



Corporate social responsibility section of annual report and accounts 2016

## Corporate social responsibility



“Our overarching goal in all of our CSR activities is to support the sustainable growth of our business and ensure its longevity and prosperity. To support this aim, our CSR strategy focuses on the material environmental impacts that we are best placed to influence and control.”

Allen Roberts, Group Finance Director

### Strategy update

At Renishaw we seek excellence in every aspect of our business and are committed to managing our business in a responsible manner. We recognise that we have a responsibility to our people, and the communities within which we operate. We are seeking to address the fact that our operations, products and sourcing have both direct and indirect environmental impacts. We believe that by minimising these impacts and operating in an ethical and sustainable manner, we are able to reduce risks in our supply chain and make a positive difference in these communities. We have focused our sustainability efforts on areas where we believe we are best placed to make improvements. These areas are resource and energy, education, community and innovation. We are proactively addressing issues such as rising energy costs, constraints on emissions, finite resources, increasing water scarcity, the need for greater transparency and skills shortages.

We have assessed our CSR impacts and have identified those most material to our business; these include waste management, energy consumption, GHG emissions and people.

### Human rights and slavery

A strict non-discrimination policy is embedded into our Group Business Code, which states the minimum standards expected within the Group and from our representatives. This Code sets out our position that our employees have the right to non-discriminatory treatment and equal opportunities, and to work in a safe and secure working environment, with a fair wage. Proper consideration is given to applications for employment from all genders, ethnic backgrounds and from those with disabilities. Opportunities are given to employees who become disabled to continue in their employment or to be trained for other positions.

This year, we have developed a new strategy to strengthen the level of due diligence applied to our supply chain. This policy has built upon the processes already developed to mitigate the risk of utilisation of conflict minerals within our supply chains, and applied these general principles tailored as required, to modern slavery and human rights risks. We have developed a risk-based approach to ensure that our efforts are focused on the “at risk” areas.

We continue to use our Group Business Code and other policies in order to set expectations with potential suppliers. The full Code can be found at [www.renishaw.com](http://www.renishaw.com).



Aerial view of the Misken site showing installation of solar panels.

## 2016 CSR targets and progress

### Targets

### Progress



#### Waste management:

5% reduction of waste to landfill from UK operations

[i](#) For more information see page 61

- We have been re-certified to the Carbon Trust waste standard.
- Just over 2,478 tonnes of waste from our UK operations was diverted from landfill.

**73%**

reduction of waste to landfill from our UK operations.

**95%**

of all waste diverted from landfill.



#### Energy consumption:

Decrease reliance on fossil fuel derived energy

[i](#) For more information see pages 59–60

- We commissioned two further solar arrays this year.
- We have added more low energy lighting systems, reducing our demand by a further 1.2m kWh.
- Over 600,000 kWh reduction of energy demand for space heating.

**816,000 kWh**

of electricity generated this year.

Solar arrays with an annual generating capacity in excess of

**1,308,000 kWh**

are now in operation.



#### GHG emissions:

3% reduction in GHG tCO<sub>2</sub>e per million pounds turnover compared to 2015.

[i](#) For more information see page 60

- A further 12% (2015: 33%) reduction of GHG emissions from natural gas consumption.
- 8% reduction in Scope 3 GHG emissions.
- £2.7m invested in energy reduction projects.

**10%**

increase in GHG tCO<sub>2</sub>e emissions per £m turnover compared to 2015.

**3%**

decrease in absolute GHG emissions.



#### People:

5% of our employees as apprentices, graduates or sponsored students on structured programmes.

[i](#) For more information see pages 54–55

- 4,286 people employed, an increase of 4.5% since last year.
- Over 238 people across the Group on structured apprenticeship and graduate programmes.
- Over £2m invested in training this year.

**5%**

of our people are on structured apprenticeship or graduate programmes.



