# Renishaw plc Corporate social responsibility section of annual report and accounts 2017



## Corporate social responsibility

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. This enables us to support the sustainable growth of our business, whilst maintaining its longevity and prosperity, in an ethical and socially conscious manner.

#### **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 have a duty of care to our people, and the communities in which we operate, and we seek 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 can reduce risks in our supply chain and have a positive impact on society. Our sustainability efforts are focused 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

#### 2017 CSR targets and progress

Target:

Waste management:

5% reduction of waste to landfill from global operations



For more information see page 63

#### Progress:

 Just over 2,330 tonnes of waste from our global operations was diverted from landfill.

#### 100/

reduction of waste to landfill from our global operations.

## 95%

of all waste diverted from landfill.

#### Target

**Energy consumption:** 

Decrease reliance on fossil fuel derived energy



#### Progress:

- We generated 2.98% of our global demand of electricity within this period.
- We have added more low energy lighting systems, reducing our demand by a further 1,2m kWh.

#### 1,187,118 kWh

of electricity generated this year.

## 2,126,237 kWh

of electricity generated to date.

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 review of the Group Business Code (the Business Code) was performed to ensure it still upholds the standards we and our stakeholders expect. During this review, some parts of the Business Code were updated to reflect our new approach to mitigating modern slavery within our supply chains. To ensure all our people are aware of the high standards we expect of them, the updated Business Code has been sent out to all 4,530 employees worldwide.

Implementation of our modern slavery and human trafficking strategy is proceeding as planned. We have begun a process of engaging with our tier 1 suppliers to ascertain the extent of their efforts to mitigate modern slavery. This process is underway in our main UK purchasing group and our local purchasing teams in India and China. Further details are contained within our modern slavery statement found at <a href="https://www.renishaw.com">www.renishaw.com</a>.

A strict non-discrimination policy is embedded in the Business Code, which states the minimum standards expected within the Group and from our representatives. The Business Code requires that our employees have the right to non-discriminatory treatment and equal opportunities, to work in a safe and secure working environment, and to receive a fair wage.

During the year, we have also developed a new bullying and harassment training course which has been rolled out across the Group. It explains how to identify bullying and harassment in the workplace, and how to manage any situations that may arise. This course is the latest in a series of modules aimed at developing our employees and empowering them to operate in accordance with the Business Code.

To avoid any form of discrimination during the recruitment process, we have strict guidelines to ensure proper consideration is given to applications from all genders, ethnic backgrounds and those with disabilities. We work closely with employees who become disabled to ensure they have every opportunity to continue in their employment with Renishaw.

We continue to use the Business Code and other policies to set expectations with potential suppliers. The full Business Code can be found at www.renishaw.com.



 LED lighting has reduced energy demand for lighting in the UK by around 80% (image of assembly area at Miskin).

#### Target:

#### GHG emissions:

3% reduction in GHG tCO₂e per million pounds turnover compared to 2016.





#### Progress:

- 11% reduction of GHG emissions from owned transport.
- 12% increase in Scope 3 GHG emissions.

#### 16%

decrease in GHG tCO₂e emissions per £m turnover compared to 2016.

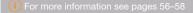


increase in absolute GHG emissions.

#### Target:

#### People:

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



#### Progress:

- 4,530 people employed, an increase of 5.7% since last year.
- Over 230 people across the Group on structured apprenticeship and graduate programmes.
- Just under £1.9m invested in training this year.

