and Renishaw UK Sales Limited respectively, along with some foreign currency cash balances which are of a short-term nature.

The ageing of trade receivables past due, but not impaired, at the end of the year was:

	2018 £'000	2017 £'000
Past due 0–1 month	21,620	16,836
Past due 1–2 months	6,111	7,746
Past due more than 2 months	6,388	5,577
Balance at the end of the year	<b>34,119</b>	30,159

Movements in the provision for impairment of trade receivables during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	3,115	2,921
Changes in amounts provided	525	452
Amounts utilised	(339)	(258)
Balance at the end of the year	<b>3,301</b>	3,115

The maximum exposure to credit risk is £300,413,000, comprising the Group's trade and other receivables, cash and cash equivalents and derivative assets.

### Liquidity risk

The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, without incurring unacceptable losses or risking damage to the Group's reputation. The Group uses monthly cash flow forecasts to monitor cash requirements.

In respect of net cash, the carrying value approximates to fair value because of the short maturity of the deposits and borrowings. A significant proportion of net cash is affected by interest rates that are floating and based on LIBOR/LIBID, 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 £500,000.

The market value of forward exchange contracts is determined by reference to market data.

## Notes continued

## 20. Financial instruments (continued)

The contractual maturities of financial liabilities at the year end were:

Year ended 30th June 2018	Carrying amount £'000	Contractual cash flows		
		Up to 1 year £'000	1-2 years £'000	2-5 years £'000
Trade payables	25,232	25,232	–	–
Other payables	47,979	47,979	–	–
Forward exchange contracts	39,519	22,478	10,490	6,551
	112,730	95,689	10,490	6,551

Year ended 30th June 2017	Carrying amount £'000	Up to 1 year £'000	1-2 years £'000	2-5 years £'000
Trade payables	19,544	19,544	–	–
Other payables	33,972	33,972	–	–
Forward exchange contracts	56,732	25,261	22,114	9,357
	110,248	78,777	22,114	9,357

The maturities of non-current other receivables, at the year end were:

	2018 £'000	2017 £'000
Receivable between 1 and 2 years	232	907
Receivable between 2 and 5 years	11,240	6,062
	11,472	6,969

The £4,207,000 Long-term loans to associates and joint ventures shown in non-current assets, comprises a £3,101,000 loan to an associate and a £1,106,000 loan to a joint venture, which is receivable between 2 and 5 years.

## 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 currencies, but with most manufacturing being undertaken in the UK, Ireland and India.

## Exchange rates and sensitivity analysis

The Group has hedged a significant proportion of its forecasted US Dollar, Euro and Japanese Yen revenues and hence the impact on the Group's results resulting from fluctuations in these exchange rates against Sterling is lessened.

The following are the exchange rates which have been applicable during the financial year.

Currency	2018		2017	
	Year end exchange rate	Average exchange rate	Year end exchange rate	Average exchange rate
US Dollar	1.32	1.35	1.30	1.27
Euro	1.13	1.13	1.14	1.16
Japanese Yen	146	149	146	139
Average US Dollar forward contract rates		1.50		1.50
Average Euro forward contract rates		1.22		1.16
Average Japanese Yen forward contract rates		150		151

The Company has US Dollar, Japanese Yen and Euro forward contracts which mature after the balance sheet date. The fair value of these contracts at the year end resulted in a loss carried forward of £23,164,000 (2017: loss £43,040,000).

The nominal amounts of foreign currencies relating to these forward contracts are, in Sterling terms:

	2018 £'000	2017 £'000
US Dollar	578,421	394,858
Euro	163,283	136,903
Japanese Yen	99,328	89,782

The Group classifies these forward contracts as cash flow hedges and states them at fair value. The forward contracts cover monthly revenues over the next three and a half years. Further details are noted in the treasury policies in the Performance – financial review section of the Strategic report.

## 20. Financial instruments (continued)

For the Group's foreign currency denominated monetary assets and liabilities at the balance sheet date, if Sterling appreciated by 5% against the US Dollar, Euro and Japanese Yen, this would increase other equity by £30,900,000, £8,400,000 and £4,600,000 respectively.

### Capital management

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, whilst 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.

## 21. Leases

### Leases as lessee

The Group acts as lessee for land and buildings and vehicles in certain subsidiaries and recognises payments as an expense in the Consolidated income statement. The total of future minimum lease payments payable under non-cancellable operating leases were:

	2018		2017	
	Leasehold property £'000	Vehicles £'000	Leasehold property £'000	Vehicles £'000
Due in less than one year	3,363	1,329	3,375	971
Due between one and five years	4,929	2,988	4,994	2,683
Due in more than five years	4,019	354	3,518	628
Total future minimum lease payments payable	12,311	4,671	11,887	4,282

	2018		2017	
	Leasehold property £'000	Vehicles £'000	Leasehold property £'000	Vehicles £'000
Payments recognised in Consolidated income statement	3,799	1,409	3,456	1,093

### Leases as lessor

The Group acts as lessor for Renishaw manufactured plant and equipment on both an operating and finance lease basis.