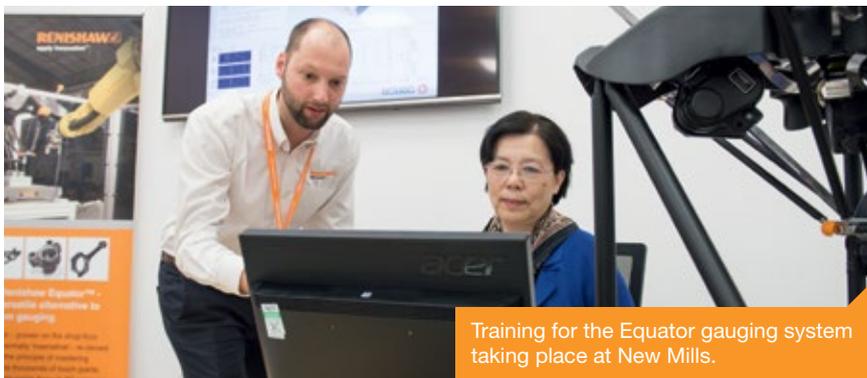
## Our strategy in action – People

**Roxanne Pollard, Mechanical Design Engineer, started at Renishaw as an apprentice engineer and completed a 4-year apprenticeship, during which she obtained a NVQ level 3, VRQ, HNC and HND in engineering. She has since gone on to work with the Group Engineering team as a mechanical design engineer, whilst completing a Renishaw-funded part-time mechanical engineering degree.**





Recently appointed as a director on the Board, Will Lee benefited from an MBA sponsored by Renishaw (see below).



Training for the Equator gauging system taking place at New Mills.

## People

### Diversity

Renishaw enjoys the advantages of being a global company. With over 20 nationalities represented in our senior management group, we benefit from their understanding of different cultures, and acknowledge the advantages that these varied experiences bring to the business. On 30th June 2016, we employed 4,286 people across the Group, an increase of 4% since last year. Of these, 3,296 (77%) are male and 990 (23%) are female. There are nine directors on the Board, consisting of seven males and two females. The senior management group is made up of 60 people, of which 58 (97%) are male and 2 (3%) are female. Renishaw regards its senior management group to be the Executive Board, the heads of each products line, sales territory, and manufacturing organisation that report directly into the Executive Board, and the directors of Renishaw's subsidiary undertakings.

### Communication and participation

As a group that operates in a large number of territories across the globe, we recognise the need for clear and open communication between sites, functions and levels of management. Our flat structure encourages our people to voice their ideas or concerns and we have received many excellent ideas as a result. To facilitate the dissemination of top-down information, regular communication meetings are held with a Board member present. Presentations of the annual and half-year financial results are given to employees at our larger locations, supplemented by video-conference presentations for smaller, remote sites.

We also actively encourage upward communication through various other channels. Our suggestion scheme enables our people to submit ideas for consideration. The suitability for adoption is assessed, with awards given for the most successful implementations. There is also an inventors' award scheme for individuals who are named as inventors of granted patents.

### Training and development

We value our highly-skilled people and recognise that retaining them is essential to the future of our business; as such, we place a large emphasis on ensuring that our training programmes work effectively for our people and business needs. To illustrate this Will Lee, who joined Renishaw as a graduate in 1996, has progressed all the way to become a Board director in 2016. This year, we invested around £2m in training programmes. This investment has been used to develop 120 apprentices, 118 graduates on our graduate training programme, and career development for employees. We are currently funding the further education of 190 of our people across the business at HNC, HND and degree level, in engineering, software and commercial/business disciplines.

MySkills was launched in May 2015 and is a library of training that can be accessed by employees around the world. It has been designed to equip middle and senior managers with the necessary skills and behaviours to lead Renishaw to meet business challenges. Our people participate in the programmes and actively pursue their own development plans with the support of their line manager. Within the library we have a broad range of courses focused on equal opportunities and diversity, technical development,

leadership/management development, induction, soft skills, career development and health and safety.