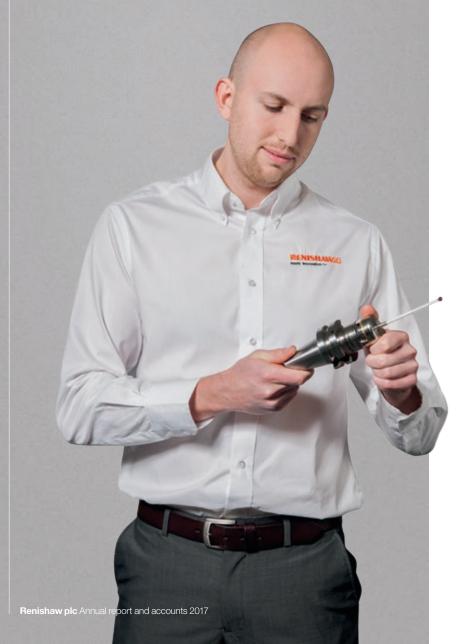
#### 5%

of our employees are apprentices, graduates or sponsored students on structured programmes.

## Our strategy in action – People



Tom Silvey, like many of our apprentices, has gone on to study a part-time engineering degree alongside his work as a CNC Applications Engineer at Renishaw. Tom completed his degree in 2016 with first-class honours and has since received the Frederic Barnes Waldron Award from the UK Institution of Mechanical Engineers.



#### **People**

#### Diversity

As a global company, Renishaw enjoys the advantages of a diverse workforce. We benefit from the range of experience and cultural understanding that comes from diversity in the workplace. With over 20 different nationalities represented within our senior management group, we benefit from the variety of expertise they bring to the business. On 30th June 2017, we employed 4,530 people across the Group, an increase of 5% since last year. Of these, 3,496 (77%) are male and 1,034 (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 58 people, of which 56 (97%) are male and two (3%) are female. 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.

## Communication and participation

Operating out of 77 locations around the world has necessitated a culture of clear and open communication between sites, functions and management teams across the business. To facilitate this, we operate a flat structure that allows our people to openly voice their ideas and concerns.

We are committed to conducting our business with honesty and integrity and promoting a culture of openness and accountability. To help with this a groupwide whistleblowing policy was introduced this year for our people to raise concerns about suspected wrongdoing. The policy covers all Renishaw employees, officers, consultants, contractors, casual workers, agency workers, suppliers, customers and third parties who provide services for or on behalf of Renishaw. People are reassured their concerns will be taken seriously and investigated as appropriate, and that their confidentiality will be respected without fear of reprisals. We hope that in many cases an employee will be able to raise any concerns internally. However, it is recognised there will be times when it is not appropriate, or a person will not be comfortable, raising a concern internally. An independent third-party provider, Safecall, has been appointed to operate a confidential reporting line enabling people to raise concerns in confidence and, if they wish, anonymously.

We continue to use our suggestion scheme, which we have recently relaunched on a new online platform, to encourage our people to share ideas that can improve business processes and their employment experience. The suitability of these ideas is assessed by a committee of employees, and then transferred to the appropriate area of the business for detailed consideration. Ideas that are implemented and provide benefits to the business can earn a financial reward for the originator. We also hold regular communication meetings, where a member of the Board presents updates on each area of the business with an open-floor Q&A session. The Board presents our annual and half-yearly financial results to all employees in person at our larger locations in the UK and via videoconference to smaller sites.

#### Training and development

We recognise that our highly skilled people are the key to success within our organisation; ensuring that they are fully trained in their fields is critical to achieving that success. As such, we place a large emphasis on ensuring that our training programmes work effectively for our people and business needs. This year, we invested a further £1.9m in training. We firmly believe that work experience, as well as studying, is essential to the success of our employees. To ensure this is possible, we offer the opportunity for our graduates and apprentices to take part in funded studies at HNC, HND and degree levels alongside their regular working lives. Tom Silvey, an award-winning apprentice and BEng graduate, said the following about his experience "When Renishaw presented me with the opportunity to work alongside my studies, I knew this was the best fit for me. The Company not only funded my degree, but also gave me all the time I needed to complete university projects."

 Graduates from the 2016 intake undergoing practical training.

people employed across the Group

£1.9m invested in training programmes

100

students joined Renishaw for paid placements

Our continued investment in training is currently funding the development of 131 apprentices, 57 graduates on our graduate training programme and further career development for employees right across the business. We are also currently funding the further education of 103 of our people across the Company in engineering, software and commercial/business disciplines.

