

**FUTUREPOSITIVE**

**SPIRENT COMMUNICATIONS PLC**

**CORPORATE SUSTAINABILITY REPORT**

**2018**



## REPORTING SCOPE AND BOUNDARIES

This Sustainability Report provides an account of the management approach and performance trends of the material environmental, social and governance issues for Spirent Communications plc. The reporting period is the 2018 calendar year but the Report also includes historical performance data.

This Report includes the activities and impacts that are under the control or significant influence of Spirent Communications plc.

This Report contains standard disclosures from the Global Reporting Initiative Reporting Guidelines. The Report content has been independently assured by Adrian Henriques.

## CAUTIONARY STATEMENT

This Report may contain forward-looking statements which are made in good faith and are based on current expectations or beliefs, as well as assumptions about future events. You can sometimes, but not always, identify these statements by the use of a date in the future or such words as “will”, “anticipate”, “estimate”, “expect”, “project”, “intend”, “plan”, “should”, “may”, “assume” and other similar words. By their nature, forward-looking statements are inherently predictive and speculative and involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. You should not place undue reliance on these forward-looking statements, which are not a guarantee of future performance and are subject to factors that could cause our actual results to differ materially from those expressed or implied by these statements. The Company undertakes no obligation to update any forward-looking statements contained in this Report, whether as a result of new information, future events or otherwise.

## CONTENTS

4	2018 Highlights
5	Plans for 2019
6	Business at a Glance
8	Our Markets
10	Our Business Model and Strategy
12	Strategy at a Glance
14	FuturePositive
20	Our Sustainability Approach
21	Sustainability Management & Governance
29	Product
33	Procurement
38	People
48	Property
55	Auditors Assurance Statement
57	GRI Index

Welcome to our Sustainability Report for 2018. In August we launched our new Company strategy “Promise. Assured.”. This strategy embodies our long-standing approach and, now more than ever, our test and measurement capabilities are needed to assure our customers that they can deliver on the promises they make to keep users safe, secure and connected. It also reflects the promises we make as a business to our staff, customers, communities and the environment.



Through our sustainability programme, FuturePositive, we have made promises to hold ourselves to high standards on environmental management, social practices and corporate governance and I am pleased to report that good progress was made in 2018 across all areas.

Our customers face a wide range of sustainability challenges and we are well placed to help them. Products like Velocity and iTest are helping customers dramatically improve the efficiency of their labs and networks. Products like VisionWorks, help network operators to analyse network faults remotely, reducing the number of engineer call-outs, saving cost and carbon emissions. We also provide market-leading data security services, meaning the personal and sensitive information held by our customers is kept safe.

We also continue to make efforts to improve the sustainability performance of our products. In 2018 we completed the roll-out of sustainability metrics into our product development process and established a Centre of Technical Excellence in product sustainability to share best practice across the Group.

Our 2018 Report shows that we again made reductions in our carbon footprint, reducing our emissions by 18 per cent this year. This is in line with our longer-term trend of emissions reductions. Over the last five years, we have reduced carbon emissions by 25 per cent in absolute terms and 28 per cent in relation to emissions per dollar of revenue.

As a Company, we rely heavily on the skills and expertise of our staff and, as part of our learning and development programme, we introduced a new skills and competency framework for our Sales team in 2018. The targeted training and development programme will ensure our Sales teams have the right skills, knowledge and behaviours to support our customers better and deliver continued growth. We have also expanded our award-winning STEM programme globally, allowing us to engage more students and support the early stages of their careers. Our new internal programme, FutureLeaders, supports talented members of staff to move into leadership and critical roles within the business.

Across the year, we continued our detailed audits of our suppliers to ensure they continue to meet high standards on ESG issues and to foster greater collaboration. We conducted 19 supplier audits this year and our good progress to date means that we have been able to increase our 2020 target for supplier audits and components from verified sources.

I am particularly excited to announce the launch of our new charitable giving and volunteering programme. We have expanded VTO to all regions and have established dedicated funds to match employee giving and provide local good causes with support directly. This will expand our ability to give back to the communities in which we live and work.

I truly believe in the importance of our FuturePositive programme and am proud of the progress that has been made.

**Eric Updyke**  
**Chief Executive Officer**

## 2018 HIGHLIGHTS

We have made good progress in all areas of our sustainability programme. We are pleased to share some the highlights from 2018.

Product	Completed the roll out of sustainability metrics into the product development process across the whole Group.	See page 30
	Developed a new Centre of Technical Excellence (CoTE) for product sustainability to share good practice across the Group.	See page 31
	Achieved certification to ISO 27001 for our SecurityLabs business.	See page 30
Procurement	We conducted 19 supplier audits across 2018, meaning suppliers representing 89 per cent of hardware spend have been audited to date, exceed our target of 80 per cent by 2020.	See page 34
	We exceeded our target of ensuring that at least 71.4 per cent of parts were from verified sources (suppliers who had either been audited by Spirent directly, by our contract manufacturers or through the RBA VAP audit programme).	See page 34
People	Implemented a new skills and competency framework for our Global Sales team.	See page 39
	Developed a new staff volunteering and charitable giving programme.	See page 44
	Established a FutureLeaders programme to support succession planning for leadership and critical roles.	See page 38
	Expanded our school and university STEM programme to all regions.	See page 42
Property	We reduced our carbon footprint by 18 per cent in 2018.	See page 51
	We undertook an analysis of our scope 3 emissions.	See page 52
	Completed audits of our labs in Honolulu and Paignton.	See page 50

## PLANS FOR 2019

Product	Deliver product sustainability performance improvements and incorporate sustainability information into customer-facing product information.
Procurement	Continue audit programme to meet our increased 2020 target to audit hardware suppliers representing 85 per cent of spend by 2020.
	We have increased our target for components from verified sources to 73 per cent.
Property	We have set targets to purchase 90 per cent of electricity from renewable sources by 2020 and expand our carbon emissions reporting to include contract-based figures.
	Expand the lab virtualisation and consolidation programme.
People	Launch a new performance and development assessment software platform.
	Increase participation in community volunteering.
	Implement individual development plans for FutureLeader participants.
	Establish a programme of workshops and STEM activities through our new global STEM network: Spirent STEMnet.

## BUSINESS AT A GLANCE

WE ARE COMMITTED TO BEING A

# TRUSTED

PARTNER AND STRATEGIC ADVISER TO OUR CUSTOMERS

Our new initiative, 'Promise. Assured.' represents our recognition and understanding of the critical issues facing our customers and our commitment to being a true partner and trusted adviser as their businesses transform.

We understand the promises our customers make to their customers and we enable and assure they keep them.

We will maintain strong leadership among developers while expanding into the production networks and into new industries, right alongside our customers.

Through our products and services, we are helping customers enable and assure performance and revenues for their next-generation devices and networks.

### CUSTOMER BUSINESS IMPERATIVES

Manage complexity

Reduce costs

Generate new revenues

Launch new products

Ensure continuous service

Meet the challenges of cyber security



#### Developers

- Devices
- Applications
- Network Infrastructure



#### Operators

- Communication Service Providers
- Enterprises

## OUR FOCUS AREAS

Networks  
& Security



Connected  
Devices



Lifecycle  
Service  
Assurance



## MARKET OPPORTUNITIES FOR SPIRENT



### Extend market-leading position

- Ethernet
- Positioning
- Mobile network infrastructure



### Grow revenue

- 5G
- Cyber security
- Service assurance and analytics



### Explore new business opportunities

- Virtualisation
- Autonomous vehicles
- Automotive

## OUR MARKETS

# WE ARE FOCUSED ON CAPTURING NEW MARKET OPPORTUNITIES



### 5G



### CYBER SECURITY

#### Market driver

The development and deployment of mobile 5G networks and applications is fuelling new investments in telecom infrastructure and innovative applications, such as autonomous vehicles and augmented reality.

The global 5G equipment market was estimated at \$2.4 billion in 2015 and is forecast to reach \$9.6 billion by 2020, a compound annual growth rate (CAGR) of 32 per cent<sup>1</sup>.