#### Operating leases

Where the Group retains the risks and rewards of ownership of leased assets, it continues to recognise the leased asset in fixed assets, while the lease payments made during the term of the operating lease are recognised in revenue (2018: £1,365,000, 2017: £611,000). Operating leases are on one to five year terms. The total of future minimum lease payments receivable under non-cancellable operating leases were:

	2018 £'000	2017 £'000
Receivable in less than one year	1,406	387
Receivable between one and five years	1,383	791
Receivable in more than five years	–	277
Total future minimum lease payments receivable	2,789	1,455

#### Finance leases

Where the Group transfers the risks and rewards of ownership of leased assets to a third party, the Group recognises a receivable in the amount of the net investment in the lease in Trade receivables. 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 four years and there is a nominal residual value receivable at the end of the contract. The total future lease payments are split between the principal and interest amounts below:

	2018			2017		
	Gross investment £'000	Interest £'000	Net investment £'000	Gross investment £'000	Interest £'000	Net investment £'000
Receivable in less than one year	979	91	888	345	24	321
Receivable between one and five years	2,115	196	1,919	497	35	462
Total future minimum lease payments receivable	3,094	287	2,807	842	59	783

## Notes continued

**22. Capital commitments**

Capital commitments at the end of the year, for which no provision has been made in the Financial statements, were:

	2018 £'000	2017 £'000
Authorised and committed	10,855	6,812

**23. Related parties**

Associates, joint ventures and other related parties had the following transactions and balances with the Group:

	2018 £'000	2017 £'000
Purchased goods and services from the Group during the year	1,500	852
Sold goods and services to the Group during the year	19,077	12,450
Paid dividends to the Group during the year	507	310
Amounts owed to the Group at the year end	432	220
Amounts owed by the Group at the year end	324	294
Loans owed to the Group at the year end	6,278	4,966

Loans owed to the Group at the year end include £1,750,000 (2017: £1,842,000) owed by joint ventures and £4,694,000 (2017: £3,124,000) owed by associates. Of the loan to the associate party, £2,400,000 relates to a working capital loan agreement set up in March 2017 and extended by £500,000 in March 2018. £475,000 of the working capital loan is ring fenced for fixed asset capital expenditure. Interest is charged at 3.5% until 31st December 2019 and at 3% above the Bank of England rate thereafter. The loan is repayable on three month notice with a repayment date no earlier than 31st December 2019.

There were no bad debts relating to related parties written off during the year (2017: £nil).

**24. Alternative performance measures**

Alternative performance measures are – 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.

<b>Revenue at constant exchange rates:</b>	2018 £'000	2017 £'000
Statutory revenue as reported	611,507	536,807
Adjustment for forward contract losses	14,598	13,358
Adjustment to restate current year at previous year exchange rates	21,520	–
Revenue at constant exchange rates	647,625	550,165
Year on year revenue growth at constant exchange rates	17.7%	–

Adjusted profit before tax, Adjusted earnings per share and Adjusted operating profit – These measures are defined as the profit before tax, earnings per share and operating profit after excluding gains and losses in fair value from the forward currency contracts which did not qualify for hedge accounting.

The gains or losses from 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.

The Board consider these alternative performance measures to be more relevant and reliable in evaluating the Group's performance.

The amounts shown below as reported in revenue represent the amount by which revenue would change had all the derivatives qualified as eligible for hedge accounting.

<b>Adjusted profit before tax:</b>	2018 £'000	2017 £'000
Statutory profit before tax	155,225	117,101
Fair value (gains) and losses on financial instruments not eligible for hedge accounting:		
– reported in revenue	(5,310)	(11,623)
– reported in (gains)/losses from the fair value of financial instruments	(4,834)	3,601
Adjusted profit before tax	145,081	109,079

## 24. Alternative performance measures (continued)

	2018 pence	2017 pence
<b>Adjusted earnings per share:</b>		
Statutory earnings per share	181.8	141.3
Fair value (gains) and losses on financial instruments not eligible for hedge accounting:		
– reported in revenue	(5.9)	(12.9)
– reported in (gains)/losses from the fair value of financial instruments	(5.4)	4.0
Adjusted earnings per share	170.5	132.4
	2018 £'000	2017 £'000
<b>Adjusted operating profit:</b>		
Statutory operating profit	153,189	116,755
Fair value (gains) and losses on financial instruments not eligible for hedge accounting:		
– reported in revenue	(5,310)	(11,623)
– reported in (gains)/losses from the fair value of financial instruments	(4,834)	3,601
Adjusted operating profit	143,045	108,733
<b>Adjustments to the segmental operating profit:</b>		
	2018 £'000	2017 £'000
<b>Metrology</b>		
Operating profit before loss from fair value of financial instruments	147,841	126,830
Fair value (gains) and losses on financial instruments not eligible for hedge accounting:		
– reported in revenue	(5,066)	(10,921)
Adjusted metrology operating profit	142,775	115,909
	2018 £'000	2017 £'000
<b>Healthcare</b>		
Operating profit/(loss) before loss from fair value of financial instruments	514	(6,474)
Fair value (gains) and losses on financial instruments not eligible for hedge accounting:		
– reported in revenue	(244)	(702)
Adjusted healthcare operating profit/(loss)	270	(7,176)