Our online training platform, MySkills, was launched in May 2015 and continues to be successful. Our people from around the world participate in the programmes it offers, which are organised to give them control of their own development plans with the support of their line manager. It offers a broad range of courses (in various languages) focused on equal opportunities and diversity, technical skills, leadership/management development, induction, soft skills, career development, health and safety, anti-bribery and corporate social responsibility.

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. Technical training is vital to maintain our ability to provide excellent technical support, and since the inception of the Academy, it has provided a wide range of training programmes from "Face-to-Face Communication" and "Fundamentals of Manufacturing" to using and programming the machines and products we make. Access to the Academy continues to be rolled out to more of our locations across the globe, with our highly skilled trainers being able to offer face-to-face and online training. We also offer the experience gained from our internal training to customers in several key markets, with courses held at customer sites or our own locations.



 A key focus is ensuring that our employees have the necessary skills to offer a high level of training and support to customers.

# Corporate social responsibility continued



 Renishaw sponsors the TransFIORmers Moto2™ GP team.



 Wales international Samson Lee (right) visits Miskin.

To give potential future employees the ability to receive practical training and experience alongside their academic studies, we offer paid placements each year for a broad range of students. This year we have given 100 (2016: 100) students the opportunity to work at Renishaw, 40 of whom stay for a full year-long placement. There are 131 manufacturing, technical and software apprentices currently in training (2016: 120), with four (2016: 4) in our German subsidiary, and the rest at various UK locations. We have a further 48 new apprentices joining us in September 2017 (2016: 46) and 45 new graduates starting this summer (2016: 76).

#### Health and safety

We continue to 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 all injuries, as many have the potential to have been more serious. All injuries are recorded, enabling us to manage treatment and investigate all incidents effectively with the aim of implementing appropriate control measures to prevent reoccurrence.

The total number of accidents for the period was 234 (2016: 296) against a year-end headcount of 4,530 (2016: 4,286). This equates to an accident frequency rate of 30.79 per million hours worked (2016: 40.99).

Our online incident reporting system continues to be used effectively, encouraging employees to report all incidents regardless of severity, and enables us to record trends more effectively. We currently do not see any overall trends with the data we capture, except that most of our incidents are minor cuts.

There were two reportable accidents under the UK RIDDOR reporting requirements: one severe cut to a finger and one head injury leading to concussion. These resulted in a total lost time of 244 hours, or 42.5 days. This equates to a frequency rate of 0.25 per million hours worked compared with a UK manufacturing average for RIDDOR reportable accidents of 1.94.

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 many 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 on-site visits from two occupational physicians who are available for our employees as required. These doctors also act as senior advisors to our Group Health and Safety and HR functions to ensure that best practice in occupational health is observed.

A total of 122 (2016: 113) nearmisses 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 vital 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.

Across the Group we continue to host tour groups and have given 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, 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. Rhydian Pountney, a member of the International Sales and Marketing Board (see page 71) is also co-chair

of the Advanced Engineering Working Group of the annual India-UK Joint Economic and Trade Committee (JETCO).

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

We continue to sponsor and help judge a range of regional and national business award programmes that help encourage and recognise business and individual excellence. Rainer Lotz, Managing Director of Renishaw GmbH is a Board Member of Germany's MX Awards, whilst Head of Communications, Chris Pockett, helps judge the main apprenticeship, education and business 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 this included sponsorship of new music at the Colston Hall's Lantern venue in Bristol, Stroud Young Photographer of the Year and Gloucester Tall Ships Festival.

