

# Sustainability Report



**Our Group sustainability strategy provides the common framework by which all our Group companies manage their social and environmental impacts.”**

**Ian Farnworth**  
Group EHS<sup>†</sup> Director

<sup>†</sup> Environment, Health and Safety



## Key points in this section:

- **Leading indicators provide evidence of a well-embedded safety culture**
- **Diversity initiatives designed to promote positive change and greater inclusion**
- **Supplier sustainability, including human rights and the avoidance of modern slavery**
- **Improved water, waste, energy and carbon management in our core businesses**
- **5% reduction in carbon emissions intensity**
- **Qdos pumps help customer reduce energy use by 3%**
- **Group Community Engagement Award winners announced**



Group Sustainability Committee\*

Operating sustainably means embedding long-term thinking and action across our whole business and stakeholder base.

## Sustainability Committee Report

### Membership, engagement and reporting

Our Sustainability Committee comprises:

Ian Farnworth (Steam Supply Chain and Group EHS Director); Sheldon Banks (Divisional Director, Spirax Sarco Americas); Sean Clay (Divisional Director, Spirax Sarco EMEA); James Wright (WMFTG Supply Chain Director); and Mark Wyatt (Group EHS Executive).

The Sustainability Committee engages a wide range of senior managers, project leaders and employees as part of its responsibility to oversee strategy implementation and review progress against strategic objectives. The Committee meets quarterly and receives presentations from project leaders at each session. Progress against the Group’s sustainability objectives is reported to the Group Chief Executive, Executive Committee and Board of Directors.

## Managing sustainability

We have a well-defined management structure to help us achieve our sustainability objectives.

### Group Chief Executive

Responsible for the Group sustainability strategy

Supported by

### Board of Directors

### Sustainability Committee

Senior Managers (Steam Supply Chain and Group EHS Director; Divisional Director Spirax Sarco Americas; Divisional Director Spirax Sarco EMEA; WMFTG Supply Chain Director; Group EHS Executive) oversee strategy implementation and review progress against strategic objectives

### Sustainability strategy sponsors

Senior managers allocated to each sustainability objective

### Divisional Directors, Regional and General Managers

Ensure the Group’s sustainability policies are upheld and implemented by our operating units

### Sustainability strategy project leaders and teams

Establish strategic priorities, with sponsors, and oversee strategic implementation

### Employees and organised employee groups

Oversee, record and report on strategic implementation and performance within their local workplaces

# Sustainability Report continued

## Progress in 2018

As stated in last year's Annual Report, our key priorities as a Group in 2018 were:

- to increase the number of employees completing sustainability training;
- to raise awareness in Gestra and Chromalox of our sustainability strategy; and
- to involve Gestra and Chromalox more actively in our sustainability strategy implementation.

We are pleased to report that we made progress in the above priorities during 2018. Towards the end of the year, we commenced the roll out of a new "Group essentials" training programme, which will be available across the Group in 16 languages. The programme entails e-learning modules on topics such as Sustainability, our Values, Health and Safety at Work, Driving Safety, and Anti-Bribery and Corruption. The programme utilises a combination of in-built and on-the-job assessments to review understanding and compliance. Completion of the programme will be a compulsory requirement for all employees.

During the year, Chromalox appointed Amy Broadie as Environmental, Health, Safety & Sustainability Director. Jens Höft, Gestra's Human Resources Director, was allocated responsibility for the implementation of the sustainability strategy in Gestra.

Both businesses reported progress against Group and company-specific sustainability objectives and targets on a quarterly basis to the Sustainability Committee.

## Focus for 2019

During the year, the Sustainability Committee agreed to focus on the following key priorities for the Group in 2019:

- increase employees' knowledge and understanding of sustainability across the Group, through the roll out of the "Group essentials" training programme;
- continued adoption and integration of Gestra and Chromalox into the Group's sustainability programmes; and
- progress against the Group's sustainability targets.

### Further reading

Operating sustainably is one of the Group's strategic themes. Our overall sustainability vision and mission is set out in the Group strategy update.

 [See page 25](#)



**FTSE4Good**






Spirax-Sarco Engineering plc is a constituent of the FTSE4Good UK Index

## Non-financial information statement

This Annual Report contains the information required to comply with the Companies, Partnerships and Groups (and Non-Financial Reporting) Regulations 2016, as contained in sections 414CA and 414CB of the Companies Act 2006. The table below provides key references to information that, taken together, comprises the Non-Financial Information Statement for 2018.

Reporting requirement	Group Policies that guide our approach	Information and risk management, with page references
Environmental matters	<ul style="list-style-type: none"> <li>– Group Environmental, Health, Safety, Energy and Sustainability Policy</li> <li>– Group Management Code</li> <li>– Supplier Sustainability Code</li> </ul>	Sustainability Report, pages 57, 62-64 Realising our purpose, page 17 Our business model, page 15 Principal risks, page 33
Employees	<ul style="list-style-type: none"> <li>– Group Diversity and Inclusion Policy</li> <li>– Group Management Code</li> <li>– Group Human Rights Policy</li> <li>– Group Environmental, Health, Safety, Energy and Sustainability Policy</li> </ul>	Sustainability Report, pages 57, 58-60 Our business model, page 15 Principal risks, page 32-33
Social matters	<ul style="list-style-type: none"> <li>– Group Human Rights Policy</li> <li>– Group Charitable Donations Policy</li> <li>– Supplier Sustainability Code</li> </ul>	Sustainability Report, pages 57, 61, 65 Our business model, page 15 Our strategy, page 24
Respect for human rights	<ul style="list-style-type: none"> <li>– Group Human Rights Policy</li> <li>– Group Sanctions, Embargoes and Restrictions Policy</li> <li>– Supplier Sustainability Code</li> </ul>	Sustainability Report, pages 57, 59, 61
Anti-corruption and anti-bribery matters	<ul style="list-style-type: none"> <li>– Group Anti-Bribery and Corruption Policy</li> <li>– Group Gifts, Entertainment and Hospitality Policy</li> <li>– Group Competition Law Compliance Policy</li> <li>– Group Sanctions, Embargoes and Restrictions Policy</li> <li>– Group Whistle-Blowing Policy</li> <li>– Supplier Sustainability Code</li> </ul>	Sustainability Report, pages 57, 60, 61 Principal risks, page 32 Risk Management Committee Report, page 87
Description of the business model		Our business model, pages 12-15
Description of the principal risks in relation to the above matters, including business relationships, products and services likely to affect those areas of risk, and how the company manages the risks		Risk management and principal risks, pages 28-33 Risk Management Committee Report, pages 86-89
Non-financial key performance indicators		Sustainability Report, pages 57-65 Key Performance Indicators, page 27