The Academy was launched in 2010 with the aim to develop future application engineers to meet the growing demand of Renishaw's increasingly diverse range of products. Training is vital to maintain our reputation for excellent technical support, and since its inception, the Academy has provided a wide and varied range of training programmes from "Face-to-Face Communication" and "Report Writing", to "Fundamentals of Manufacturing" and "CNC Programming". In October 2015, the first bespoke Key Account Management (KAM) course was delivered to Renishaw Hong Kong employees with further courses scheduled throughout the coming year.

In order to expand this facility and maintain the quality of the courses being delivered to our people and customers, the Academy introduced a module management system to ensure that the content of all training documentation is kept up-to-date. This will be vitally important as we expand the Academy training material into other Renishaw subsidiaries.

This summer, some 100 (2015: 105) students join Renishaw for paid placements – 60 summer placements, and 40 one-year industrial placements. There are 120 craft and technical apprentices currently in training (2015: 114), with 4 in our German subsidiary, and the rest in the UK. We have a further 48 new apprentices confirmed for September 2016, (2015: 44) and 76 new graduates also start with Renishaw this summer (2015: 70).

## Corporate social responsibility (continued)



Renishaw is an official supplier to the Land Rover BAR America's Cup team.



Renishaw sponsors half-time tag rugby for local schools at Scarlets Rugby.

### Health and safety

We continue to further develop our health and safety management system and we are bringing more sites online with our health and safety strategy. Our management system has been designed to be in line with best practice and the requirements of the ISO18001 standard. We recognise the importance of dealing with any and all injuries, as anything, without the correct medical attention, could develop into something more serious. All injuries, from the smallest of paper cuts, are recorded, enabling us to manage treatment and investigate all incidents effectively.

The total number of accidents for the period was 296 (2015: 230) against a year-end headcount of 4,286 (2015: 4,112). This equates to an accident ratio of 0.069 accidents per person and is 23% up on the same period the year before. This is because we have extended our reporting programme to all sites across the Group and so have a much increased scope of data capture. Our online incident reporting system continues to be used effectively, encouraging employees to report all incidents regardless of severity, and is enabling us to record trends more effectively. We currently do not see any overall trends with the data we capture other than that the majority of our incidents are minor cuts.

There were four reportable accidents under the UK RIDDOR reporting requirements: one neck strain; two fractured fingers; and one deep cut, resulting in a total lost time of 714 hours, or 96.5 days.

No work-related ill health or disease was reported, but health monitoring in the form of lung function testing, hearing testing and eye testing, where appropriate for a job role, has been established for several years and is ongoing. Health support for employees is offered in the form of subsidised health monitoring (blood pressure, diabetes, cholesterol and BMI). To support the physical and mental welfare of our people we have regular onsite visits from two occupational physicians who are available for our employees to discuss any issues that they have. These doctors also act as senior advisors to our Group Health and Safety and HR functions to ensure that best practices in occupational health are observed.

A total of 113 (2015: 67) near-misses were recorded for the period. No significant repeating common causes have been established.

### Community

With an increasing global footprint, we recognise the positive contribution that can be made to our local communities through varied interactions with 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.

In many of our markets, 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. We see this as a vital step to overcome perceptions about career options in these areas and to ensure a strong pipeline of future talent, not just for our own needs, but also for our wider supply chain and customer base.

During the past year we have hosted four groups and given talks to a range of organisations including primary and secondary schools, universities and colleges, business clubs and societies. This is true on a global basis and includes events held by our subsidiaries in Mexico, Italy, Spain, the Czech Republic and Taiwan. With an increasing profile, we are also regularly asked to give interviews to international, national and local media, and contribute our knowledge through conferences and debates on a range of topics including skills, apprenticeships, additive manufacturing, IT systems, exports, education, human resource management, innovation and manufacturing.