# Company balance sheet

at 30th June 2018

	notes	2018 £'000	2017* £'000
<b>Assets</b>			
Property, plant and equipment	C.26	135,430	136,082
Intangible assets	C.27	41,398	39,487
Investments in subsidiaries	C.28	290,362	294,357
Investments in associates and joint ventures	C.29	1,468	1,468
Long-term loans to associates and joint ventures		4,360	3,080
Deferred tax assets	C.30	4,848	8,796
Derivatives	13	9,578	3,546
<b>Total non-current assets</b>		<b>487,444</b>	<b>486,816</b>
<b>Current assets</b>			
Inventories	C.31	57,011	51,706
Trade receivables	C.32	204,843	171,395
Current tax		–	1,817
Other receivables		11,018	6,091
Derivatives	13	1,368	–
Pension scheme cash escrow account	14	10,413	12,850
Cash and cash equivalents		64,856	23,273
<b>Total current assets</b>		<b>349,509</b>	<b>267,132</b>
<b>Current liabilities</b>			
Trade payables		16,041	11,963
Current tax		3,000	–
Provisions	C.33	2,900	2,390
Derivatives	13	22,478	25,261
Other payables	C.34	69,721	137,003
<b>Total current liabilities</b>		<b>114,140</b>	<b>176,617</b>
<b>Net current assets</b>		<b>235,369</b>	<b>90,515</b>
<b>Non-current liabilities</b>			
Employee benefits	C.35	60,879	62,861
Derivatives	13	17,041	31,471
<b>Total non-current liabilities</b>		<b>77,920</b>	<b>94,332</b>
<b>Total assets less total liabilities</b>		<b>644,893</b>	<b>482,999</b>
<b>Equity</b>			
Share capital	C.36	14,558	14,558
Share premium		42	42
Cash flow hedging reserve	19	(19,389)	(31,049)
Retained earnings		649,682	499,448
<b>Total equity</b>		<b>644,893</b>	<b>482,999</b>

\*2017 deferred tax has been reclassified between assets and liabilities to reflect the right of offset, see note C.30.

The Company reported a profit for the financial year ended 30th June 2018 of £189,430,000 (2017: £22,165,000).

These financial statements were approved by the Board of directors on 26th July 2018 and were signed on its behalf by:

**Sir David McMurtry**

Directors

**Allen Roberts**

# Company statement of changes in equity

for the year ended 30th June 2018

	Share capital £'000	Share premium £'000	Cash flow hedging reserve £'000	Retained earnings £'000	Total £'000
<b>Year ended 30th June 2017</b>					
Balance at 1st July 2016	14,558	42	(37,971)	515,538	492,167
Profit for the year	-	-	-	22,165	22,165
<b>Other comprehensive income and expense (net of tax)</b>					
Remeasurement of defined benefit pension scheme liabilities	-	-	-	(3,316)	(3,316)
Changes in fair value of cash flow hedges	-	-	6,922	-	6,922
<b>Total other comprehensive income and expense</b>	-	-	6,922	(3,316)	3,606
<b>Total comprehensive income and expense</b>	-	-	6,922	18,849	25,771
Dividends paid	-	-	-	(34,939)	(34,939)
<b>Balance at 30th June 2017</b>	<b>14,558</b>	<b>42</b>	<b>(31,049)</b>	<b>499,448</b>	<b>482,999</b>
<b>Year ended 30th June 2018</b>					
Profit for the year	-	-	-	189,430	189,430
<b>Other comprehensive income and expense (net of tax)</b>					
Remeasurement of defined benefit pension scheme liabilities	-	-	-	(254)	(254)
Changes in fair value of cash flow hedges	-	-	11,660	-	11,660
<b>Total other comprehensive income and expense</b>	-	-	11,660	(254)	11,406
<b>Total comprehensive income and expense</b>	-	-	11,660	189,176	200,836
Dividends paid	-	-	-	(38,942)	(38,942)
<b>Balance at 30th June 2018</b>	<b>14,558</b>	<b>42</b>	<b>(19,389)</b>	<b>649,682</b>	<b>644,893</b>

# Notes to the Company financial statements

## C.25. 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 Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101). In preparing these financial statements, the Company applies the recognition, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU (adopted IFRS), but makes amendments where necessary in order to comply with the Companies Act 2006.