As cyber security threats grow globally, the requirement to verify the effectiveness and performance of security products becomes paramount.

The security testing market is forecasted to grow from \$3.3 billion in 2016 to \$7.6 billion in 2021, a CAGR of 18 per cent<sup>2</sup>.

#### Opportunities for Spirent

New test systems are required for the development and management of 5G devices, networks and applications.

Solutions are required to verify the effectiveness and performance of security products as they are developed and deployed.

#### Our response

We have products for 5G development. We have a new channel emulator for 5G base stations and fronthaul testing (Spirent Vertex). We have products that automate performance and security testing of Cloud RAN virtual environments (Spirent TestCenter and CyberFlood). We have performance test systems for 5G backhaul and testing and benchmarking virtualised network functions (Spirent TestCenter). We have products (Spirent Landslide) to emulate the 5G core network to test 5G New Radio (NR) and to test the evolution of the core network. We have products that will be ready to actively test and assure 5G production networks (Spirent VisionWorks).

We provide a comprehensive security testing product (Spirent CyberFlood) and services (Spirent SecurityLabs).

We stay current with emerging threats and provide test solutions quickly when new threats are discovered.

We are a founding member of the industry group NetSecOPEN, focused on defining new open standards for testing enterprise network security performance.

We earned global CREST accreditation for penetration testing. UK-based CREST is an accreditation and certification body that supports the information security market.



#### Sources

1. Technavio, "Global 5G Equipment Market" (October 2016).
2. MarketsandMarkets, "Security Testing Market" (October 2016).
3. Forbes, "Roundup of Cloud Computing Forecasts, 2017" (April 2017).
4. IHS Technology, "NFV Hardware, Software & Services Tracker" (November 2017).
5. Catapult Transport Systems Market Forecast for Connected and Autonomous Vehicles (July 2017).



### CLOUDIFICATION

Enterprises adopt the cloud as an increasingly important part of their information technology infrastructure.

The worldwide public cloud services market is forecast to grow by 18 per cent to \$247 billion in 2017<sup>3</sup>.

Service providers and enterprises seek to understand the performance of their cloud services.

We developed a new product (Spirent CloudScore), the industry's first comprehensive baseline and benchmarking solution. It provides an assessment and comparison of the performance of any virtualised or cloud infrastructure.



### NETWORK VIRTUALISATION

As network operators develop, trial and implement virtualised network functions, developers and operators are faced with challenges to test and deploy their virtualised implementations.

The service provider network functions virtualisation market for purchase of hardware, software, and services will grow from \$10 billion in 2016 to almost \$37 billion in 2021, a CAGR of 30 per cent<sup>4</sup>.

Solutions are required to benchmark virtualised network functions under various conditions in the lab and then, as they are deployed in the network, operators are challenged to understand their performance on an ongoing basis and to isolate and diagnose problems as network conditions change.

We have test systems to benchmark virtualised network functions in the lab and to verify their performance in networks using our active service assurance and analytics solutions (Spirent VisionWorks).



### CONNECTED AND AUTONOMOUS VEHICLES

Connected and autonomous vehicles have ever-increasing complexity. As vehicles adopt higher levels of Assisted Driver & Safety functions the in-vehicle networking becomes complex, the networking becomes critical, and the reliability of GNSS is essential.

The global market for connected and autonomous vehicles will reach £907 billion by 2035 with a £63 billion market for the connected and autonomous vehicle technologies<sup>5</sup>.

New testing solutions will be needed to test and secure networking technologies used by vehicles. The development of autonomous cars will require real-world simulation solutions and emulation of GNSS cyber attacks.

Spirent was the first company to provide a certified V2X emulation test bed to complement our existing broad set of solutions for testing the conformance and performance of Automotive Ethernet.

Spirent provides software to simulate GNSS in a real-world environment that can interface to other industry-leading Sensor Fusion drive test simulation solutions. Spirent provides best-in-class GNSS simulation and emulation solutions to test the performance and reliability of GNSS receivers and their integration into the vehicle, including their reliability when jammed or spoofed.

Spirent's SecurityLabs services have been used by leading global automotive companies to test the security of their vehicles and their connection to cloud infrastructure.

## OUR BUSINESS MODEL AND STRATEGY

### OUR BUSINESS MODEL



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## HOW WE CREATE VALUE

### **SPIRENT CREATES VALUE THROUGH: THE MARKETS WE TARGET**

We target large, fast growing, complex markets, driven by a major disruption or challenge.

We serve customers who develop products and services and who operate and manage networks.

### **CONTINUING DEMAND FOR OUR PRODUCTS AND SOLUTIONS**

We operate in a fast moving, technologically demanding environment in which everyone and everything is connected. Faster data speeds, complexity, security and innovation drives the demand for our products and solutions.

### **COMPETITIVE ADVANTAGE**

Our competitive differentiation comes from the test methodologies we develop and our active test, automation and analytics expertise and technologies.

We aim to be first-to-market. We register intellectual property to create high barriers to entry for competitors and maintain our high-margin and high-value position in the market.

### **OUR CUSTOMERS' VALUE PROPOSITION**

Our products and services:

- reduce the time to get products and systems to market;
- ensure the quality of customers' products and networks;
- protect customers' brand reputation; and
- increase the efficiency of their operations through automation and analytics to optimise their activities and investments.

### **VALUE CREATION CULTURE FOR OUR STAKEHOLDERS AND SHAREHOLDERS**

We have a culture that focuses on creating value for our stakeholders and shareholders. Further information on stakeholder value can be found on page 65. We attract and retain talented people and offer career development. We have a non-discriminatory workplace and fair and competitive remuneration.

Our dividend policy is to maintain a sustainable dividend for shareholders as we consider the dividend to be a core component of shareholder return and one on which shareholders can depend.

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## STRATEGY

### **OUR VISION**

Spirent's vision is to be our customers' trusted adviser, partnering with them to enable and assure their product and service offerings, and secure their ongoing business success.

### **OUR STRATEGY**

We work closely with customers to understand their plans and challenges, and develop first-to-market products and services to fulfil their requirements and exceed their expectations.

### **OUR SIX STRATEGIC PRIORITIES:**

1. Work closely with our customers
2. Establish and maintain technology leadership
3. Grow our business in target markets
4. Acquire new capabilities and technologies
5. Invest in our people
6. Maintain financial strength and flexibility

### **HOW OUR STRATEGY AND BUSINESS MODEL WORK TOGETHER**

Our business model embodies our critical success factors of working closely with customers and designing innovative first-to-market products and services and selling through our specialised sales force.

⊕ Read more on pages 20 and 21 of the 2018 Annual Report.

## STRATEGY AT A GLANCE

1

### Work closely with our customers

#### DESCRIPTION

Partner with our customers.  
Create innovative solutions meeting our customers' future needs.  
Adopt account-based marketing and key account sales management.  
Focus on quality of service, delivery and support.

#### IMPORTANCE

If we work closely with our customers, we have the best chance of understanding and meeting their current and future requirements.  
We want our customers to view Spirent as their go to solutions provider.

#### PERFORMANCE

Revenue from top 20 customers

**\$258.2m**

2017 \$231.6m

#### COMMENTARY

We have reorganised and developed our global sales team.

We have implemented Salesforce customer relationship management software to improve interaction with our customers.

#### RISK

Loss of customer dependence and business continuity.

2

### Establish and maintain technology leadership

#### DESCRIPTION

Invest appropriately in exploring new technologies and developing our core competencies.  
Participate in standardisation bodies and industry groups.

#### IMPORTANCE

We operate in highly competitive and specialised markets. If we fail to invest in the business at a sufficient level, we will see our market share decrease.

#### PERFORMANCE

Investment in product development

**\$96.9m**

2017 \$103.0m

#### COMMENTARY

In our largest markets, we believe that we have strong technology leadership positions after the investment in the business over the last three years. We have achieved significant new product launches as a result of this investment.

#### RISK

Technology change and inadequate employee skillbase.

3

### Grow our business in target markets

#### DESCRIPTION

Create new products and services, promote our products and services through creative marketing campaigns and industry involvement, and develop our sales channel to grow our business in our global target markets.