We continue to actively support the business community regionally, nationally and internationally, through membership of trade and lobbying associations such as the European Society for Precision Engineering & Nanotechnology, the Confederation of British Industry, the Dental Laboratories Association (UK), the Association of British Healthcare Industries, the Additive Manufacturing Users Group (USA), Verein Deutscher Werkzeugmaschinenfabriken e.V. (Germany), UCIMU-SISTEMI PER PRODURRE (Italy) and the UK's Manufacturing Technologies Association, where two senior managers are board members. We also support local chambers of trade and business networking groups.

Renishaw is also a member of various industry research centres across the globe; some of these include The Manufacturing Technology Centre (UK), the Advanced Manufacturing Research Centre (UK), Canada Makes (Canada), PräziGen (Germany), Light Alliance (Germany) and BazMod (Germany).



Training school teachers at Scuola Camerana in Turin, Italy.



Indian child Poorva whose operation was financed by Renishaw employees.



Renishaw supported a facial implant operation in Nepal.

We continue to sponsor and judge a range of regional and national business award programmes that help encourage and recognise business and individual excellence. Ben Taylor was a judge for the West of England Business Awards in the period, whilst Head of Communications, Chris Pockett, helps to judge the main business and technology awards programmes in Bristol and Gloucestershire.

To further our aim of establishing awareness of Renishaw as a significant regional employer, we continue to sponsor a wide range of festivals, sports clubs and organisations in the West of England and South Wales. During the year, we sponsored the Bristol Post's "Super Science" schools competition which gave a prize of £10,000 to the winner to spend on science-related projects.

In South Wales, we have developed a relationship with Scarlets Rugby, one of the four professional Welsh regional rugby union teams, where we sponsor Welsh international Samson Lee and the Club's half-time tag rugby sessions for local schools. We also sponsor Swansea City footballer Ki Sung-Yeung, who plays internationally for South Korea, and Ben Morgan, the Gloucester and England rugby international. In Germany, we continue to sponsor Handball-Bundesliga team HBW Balingen-Weilstetten, which is based in an area where many of our major customers are located.

With significant ongoing public interest in 3D printing, we have collaborated with individuals and organisations on a range of projects, which this year included assistance to the Jet Age Museum in Gloucestershire which is restoring the cockpit of a 1936 Hawker Typhoon aircraft. We also joined Land Rover BAR's

Technical Innovation Group as an official supplier, providing expertise in additive manufacturing and position feedback encoding to assist the team in its attempt to win the America's Cup.

### Charity

In the UK, the Renishaw Charities Committee (RCC) was formed in the 1980s to distribute funds to charitable and voluntary organisations and support the individual fundraising efforts of UK employees. The RCC is made up of representatives from Renishaw's main Gloucestershire sites and has a particular focus on assisting organisations that help enrich the lives of children and adults, from toddler groups and sports clubs, through to organisations that support disabled people and the bereaved. Donations are also made to organisations located close to other UK sites. A separate international fund is administered by the RCC, that donates monies to aid the victims of natural and other disasters.

During the year, the RCC made donations to 260 diverse organisations totalling £102,000 (2015: £99,000). Beneficiaries included Cubs and Brownies groups, church restoration funds, disability support groups, primary and secondary schools, counselling and carers support groups, hospice care organisations, animal sanctuaries and senior citizen groups. The RCC also fully matches funds raised by employees for UK-wide organisations such as Children in Need and MacMillan Cancer Support.

Significant donations of £2,000 or more were made by the RCC to six organisations, including a 3D printer for the National Star College, support for a new centre for Cotswold Cats & Dogs, and support to the Dean Forest Railway.

Renishaw is also highly supportive of its local communities elsewhere in the world. In Turin, Renishaw S.p.A. is running a project with Scuola Camerana, a school supported by Turin's Industrial Union and Chamber of Commerce, which aims to train both employed and unemployed people using the most up-to-date industrial technologies. Renishaw is supplying metal 3D-printed parts, software, training, application engineers and access to Renishaw's demo area, to help educate the school's teachers about additive manufacturing and future technologies.