The sport of rugby has an especially high profile in South Wales and the west of England, and we currently sponsor Samson Lee (Scarlets and Wales) and Ben Morgan (Gloucester), and for season 2017-2018, we have agreed sponsorship with Cardiff Blues, including on-ground signage and sponsorship of Tomos Williams, a promising young scrum-half who was named in the Wales squad in June 2017. We sponsor Swansea City footballer Ki Sung-Yeung, who plays internationally for South Korea, plus Gloucestershire County Cricket's Tom Smith.

We are a technical sponsor to numerous student racing teams, where we utilise our additive manufacturing expertise to supply key components. In Italy, the Unibo Motorsport team, based at Università di Bologna, competes in the Formula Student single-seater car competition, whilst at Politecnico di Torino we sponsor the 2 Wheels Polito team, which has built a motorcycle that competes in the MotoStudent competition. In Germany, we have also supplied additively

manufactured wheel carriers for the Formula Student GreenTeam.

Our sponsorship of the French Moto2™ GP motorcycle team TransFIORmers also includes the supply of unique additively manufactured titanium wishbone and steering column components.

#### 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 all 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 the disabled and the bereaved. Donations are also made to organisations located close to other UK sites. A separate fund is administered by the RCC, which donates monies to aid the victims of global disasters.

During the year, the RCC received fewer funding requests but still made donations to 230 diverse organisations totalling £98,000 (2016: £102,000). Beneficiaries included medical research groups, junior sports clubs, cubs and brownies groups, sea cadets, hospice care organisations, disability sports and support groups, primary, secondary and special needs schools, counselling and carers support groups, animal sanctuaries and senior citizen groups. The RCC also fully matches funds raised by employees for UK national fundraising events such as Children in Need and Red Nose Day and also supports individual employee fundraising activities.

During the year, significant donations of £2,000 or more were made by the RCC to support seven organisations in Gloucestershire, including a new memorial garden for St Mary's Church in Kingswood, a community library in Berkeley, further development of the Wotton-under-Edge community swimming pool, a new launch vehicle for the Severn Area Rescue Association's lifeboat, and a new centre at the Milestone special school in Gloucester that, when opened, will offer state-of-the-art facilities including a large hydrotherapy pool with therapy and sensory equipment, plus an all ability play and sports area.

Globally, Renishaw is highly supportive of its local communities. In the USA we have started a partnership with VetPowered LLC, an organisation

offering machining, fabrication and maintenance and repair services to industry through a highly-trained veteran and wounded warrior work force. It provides profits and resources to Workshop for Warriors, a non-profit school that prepares veterans and wounded warriors for advanced manufacturing careers through training, certification and job placement.

Renishaw, Inc. has donated machine tool calibration equipment to VetPowered and runs free-of-charge training to enable them to increase their machine maintenance and repair portfolio. Following successful completion, the aim is to then train the veterans in machine tool retrofits to enable them to earn further revenue to support their very important cause.

During the year, our subsidiary in India supported Gurukulam, a school of 350 disadvantaged students in Pune. The children are often from travelling families who do not have the stability or financial means to send them to mainstream schools and the school provides education integrated with vocational training, as well as shelter and three meals per day, which is free of charge to the children and their families. Gurukulam faces many financial challenges, one of which is the cost of fuel (wood and LPG) used for cooking. Renishaw therefore gave a significant donation for the installation of a concentrated solar thermal technology based steam cooking system, which harnesses the power of the sun to generate steam and hot water, providing an efficient and environmentally friendly system with no fuel costs.



 A charitable donation was given to the Severn Area Rescue Association.



 Mr Girish Prabhune (2nd from right), founder of Gurukulam School, with Renishaw staff.

# Corporate social responsibility continued



 Southville Primary School, winner of the Super Science competition.



 Renishaw, Inc. staff at a 'girls into automotive engineering' event.

#### Education

Renishaw's UK-based education outreach team continues to work with primary and secondary schools, and higher educational establishments, to encourage young people of all genders, ethnicity and backgrounds to learn about engineering, discover what engineers do every day and to encourage them to choose engineering as a career. The team has designed more workshops to be delivered either at schools, or at Renishaw's sites in Gloucestershire and South Wales, that are curriculum-linked to add value and context to learning in maths, physics, computer science, and design and technology.