# Sustainability overview 2018

Sustainability area	Material sustainability topic	Objective	Target	Further reading
 <p><b>1. Our workplaces</b></p>	Health & Safety	To achieve Health and Safety (H&S) excellence through engagement, empowerment and fostering good behaviours while targeting zero accidents	Zero accidents	Page 58
	Employment practices	To promote diversity and equality through employment practices that are free from discrimination and in accordance with international human rights principles	33% of women on our Board, as opportunities arise	Page 59
	Ethical business practices	To act in accordance with our Values, upholding a zero tolerance approach to bribery and corruption	Zero incidents of bribery and corruption	Page 60
	People development	To invest in developing the knowledge and skills of our people	Increase the impact of our technical and leadership training offering	Page 60
 <p><b>2. Our supply chain</b></p>	End-to-end supply chain	To focus on continuous improvement in our supply chain with particular emphasis on sustainability	90% of direct material suppliers, by spend, of recently acquired businesses (Hiter, Aflex, Gestra and Chromalox) to have signed our Supplier Sustainability Code by December 2018*	Page 61
	Product responsibility	To incorporate sustainability factors into our product design process, including energy efficiency, emissions, serviceability, recyclability and the availability of compliant and ethically sourced materials	Continuing compliance with all applicable EHS standards, while meeting customer expectations of performance and cost	Page 62
 <p><b>3. Our environment</b></p>	Water and waste	To limit the environmental impacts of our operations through reducing water use and minimising and managing effluent and waste	To identify opportunities for waste reduction, increase recycling rates and reduce water use*	Page 62
	Energy and carbon	To minimise the environmental impacts of our operations by managing energy consumption with the aim of reducing carbon emissions	To achieve a year-on-year reduction in our energy consumption and CO <sub>2</sub> e emissions intensity*	Page 63
 <p><b>4. Our customers</b></p>	Customers	To provide products and services that improve the sustainability of our customers' operations through helping them reduce their environmental impacts, improve plant efficiency and productivity and maintain product quality	n/a	Page 64
 <p><b>5. Our communities</b></p>	Community engagement	To engage positively with the communities in which we operate and to offer financial support to approved charities	All Group manufacturing companies to participate in at least one community engagement activity	Page 65

\* 2018 target. New target set for 2019

# Sustainability Report continued



## 1. Our workplaces Health & Safety

### Overview

#### H&S excellence

Reducing accidents and maintaining a safe working environment for our employees, contractors, visitors and customers are our primary aims. We actively promote a strong H&S culture, reflected in our updated Values, and require our employees to adopt safe working practices at all times. The Group Chief Executive and Board of Directors oversee our H&S programmes and performance, with H&S a standing agenda item at every Board meeting. All Group companies are expected to adhere to the Group Environmental, Health, Safety, Energy and Sustainability Policy, operate within Group programmes and have detailed H&S management systems in place locally.

### 2018 Performance and actions

#### H&S performance

Despite maintaining a rigorous focus on H&S, our over 7 day accident rate per 1,000 employees increased to 3.5 in 2018 (2017: 3.0). Benchmarked against RIDDOR's "Over 7 Day Rate of Reported Non-Fatal Injuries Per 100,000 Employees in the UK Manufacturing Sector, 2013/14-2017/18", which is 361 per 100,000 employees (or 3.61 per 1,000 employees), we performed slightly better than the industry average. All lost time accidents were thoroughly investigated, the findings were communicated to raise awareness of risk and actions were taken to reduce risk going forward.

#### H&S training, safety awareness and culture

During 2018, we created a Safety Leadership training programme, with training delivered to over 180 senior managers across the Group. We again increased the number of H&S training units delivered across our wider workforce, with 87,671 training units delivered in 2018 (2017: 24,747). We held a "safety week" across all steam business manufacturing sites and some of our larger sales companies, and held our annual three-day EHS conference at Gestra's manufacturing site in Germany, which was attended by 17 H&S managers from across the Group.

A standard "Take 5" risk assessment was developed and rolled out to our sales and service engineers, requiring them to take five minutes to review tasks they are about to perform, identify any risks and determine if the task is safe, stopping the job if it is unsafe. During 2018, we also focused on ensuring that recently acquired businesses adopted and implemented Group EHS policies, programmes and management systems, with the aim of reducing lost time accidents.