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 IFRSs.
- 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.

### 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

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.

### 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.

## C.25. Accounting policies (continued)

### Employee benefits

The Company operated a contributory pension scheme, of the defined benefit type up to 5th April 2007, after which this scheme was closed for future accruals to existing members and was closed to new members. Since 5th 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 the annual performance bonus.

### Derivative financial instruments

In accordance with its treasury policy, the Company does not hold or issue derivative financial instruments for trading 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 Consolidated income statement. The ineffective part of any gain or loss is recognised in the income statement immediately.

### Other financial instruments

Long term loans to associates and joint ventures are initially recognised at fair value and are subsequently held at amortised cost. 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 ruling 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 ruling at that date. Foreign exchange differences arising on such translation are recognised in the income statement.

### Going concern

The Company's business activities, together with the factors likely to affect its future development, performance and position are set out in the Strategic report, where also given are details of the financial and liquidity positions. In addition, note 20 in the financial statements includes the Company's objectives and policies for managing its capital, details of its financial instruments and hedging activities and its exposures to credit risk and liquidity risk.

The Company has considerable financial resources at its disposal and the directors have considered the current financial projections. As a consequence, the directors believe that the Company is well placed to manage its business risks successfully.

After making enquiries, the directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for a period of at least 12 months from the date of approval of the financial statements. Accordingly, they continue to adopt the going concern basis in preparing the Annual report and accounts.

## Notes to the Company financial statements continued

## C.26. Property, plant and equipment

Year ended 30th June 2018	Freehold land and buildings £'000	Plant and equipment £'000	Motor vehicles £'000	Assets in the course of construction £'000	Total £'000
<b>Cost</b>					
At 1st July 2017	86,906	160,138	4,549	2,255	253,848
Additions	4,241	8,152	620	3,999	17,012
Transfers	374	2,203	–	(2,577)	–
Disposals	–	(4,894)	(500)	–	(5,394)
<b>At 30th June 2018</b>	<b>91,521</b>	<b>165,599</b>	<b>4,669</b>	<b>3,677</b>	<b>265,466</b>
<b>Depreciation</b>					
At 1st July 2017	15,242	99,495	3,029	–	117,766
Charge for the year	1,615	13,585	709	–	15,909
Released on disposals	–	(3,199)	(440)	–	(3,639)
<b>At 30th June 2018</b>	<b>16,857</b>	<b>109,881</b>	<b>3,298</b>	<b>–</b>	<b>130,036</b>
<b>Net book value</b>					
<b>At 30th June 2018</b>	<b>74,664</b>	<b>55,718</b>	<b>1,371</b>	<b>3,677</b>	<b>135,430</b>
At 30th June 2017	71,664	60,643	1,520	2,255	136,082

At 30th June 2018, properties with a net book value of £66,759,000 (2017: £66,606,000) were subject to a fixed charge to secure the UK defined benefit pension scheme liabilities. See note 14 for additional information.

Additions to assets in the course of construction comprise:

	2018 £'000	2017 £'000
Freehold land and buildings	306	2,117
Plant and equipment	3,693	3,938
	<b>3,999</b>	<b>6,055</b>

## C.27. Intangible assets

Year ended 30th June 2018	Goodwill £'000	Internally generated development costs £'000	Software licences and intellectual property £'000	Total £'000
<b>Cost</b>				
At 1st July 2017	9,305	117,349	17,663	144,317
Additions	–	14,602	890	15,492
<b>At 30th June 2018</b>	<b>9,305</b>	<b>131,951</b>	<b>18,553</b>	<b>159,809</b>
<b>Depreciation</b>				
At 1st July 2017	9,305	81,327	14,198	104,830
Charge for the year	–	12,483	1,098	13,581
<b>At 30th June 2018</b>	<b>9,305</b>	<b>93,810</b>	<b>15,296</b>	<b>118,411</b>
<b>Net book value</b>				
<b>At 30th June 2018</b>	<b>–</b>	<b>38,141</b>	<b>3,257</b>	<b>41,398</b>
At 30th June 2017	–	36,022	3,465	39,487

## C.28. Investments in subsidiaries

	2018 £'000	2017 £'000
Balance at the beginning of the year	294,357	304,353
Impairment	(3,995)	(9,996)
Balance at the end of the year	290,362	294,357

Details of the Company's subsidiaries are given in note C.39.

## C.29. Investments in associates and joint ventures

Movements during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	1,468	1,468
Additions	–	–
Balance at the end of the year	1,468	1,468

Details of the Company's associates and joint ventures are given in note C.40.