In India, Renishaw employees raised funds to support Poorva, a four-year-old girl, who contracted Guillain-Barré syndrome, a rare and serious condition of the peripheral nervous system which paralysed her from the neck down. Poorva's family was unable afford the necessary operation, but together with a contribution from Renishaw India's charities committee, they were able to pay for the operation. Today, Poorva has completely regained mobility and is able to talk, eat and move her hands.

As a result of Renishaw's work with the British Association of Oral and Maxillofacial Surgeons, we sponsored its sub-committee, the Norman Rowe International Educational Foundation, to help undertake a mission to Nepal to train local surgeons. Renishaw also donated an additively manufactured orbital floor implant. The implant patient was previously imaged using a CT scanner. The scan data then allowed a digital design to be created which was manufactured using Renishaw's metal 3D printing technology. The implant was successfully fitted to the patient during the mission.

## Corporate social responsibility (continued)



Pupils building a Greenpower Goblins car at the FDC in Miskin.



A "Technology Teardown" session in progress.

### Education

Five years ago, The Engineering UK report stated that 27% of 11–14 year-olds thought engineering was a desirable career, and 37% of 15–16 year-olds would consider a career in engineering. In 2015, the good news is that those figures had risen to 43% and 49% respectively. Clearly the work that the engineering community has been doing in schools is starting to have an impact but there is still lots of work to do in particular areas.

Lack of information about the realities of engineering is an obvious issue for schools. Few are exposed to engineering at school directly, and the applied maths modules of GCSE and A-Level only give a taste of engineering calculations. There is some exposure in physics, and maybe in the better-equipped design and technology workshops, but going from school to engineering, whether as a degree or apprenticeship, is going to be a step into the unknown for most young people.

Renishaw genuinely believes that participating in making things, and understanding how products are designed is important in influencing young people considering a career in engineering. With support from the Welsh Government, we have developed a Fabrication Development Centre (FDC) at our manufacturing site at Miskin, Wales, which we believe is unique in the UK.

Our aim is to become a key educational resource for hands-on learning of design, fabrication, manufacturing and engineering skills, through which process we will raise engineering's profile to encourage more students, especially girls, to choose STEM (science, technology, engineering and mathematics) subjects. This will encourage more young people

to take up apprenticeships, jobs or further education career pathways in high-value engineering.

Moreover, the FDC will aim to underpin and enhance students' contextual understanding of the school curriculum. We hope this will start to address the criticism raised in this year's Engineering UK report that pupils are not exposed to engineering, science or maths.

This year we recruited our first Education Liaison Officer for Wales, based at the Miskin site. This new role will aim to implement the successful model of schools engagement from Gloucestershire, and work with schools across South Wales to create our long-term talent pipeline.

One of the successful initiatives that we run is "Technology Teardowns". Everyday products such as printers, mobile phones and laptops are taken apart and with the help of experienced Renishaw engineers, pupils begin to understand how the item works and why it is designed in a particular way. Pupils from primary to sixth form, and both girls and boys, really gain from this experience.

We have now established good relationships with schools in Gloucestershire and North Bristol, but we wish to work harder with schools in the more populated Bristol region to get our name known by pupils as a potential company with whom they can have a great career. Renishaw and the Bristol Post newspaper teamed up to offer one Bristol school the chance to win £10,000 to fund anything in the name of science education. The winning school, Wicklea Academy, is intending to create an environmental area as part of an "outdoor classroom".

Another Bristol initiative is our sponsorship of the Bristol Aerospace Centre (BAC), where we are donating £180,000 over three years to create a museum and educational resource that will showcase the city's role in aviation history and highlight engineering innovation. Sitting alongside a new permanent hangar for the Concorde aircraft, the BAC aims to be a highly participative centre for education and skills training. Its proximity to our main operations and motorway networks means that the Centre will form a key part of our schools' engagement programmes, making resources accessible to our "special relationship" schools in Bristol, Gloucestershire and South Wales.