#### Safety concern and near miss reporting

Reporting of safety concerns and near misses is an essential tool for accident prevention. The higher the number of safety concerns or near misses reported, the greater the evidence of a well-embedded safety culture within an organisation. During 2018, the number of safety concerns reported across the Group more than doubled to 14,465 (2018: 5,485) as did the reported number of near misses, at 1,446 (2018: 562). All safety concerns and near misses were assessed, reviewed and corrective action taken and,

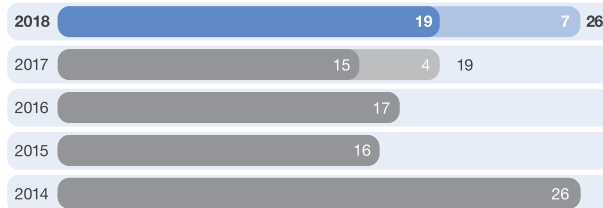
#### H&S accidents with over 7 days of lost time per 1,000 employees

KPI



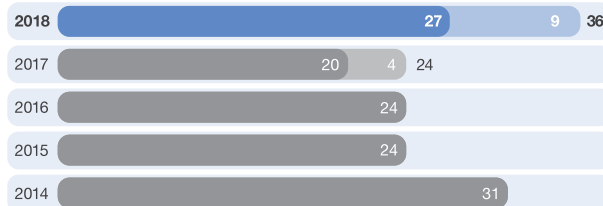
#### H&S total number of accidents with over 7 days of lost time

KPI



#### H&S total number of accidents with over 3 days of lost time\*

KPI



\* Includes over 7 day lost-time accidents.

### Engineering controls and policies

A Lock Out Tag Out Policy was rolled out across the steam manufacturing sites. We also continued to invest extensively in machine guarding and engineering controls, to prevent risk to our operatives, particularly in our recently acquired businesses.

### Safety management, certification and audits

We employ 39 full-time qualified EHS professionals and additional part-time EHS employees. During 2018, we developed an internal EHS audit framework, with audits completed across all steam manufacturing sites. Across the Group, 2,446 EHS audits and 1,599 inspections were completed during the year. 15 of our 26 manufacturing sites hold OHSAS 18001 certification, with a number of our companies working towards achieving it. Spirax-Sarco Ltd, Cheltenham, received a Gold award in the internationally-renowned RoSPA Health and Safety Awards.

### Focus for 2019

- Steam supply sites to increase internal audit scores by 20%
- Establish an internal audit framework for steam sales companies
- Establish a Group-standard behavioural based safety system





## 1. Our workplaces continued

### Employment practices

#### Overview

#### Policies and practices

We have policies and commitments around the way that we treat people and we base our employment practices on our Values, in particular the value of respect. Our HR policies (including our Group Diversity and Inclusion Policy, Group Whistle-Blowing Policy and Group Human Rights Policy) and systems provide a strong framework to protect the rights of employees and ensure their fair and equitable treatment.

#### Importance of diversity

A diverse workforce brings vitality and creativity to our workplaces and increases our ability to sustainably create value for our stakeholders. We seek to increase diversity at all levels of the organisation, with a particular focus on gender diversity. Our remuneration practices are designed to reward and recognise skills, experience and achievement, and to be free of gender bias. Employees are remunerated fairly for the work that they do and we do not promote or require excessive working hours. We are a member of the Business Disability Forum (UK) and the Employers Network for Equality & Inclusion (UK).

#### Employee communication

We communicate with employees through a variety of channels, to ensure that they have an understanding of the operations and performance of the Group. We undertake confidential employee surveys to assess our performance as an employer and have well-established grievance and whistle-blowing procedures to enable employees to raise concerns. See ethical business practices, page 60.

### 2018 Performance and actions

#### Workforce diversity

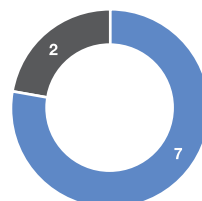
Board diversity was unchanged in 2018, although we remain committed to meeting our target of 33% of women in our Board, as opportunities arise. Across the Group as a whole, 79% of our senior managers are male and 21% are female, which is comparable with our wider workforce. Our total workforce gender diversity remained broadly unchanged, with 22% females and 78% males, despite programmes to raise awareness of the importance of gender diversity (2017: 22% females, 78% male). During 2018, we participated in the FTSE Women Leaders (Hampton-Alexander) Review. With 22.2% female representation on the Board and 18% of the Executive Committee and their direct reports being female, we ranked second in the industrial engineering sector, but 151st overall. Recognising that action needs to be taken to address this gender imbalance, we implemented a number of programmes and initiatives in 2018, some of which are briefly outlined below.

#### Executive diversity initiatives

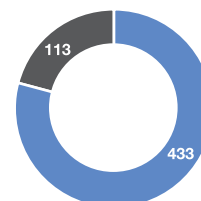
We delivered a Diversity & Inclusion session for members of the Group and Spirax Sarco Executive Committees. The discussion focused around understanding diversity and building an inclusive culture. During 2018, we established an Executive mentoring programme and all Executives across the Group are mentoring

#### Gender diversity 2018\*

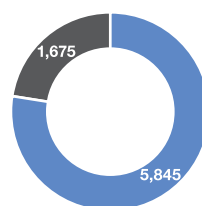
Board of Directors



Senior management



Workforce



■ Male  
■ Female

\* At year end.

#### Our values

In 2018, we refreshed our Values, drawing on extensive consultation with leaders from across our business. We clarified the important aspects of our current culture to preserve and maintain. In addition, we identified what was needed to ensure our culture continues to deliver future business success. Our Values are: Safety, Customer focus, Excellence, Collaboration, Respect and Integrity. Nicholas Anderson communicated the Values by a video to all employees, in nine languages, supported by a booklet in all 25 of our business languages. Managers have been required to lead team discussions to raise awareness and ensure their teams live our Values.

talented women to support their career and personal development and to accelerate our internal talent pipeline.