Renishaw believes that making things, and understanding how products are designed and made, is important in influencing young people to consider a career in engineering. We have therefore developed (with support from the Welsh Government) a Fabrication Development Centre (FDC) on our manufacturing site at Miskin in South 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 we will raise the profile of engineering and encourage more students, especially girls, to choose science, technology, engineering and maths (STEM) subjects. This will encourage more young people to take up apprenticeships, jobs or further education career pathways in high-value engineering.

Since it opened last May, we have welcomed over 600 pupils and students to the FDC where they have participated in design and build projects, and Renishaw workshops in a state-of-the-art facility that inspires them to think about an engineering career.

We continue to build relationships and raise our profile in the regions where we have the highest recruitment needs. In Bristol, we again partnered with the Bristol Post newspaper to run a 'Super Science' competition that offers one Bristol region school the chance to win £10,000 towards anything in the name of science education. The 2016 winning school was Southville Primary, which intended to buy key science equipment such as magnets, circuits, microscopes and thermometers, and hold workshops with local scientists.

To allow us to support education outreach activities across our key regions, we offer STEM ambassador training to all our new graduates and second-year apprentices. We now have over 130 ambassadors in the Company and each must carry out one STEM activity per year, which helps to sustain and grow our multiple initiatives with schools and universities, including talks and lectures, career fairs, after school clubs and STEM projects. One of our STEM ambassadors recently received a letter from a parent whose daughter had attended a talk on working as an engineer at Renishaw. "My daughter had never been committed to school, but after the Renishaw engineer's talk she amazed us! She suddenly knew that she wanted to be developing new technology with Renishaw, and the last parent's evening was a delight to experience." Such feedback validates our continuing commitment to schools engagement.

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 ongoing research projects, PhD and undergraduate projects with several universities, and often give lectures, employability talks and attend career fairs to raise our profile.

The task of developing more engineers is not something that we can do alone and therefore we continue to work with leading industry organisations and engineering peers to advise government on national policy that will benefit the sector. For example, we are members of the Royal Academy of Engineering's Diversity and Inclusion Leadership Group that has been set up to help remove barriers and encourage more women and other underrepresented groups into engineering.

We are also a key contributor, both in time and money, to Festomane (Festival of Manufacturing and Engineering), which is held each year in Stroud district, where our Gloucestershire sites are located. The festival has grown in popularity and Renishaw hosted an 'Engineer your Future' event this year where both students and parents attended workshops and talks to find out the opportunities for young people in engineering and manufacturing. Influencers such as teachers and parents are key groups that we focus on to change perceptions.

We also have strong partnerships with other STEM-focused organisations including the Greenpower Education Trust, Aerospace Bristol, Bristol Music Trust and the SS Great Britain Trust. The new Aerospace Bristol museum, which features a hangar for the Concorde aircraft to be built, opens in Autumn 2017 and a key aim is to advance learning, skills and training particularly in science, technology, engineering and design. A Renishaw Equator gauging system will form part of the museum's exhibits focused on current aerospace technology, and we will use the dedicated education facilities to deliver some of our outreach programmes.

Our Spanish subsidiary continues to support the SpainSkills entry in the global WorldSkills competition through sponsorship, the loan of equipment and supplying engineers to assist the entrants in the successful completion of the engineering sections of this challenge.

In the USA, we are also developing a new programme that creates partnerships with educational establishments such as technical colleges and universities. These partnerships create regional Renishaw bases to support our customers whilst helping to develop training and curriculum for the next generation of engineers and manufacturing staff. A pilot partnership with Greenville Technical College Center for Manufacturing Innovation, South Carolina, is up and running covering a variety of our product lines with two Renishaw staff based at the facility to support the partnership.