## C.30. Deferred tax

Balances at the end of the year were:

	2018			2017		
	Assets £'000	Liabilities £'000	Net £'000	Assets £'000	Liabilities £'000	Net £'000
Property, plant and equipment	–	(8,037)	(8,037)	–	(8,186)	(8,186)
Intangible assets	–	(3,151)	(3,151)	–	(3,923)	(3,923)
Defined benefit pension scheme	10,349	–	10,349	10,686	–	10,686
Derivatives	5,410	–	5,410	10,146	–	10,146
Other	277	–	277	73	–	73
Balance at the end of the year	16,036	(11,188)	4,848	20,905	(12,109)	8,796

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 £4,848,000 asset (2017: £8,796,000 asset) is presented as a £4,848,000 deferred tax asset (2017: £8,796,000 asset) 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:

	2018 £'000	2017 £'000
Balance at the beginning of the year	8,796	13,051
Movements during the year	(3,948)	(4,255)
Balance at the end of the year	4,848	8,796

## C.31. Inventory

An analysis of inventory at the end of the year was:

	2018 £'000	2017 £'000
Raw materials	14,276	21,750
Work in progress	28,251	18,672
Finished goods	14,484	11,284
Balance at the end of the year	57,011	51,706

# Notes to the Company financial statements continued

## C.32. Trade receivables

An analysis of trade receivables at the end of the year was:

	2018 £'000	2017 £'000
Trade receivables	461	14,186
Amounts owed by Group undertakings	202,464	155,103
Amounts owed by associated undertakings and joint ventures	1,918	2,106
Balance at the end of the year	204,843	171,395

## C.33. Provisions

Provisions comprised:

	2018 £'000	2017 £'000
Warranty provision	2,900	2,390

Movements during the year were:

	2018 £'000	2017 £'000
Balance at the beginning of the year	2,390	1,787
Created in the year	2,792	2,180
Utilised in the year	(2,282)	(1,577)
	510	603
Balance at the end of the year	2,900	2,390

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.

## C.34. Other payables

An analysis of other payables due within one year at the end of the year was:

	2018 £'000	2017 £'000
Amounts owed to Group undertakings	49,016	118,934
Amounts owed to associated undertakings and joint ventures	95	92
Other taxes and social security	3,129	3,020
Other creditors	17,481	14,957
Balance at the end of the year	69,721	137,003

Other creditors and accruals include increases in bonuses payable, deferred income and pension contributions payable.

## C.35. Employee benefits

The Company operated a defined benefit pension scheme, which, at 5th 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 14 regarding details of charges relating to the UK defined benefit pension scheme liabilities.

The total pension cost of the Company for the year was £14,907,000 (2017: £13,644,000), of which £180,000 (2017: £165,000) related to directors. The latest full actuarial valuation of the scheme was carried out at 30th September 2015 and updated to 30th June 2018 by a qualified independent actuary.

The major assumptions used by the actuary for the scheme were:

	30th June 2018	30th June 2017	30th June 2016
Rate of increase in pension payments	3.3%	3.3%	3.2%
Discount rate	2.8%	2.7%	3.2%
Inflation rate (RPI)	3.4%	3.4%	3.3%
Inflation rate (CPI)	2.4%	2.4%	2.3%
Retirement age	64	64	64

The mortality assumption adopted for 2018 is S2PMA and S2PFA tables, CMI (core) 2017 model with long-term improvements of 1% per annum.

### C.35. Employee benefits (continued)

The assets and liabilities in the scheme were:

	30th June 2018 £'000	% of total assets	30th June 2017 £'000	% of total assets
Market value of assets:				
Equities (analysed in note 14)	100,975	66	102,208	68
Multi-asset fund	48,389	32	46,440	31
Bonds	1,577	1	1,545	1
Cash and other	836	1	129	–
	151,777	100	150,322	100
Actuarial value of liabilities	(212,656)	–	(213,183)	–
Deficit in the scheme	(60,879)	–	(62,861)	–
Deferred tax thereon	10,349	–	10,686	–

The movements in the scheme were:

	Assets £'000	Liabilities £'000	Total £'000
<b>Year ended 30th June 2018</b>			
Deficit in scheme at the beginning of the year	150,322	(213,183)	(62,861)
Contributions	3,557	–	3,557
Interest on pension scheme	3,938	(5,150)	(1,212)
Remeasurement gain/(loss)	6,476	(6,839)	(363)
Benefits paid	(12,516)	12,516	–
<b>Deficit in scheme at the end of the year</b>	<b>151,777</b>	<b>(212,656)</b>	<b>(60,879)</b>
	Assets £'000	Liabilities £'000	Total £'000
<b>Year ended 30th June 2017</b>			
Deficit in scheme at the beginning of the year	131,581	(193,702)	(62,121)
Contributions	3,261	–	3,261
Interest on pension scheme	4,163	(5,606)	(1,443)
Remeasurement gain/(loss)	17,557	(20,115)	(2,558)
Benefits paid	(6,240)	6,240	–
Deficit in scheme at the end of the year	150,322	(213,183)	(62,861)

All equities have quoted prices in active markets in the UK, North America, Europe, Asia-Pacific, Japan and emerging markets.