#### Employee engagement survey

Following the employee engagement survey in 2017, all teams built an action plan to ensure that we continuously increase employee engagement. These plans were delivered with focus throughout 2018, with support from, and progress reviewed by, the Group Executive Committee.

#### Focus for 2019

- Conduct a second global employee engagement survey in March 2019 to measure progress, incorporating Chromalox and Gestra for the first time
- Diversity and Inclusion: more diverse shortlists for external recruitment and supporting our diverse talent internally
- Embed our Values across the business

#### Further reading

To find out more about working at Spirax-Sarco Engineering plc, visit our global careers website:

# Sustainability Report

## continued



### 1. Our workplaces continued

#### Ethical business practices

##### Overview

#### Zero tolerance approach

As our Group expands in number of people, geographic reach and revenue, so does our commitment to ensuring that we have a strong culture of ethical behaviour across all our global operations.

#### 2018 Performance and actions

##### Renewed Group Values

Our Values serve as guiding principles across the Group to underpin decision-making, guide our conduct and define our culture. In 2018, we refreshed and communicated these Values across the Group to ensure that all employees globally understand their responsibilities for maintaining these Values, laying the foundation on which we will continue to build a successful, sustainable business.

##### Expanded and updated ABC training

During 2018, we updated our anti-bribery and corruption (ABC) training, clearly communicating our expectations of the highest ethical standards and a zero tolerance approach to breaches of our ABC standards. The online training is part of our Group Essentials programme and is hosted on our internal Academy platform. It is available to all employees with an email address, increasing accessibility across the Group. ABC training has been made an annual requirement, increasing the frequency with which employees engage with the ABC message. In 2018, the updated ABC training was translated into five key languages, with an additional 11 languages to follow in 2019.

Over 1,300 employees completed ABC training using the new platform and nearly 500 employees completed either the original or refresher training. The new platform has enabled the Group to double the number of employees who have access to ABC training, compared with 2017. Compliance with the training, by Group company, is monitored via our internal audit function.

##### Whistle-blowing

The Group continues to make an independent, third-party whistle-blowing hotline, Safecall, available to all employees. Safecall provides local hotlines in all countries in which our Group companies are located, and each Group company posts information about Safecall in public areas on the premises. In 2018, Chromalox moved from its historic whistle-blowing hotline provider to Safecall and is now fully integrated into the Group whistle-blowing programme. In 2018, Safecall was contacted five times, with each report thoroughly investigated by a relevant management team member and, as appropriate, follow-up actions implemented. The Audit Committee reviewed post-action reports to ensure the management response was satisfactory.

##### Focus for 2019

- Complete translations of the ABC course into 11 additional languages
- Provide updated whistle-blowing materials to all Group companies

### 1. Our workplaces continued

#### People development

##### Overview

#### Skills for sustainable growth

Developing the knowledge and skills of our people is central to our strategy for growth and for the long-term sustainability of our business. All employees are actively encouraged to pursue professional development opportunities. As they strengthen their knowledge and skills we are better able to deliver value to our customers and generate shareholder value.

#### 2018 Performance and actions

##### Graduate development

Having established our two-year Group Global Graduate Development Programme in 2017, we increased the number of graduates in 2018, adding a further 21 people (2017: 16). We now have graduates from Argentina, Canada, China, France, Germany, Italy, Mexico, Spain, the UK and USA. Recently acquired businesses, Gestra and Chromalox, engaged with the programme for the first time in 2018, ensuring that this is a Group-wide offering. Our graduates experience a wide diversity of development opportunities and help to replenish our global talent pipeline.

##### Leadership development

During 2018, we enhanced our leadership development offering as we partnered with a specialist consultancy to design an innovative programme for talented leaders from across the Group. The year-long programme, "LEAP", which includes two residential courses, on-going professional mentoring and regular webinars, is designed to accelerate the development of our current and future leaders, challenging them to drive change within their areas of responsibility. 38 managers, across two cohorts, joined the programme in 2018. In 2017, Watson-Marlow launched a global leadership programme called "ASPIRE", which is focused on strengthening the deployment of strategy through effective leadership. 27 people attended the programme in 2018.

##### Senior management development

16 senior managers attended external executive education programmes in 2018. Eight attended a two-week Advanced Management Programme, run by the Ashridge Business School, while others attended courses run by the London Business School, the Darden School of Business, the Centre for Creative Leadership and the Stanford Graduate School of Business, covering topics such as executing strategy and leading for organisational impact.

##### Technical development

See page 21 for information on technical training and an update on the Spirax Sarco Academy in 2018.

##### Focus for 2019

- Expand our Graduate development efforts, focusing on career development post-programme
- Continue to expand our Leadership Development initiatives
- Assess and develop our sales management capability



## 2. Our supply chain

### End-to-end supply chain

#### Overview

#### End-to-end sustainability

Improving the sustainability of our end-to-end supply chain, which encompasses all the activities that transport and transform raw materials and components into finished products and delivers them to customers, is a key strategic objective for the Group.

#### Regional manufacturing strategy

We have 26 manufacturing sites globally. By manufacturing close to the point of sale we shorten lead times and deliver good customer service, ensure that products meet local specifications, reduce transportation requirements for finished goods and provide local employment in the regions in which we operate.

#### Supplier Sustainability Code of Conduct

Our Supplier Sustainability Code (Code) outlines the expectations that we have for suppliers and enables us to embed sustainability criteria into our purchasing processes. Amongst other requirements, suppliers must not use forced, bonded or non-voluntary labour; should establish recognised employment relationships, including non-discriminatory employment practices, maximum working hours, the freedom of association and clarity in relation to wages. Their facilities must be constructed and maintained to an acceptable standard and their activities safe for the health of their employees, contractors, the local community and users of their products. Suppliers must have a H&S policy and management system, and seek to prevent work-related injuries and illnesses through effective risk mitigation.