#### IMPORTANCE

To achieve revenue growth, we need to identify and capitalise on emerging business opportunities in our target markets and expand the number of customers we serve.

#### PERFORMANCE

Revenue<sup>2</sup>

**\$476.9m**

2017 \$454.8m

#### COMMENTARY

We identify, explore and assess new business opportunities in our target markets in a timely manner and objectively follow our innovation management and portfolio management processes.

#### RISK

Technology change and inadequate employee skillbase.

## OUR GOALS

To continuously innovate and develop leading products and services to enable our customers to develop devices and equipment and operate complex networks.

## STRATEGIC OBJECTIVES

We have identified six priorities that we believe are critical in order to achieve our objectives and, ultimately, our vision.

## OUR VISION

Spirent's vision is to be our customers' trusted adviser, partnering with them to enable and assure their product and service offerings, and secure their ongoing business success.

4

### Acquire new capabilities and technologies

#### DESCRIPTION

Expand our portfolio through partnerships, licensing technologies, acquiring businesses, and recruiting and hiring experts in critical areas.

#### IMPORTANCE

We have to deeply understand technologies, networking and applications to develop methodologies and solutions to test them.

#### PERFORMANCE

Investment in Mergers & Acquisitions

nil

2017 nil

#### COMMENTARY

We prioritised our investments aligned to the market dynamics and business opportunities. We identified the areas of interest for potential acquisitions and alliances that fit our strategic opportunities and gaps.

#### RISK

Acquisitions underperform.

5

### Invest in our people

#### DESCRIPTION

Attract highly qualified and skilled employees, engage our employees with exciting work and opportunities and retain the expertise and knowledge that we have built.

#### IMPORTANCE

Our employees are central to our strategy and success. Our strategy is built around innovation and expertise. Without the best possible team, we will not be able to deliver on our strategy.

#### PERFORMANCE

Voluntary employee turnover<sup>2</sup>

7.9%

2017 7.4%

#### COMMENTARY

We work on interesting challenges at the leading-edge of the communications industry. We see the direct impact of our accomplishments in our customers' success. We continue to see voluntary turnover well below industry benchmarking.

#### RISK

Reductions in employee skillbase.

6

### Maintain financial strength and flexibility

#### DESCRIPTION

Maintain a strong balance sheet with healthy cash generation that allows us to invest in organic growth, pursue strategic acquisitions and pay sustainable dividends to shareholders.

#### IMPORTANCE

Having financial strength and flexibility means that we are able to act quickly when we see an opportunity to fulfil our strategic priorities.

#### PERFORMANCE

Free cash flow<sup>1,2</sup>

\$50.9m

2017 \$56.4m

#### COMMENTARY

We value strong financial diligence within the Group. Turning profit into cash remains a priority.

#### RISK

Adverse macro-economic changes.

1. Operating cash flow after tax, net interest and net capital expenditure.
2. Included in the Group's KPIs, read more on pages 22 and 23.

## FUTUREPOSITIVE: OUR SUSTAINABILITY PROGRAMME

***“Spirent’s FuturePositive programme helps us to create lasting value for the business, our employees and our communities”***

***Angus Iveson (Company Secretary & General Counsel)***

Our sustainability programme is called FuturePositive. It aims to embed the highest standards of environmental management, social practices and corporate governance in our business and supply chain, and to help our customers address their own sustainability challenges.

Through this programme we look to create long-term value by:

- developing innovative test solutions needed to develop new communications technologies to address global sustainability challenges;
- develop solutions and services to help our customers improve the efficiency of their businesses;
- building better relationships with our stakeholders and improving our understanding of their needs and expectations;
- enhancing our own operational efficiency;
- creating a safe, fair and supportive work environment;
- attracting and retaining talent and nurturing engineering skills and interest in young people;
- reducing the whole-life environmental impacts of our products;
- protecting our reputation and ability to grow; and
- assessing and managing risks and opportunities from significant sustainability issues.

### OUR MATERIAL SUSTAINABILITY ISSUES

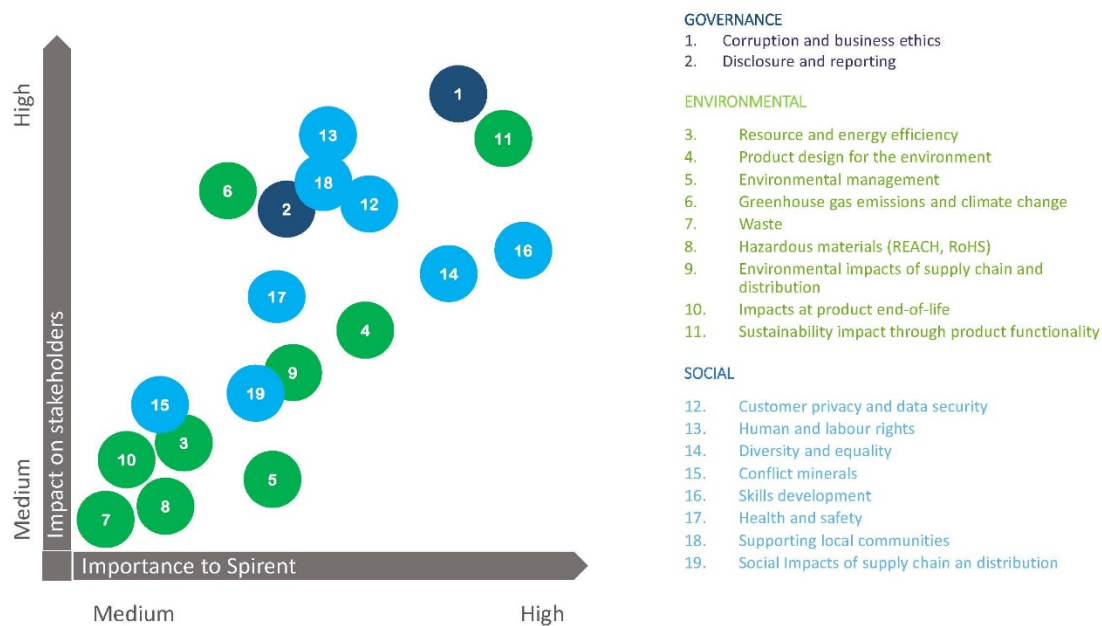
In 2018 we re-examined the sustainability issues that are material to Spirent using the five criteria set out in the AA 1000 standard:

- direct financial impacts;
- policy related performance;
- peer-based norms;
- stakeholder behaviour and concerns; and
- social norms (including legislation).

We conducted desk-based research, direct correspondence and interviews with stakeholder groups to identify the themes that are most important to the business.

The results from the review reinforced our focus on business ethics, human capital development and data security, along with how our products can help our customers deliver sustainability performance improvements.

The analysis is undertaken at least every two years and will next be updated in 2020.



Sustainability issues are relevant to our operations and across our sector. We have incorporated actions to address significant risks and opportunities into the way we operate.

Some issues are addressed at the Group level (e.g. climate change, learning and development, STEM programmes), whilst others are undertaken at the business site level (e.g. community support initiatives).





We have set out how our material sustainability issues apply to our core business activities.

Our business activities	How our material sustainability issues apply
<b>Our test solutions</b> We provide network test solutions to customers across the world. Our test solutions are used in research and development and operational monitoring of communications networks across a wide range of use cases. Our world-class equipment is often used for a long time by customers.	<p>The use of our equipment and test solutions has a direct environmental impact across their lifecycle. Our hardware uses raw materials and energy to manufacture and transport. The equipment also consumes energy and is responsible for associated carbon emissions during its use. Our equipment will also become electronic waste at the end of its life. Our efforts are focussed on controlling and reducing the negative impact in the supply chain and designing efficient and long-lasting products that can be recycled at the end of their life.</p> <p>Our test solutions are used to develop emerging technologies that will help address global sustainability challenges, including electric and automated cars, cybersecurity, and the Internet of Things (IoT).</p>
	<p>We are also able to help clients improve their sustainability performance through our product functionality. With the continued growth of data demand globally, we are developing solutions to improve the efficiency and effectiveness of communications networks and labs. This includes allowing customers to operate effectively and efficiently in the cloud, increasing R&amp;D lab efficiency, reducing service engineer call-outs for telecoms operators, and keeping networks and data safe from cyber-attacks.</p>



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**Our business activities**

Our operations include hardware and software design, testing, research and development. We have in-house finance, HR and IT, and procurement functions as well as an in-house sales and marketing team.