As part of this pilot, staff from Renishaw, Inc. attended an event at the college to encourage girls into automotive engineering, organised by the Southern Automotive Women's Forum. Around 150 middle-school and high-school girls attended from the Greenville area who took part in handson STEM-based activities, toured the facilities and heard Renishaw UK STEM ambassador, Lucy Ackland, talk about her career journey and the many opportunities within the engineering sector.

#### **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. By analysing our GHG emissions we can see that our greatest impact is from the purchase of electricity and its associated Scope 3 emissions, which is responsible for just over 50% of our global GHG emissions. This is followed by our product distribution and business travel, at around 25% and 17% respectively.

To combat this, we have in previous years invested in solar arrays. During this year, we have generated 2.98% (2016: 3.45%) of our global energy needs, and are looking for more ways to invest effectively in reducing our future energy demands. As well as our investment in solar arrays, we have invested just under £1m this year in energy-saving technologies to increase the efficiency and lower the energy demand of our building stock. These projects have included the installation of triple glazing, LED light fixtures and insulation in several of our buildings.

We have installed new LED lighting in the UK which has reduced our energy demand for lighting by around 80%, and aim to continue to apply these technologies at new locations where appropriate. In the USA, we have recently constructed a new building for Renishaw, Inc. where carpets with a 43% pre-consumer recycled content were used. We also reduced the amount of parking enabling us to increase the amount of green space on the site to around 3,200 m<sup>2</sup>, thus removing the need to transport and lay around 1,600 m<sup>3</sup> of tarmac and 1,500 tonnes of stone. The roof was also upgraded to white thermoplastic polyolefin (TPO) offering two advantages. Firstly, it is a lighter roofing system which allows for the building structure to utilise less steel, and secondly, a white TPO roof provides a reduction to the roof heat island effect, as recognised by the LEED® energy and environmental design standard. LED lighting has been installed throughout the building which reduces our annual energy demand around 100,000 kWh compared to traditional ballast tube lighting.

In Germany and the UK we are looking at ways we can reduce the impact of our pool car fleets, and are looking at fuel types and car sizes to increase

the fuel efficiencies and overall impact of the vehicles. At our new building in the USA we have installed two electric vehicle charging points.

We have also investigated energy in production and developed a project to analyse downtime on our machine tools, which significantly contributes to our energy demands. Machine tools are designed to always be left in standby mode, which uses only slightly less energy. This project has enabled us to reduce the power required when the machines are not in use, and from the work we have carried out to date, we have reduced our energy demand from these machines by just over 806,000 kWh per annum.

We continue to look at ways to reduce our reliance on business travel and to install state-of-the art video-conferencing facilities at our locations. Our people are encouraged to use these facilities and other technologies rather than travel if possible. We are also working with our logistics partners to measure the GHG emissions of the work they perform on our behalf and will work with them to manage this as effectively as possible.

This year our total GHG emissions have increased by 7% but our statutory emissions have increased by just 2%. We continue to increase coverage of our scope 3 emissions data and expect to show increases in the data reported as this progresses. We have continued to increase our business over this period and have importantly seen our statutory GHG emissions normalised by revenue fall by 19% and our total GHG emissions normalized by revenue fall by 16%.

At our sites across the globe we house 4,530 people, with sites ranging in size from two people, to our UK headquarters, which houses 1,411 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.

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.

# 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 21,245.15 (2016: 21,192.39; 2015: 20,659.07) tCO₂e. Our significant Scope 3

was 24,232.49 (2016: 21,638.21; 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.