Suppliers must operate in accordance with law, conduct business free from bribery or corruption, and adhere to the UN Guiding Principles on Business and Human Rights and the Core Conventions of the International Labour Organisation. They must not use child labour, should take steps to mitigate environmental impacts, deliver a high quality of product and source responsibly.

#### 2018 Performance and actions

##### Code roll out performance

In 2016, we commenced the Phase 1 roll out of the Code to direct material suppliers of our Spirax Sarco and Watson-Marlow manufacturing companies, and in 2017 our Phase 2 roll out extended this to direct suppliers of our sales companies. By the end of 2018, 97% of Phase 1 and Phase 2 suppliers combined had signed the Code. During 2018, we exited eight suppliers that would not sign the Code or failed to meet our standards, and were not prepared to work with us to improve.

In 2018, we commenced the Phase 3 roll out of the Code to the manufacturing and sales company suppliers of recently acquired businesses Hiter, Aflex, Gestra and Chromalox. By the end of the year, a little over 50% of these suppliers had signed the Code. All Group businesses have adopted the requirement for the Code and are aligned with the Group supply chain sustainability agenda. Our 2019 target is for 84% of Phase 3 suppliers to have signed the Code.

There were no identified breaches of Human Rights or incidents of

#### Supply chain management

During 2018, we strengthened supply chain management, appointing a supplier development engineer in Spirax Sarco India and another in Spirax Sarco Mexico, with plans approved to expand our supplier auditing capabilities in Gestra.

We are utilising our Product Lifecycle Management (PLM) system to more effectively monitor supplier quality, enabling us to proactively work with suppliers to conduct root cause analysis of any quality issues and rectify problems quickly. Supplier quality has a key impact on the sustainability of our supply chain, with sub-standard castings either being rejected and returned to the supplier or requiring additional working on our sites, both of which contribute to additional energy use, as well as reducing manufacturing efficiency. Therefore, by improving supplier quality management, we are increasing supply chain sustainability.

#### Supplier development case study

Following an audit, supplier development engineers from Spirax Sarco UK have been working with supplier Amtech Investment Castings (Amtech), based in India, on a continuous improvement basis. During 2018, Spirax Sarco and Amtech decided to work together in a joint Community Engagement project to support the Mother Teresa Ashram, located in Rajkot, Gujarat. The Ashram is home to 240 permanent residents: 60 children, many with severe physical or mental disabilities, and 180 elderly women. The Ashram also provides food and schooling to 40 children who live in a nearby slum. Employees from both companies visited the Ashram and identified the following urgent needs: bunk beds for the children's dormitory, roof repairs in the women's dormitory, repairs and painting of outside walls, repairs to the door and rain cover in the canteen. Spirax Sarco India agreed to purchase and supply the bunk beds, while Amtech provided paints, materials and labour for the repairs.

#### Focus for 2019

- Supplier Sustainability Code adoption by suppliers of recently acquired businesses Aflex, Hiter, Gestra and Chromalox
- Improve supplier quality performance

#### Modern Slavery Statement

Spirax-Sarco Engineering plc prides itself on setting high standards for sustainable and ethical business practices in its operations worldwide. Included in those high standards is a commitment to respecting and protecting the human rights of all individuals and combating all forms of modern slavery or human trafficking in all parts of our business organisation, including our supply chain. We are continuously developing and improving our business practices and policies in line with that commitment. We support a strong, collective stand to identify, prevent and raise awareness of modern slavery and human trafficking practices in all parts of the world.

#### Further reading

Read the Modern Slavery Statement in full or view our Supplier Sustainability Code on our website:

[www.spiraxsarcoengineering.com/Sustainability/Pages/our-supplier-sustainability-code.aspx](http://www.spiraxsarcoengineering.com/Sustainability/Pages/our-supplier-sustainability-code.aspx)



# Sustainability Report

## continued



## 2. Our supply chain continued

### Product responsibility

#### Overview

#### Product safety and integrity

Application and continuous improvement of our robust product development process enables us to maintain best practice in the areas of design for manufacture and reliability, eco-design, legislative compliance and validation. This ensures that our products are safe to use, contain ethically sourced materials, avoid hazardous substances and are environmentally sound throughout the lifecycle.

Our analysis, test and validation capability is second to none in providing the evidence to support all regulatory standards and compliance requirements, and provide our customers with safe, reliable and environmentally friendly products driven by our central policy and governance.

#### 2018 Performance and actions

#### Supplier Sustainability Code linkage

Pro-active linking of Supplier Sustainability Code compliance to our Eco-Design Policy enables us to work closely with our suppliers during the design phase to prevent the use of hazardous substances, utilise ethically sourced materials and ensure that our new products are environmentally sound during all phases of design, manufacture, service and end of life recovery.

#### Eco-design standardisation

Cross collaboration within our Steam Specialties business on Research & Development functional best practice has enabled us to share and benefit from eco-design principles globally, as we work towards establishing a common approach to the application of eco-design methods during new product development.

#### Monitoring product quality

Enhanced global quality data, via improved data management systems, has increased the immediacy of feedback to the design process for field and production quality monitoring and provides direct insight into the stability, performance and lifecycle impact of our new designs in an environmental and sustainability context. Improved sustainable design maximises production efficiency and service life with minimum intervention, to lower energy costs and material waste throughout the product lifecycle.

#### REACH and RoHS management systems

During 2018, Chromalox implemented an advanced management system for REACH (Registration, Evaluation, Authorisation and Restriction of Chemical) and RoHS (Restriction of Hazardous Substances) compliance, increasing efficiency and improving the ease by which Chromalox can demonstrate compliance with these important product safety directives.