In some cases, we also work with third-party sales partners.

We influence the environmental performance of our products through our design process. We aim to reduce the physical impacts of hardware employing design for environment principles, virtualising hardware, and using software where possible.

Business ethics is a key issue, especially for those in sales, finance and HR. Those staff in higher-risk roles are given regular anti-corruption and bribery training and the business ethics practices of our third-party sales partners are assessed prior to and during the appointment.

As an office-based business, the work that our staff conduct is predominantly low risk from a health and safety perspective.

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**Manufacturing, logistics and components**

We do not carry out any manufacturing activities ourselves but instead leverage the expertise and scale of specialist manufacturing partners. Similarly, logistics are also completed by third parties.

We have a global supply chain and our products contains materials with environmental and social impacts across their extraction, processing and transport, are also subject to regulation.

As we do not conduct manufacturing directly, the environmental and social impacts related to component and product manufacturing arise in our supply chain. The electronic industry as a whole faces challenges, including environmental impacts from raw material extraction and processing, labour and human rights, and transparency.

As such, we set high environmental, social and governance standards for all suppliers and conduct regular assessments and audits. We are expanding our environmental monitoring of key suppliers through our scope 3 emissions reporting.

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We maintain very close control of the components and suppliers used to ensure only compliant components are used from suppliers who meet our standards. All products are manufactured to our exacting specifications and records are maintained.

Where possible, we reduce the environmental impacts from logistics by shipping hardware directly to customers and allow customers to expand the capability of those equipment in situ with product-key upgrades. We are also expanding our software-based and test-as-a-service (TAAS) solution portfolio which will further reduce environmental impacts.

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**Product use and end-of-life**

Predominantly the customer-use and end-of-life stages of our product's lifecycle have been outside of our direct influence, but our suite of hosted test services is increasing.

During use, our products use energy, occupy space, and contribute to the heat load in clients' labs. Our hardware also uses cooling fans which generates noise which can be problematic for desk-top use.

As such energy efficiency, noise and size are key considerations for our products during use, and we have processes in place to improve the performance of our products in these areas. We have also developed products that maximise equipment utilisation and test automation for clients to reduce in-use impacts even further (Velocity and iTest).

With more of our test services being hosted by Spirent, we are also responsible for ongoing energy consumption.

Our products are designed for disassembly at end of life and are subject to waste electronics regulations.

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**Confidential and personal data**

By the nature of the work we do, we hold commercially sensitive data and personal information related to our own business and our customers.

We process personal data and commercially sensitive information which we need to keep secure.

As a result, we operate robust information security procedures and our SecurityLabs business achieved certification to ISO 27001 in 2018.

Cybersecurity is also critical for our customers and we have developed industry-leading security and performance solutions to help them manage cybersecurity risks.

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## Stakeholders

We work with national governments and some of the world's largest companies and we are listed on main market of the London Stock Exchange.

As a result, our clients, investors and other stakeholders have high expectations of our environmental, social and governance management and ask us to disclose detailed information about how sustainability issues are relevant to our business and how we are managing them.

We also recognise that we operate within communities and we have an obligation to ensure that we operate responsibly and create a positive impact.

We are expected to demonstrate good management of environmental, social and governance and report on our performance.

We respond to customer questionnaires and participate in industry-wide initiatives (such as CDP).

We aim to create a positive impact on the communities we work in through volunteering and charitable donations and introduced a new Company-wide programme in 2018 to ensure we do this consistently and effectively.

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## Our facilities

We operate from 34 sites across the world. With the exception of our site in Paignton, UK, all our sites are leased. Around a third of these sites have an engineering lab or significant customer lab. The rest are sales or administrative offices.

The most important impact we have through our facilities is energy use, however we have limited control over much of the infrastructure in the leased buildings we operate from. The main areas of influence are the engineering labs and our site in Paignton, UK where we own the building.

We only use water on our sites for domestic use.

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## Talent

We operate in a sector with high competition for talent and in some areas, there are sector-wide challenges with diversity and interest in science and technology jobs. Our employees require a high level of education and technical knowledge.

Our business relies heavily on human capital. Attracting, retaining and developing world-class talent is critical for our success. We also need to engage talented young people to encourage them into careers in science and technology, and contribute to the curriculum in schools and universities.

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## OUR SUSTAINABILITY APPROACH

### SUSTAINABILITY MANAGEMENT & GOVERNANCE



We have implemented robust structures to manage sustainability at Spirent, including a mature and effective corporate governance structure. We have strong leadership from Board level down and resource is in place to manage sustainability issues effectively.

We are committed to reporting our sustainability management and performance and we set objectives and targets to drive continual improve.

### PRODUCT



Our aim is to embed sustainability thinking in the way we design products and provide test services.

We want our products and services to help our customers develop the technologies needed to unlock a sustainable future and improve the efficiency and security of their operations.

### PROCUREMENT



We aim to ensure our suppliers maintain high standards of environmental management, social and labour practices and corporate governance.

### PEOPLE



Our aim is to attract, retain and develop world-class talent.

We strive for equality, inclusion and diversity, and support interest and opportunities in STEM for all.

We also take an active part in our communities, and provide a positive impact through volunteering and charitable giving.

### PROPERTY



We aim to create inspiring workplaces and minimise the environmental impact of our properties.



## SUSTAINABILITY MANAGEMENT & GOVERNANCE

*“Our FuturePositive Steering Committee leads our environmental and community initiatives, driving standards and practices higher across our business and supply chains”*  
**Eric Updyke (CEO)**

We have developed a robust structure to manage sustainability issues at Spirent. This section sets out our leadership structures, our approach to non-financial reporting and stakeholder engagement, and sustainability governance. Corporate governance issues are covered in our corporate Annual Report which can be found at <https://corporate.spirent.com>.

### KEY ISSUES

- Governance: corruption and business ethics; and
- Sustainability reporting.

### LEADERSHIP

#### Management Structure

The Board is ultimately responsible for sustainability at Spirent and the CEO oversees how we manage our material environmental, social and governance (ESG) issues. A Steering Committee for the FuturePositive programme was established in 2016 comprising senior management representatives who have responsibility for each aspect of the strategy.

The FuturePositive Steering Committee comprises:

<b>Committee chair</b>	Company Secretary and General Counsel
<b>Procurement</b>	Vice President Global Operations Global Procurement Director
<b>Property</b>	Director of Global Properties
<b>People</b>	Global Human Resources Director
<b>Product</b>	Senior Director Research and Development Product Development

External advisers have been appointed (Brite Green) to support the committee in designing and implementing the FuturePositive programme and members of staff from across the business contribute to the committee's and annual workstreams.

The FuturePositive Steering Committee meets four times a year to coordinate and monitor progress on the programme. The committee is chaired by the Company Secretary who reports progress to the board.

### Policies

Our sustainability approach is governed by an overarching Sustainability Policy. It can be found at: <https://www.spirent.com/>

The Policy applies to the Company and all subsidiaries worldwide and commits the Group to compliance with high standards of ethics and business integrity, environmental management, and employee and community welfare.

The Sustainability Policy is underpinned by specific policies and programmes related to management of environmental, social and governance issues.

## RISK MANAGEMENT

Spirent is exposed to a number of risks and uncertainties. These risks may arise from internal factors, but some will be a result of external factors over which the Group has little or no direct control. It is the effective management of these risks that support Spirent in delivering on its strategic objectives, safeguards the Group's assets and, over time, will enhance shareholder value. The process to identify and manage the principal risks and uncertainties of the Group is an integral component of Spirent's internal control system. The Group's robust approach to risk management is set out in our Annual Report.

The Directors confirm that there is an ongoing, robust process to identifying, evaluating and managing the principal risks faced by the Group and the operational effectiveness of the related controls, which have been in place. They also confirm that they have regularly reviewed the system of risk management and internal controls utilising the review process set out in the Annual Report.