The weighted average duration of the defined benefit scheme obligation is around 24 years.

The analysis of the amount recognised in the statement of comprehensive income and expense was:

	2018 £'000	2017 £'000
Actuarial (loss)/gain arising from:		
– Changes in demographic assumptions	1,417	1,579
– Changes in financial assumptions	4,442	(25,021)
– Experience adjustment	2,602	4,127
Return on plan assets excluding interest income	6,476	17,557
Adjustment to liabilities for IFRIC 14	(15,300)	(800)
Total recognised in the statement of comprehensive income and expense	(363)	(2,558)

### C.36. Share capital

	2018 £'000	2017 £'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.

## Notes to the Company financial statements continued

## C.37. Related parties

During the year, related parties, these being the Group's associates and joint ventures (see note 11), had the following transactions and balances with the Company:

	2018 £'000	2017 £'000
Purchased goods and services from the Company during the year	630	852
Sold goods and services to the Company during the year	3,446	2,958
Paid dividends to the Company during the year	200	160
Amounts owed to the Company at the year end	0	220
Amounts owed by the Company at the year end	95	92
Loans owed to the Company at the year end	6,278	4,966

All transactions were on an arm's length basis. There were no bad debts relating to related parties written off during the year (2017: £nil).

## C.38. Capital commitments

Capital commitments at the end of the year, for which no provision has been made in the financial statements, were:

	2018 £'000	2017 £'000
Authorised and committed	3,464	1,129

## C.39. Subsidiary undertakings

The following are the subsidiary undertakings of Renishaw plc as at 30th June 2018, 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 30th 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 72, except as indicated below:

<sup>o</sup> Dormant company

<sup>h</sup> Holding company

<sup>†</sup> Travel agency

\* 31st March year-end

<sup>^</sup> 31st December year-end

<sup>†</sup> Ordinary-A shares

<sup>‡</sup> Ordinary-C shares

## Owned by Renishaw plc

MTT Investments Limited<sup>o</sup>

Renishaw Advanced Materials Limited<sup>o</sup>

Renishaw International Limited<sup>h</sup>

Renishaw Medical Limited<sup>o</sup>

Renishaw PT Limited<sup>o</sup>

New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR  
United Kingdom

Renishaw Software Limited<sup>o</sup>

Renishaw Transducer Systems Limited<sup>o</sup>

Renishaw UK Sales Limited

Wotton Travel Limited<sup>†</sup>

Measurement Devices Limited<sup>o</sup>

Research Park North, Riccarton, Edinburgh, Scotland, EH14 4AP  
United Kingdom

Renishaw Diagnostics Limited<sup>††</sup> (92.4%)

Renishaw Tehnicni Inženiring d.o.o.

4th Floor, Faculty of Electrical Engineering, University of Ljubljana,  
Tržaška cesta 25, Ljubljana, 1000  
Slovenia

## Owned by MTT Investments Limited

### C.39. Subsidiary undertakings (continued)

Company	Registered Office
MTT Technologies Limited	New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR United Kingdom
<b>Owned by MTT Technologies Limited</b>	
MTT Technologies srl <sup>D</sup>	Piazza Virgilio, 4, 20123 Milano Italy
<b>Owned by Renishaw International Limited</b>	
itp GmbH	Rathausstraße 75-79, 66333, Völklingen Germany
OOO Renishaw <sup>^</sup>	Kantemirovskaya ul., 58, Moskva, 115477 Russia
Renishaw (Austria) GmbH	Industriestraße 9, Top 4.5, 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) Designated Activity Company	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 South Korea
Renishaw AB	Biskop Henriks väg 2, 176 76, Järfälla Sweden
Renishaw AG	Stachelhofstrasse 2, 8854, Siebnen, Schübelbach Switzerland
Renishaw ApS	c/o Lyskær 3CD, Lyskær 3, 2730, Herlev Denmark
Renishaw Benelux BV	Nikkelstraat 3, 4823 AE, Breda Netherlands
Renishaw GmbH	Karl-Benz Straße 12, 72124, Pliezhausen Germany
Renishaw Healthcare, Inc.	C T Corporation System (Chicago), 208 South LaSalle Street, Suite 814, Chicago, Illinois, 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 KK	4 Chome-29-8 Yotsuya, Shinjuku-ku, Tokyo, 160-0004 Japan
Renishaw Latino Americana Ltda. <sup>^</sup>	Calçada dos Cravos, 141, Alphaville Comercial, Barueri, São Paulo, 06453-053 Brazil