#### Focus for 2019

- Consolidate our best-practice approach to product eco-design methods and compliance across Group companies
- Continue to monitor future legislation and standards via our structured compliance processes to ensure we remain at the leading edge of product sustainability philosophy



## 3. Our environment

### Water and waste

#### Overview

#### Managing resources and waste

Fresh water is a scarce resource in many parts of the world. Therefore, we aim to monitor and use water efficiently, control leakage, reduce effluent and help our customers to do the same. We also proactively manage and seek to reduce waste, utilising specialist contractors to responsibly handle and recycle waste, in line with safe Duty of Care best practice.

Our target is to reduce waste intensity by 10% and water intensity by 5% over the next three years.

#### 2018 Performance and actions

#### Water use

We have increased water monitoring across our manufacturing sites, invested in additional water metering and deployed internet based water monitoring in the UK. Our Indian manufacturing site introduced flow controllers to limit supply and reduce waste water. Spirax Sarco USA undertook water reduction programmes, including the installation of drip irrigation, watering only on an “as needed” basis and improved landscaping. As a result, irrigation water was reduced by 80% in 2018, while maintaining an aesthetically pleasing landscape.

In 2018, our global operations used 211,540m<sup>3</sup> of water (2017: 167,000m<sup>3</sup>). The increase is due to the inclusion of 2017 acquisitions, Gestra and Chromalox, and new operations established in 2017, which were included for the first time in 2018. On a like-for-like basis, water use in our Spirax Sarco Steam Specialties and Watson-Marlow businesses fell by 13% in 2018 as we focused on better monitoring and management of this important resource. On an intensity basis (m<sup>3</sup> of water used per £m of inflation adjusted sales at constant currency), water use fell by 4% in 2018.

#### Waste

During 2018, we increased office recycling facilities across the UK steam business and improved management of wood waste, reducing waste transport collections. Our Latin American companies focused on sourcing better waste contractors to improve measuring, reporting and recycling of waste. All sites have focused on improving the weighing and monitoring of waste, and improving waste management and recycling processes. As a result, we are able to report on our global waste generation for the first time. Globally, we generated 7.8 tonnes of waste per £m of sales in 2018.

#### Improving data quality

We increased the number of third-party assurance reviews of our environmental data, conducting on-site data quality audits of waste and water across three additional sales and manufacturing sites in India and the UK, covering the Spirax Sarco Steam Specialties and Watson-Marlow businesses.

#### Focus for 2019

- External data assurance audits at Gestra and Chromalox sites
- Progress towards our 2021 water and waste reduction targets





### 3. Our environment continued

## Energy and carbon

#### Overview

#### Climate change challenge

Climate change is a global challenge that requires individuals, businesses and governments to address. In accordance with national and international directives, we proactively manage our energy use, with the aim of reducing the carbon intensity of our business and our carbon footprint, and help our customers to do the same. Over the next three years, our target is to reduce our energy intensity by 10%, with an accompanying reduction in carbon emissions.

#### 2018 Performance and actions

#### CO<sub>2</sub>e emissions performance

Our CO<sub>2</sub>e 2018 emissions data have been audited by TÜV UK Ltd, which has provided limited assurance as follows:

*“TÜV UK Ltd is acting as the independent verifier of the carbon footprint of Spirax Sarco. Based on our checks and reviews, taking into consideration a materiality level of 5% and a limited level of assurance we have found no evidence suggesting that the calculated greenhouse gas emissions are materially misstated and, hence, they are not an unreasonable assertion of the greenhouse gas-related data and information. Further, no facts became evident, which led us to the assumption that the calculation was not carried out in accordance with the applied international norm for the quantification, monitoring and reporting of GHG emissions (GHG-Protocol). The emissions for the reporting period 1st January 2018 to 31st December 2018 (inclusive) are: 19,563 tCO<sub>2</sub>e for Scope 1 and 20,446 tCO<sub>2</sub>e for Scope 2.*

*TÜV UK Ltd, London, February 2019”*

The increase in total emissions reflects the significant expansion of our business in 2017, in particular the acquisitions of Gestra and Chromalox whose emissions are included for the first time in 2018. Excluding new businesses, we reduced our total emissions by 4% during 2018. Our carbon emissions intensity reduced by 5% in 2018, giving a 24% reduction since 2013, our benchmark year.

#### Energy performance

Group energy use increased significantly in 2018 as energy savings were offset by the first time inclusion of data for recent acquisitions, Gestra and Chromalox, as well as core business growth. On an intensity basis (MWh per £m of inflation adjusted sales at constant currency), energy use increased by 6%, primarily due to our new businesses having less mature energy management programmes than our pre-existing operations.

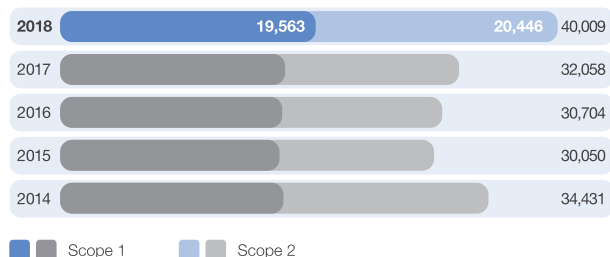
#### Energy management

During the year, we established a common approach to designing, managing and tracking our energy programmes across the steam manufacturing sites. Projects to upgrade to LED lighting were undertaken in most manufacturing and some sales sites. Other projects included compressor upgrades (Spirax Sarco France), behaviour campaigns (Spirax Sarco South Korea), pipe insulation (Spirax Sarco USA), improved windows and building infrastructure (Gestra Germany) and steam valve monitoring (Spirax Sarco USA).