We have continued to train all our new graduates and second-year apprentices to be STEM ambassadors. We now have over 140 ambassadors who carry out at least one STEM-related activity each year, to sustain and grow our multiple initiatives with schools and universities, including talks and lectures, career fairs, after school clubs and STEM projects.

We are continuing to develop relationships with key universities that have been identified as having relevant courses for our business needs. This includes the sponsorship of engineering societies and Formula Student teams. We have a number of research projects, PhD and undergraduate projects with several universities, and often give lectures, employability talks and attend career fairs to raise the profile of engineering and Renishaw.

We continue to work with leading industry organisations and engineering peers to advise government on national policy that will benefit the sector in general. For example, we are a board member



Over 2,500 students have attended Miskin Education Days since 2012.



Renishaw has independent certification for its impact on CO<sub>2</sub> emissions.



Renishaw's waste reduction achievements have been independently recognised.

of the Royal Academy of Engineering's Diversity Leadership Group which has been set up to help to remove barriers and encourage more women and other under-represented groups into engineering.

This year through the Diversity Leadership Group Renishaw has made a major contribution to the Engineering Fast Track programme. This was a series of workshops delivered to students from ethnic minority backgrounds and women who were studying an engineering degree but were struggling to know how to get into the industry. Renishaw collaborated with other large engineering companies and Sponsors for Educational Opportunity (SEO) London to deliver a programme that helped them to apply for jobs and understand the career opportunities available.

## Environment

We recognise that improving the operational efficiencies of our locations across the world contributes to the sustainable growth of our business. We continue to work hard to ensure that the impact of our business activities is as low as practical. Through our assessments we have identified that the areas of our operations with the most significant impact are energy consumption and waste generation. We also recognise that our business travel and product shipments contribute heavily to our carbon footprint.

Over the past 12 months, we have invested in additional onsite energy generation in the UK which has significantly increased our solar photovoltaics generating capacity. At the end of 2015 we had just over 250,000 kWh generating capacity at our New Mills site. We have added further generating potential of around 846,000 kWh at our Miskin site and 212,000 kWh at Stonehouse. This brings us to a total generating capacity of just over 1,308,000 kWh, which is 4.4% of our UK (3.5% global) electricity demand.

This year we have achieved an absolute reduction of our total GHG emissions of 3% but our normalised statutory emissions have increased by 10%.

At our sites across the globe we house over 4,286 people, with sites ranging in size from two people, to our UK headquarters, which houses 1,380 in eight buildings. Our buildings range from a 19th century Grade II listed cotton mill, to state-of-the-art, purpose-built modern buildings, and offices in large and small multipurpose properties around the world. Across our 14 UK sites we have undergone an extensive programme of refurbishment. As part of this process, we have changed our thinking with respect to financial payback periods for energy efficiency investment. Accepting significantly longer payback when considering investment in solar panels, triple glazing, LED lighting, insulation etc., has allowed us to create a much more sustainable building infrastructure. We have invested over £4.3m this year to increase the energy efficiency of our buildings. This work has allowed us to reduce our electricity demand for the future by around 2,220,000 kWh per annum. We are currently looking at the feasibility

of renewable energy at some of our overseas sites and further optimisations at our larger UK sites as a priority.

We have also recognised that an area in which we can reduce our environmental impact is our approach to the design of product packaging. We have established a packaging development team with the task of improving the design of packaging by using alternative materials, improving recyclability, reducing material costs, reducing labour costs, reducing volumetric weight during shipping and reducing the GHG impact of our shipments and the raw materials that we purchase. This initiative is considered strategically important for both current and new products, given that we export 95% of our goods and can therefore make improvements to our overall CO<sub>2</sub> impact associated with logistics activities, as well as those associated with the purchasing of raw materials. In addition, work is ongoing to reduce the polystyrene-based products used to transport goods within the business and to move towards more recyclable materials.

In the UK, Renishaw continues to participate in the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme and the Carbon Disclosure Project (CDP). We use the CDP as a benchmarking tool and are working extensively to ensure that our efforts in GHG emission management are fully disclosed and are as transparent as is expected by our people, customers, and investors. We successfully completed our energy audits for the Energy Savings Opportunity Scheme and through this work, we have identified a number of opportunities to make further energy savings.