There are guidelines on the minimum Group-wide requirements for health and safety and environmental management. There are also guidelines on the minimum level of internal control that each of the divisions should exercise of specified processes. Each business has developed and documented policies and procedures to comply with the minimum control standards established, including procedures for monitoring compliance and taking corrective action. The management of each business is required to confirm twice yearly that it has complied with these policies and procedures.

The Board has identified seven principal risks, two of which are related to the themes addressed in our FuturePositive programme: business continuity and employee skills.



<b>Risk</b>	<b>Potential impact</b>	<b>Mitigating actions</b>
<b>Business continuity</b>		
Operational risks are present in the Group's businesses, including the risk of failed internal and external processes and systems, human error and external events, such as a natural disaster or cyber security attacks. For example, a significant portion of our communications operations are located in California which has in the past experienced natural disasters, including earthquakes and wildfires.	<p>A significant natural disaster could disrupt the Group's ability to conduct business and adversely impact revenue and operating results.</p> <p>Failed internal and external processes, systems or human error could lead to compliance issues.</p> <p>Disruption, financial problems of contract manufacturers or limitations in their manufacturing capacity could limit supply and/or increase cost.</p>	<p>An important component of Spirent's corporate governance is its risk management strategy. IT disaster recovery plans are in place for all core business systems and ensure that the wider operations are all fully covered. In 2018, we tested the new Group Business Continuity and Disaster Recovery Policy and Procedure.</p> <p>Regular meetings are held with contract manufacturers and a regular on-site presence is maintained. In addition, the Group's largest manufacturing subcontractor has multiple worldwide sites and comprehensive business continuity plans.</p>
Contract manufacturers are used for the manufacture of a substantial amount of Spirent's products. Spirent's major contract manufacturer is located in Thailand.	<p>If a cyber-attack were to be successful it could result in loss of data, confidential information and damage to Spirent's intellectual property, causing major disruption to the business. There would also be a potential impact on Spirent's credibility in the security market.</p>	<p>During 2018, we continued with a programme of work to develop processes and procedures in the area of cyber security.</p>
The incidence of cyber crime continues to rise. Spirent is dependent on its information technology systems for both internal and external communications as well as for its day-to-day operations.		

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## Employee skillbase

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Employees are crucial to the success of our business. Attracting and retaining highly qualified and skilled employees is essential to enable the Group to deliver on its strategy and to the success of the business.

Intense competition for personnel is faced from other companies and organisations and the loss of key employees, the failure to attract and retain other highly skilled employees, or the failure to adequately plan for succession may impair Spirent's ability to run and expand the business effectively.

Investing in people is at the core of the Group's strategy. The aim is to find, keep and engage the highest calibre of employees and encourage their contribution and development. An environment that fosters innovation and collaboration is critical to Spirent's success, as is ensuring incentive plans are competitive.

Succession planning for senior posts in the Company is reviewed periodically by the Board.

Appropriate career paths and internal recognition programmes are developed for both technical and non-technical staff.

Regular reviews are performed to ensure that all elements of compensation across the Group are competitive with the market

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## COMPLIANCE

### Communication and Whistleblowing

The Group aims to ensure that employees are able to raise any concern in confidence about any possible improprieties in business practices, or other matters. In 2018, a revised Groupwide Whistleblowing Policy was launched, and an external third party was appointed to receive any concerns raised by employees. Disclosures under this arrangement are investigated promptly by the Company Secretary, with the support of the Head of Risk & Internal Audit, and escalated to the Executive Directors and the Audit Committee as appropriate, with follow-up action being taken as soon as practicable thereafter. The Audit Committee is satisfied that the means for employees to raise concerns at work are appropriate to the size and scale of the Group.

### Ethics and Integrity

The Group's Business Ethics Policy, which was relaunched during 2018, sets clear standards of professionalism and integrity for all employees and operations. The policy can be found at <https://corporate.spirent.com>

### Anti-Bribery and Corruption

The Ethics Policy includes sections relating to bribery and corruption with the aim of ensuring that all of Spirent's systems, controls and training comply with the anti-bribery and corruption legislation in the countries where we operate, and that a culture of prevention and detection of all forms of bribery and corruption is in place.

The policy has been communicated to all employees and the Board, and states that employees have a responsibility for the prevention and detection of bribery and corruption. Any suspicion of corruption should be reported immediately and will be investigated vigorously. Concerns can be reported through line management structures, through the Group's "whistleblowing" procedures or directly to a member of the Board.

### Data Protection



Spirent's SecurityLabs business achieved certification to ISO27001, the information security management system

Spirent takes data security and privacy seriously. We continually review the security of our data systems and procedures in order that we can react to areas of heightened risk promptly and effectively.

The Group undertook a General Data Protection Regulation ("GDPR") readiness exercise across 2017 and 2018, and updated our policies and procedures to ensure compliance with the new EU regulation. We also achieved certification to ISO 27001 for our SecurityLabs business based in Plano and San Jose.

Our procedures restrict the type and quantity of confidential information collected and stored and there are robust procedures in place to protect customer data from unauthorised access and disclosure. Periodic information security risk assessments are performed, and training is provided to staff to prevent information security breaches. Our internal controls are audited and we have a whistleblower procedure in place for staff to report information security concerns.

Spirent has implemented a response procedure to manage breaches of confidential information if they were to occur.

Confidential waste is shredded if in hard copy and certificates of destruction are provided for any electronic storage devices disposed of at end-of-life.

## REPORTING AND STAKEHOLDER ENGAGEMENT

### Non-Financial Reporting

We aim to give stakeholders visibility of the non-financial risks and opportunities we face and how they are being managed. We do so principally through this Sustainability Report but we also participate in the Carbon Disclosure Project (CDP), complete customer sustainability questionnaires, respond to environmental, social and governance (ESG) rating agency assessments, and disclose information in the corporate responsibility section of our Annual Report.

This Report, reviewed and approved by the CEO, contains standard disclosures from the Global Reporting Initiative (GRI) Reporting Standard.


### Assurance

Our sustainability policy sets out our commitment to robust and transparent reporting and external assurance of data and claims is a key component. We obtain external assurance of our sustainability reports to ensure the data and statements we make are reliable and robust.

## STAKEHOLDER ENGAGEMENT

We respond to stakeholder sustainability requests and questions and have started a process to actively engage with customers and suppliers on sustainability issues.

In 2018 we responded to all requests for information from customers relating to our management of environmental, social and governance issues. Greenhouse gas emissions and diversity are of interest to some customers. In response, we have completed the CDP supply chain questionnaire and disclosed key diversity data.



Spirent remains a constituent of the FTSE4Good index

Our investors have engaged with us directly on climate change through the CDP, and we have also received and responded to questions relating to our disclosure and emissions performance from individual investors and from ESG rating agencies. We have initiated closer collaboration with our contract manufacturers to improve our understanding of sustainability management and performance in our tier 2 suppliers. In particular we share information about supplier audits and performance. In addition, we engage with our employees on sustainability issues in our regular “town-hall” meetings and employee surveys. We continue to communicate with our employees on sustainability topics via emails, posters and the Company intranet, *InsideSpirent*.

Stakeholder Expectations

As part of our materiality analysis we have identified the needs and expectations of seven main stakeholder groups: customers, colleagues, suppliers, investors, communities, media and industry analysts, and government.

These groups were identified as having the largest influence on our business, or where we can have a significant impact. The key issues raised are incorporated into our Sustainability strategy development and we have introduced programmes to address all key issues raised by stakeholders.

Where possible, we have incorporated the consideration of sustainability issues into existing stakeholder engagement processes and, as such, the frequency of engagement ranges from continuous to once each year.

We have designed this Report to address the key themes raised by our stakeholders but we do also undertake to respond to specific requests for information from individual stakeholders.