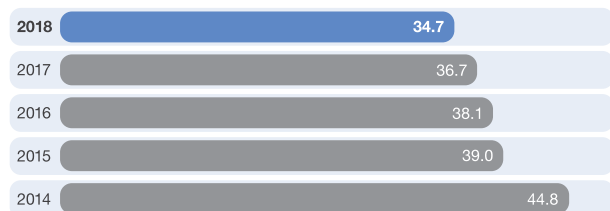
#### Auditing

In 2018, we invested in global carbon accounting software across our sales and operating companies and trained over 80 employees on carbon reporting. We conducted internal EHS manufacturing site audits and focused energy audits across six manufacturing sites, identifying long-term energy and carbon saving opportunities.

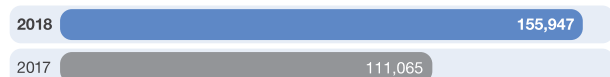
#### Total Group CO<sub>2</sub>e emissions (scope 1 and 2) tonnes\*



#### CO<sub>2</sub>e intensity tonnes per £m of inflation adjusted sales, at constant currency



#### Group energy consumption MWh



#### Energy intensity MWh per £m of inflation adjusted sales, at constant currency



\* We employ an “operational control” definition to outline our carbon footprint boundary. Included within that boundary are manufacturing facilities, administrative and sales offices where we have authority to implement our operating policies. For each of these entities we have measured and reported on our relevant Scope 1 and Scope 2 emissions. (Scope 1 refers to direct emissions from sources owned or controlled by the Company; Scope 2 refers to indirect emissions resulting from the purchase of energy generated off site, including electricity.) Excluded from our footprint boundary are emission sources from operating companies established during 2018. We have used the GHG Protocol Corporate Accounting and Reporting Standard and emission factors from the UK Government’s GHG Conversion Factors for Company Reporting 2017 and 2018, data from The International Energy Agency 2017 and 2018, ISO 140064-1, and regionally specific Environmental Reporting Guidelines to calculate our total CO<sub>2</sub>e emissions figures.

#### Focus for 2019

- Use carbon accounting software to increase awareness of environmental impacts and inform our carbon strategy
- Complete data assurance visits and energy reduction audits across our manufacturing sites
- Develop our understanding of, and response to, climate related risks, adaptation and mitigation

# Sustainability Report continued



## 4. Customers

### Overview

#### Our customer approach

Our ability to provide engineered solutions that improve our customers' operating efficiency, reduce their environmental impacts and increase their sustainability, is at the heart of our customer value proposition. Our direct sales business model, wide product range and depth of knowledge uniquely position us to be able to identify, develop and deliver bespoke solutions with significant sustainability benefits.

### 2018 Performance and actions

#### Customer CO<sub>2</sub> emissions reduction

Reducing energy use and lowering CO<sub>2</sub> emissions are key sustainability drivers for many of our customers who are seeking to reduce costs and environmental impacts. We estimate that a select range of Spirax Sarco Steam Specialties energy management products that were sold during 2018 will reduce end users' CO<sub>2</sub> emissions by 5.7 million tonnes annually. The methodology used to determine this external impact was independently assessed with the assistance of Ricardo Energy & Environment in 2017. For 2018, the methodology remained unchanged but was reviewed by Spirax Sarco to take revised emission factors into account. The calculation is based on a select range of energy saving products for which we can quantify energy savings with reasonable accuracy. Many other products will generate energy and CO<sub>2</sub> savings, when used as part of an engineered solution that increases operational efficiency, but as the benefits are not easily quantifiable, they are excluded from the methodology.

#### Sustainability offering roadmap

During 2018, the Steam Specialties business developed a three-year product, solutions and service roadmap to support our customer sustainability offering. The roadmap identified ways to standardise our current sustainability offering across the steam business, and recognised technological trends, developments and new products that have the potential to increase the sustainability of our customers' operations and further strengthen our sustainability offering.

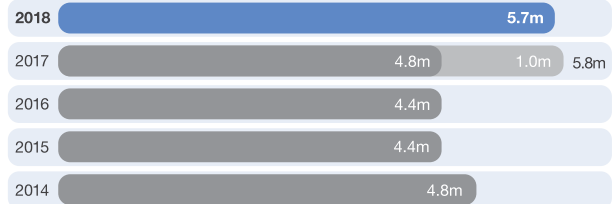
#### Energy audits

Energy audits are a core component of the Steam Specialties business' sustainability offering to customers. Throughout 2018, the Strategic Account Management department focused on aligning a global approach to energy auditing for strategic customers, developing audit tools and strengthening core team capabilities, supported by improved training and marketing materials.

#### Focus for 2019

- Adoption of the sustainability offering roadmap within the Steam Specialties business
- Analysis of data from a Watson-Marlow customer trial, carried out in 2018, to assess the energy saving benefits of using Watson-Marlow technology in a solid butter pumping dairy application

#### Tonnes of CO<sub>2</sub>e emissions our end users saved as a result of purchasing our energy management products\*



■ CO<sub>2</sub> savings from existing product range  
 ■ CO<sub>2</sub> savings from expanded product range  
 \* Spirax Sarco steam products only, excludes Gestra.

### Customer trial case study

During 2018, Watson-Marlow conducted a customer trial to analyse the energy saving benefits of using Qdos pumps in a moulded fibre (paper) application. The test, and results, are explained below.



#### Energy saving benefits of Qdos pumps

During paper production, fibre is suspended in water to form a pulp, which is then moulded to the required shape. In a process known as de-watering, a vacuum is used to remove excess water before the paper enters a drying oven. The level of bacteria in the process water affects the de-watering process: higher levels of bacteria increase the production of "slime", which blocks the sieve and hinders water removal. Typically, paper enters drying ovens with a ratio of 40% fibre to 60% water. The higher the water content, the more energy is required to dry the paper.