## Corporate social responsibility (continued)

Renishaw is legally obliged to report on Scope 1 and 2 emissions (as defined by the Greenhouse Gas Protocol). However, through analysis, it is evident that our Scope 3 emissions amount to a significant proportion of our carbon footprint. We will continue to disclose our Scope 1, 2, and significant Scope 3 emissions, and to put efforts into improving data quality, and expanding our Scope 3 data capture to present a more complete picture of our GHG emissions. During the year, our total GHG emissions for Scope 1 and 2 (statutory disclosure) was 21,192.39 (2015: 20,659.07) tCO<sub>2</sub>e. Our significant Scope 3 emissions (voluntary disclosure) was 20,684.59 (2015: 22,403.09) tCO<sub>2</sub>e.

To calculate our GHG emissions, we have used the GHG Protocol Corporate Accounting and Reporting Standard (revised addition), data gathered for our CRC 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. For our Scope 1 and 2 emissions, less than 1% of the data is based on estimates from averaged data sets.

	2014	2015 <sup>1</sup>	2016 <sup>2</sup>
<b>Scope 1</b>			
Gas consumption	1,438.39	962.30	846.00
Owned transport	2,684.40	2,293.66	2,515.38
Generator diesel	24.74	124.31	32.61
Heating oil	43.57	41.09	253.91
Fugitive emissions	252.67	262.79	305.73
Electricity generated	–	5.98	52.02
Out of scope (bio fuel blend)	55.35	59.58	75.95
<b>Total Scope 1 (tCO<sub>2</sub>e)</b>	<b>4,443.76</b>	<b>3,690.13</b>	<b>4,005.65</b>
<b>Scope 2</b>			
Purchased heat	–	5.44	20.76
Electricity – Location Based	16,576.71	16,963.50	17,165.98
<b>Total Scope 2 (tCO<sub>2</sub>e) – Location Based</b>	<b>16,576.71</b>	<b>16,968.94</b>	<b>17,186.74</b>
Electricity – Market Based	17,416.00	19,619.00	20,104.00
<b>Total Scope 2 (tCO<sub>2</sub>e) – Market Based<sup>5</sup></b>	<b>17,416.00</b>	<b>19,624.44</b>	<b>20,124.76</b>
<b>Total statutory GHG emissions<sup>2</sup> (tCO<sub>2</sub>e)</b>	<b>21,020.47</b>	<b>20,659.07</b>	<b>21,192.39</b>
<b>Normalised statutory GHG emissions<sup>2</sup> by revenue (tCO<sub>2</sub>e/£m)</b>	<b>59.13</b>	<b>41.76</b>	<b>48.54</b>
<b>Scope 3</b>			
Business travel	6,916.31	4,030.00	5,226.99
Product distribution	5,292.98	11,482.33	9,179.69
Raw material purchase	799.72	1,088.41	277.66
Post and communications	557.85	598.66	774.00
WTT and T&D total <sup>6</sup>	4,766.80	5,203.68	5,226.25
Out of scope (bio fuel blend)	49.97	38.97	53.58
<b>Total significant Scope 3 (tCO<sub>2</sub>e)</b>	<b>18,333.66</b>	<b>22,403.09</b>	<b>20,684.59</b>
<b>Total GHG emissions (tCO<sub>2</sub>e)</b>	<b>39,354.13</b>	<b>43,062.16</b>	<b>41,876.99</b>
<b>Normalised total GHG emissions<sup>4</sup> by revenue (tCO<sub>2</sub>e/£m)</b>	<b>110.70</b>	<b>87.05</b>	<b>95.92</b>

<sup>1</sup> 2015 figures have been restated due to improvements in our methodology, updated GHG conversion factors and replacing the calculation used for the June 2015 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 ones are used in their place. Currently 87% of our 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.