<b>Stakeholder</b>	<b>Why is it important to engage?</b>	<b>Ways Spirent engages</b>	<b>Key sustainability issues</b>
<b>Customers</b>	Understanding our customer's sustainability expectations and challenges allows us to demonstrate how we meet those expectations and to design products and services that help address customer's sustainability challenges.	Company website Sustainability questionnaires Industry forums and customer groups	Carbon emissions Labour and human rights Hazardous materials Product efficiency and footprint
<b>Colleagues</b>	Our colleagues are fundamental to the achievement of our customer experience ambitions and are the cornerstone of our service and services proposition.	Training and development programme Recognition and reward Apprenticeships and intern programmes	Training and development Equality and inclusion Supporting communities where we work and live
<b>Suppliers</b>	Many of our environmental and social risks and opportunities arise in our supply chain and we rely heavily on the high standard of our carefully selected suppliers	Supplier questionnaires Supplier audits Supplier reviews	Logistics efficiencies and environmental management Human and labour rights Business ethics
<b>Investors</b>	As a publicly listed company we need to provide fair, balanced and understandable information to instil trust and confidence and to allow informed investment decisions to be made.	Annual reports Annual General Meetings Investor presentations and meetings Corporate website CDP and other investor-driven disclosures	Energy and carbon emissions Human and labour rights Risk information
<b>Communities</b>	Ensures continued viability of the business into the long-term. We aim to contribute positively to the communities and environment in which we operate.	Community investment initiatives	Diversity and inclusion Skills development and employability Responding to challenges in the community
<b>Media and industry analysts</b>	Our management of environmental, social and governance issues has a direct impact on our reputation.	Sustainability indices (e.g. FTSE4Good) Monitoring press	Environmental management Human and labour rights Climate change
<b>Government</b>	Policies and regulatory changes may provide opportunities and pose risk to our operations.	Review emerging legislation	Carbon emissions Business ethics Social responsibility



## PRODUCT

***“We have delivered significant improvement in the energy efficiency of our products and we are helping customers to improve the efficiency of their labs”***

***Mark Holbrow (Director, Engineering & Product Development, Spirent Positioning)***

### KEY ISSUES

- Sustainability impact through product functionality;
- Product design for the environment;
- Hazardous materials (REACH, RoHS);
- Impacts at product end-of-life; and
- Conflict minerals and restricted materials.

Spirent Communications is a global leader in test and measurement solutions. Our products are used in development labs, IT organisations and communications networks across the world to enable today's communications technologies and develop emerging networks, devices, services and applications.

Our product sustainability programme focuses on two main areas:

### UNLOCKING A SUSTAINABLE FUTURE

Communications networks are essential for many of the technologies needed to address critical sustainability challenges. Spirent test solutions are essential for many of the innovations needed to secure a sustainable future, including cloud computing, data security, and the next generation of electric and connected vehicles. In addition, our innovative products can help our customers to reduce the environmental impact of their products and services.

### SUSTAINABLE PRODUCT DESIGN

Many of Spirent's test solutions rely on physical test equipment used at our customers' sites. We are working to reduce the lifecycle impacts of our products and environments they are used in through a range of ways:

- Design for environment and end-of-life, including compliance with all legal requirements;
- Reduce the size, weight, noise and power use of our products;
- Virtualisation and the development of Test-as-a-Service;
- Improve utilisation and automation; and
- In-field servicing and upgrades.

We have introduced sustainability metrics the product development process in all of our businesses

We have expanded the use of formal sustainability metrics into the product development process across all of our business units.

## **CASE STUDY SECURITYLABS**

In 2018, Spirent's SecurityLabs business achieved certification to ISO 27001:2011, the information security standard. We leveraged our own world-leading network security tools to ensure our networks and data are protected from the increasingly sophisticated cyber threats we face. Our SecurityLabs tools and services provide vulnerability scanning, penetration testing, and compliance assessment across the business.

With cyber security a critical issue for all businesses, Spirent's SecurityLabs solutions enable customers to manage existing and emerging threats. Our tools allow companies to do testing in-house, and our team of security experts provide additional analysis, testing and research to identify and fix vulnerabilities in web and mobile applications, embedded devices, networks and static code.

Spirent's product sustainability programme is focused on embedding sustainability considerations into the product lifecycle from their design, through their use, and to the end of their useful life.

We have incorporated sustainability metrics into our product design process and have also developed Software-as-a-service and Lab-as-a-service offerings that increase access to testing while reducing its environmental footprint.

We also have a robust compliance programme overseen by our Component Engineering team. Spirent's hardware products came into scope of the EU's Restriction of Hazardous Substances Directive ("RoHS") in June 2017 and all products comply with the requirements of the Directive.

### **Reducing the Impacts of our Products**

We aim to reduce the overall social and environmental impacts of our test solutions across their lifecycles.

#### **Designed for the Environment**

Our products are designed to maximise recycling rates, with the following design principles used as standard:

- Connectors are used instead of hard-wired connections;
- Joints, snaps or screws are used instead of welding, soldering or glue;
- Minimised packaging materials including reusable pallets, totes and packing boxes;
- Designed to suit common hand tools; and
- Modular design for ease of assembly and disassembly.

### **Improving Product Efficiency with Product Sustainability Metrics**

We completed the process of introducing sustainability metrics in all our product development process for all our business units in 2018. Energy performance and material efficiency is formally managed and monitored as part of the development process.

#### **Reducing Product Impacts with Test-As-A-Service**

Virtualising test equipment allows us to reduce the environmental impact across our products' whole lifecycle. We have developed virtual products including a platform called Temeva and a virtual version of our powerful TestCenter products.



## Virtualising Physical Testing

Testing mobile communication and navigation equipment in real world environments is an important part of product development and often involves extensive field testing in vehicles. Spirent's Live2Lab Virtual Drive test tool reduces the expense and environmental impact of extensive drive testing by giving developers real-life radio frequency conditions in the lab.

The Live2Lab tool is able to record signals captured in the field and replay them in the lab. This means research teams can minimise expensive drive testing, improve test effectiveness, and reduce the time-to-market.

## In-field Repairs and Upgrades

Our modular components and licence key design means we can repair and upgrade our products in the field, allowing us to avoid shipping equipment for repair between our customers' sites and own. This approach lowers our carbon emissions from freight and makes repairing equipment more convenient for customers.

## Sustainability Centre of Technical Excellence (CoTE)

Spirent operates a number of Centres of Technical Excellence (CoTE) that develop and share best practice within the Group on technical aspects of product design and manufacture. In 2018 we introduced a new CoTE with a focus on product sustainability chaired by the Director of Product Development for our Positioning Business.

## Electronic Waste and Use of Hazardous Materials

We aim to reduce the waste we produce including electronic and hazardous waste. We have not set formal waste reduction targets.

The Group's business units comply with the EU's Waste Electrical and Electronic Equipment Regulations 2013 and Batteries Directive and the California Electronic Waste Recycling Programme.

Spirent's hardware products are classified as Category Nine (Monitor and Control Equipment) and came into scope of the EU's Restriction of Hazardous Substances Directive ("RoHS") in July 2017 and all products comply with the requirements of the Directive.

We monitor the weight of electronic equipment sold in European markets and participate in WEEE compliance schemes. In 2018 we sold around 6.5 tonnes of electronic equipment in European markets, a 7 per cent increase from 2017.

### *Electronic equipment sold in European markets by weight*

Marketed products			
(kg)			
Country	2018	2017	Change (per cent)
Sweden	123	376	67
Germany	1,800	1,580	14
France	2,970	2,750	8
UK	1,644	1,404	17
<b>Total</b>	<b>6,537</b>	<b>6,110</b>	<b>7</b>

## Conflict Minerals

We have robust processes in place to avoid the use of conflict minerals in our products. The Group is not directly required to comply with or report under Section 1502 of the Dodd-Frank Act, the US Conflict Minerals Law. Our material, component and supplier management processes ensure that it would be in compliance if it were brought in within the scope of this legislation. The Group will likely be subject to the EU Directive on Conflict Minerals when it is enacted into national policy in the UK. We are confident our existing practices will meet the standards required and are monitoring their development.