emissions (voluntary disclosure)	averaged data sets.		
	2015	2016¹	2017 <sup>3</sup>
Scope 1			
Gas Consumption	962.30	771.82	1,003.62
Owned Transport	2,293.66	2,492.30	2,230.50
Generator Diesel	124.31	26.38	28.03
Heating Oil	41.09	234.00	244.67
Fugitive Emissions	262.79	305.73	266.00
Total Scope 1 (tCO₂e)	3,684.15	3,830.23	3,772.82
Scope 2			
Location Based			
Purchased Heat	5.44	19.88	4.59
Electricity	16,963.50	17,003.42	17,467.75
Total Scope 2 (tCO <sub>2</sub> e)	16,968.94	17,023.30	17,472.34
Total Statutory GHG emissions <sup>2</sup> (tCO <sub>2</sub> e)	20,653.09	20,853.53	21,245.16
Normalised Statutory GHG emissions <sup>2</sup>			
by revenue (tCO₂e/£m)	41.75	48.81	39.58
Scope 3			
Business travel	4,030.00	4,717.04	5,397.60
Product distribution	11,482.33	9,534.18	11,048.65
Raw material purchase	1,088.41	1,260.40	1,517.53
Post and communications	598.66	774.00	773.11
WTT and T&D total <sup>6</sup>	5,203.68	5,352.59	5,495.61
Total significant Scope 3 (tCO₂e)	22,403.08	21,638.21	24,232.49
Total GHG emissions (tCO₂e)	43,056.17	42,491.74	45,477.66
Normalised total GHG emissions⁴			
by revenue (tCO₂e/£m)	87.03	99.47	83.63
Further information			
Scope 1 Out of scope (biofuel blend)	59.58	60.85	59.13
Scope 2 Market Based Electricity	16,963.50	21,375.05	21,659.34
Total Scope 2 (tCO₂e)⁵	16,968.94	21,375.05	21,663.93
	10,900.94	21,007.00	21,000.33
Scope 3 Out of scope (biofuel blend)	38.97	29.49	31.72

<sup>&</sup>lt;sup>1</sup> 2016 figures have been restated due to improvements in our methodology, updated GHG conversion factors and replacing the calculation used for the June 2016 data last year – see footnote 3.

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

<sup>&</sup>lt;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 87% of electricity consumed is covered by Market Based factors.

<sup>&</sup>lt;sup>6</sup>Well to Tank and Transmission and Distribution losses total, use Location Based conversion factors for calculations.

#### Waste management

Our waste 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 2,330 tonnes of waste being diverted from landfill. Approximately 64% of all waste generated this year originated from our UK sites where we sent less than 0.5% of waste to landfill, these sites continue to maintain their certification 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 reuse.

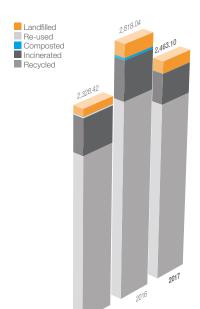
Last year, we set a target of 5% for the reduction of waste to landfill in our global operations. We have had a decrease from our global operations of 10%. We are still reusing, recycling or recovering around 95% of our waste around the world.



• Electric car charging point at the new headquarters building for Renishaw, Inc.

#### Product compliance

We have prepared for the Restriction of the use of Hazardous Substances Regulations (RoHS), which requires most of our products to be compliant in July 2017. 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 many 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 worked 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. Any issues we consider to be against the spirit of the Business Code are monitored, and we work with suppliers where issues are identified.



#### Global waste totals (tonnes)

	2015	2016¹	2017
Landfilled	82.15	146.07	132.24
Re-used	12.96	0.96	0.00
Composted	2.64	23.28	2.80
Incinerated	394.71	431.02	330.11
Recycled	1,835.96	2,216.71	1,997.94
Total non-landfilled	2,246.27	2,671.97	2,330.86
Percentage of waste sent to landfill	3.53%	5.18%	5.37%
Total waste	2,328.42	2,818.04	2,463.10

 $<sup>^{\</sup>mbox{\tiny 1}}$  Includes US data for the first time which accounts for 87.2 tonnes of landfill waste in 2016.

This Strategic report was approved by the Board on 27th July 2017 and signed on its behalf by

#### Sir David McMurtry

Chairman and Chief Executive



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