Recycling centres have been installed across Renishaw sites in the UK.

## Waste management

During the year, we have completed the UK roll-out of our segregation-at-source waste management strategy. This has involved removing personal under-desk bins and installing office floor recycling centres across the sites. This centralised methodology has been designed to ensure that as much waste as feasibly possible is diverted from landfill. This strategy, which was started in February 2014 and proved to be effective, has continued to drive our efforts throughout the year, resulting in a further 2,656.91 (2015: 2,246.27; 2014: 1,524.43) tonnes of waste being diverted from landfill. Approximately 90% of all waste generated this year originated from our UK sites which have been recertified to the Carbon Trust Waste Standard. These sites have been recognised by the Carbon Trust for their efforts in moving waste away from landfill as a disposal option, towards recovery, recycling and re-use.

Last year, we set a target of 5% for the reduction of waste to landfill in our UK operations. Despite a global rise of waste to landfill of 85% we have had a decrease from our UK operations of 73%. We are still re-using, recycling or recovering around 95% (2015: 96%; 2014: 92%) of our waste around the world.

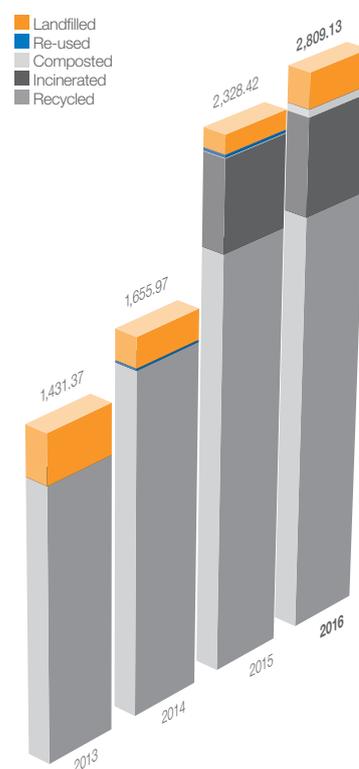
## Global waste totals (tonnes)

	2013	2014	2015	2016 <sup>1</sup>
<b>Landfilled</b>	220.40	131.54	82.15	<b>152.22</b>
Re-used		9.33	12.96	<b>0.96</b>
Composted			2.64	<b>32.62</b>
Incinerated			394.71	<b>418.87</b>
Recycled	1,210.97	1,515.10	1,835.96	<b>2,204.46</b>
<b>Total non-landfilled</b>	<b>1,210.97</b>	<b>1,524.43</b>	<b>2,246.27</b>	<b>2,656.91</b>
Percentage of waste sent to landfill	15.4%	7.94%	3.53%	<b>5.42%</b>
<b>Total waste</b>	<b>1,431.37</b>	<b>1,655.97</b>	<b>2,328.42</b>	<b>2,809.13</b>

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

## Product compliance

We continue to prepare for the Restriction of the use of Hazardous Substances Regulations (RoHS), which require the majority of our products to be compliant in 2017. Our encoder product range is RoHS compliant, with robust design procedures in place to ensure that all future products are compliant. We continue to monitor substances against those identified as "substances of very high concern" under the Registration, Evaluation, Authorisation and Restriction of Chemicals Directive. Whilst we do not fall within the remit of the USA's Dodd-Frank Wall Street Reform and Consumer Protection Act, we recognise that compliance with the conflict minerals assessment and disclosure aspects of such legislation is important to a number of our customers. We also recognise we should have a supply chain with minimum risk, that is free of unethical practices. As such, we have used our best efforts to mitigate against conflict minerals within our supply chain. Continual investigations in our supply chain are carried out to help ensure conflict minerals are not present; we are working with a number of key suppliers on this project. Any issues we consider to be against the spirit of our Group Business Code are monitored, and we work with suppliers where issues are identified.



The Strategic report was approved by the Board on 27th July 2016 and signed on its behalf by

**Sir David R McMurtry**  
Chairman and Chief Executive



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