## PERFORMANCE AGAINST 2018 TARGETS

Area of focus	Objective	Target
Management	Monitor, measure and improve the sustainability performance of our products.	We implemented formal product sustainability metrics into all business units, governing both hardware and software development processes. <b>Complete</b>
Management	Set up a working group to coordinate and align product sustainability initiatives globally.	We established a product sustainability Centre of Technical Excellence (CoTE). <b>Complete</b>
Training	Ensure all staff with engineering and design responsibilities have appropriate skills and training.	We provided training on product sustainability to all staff working in hardware and software development as part of the roll out of the sustainability metrics in the product realisation processes. <b>Complete</b>

## PLAN FOR 2019

Area of focus	Objective	Target
Customer communication	Share product sustainability information with customers.	Introduce sustainability data and information into customer-facing product information.





## PROCUREMENT

*Spirent's sustainable supply chain initiatives have given us much better insight into how key environmental, social and governance issues are managed by suppliers, and our supplier assessment and audit programmes have helped share good practice and new technologies"*

*Fanny Yan (Director, Global Procurement)*

### KEY ISSUES

- Supplier labour practices;
- Supplier environmental practices;
- Supplier governance and business ethics practices; and
- Management of restricted and hazardous materials.

Spirent has a global supply chain, with contract and component manufacturers across the world. We do not complete any manufacturing activities ourselves and as a result the majority of Spirent's sustainability impacts arise in the supply chain. Our efforts in this area are to ensure our vendors achieve the expected standards of environmental management, social conduct and corporate governance, and to work with us to deliver improvements.

We review our supplier's sustainability management and performance through detailed questionnaires and on-site audits. In 2018 we conducted on-site audits at 19 of our largest tier 1 and key suppliers (2018: 18), representing 62 per cent of our total spend. In addition, we have continued to collaborate with our contractor manufacturers, sharing information about audit performance of suppliers.

### MANAGEMENT APPROACH

#### Code of Conduct

Spirent has a Supplier Code of Conduct, based on the electronic industry citizenship coalition (RBA) code v5.1. The Code sets out our expectations for environmental management, health and safety, labour rights, management systems as well as the provision of sustainability data.

A copy of our Supplier Code of Conduct is available at <https://corporate.spirent.com>

#### Supplier Assessment and Approval


Suppliers' sustainability management is analysed in detail before they can work with Spirent. In 2017, we expanded our supplier questionnaire to cover more sustainability issues in more detail, incorporating additional information security questions. The assessment includes detailed disclosures on financial security, quality, health and safety, information security, and environmental management, as well as business ethics and management systems.

The approval status of key suppliers is reviewed each quarter.

## Supplier Audits

Spirent expanded our programme of on-site supplier audits in 2015 to include the management of environmental and social issues. We set a target of conducting audits on the companies that represent at least 80 per cent of our direct spend by 2020. This is around 40 companies and we have aimed to assess around 25 per cent of this group each year.

In 2018, we conducted 19 suppliers audit representing 62 per cent of direct spend in the year. The audits raised no instance of non-conformance but did identify a range of areas for improvement and 12 corrective and preventative actions were agreed with suppliers. The improvements included ESD control, fire safety, supplier selection and screening, improve response time to corrective actions, and energy efficiency.



Since 2015, we have audited suppliers that represent 89 per cent of our spend on hardware. 72 per cent of our components are sourced from suppliers that have been audited by us directly, our contract manufacturer or through an industry audit scheme.

The audits not only demonstrate our strong commitment to embedding sustainability across our whole value chain to our suppliers, but also provide a valuable framework to share innovation and good practice. Our close collaboration with suppliers has meant improvements in quality, cost management, environmental management, health and safety, and identified new market information and technologies for the Group.

We focus our supplier audits on companies that we do the most business with, who supply critical components, those who operate in higher-risk geographies, and those undertake activities with the largest potential impact.

In addition to our direct audits, we collaborate closely with our contract manufacturers to expand our visibility of sustainability management and performance further down our supplier chain. Drawing on the Responsible Business Alliance (RBA) industry-wide validated audit process (VAP) and audits conducted by the contract manufacturers themselves, we are able to determine compliance further across our supply chain. In 2018, we also conducted jointed supplier audits with one of our Contract Manufacturers.

The contract manufacturer and RBA VAP audits undertaken during 2018 did not raise any instances of non-compliance.

In 2017 we set a target to ensure that 60 per cent of all parts purchased were from verified sources: suppliers who had either been audited by Spirent directly, by our contract manufacturers or through the RBA VAP audit programme. We achieved 70 per cent of products from verified sources, exceeding our target. In 2018, we increased this target to 71.4 per cent and again exceeded our target in this area, achieving 72.4 per cent.

We require all suppliers to complete a vendor assessment satisfactorily before we work with them, however we recognise that new vendors may require time to address corrective actions and some new vendors may only provide a small number of parts used in prototyping. As a result, we set a target that a minimum of 70 per cent of our new suppliers categorised as Risk A in 2018 satisfactorily completed a vendor assessment survey within the year. There were 8 new Risk A vendors in 2018 and 7 completed a survey satisfactorily (87.5 per cent) meeting the target set. Typically, components from new vendors are used in prototypes or new products. The vendor who did not pass the assessment in 2018 has been assigned as “disqualified for new design” as the company is a sole source supplier. We are managing this risk by maintaining a buffer inventory.

## **CASE STUDY**

### **DRIVING IMPROVEMENTS THROUGH COLLABORATION**

Our on-site audits have delivered a host of improvements. Our supplier audits are a great way to demonstrate our commitment to embedding sustainability practices into our supply chain and has helped identify areas for improvement, helping us and our suppliers.

#### **IMPROVED SUPPLIER PRACTICES**

Our experienced supply chain team have worked with suppliers to deliver improvements in manufacturing practices and risk management. This includes initiatives on production process efficiency, electrostatic discharge (ESD) control, calibration of hand tools, fire standards, business continuity planning and quality management.

This collaboration has helped us to share good practice but also learn from our innovative suppliers, who have introduced new technologies and share valuable insights into commodity and market trends.

#### **MAKE BETTER SUPPLIER CHOICES**

We have more information about our suppliers' capabilities which helps us to make better sourcing decisions. Where we have found suppliers are unable to meet our standards and cannot make changes to achieve them, we have switched suppliers. For example, in one audit this year we found a supplier did not have a critical process in-house and had outsourced it, causing challenges with consistent conformance to specifications and quality control. We have since sourced an alternative supplier with superior in-house capabilities.

#### **IMPROVED AUDITS AND CORRECTIVE ACTION RESPONSE TIMES**

We have improved our audit methodology each year, and in 2018 we completed joint supplier audits with our contract manufacturers. This allowed our quality team to reduce the overall audit time by covering multiple areas of concern simultaneously, reducing on-site time and costs.

We also set new targets to close out corrective actions more quickly and have subsequently seen reductions in response and completion of corrective actions.

In 2018 we processed six Supplier Corrective Action Requests (SCARs) and six Supplier Corrective and Preventative Actions (SCAPAs) which were opened and closed in an average 38 days for class 1 and 45 days for class 2. Our targets are 30 days for a class 1 SCAPA and 60 days for a class 2.

## **Training**

Key members of the supply chain team receive training on auditing and assessing supplier sustainability management. Training comprises an introduction to the key sustainability issues in supply chains, the supplier assessment methodology, and techniques to audit supplier performance on environmental and social issues.

## **Management Team**

Sustainability issues are managed as a core part of our supply chain management process by our procurement team, led by the Procurement Director. The senior management representative is the Vice-President Global Operations.