## Notes to the Company financial statements continued

## C.39. Subsidiary undertakings (continued)

Company	Registered Office
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.	Iridium 5004, Parque Industrial Milenium, Apodaca, Nuevo León, 66600 Mexico
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 R&R, Inc. <sup>H</sup>	c/o Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware, 19801 United States
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 Teknoloji Çözümleri LŞ <sup>^</sup>	Sedef Caddesi 3 B, Ataşehir Atatürk Mahallesi, Ataşehir İstanbul, 34758 Turkey
Renishaw, Inc.	c/o C T Corporation System (Chicago), 208 South LaSalle Street, Suite 814, Chicago, Illinois, 60604 United States
<b>Owned by Renishaw (Hong Kong) Limited</b>	
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 <sup>^</sup>	288 Jiang Chang San Lu, Zhabei Qu, Shanghai, 20436 China
Renishaw (Shanghai) Trading Company Limited <sup>^</sup>	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
<b>Owned by Renishaw, Inc.</b>	
Renishaw Advanced Consulting & Engineering, Inc.	c/o The Corporation Company, 40600 Ann Arbor Road East, Suite 201, Plymouth, Michigan, 48170 United States

### C.39. Subsidiary undertakings (continued)

Company	Registered Office
<b>Owned by Renishaw R&amp;R, Inc.</b>	
Renishaw Metrology Fixturing Solutions, LLC <sup>^</sup>	c/o The Corporation Company, 40600 Ann Arbor Road East, Suite 201, Plymouth, Michigan, 48170 United States
<b>Owned by Renishaw (Ireland) Designated Activity Company</b>	
Renishaw Mayfield S.A.	Rue des Vignerons 1A, 1110, Morges Switzerland
<b>Owned by Renishaw Mayfield S.A.</b>	
Renishaw Mayfield SARL	31 Rue Ampère, 69680, Chassieu France
<b>Owned by Renishaw Medical Limited</b>	
Renishaw Medical AM Solutions Limited <sup>†</sup>	New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR United Kingdom
Renishaw Neuro Solutions Limited <sup>†</sup>	

### C.40. Associated undertakings and joint ventures

The following are the associated undertakings and joint ventures of Renishaw plc at 30th June 2018. 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 30th 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 72.

<sup>†</sup> Ordinary-A shares

<sup>^</sup> 31st December year-end

Company	Registered Office
<b>Owned by Renishaw plc</b>	
HiETA Technologies Limited <sup>^†</sup> (24.9%)	Bristol & Bath Science Park, Dirac Crescent, Emersons Green, Bristol, BS16 7FR United Kingdom
Metrology Software Products Limited (50%)	6F Greensfield Court, Alnwick, Northumberland, NE66 2DE United Kingdom
<b>Owned by Renishaw International Limited</b>	
RLS Merilna tehnika d.o.o. (50%)	Poslovna cona Žeje pri Komendi, Pod vrbami 2, Komenda, 1218 Slovenia

# 10 year financial record

	note 2018 £'000	note 2017 £'000	note 2016 £'000	2015 £'000	note 2014 £'000	note 2013 £'000	2012 £'000	note 2011 £'000	note 2010 £'000	note 2009 £'000
<b>Results</b>										
Overseas revenue	<b>580,940</b>	509,212	404,472	469,221	331,682	326,213	313,007	273,989	170,957	159,988
UK and Ireland revenue	<b>30,567</b>	27,595	22,752	25,499	23,816	20,668	18,885	14,761	10,650	11,259
Total revenue	<b>611,507</b>	536,807	427,224	494,720	355,498	346,881	331,892	288,750	181,607	171,247
Operating profit	<b>143,045</b>	108,733	86,952	143,924	70,388	79,071	83,188	79,286	28,095	5,991
Profit before tax	<b>145,081</b>	109,079	87,475	144,196	70,106	79,193	86,046	80,410	28,725	8,843
Taxation	<b>20,942</b>	12,819	14,880	22,850	10,720	15,046	17,008	16,345	5,745	2,105
Profit for the year	<b>124,139</b>	96,260	72,595	121,346	59,386	64,147	69,038	64,065	22,980	6,738
<b>Capital employed</b>	<b>2018 £'000</b>	2017 £'000	2016 £'000	2015 £'000	2014 £'000	2013 £'000	2012 £'000	2011 £'000	2010 £'000	2009 £'000
Share capital	<b>14,558</b>	14,558	14,558	14,558	14,558	14,558	14,558	14,558	14,558	14,558
Share premium	<b>42</b>	42	42	42	42	42	42	42	42	42
Reserves	<b>533,994</b>	429,214	366,785	413,918	336,163	262,119	227,799	187,118	144,021	129,162
Total equity	<b>548,594</b>	443,814	381,385	428,518	350,763	276,719	242,399	201,718	158,621	143,762
<b>Statistics</b>	<b>2018</b>	2017	2016	2015	2014	2013	2012	2011	2010	2009
Overseas revenue as a percentage of total revenue	<b>95.0%</b>	94.9%	94.7%	94.8%	93.3%	94.0%	94.3%	94.9%	94.1%	93.4%
Adjusted earnings per share	<b>170.5p</b>	132.4p	100.4p	167.5p	82.3p	88.9p	95.6p	88.5p	32.3p	9.6p
Proposed dividend	<b>60.0p</b>	52.0p	48.0p	46.5p	41.2p	40.0p	38.5p	35.0p	17.6p	7.76p

## Note

The results and adjusted earnings per share for the years 2009 to 2011, 2013, 2014, 2016, 2017 and 2018 exclude the exceptional items. These were: 2009 – redundancy costs (£4.1m); 2010 – impairment write-down (£1.7m); 2011 – reversal of impairment write-down (£1.7m); 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) and 2018 (£10.1m pre tax gain) - gains and losses from financial instruments not effective for cash flow hedging. No years prior to 2016 have been adjusted for gains and/or losses from financial instruments not effective for cash flow hedging.