Watson-Marlow saw an opportunity to increase energy efficiency and in 2018, Huhtamaki, a paper manufacturer in the Netherlands, participated in an on-site trial to establish the energy saving benefits of using Qdos pumps to accurately dose lime into the water, preventing bacteria growth.

The trial demonstrated that with accurate lime dosing, the de-watering process reduced the water content of the pulp. This enabled Huhtamaki to reduce the drying oven temperature by 15°C, generating a 3% energy saving, reducing carbon emissions by approximately 18,000kg per year and delivering a return on investment of just four weeks.

#### Further reading

Examples of how our products and services have achieved our objectives to reduce customer waste, energy consumption and improve their efficiency can be found in our customer case studies.



## 5. Our communities

### Community engagement

#### Overview

#### A force for good

We “Engineer better futures” through making financial donations to registered charities, supporting educational provision, giving in-kind donations of products, services or the use of company facilities, and company-supported employee volunteering. Our primary focus is education, particularly in the sciences and engineering, with an aim of raising awareness of technical careers and breaking down gender stereotypes. We also seek to respond to local needs, offer support to the underprivileged young, disadvantaged, disabled and elderly, and contribute to natural disaster relief. Our Group Charitable Donations Policy guides our community engagement activities.

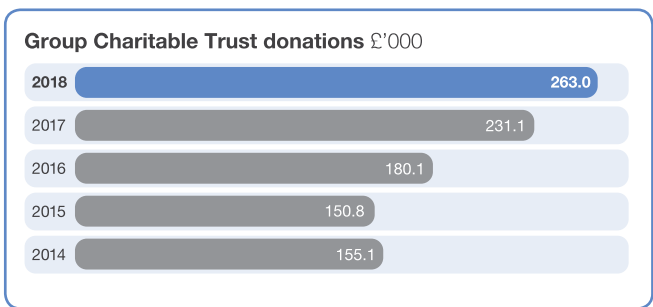
#### 2018 Performance and actions

##### Group Charitable Trust donations

During 2018, the Spirax Sarco Group Charitable Trust made 61 donations with a total value of £263,000, including a £25,000 donation to Engineers Without Borders, UK, a charity that seeks to inspire young engineers and embed global responsibility into engineering. The Trust also partnered with the Institution of Engineering and Technology (IET) to sponsor five “Faraday Challenge” events in schools local to our UK operations. The Faraday Challenge is an annual engineering competition in which teams of students, aged 12-13 years, compete to see who can design, create and promote the best solution to a given challenge. The Trust has also committed to sponsor five IET “Engineering Horizons Bursaries” for the next four years. The bursaries of £1,000 per annum will be paid for four years to selected engineering students or apprentices pursuing a career in engineering.

##### Local community engagement activities

£181,000 was donated to charitable causes by our operating companies during the year; in-kind donations with an estimated value of £45,000 were donated; and our employees contributed over 4,850 hours of working time to community engagement activities. Using an average hourly salary to estimate the cost to the company of employee volunteering, and including management costs, we estimate that the total value of our operating companies’ community engagement activities in 2018 was in excess of £340,000. In addition, our employees donated £55,000 of their own money and over 1,650 hours of their own time in workplace organised fundraising and community engagement activities.



### Community Engagement Awards

During the year, we ran our annual Community Engagement Award, with outstanding entries received from across the Group. Following a rigorous selection process, the Group Sustainability Committee chose the winners: Spirax Sarco Mexico (large company) and Spirax Sarco Thailand (small company), with honorary awards given to Spirax Sarco Czech Republic, Chromalox USA and Watson-Marlow USA. The winners will each receive £5,000 and the honorary award winners £2,500 to supplement their community engagement activities in 2019.

#### Further reading

[Spirax-Sarco Thailand's Community Engagement activities.](#)

[See page 24](#)

### Spirax Sarco Mexico (winner)

Spirax Sarco Mexico has partnered with a local school for academically gifted students. In 2018, the company invited 30 pupils to spend the day on site to raise awareness of career opportunities in engineering. The company initiated a poster contest at the school with the theme “Women in Engineering” and the three winning contestants, and their families, spent a day at Spirax Sarco. Company employees delivered a lecture about renewable energy, planted 60 trees and attended the school’s graduation ceremony. The company established a scholarship scheme for three university-level engineering students; one from each of the following disciplines: mechatronics, industrial engineering and software engineering. Spirax Sarco pays 40% of the scholarship recipients’ university fees and provides mentoring and work experience.

### Honorary award winners

Spirax Sarco Czech Republic has partnered with the Ratolest Day Care Centre in Prague, which supports children, youth and adults with severe learning or physical disabilities. Volunteers from Spirax Sarco helped to refurbish a classroom, completed gardening and outside maintenance work, assisted at the Centre’s open days and donated needed equipment.

Over the course of a year, Chromalox Inc (USA) organised 13 blood donation days across three of its sites in North America, with the aim of collecting 100 pints of blood. The target was exceeded with 286 pints donated, which could help save as many as 858 lives.

In July, 12 Watson-Marlow Inc (USA) employees participated in the Boston Children’s Hospital Corporate Cup, raising over \$5,000 for the hospital. Amongst other activities, the company held an International Women’s Day event, collected “interview appropriate” outfits to donate to low income men and women in the Boston area who are seeking to enter the workforce, and made donations to the Dana Farber Cancer Institute and the Jimmy Fund to support life-changing breakthroughs in cancer research and patient care.

### Focus for 2019

- Increase awareness of, and encourage wider participation in, the Group Community Engagement Awards
- Promote employee volunteering across the Group