# 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 2030 (UK callers)  
+44 121 415 7047 (international callers)

Website: [www.shareview.co.uk](http://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

The AGM is held at the Company's offices and is open for attendance by all shareholders. The 2018 AGM will be held on Thursday 18th October 2018 at the Company's headquarters at New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR at 12 noon. The Notice of meeting is set out in a separate circular to shareholders. 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 accounts and copies of previous financial reports are available at [www.renishaw.com/investor](http://www.renishaw.com/investor). The half year results and the preliminary announcement of the full year's results are published on our website promptly after they have been released through a Regulatory Information Service.

## Financial calendar

### Annual general meeting

18th October 2018

### Half year

31st December 2018

### Half year results

January 2019

### Trading update

May 2019

### Final dividend

Ex-div date 20th September 2018  
Record date 21st September 2018  
Payment date 23rd October 2018

### Interim dividend (provisional)

Ex-div date 7th March 2019  
Record date 8th March 2019  
Payment date 8th April 2019

## Registration details and Company Secretary

### Company Secretary

Mark Noble

### Registered office

New Mills  
Wotton-under-Edge  
Gloucestershire  
GL12 8JR

Telephone: +44 (0)1453 524524  
Email: [companysecretary@renishaw.com](mailto:companysecretary@renishaw.com)  
Website: [www.renishaw.com/investor](http://www.renishaw.com/investor)

### Registered number

01106260 (England and Wales)

## Auditor and corporate advisors

### Auditor

Ernst & Young LLP

### Solicitors

Norton Rose Fulbright LLP  
Burgess Salmon LLP

### Stockbrokers

UBS

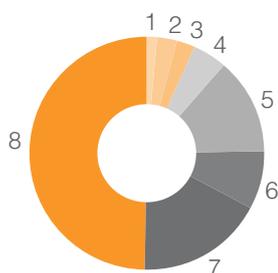
### Principal bankers

Lloyds Bank plc

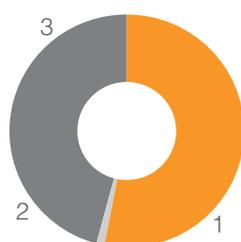
# Shareholder information continued

## Shareholder profile

Shareholdings		%
1	1 – 5,000	1.6
2	5,001 – 25,000	2.7
3	25,001 – 50,000	2.4
4	50,001 – 100,000	4.8
5	100,001 – 500,000	13.3
6	500,001 – 1,000,000	8.2
7	1,000,001 – 3,000,000	17.5
8	more than 3,000,000	49.6



Shareholdings		%
1	Directors	53.1
2	Individuals	1.3
3	Institutions	45.6



## Share fraud

Renishaw has received reports that our shareholders have received unsolicited calls from overseas firms offering to purchase their shares for a price in excess of the current market price in order to mount a hostile takeover bid. Please be aware that this is likely to be a scam, with the intention of obtaining payment from shareholders of a bond or legal fee in order to secure the share transaction, which never materialises, or obtaining an option to purchase shares with no fixed transfer date. There are other types of share fraud or “boiler room scams” and therefore if you receive any unsolicited investment advice the Financial Conduct Authority (FCA) advises the following:

- make sure you get the correct name of the person and organisation and make a record of any other information they give;
- check that they are properly authorised by the FCA before getting involved by visiting [www.fca.org.uk/register](http://www.fca.org.uk/register) and contacting the firm using the details on the register;
- the FCA also maintains a list of unauthorised overseas firms who are targeting or have targeted UK investors and any approach from such firms should be reported to the FCA so that the information can be kept updated;
- report the matter to the FCA on their consumer helpline 0800 111 6768 or using the share fraud reporting form available at [www.the-fca.org.uk/consumers/report-scam-unauthorised-firm](http://www.the-fca.org.uk/consumers/report-scam-unauthorised-firm); and
- you could also contact the police via the national fraud reporting centre Action Fraud on 0300 123 2040 or their online fraud reporting tool at [www.actionfraud.police.uk/report\\_fraud](http://www.actionfraud.police.uk/report_fraud). Action Fraud will be particularly interested if you sent money to a bank account or other type of money transfer.





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