## PERFORMANCE AGAINST 2018 OBJECTIVES

Area of focus	Objective	Target
<b>Components from verified source</b>	Ensure components are sourced from verified sources (vendors that have been audited by Spirent, our contract manufacturers, or as part of the RBA VAP audit programme).	Target: 71.4 per cent of all component parts from verified sources Achieved: 72.4 per cent <b>Complete</b>
<b>Supplier audit</b>	Conduct 18 supplier on site audits.	Target: Conduct 18 on site audits Achieved: 19 site audits completed <b>Complete</b>
<b>Supplier audit</b>	Conduct on site audits for suppliers representing 80 per cent of direct spend by 2020.	Target: Audit suppliers representing 80 per cent of hardware spend by 2020 Status: suppliers representing 89 per cent of hardware spend have been audited to date <b>On track</b>
<b>Risk A vendor satisfactory questionnaire response</b>	Ensure that at least 70 per cent of all new vendors rated Risk A satisfactorily complete a vendor questionnaire.	Target: Minimum of 70 per cent Risk A vendors Status: 87.5 per cent of Risk A vendors submitted satisfactory questionnaires <b>On track</b>

## PLAN FOR 2019

In 2015 we developed a suite of metrics and targets for 5 years. In 2019, we will continue to work towards this set of targets and conduct vendor audits. We have set a target to complete 18 more during the year. The planned audits will cover additional direct spend, and so we have also set a modest increase in our target for components from verified sources.

We have also increased our target for hardware spend from audited suppliers (2019: 85 per cent, 2018: 80 per cent) and the increased the target for Risk A vendors satisfactorily completing the vendor assessments (2019:75 per cent, 2018: 70 per cent).

In addition, we aim to implement software solutions that will enhance our supplier screening abilities and our component compliance documentation.

Area of focus	Objective	Target
<b>Components from verified source</b>	Ensure components are sourced from verified sources (vendors that have been audited by Spirent, our contract manufacturers, or as part of the RBA VAP audit programme).	73 per cent of all component parts from verified sources.
<b>Supplier audit</b>	Conduct 18 supplier on site audits.	Conduct 18 on site audits.
<b>Supplier audit</b>	Conduct on site audits for suppliers representing 85 per cent of direct spend by 2020.	Audit suppliers representing 85 per cent of spend by 2020.
<b>Risk A vendor satisfactory questionnaire response</b>	Ensure that at least 75 per cent of all new vendors rated Risk A satisfactorily complete a vendor questionnaire.	Minimum of 75 per cent.
<b>Supplier compliance software</b>	Implement software solutions to enhance supplier screening capabilities and manage compliance components	Implement a software solution to automate supplier screening in relation to sanctions, embargoes and country specific risks.  Implement a software solution to streamline and enhance compliance documentation for components.



## PEOPLE

*“A focus on skills, development and community support places people at the centre of Spirent’s future”*

*Ann Menard (Global Head of Human Resources)*

### KEY ISSUES

- Skills development;
- Diversity and equality;
- STEM;
- Human and labour rights;
- Health and safety; and
- Supporting local communities.

At Spirent, our competitive advantage relies on the market-leading skills and knowledge of our staff. As such, attracting, retaining, and developing a world-class team is a core part of our FuturePositive programme. For us, this means making Spirent a great place to work. Our programmes support people from all backgrounds to nurture an interest in science and technology and to join the Company. We provide a fair, safe and inclusive work environment, supporting staff as they gain new skills and experience.

In 2018 we expanded our technical training processes for our Sales team to ensure we continue to invest heavily in the development of our employees.

We also know that our people have the capacity to create a significant positive impact in our communities and we are pleased to launch our expanded volunteering and charitable giving initiative and provide an update on our community STEM programmes.

### MANAGEMENT APPROACH

#### Training and skills

The Group has well-developed technical and compliance training processes in place for our employees.

Our training and skills approach focusses on four key areas:

EMPLOYEE LEARNING & DEVELOPMENT	WORLD CLASS RESEARCH COLLABORATION	SUPPORTING STEM IN FURTHER & HIGHER EDUCATION	SCIENCE & TECHNOLOGY IN SCHOOLS
Structured training and skills development for employees	Knowledge transfer partnerships with universities	Placement students and internships, apprenticeships, partnerships with higher education	STEM ambassadors

#### Employee Learning and Development

Spirent has a well-established learning and development programme, providing employees with technical and business administration training. Training is managed through personal development

plans, and delivered through online and in-person training, peer mentoring and informal skills sharing.

In 2018, performance reviews were completed for 1,409 members of staff (99 per cent):

		North America		APAC		EMEA		Total
		Male	Female	Male	Female	Male	Female	
Manager	Engineering	37	6	8	3	8	-	62
	Other	71	23	15	7	26	11	153
	Sales	26	1	28	2	10	-	67
	Total	<b>134</b>	<b>30</b>	<b>51</b>	<b>12</b>	<b>44</b>	<b>11</b>	<b>282</b>
Non-Manager	Engineering	194	53	61	29	48	2	387
	Other	227	87	64	27	59	26	490
	Sales	107	11	86	5	39	2	250
	Total	<b>528</b>	<b>151</b>	<b>211</b>	<b>61</b>	<b>146</b>	<b>30</b>	<b>1,127</b>
Total		<b>662</b>	<b>181</b>	<b>262</b>	<b>73</b>	<b>190</b>	<b>41</b>	<b>1,409</b>

In 2018, we introduced a new competency and development framework for our Global Sales team to provide a consistent and targeted approach for learning and development for this key part of our business.

## CASE STUDY

### INVESTING IN SKILLS FOR OUR GLOBAL SALES TEAM

We introduced a new competency framework for our Global Sales team, which developed individualised development programmes for employees and targets high-performance behaviours and skills for new hires.

In 2018 we rolled out a new competency framework for our Global Sales team to help drive exceptional sales performance. Led by our Global Head of Human Resources, Ann Menard, we wanted to focus on the characteristics, skills, knowledge and behaviours for top sales performance, and embed these practices into our teams and seek them out when hiring new talent.

For us, this meant developing a competency framework and taking an individualised approach to learning and development. We have used the new framework to review our current sales teams and identified specific areas to work on for each individual and team.

In 2019, we will expand this work into our recruitment process and roll out training for our teams based on their personalised training needs. We will also introduce processes to reinforce, recognise and reward behaviours that support extraordinary results.

## Knowledge Transfer Partnerships

We maintain relationships with universities across the world, including the Universities of Warwick, Cranfield and Bath in the UK and the German Technical Institute. Our work with the University of Warwick focuses on 5G technology rollout and the integration of Satellite and Wifi signals for improved location accuracy for connected cars and smart devices. Our partnership with Cranfield University is focussed toward research into the development of resilient positioning and navigation solutions for aviation applications. Our relationship with the University of Bath focusses on Space Weather and its impact upon GNSS Positioning, Navigation and Timing (PNT).

## Diversity

We recognise workplace diversity as a strength and our Business Ethics and HR policies set out commitments to encourage diversity and prevent discrimination in any form. All people are treated



fairly and honestly regardless of their colour, race, religion, marital status, sexual orientation, disability or age.

Diversity remains an area we need to improve in, with women and young people under-represented in our workforce.

## Gender

There have been only minor changes in the overall gender balance in the Company from 2017 but we have made some important improvements in female representation on the Board and in Senior Management.

Two women serve on our board of 7 (29 per cent female representation), which is above the average for the FTSE 250 (24.9 per cent) and above the average for technology companies in the FTSE 250 (22.4 per cent)<sup>1</sup>. Spirent had the second highest female board representation for technology companies in the FTSE 250 at October 2018<sup>2</sup>.

The proportion of our female senior managers increased to 9 per cent (up from 4.5 per cent in 2017) although this remains lower than female representation in the Company as a whole. Around 21 per cent of our employees are female (2017: 21 per cent) and 19 per cent of our managers are female (2017: 16 per cent).

	Female		Male		Other		Total
		%		%		%	
Board	2	28.6	5	71.4	-	-	7
Executive Management	1	9.1	10	90.9	-	-	11
Management	54	19.7	220	80.3	-	-	274
Total Employees	300	21.0	1,124	78.7	5	0.3	1,429

The under-representation of women at all levels at Spirent and the technology sector is a key challenge for us, and whilst we recognise improvements have been made this year, there remains significant work to do to achieve greater representation. Our STEM programme specifically aims to address the gender gap in our business and sector, and we have set targets to complete women in STEM events in each region in 2018 to increase its impact.

## Gender Pay Gap

Spirent is not required to comply with the UK's Gender Pay Gap Reporting Regulations for the period to 2018 but intends to voluntarily publish data later in 2019.

<sup>1</sup> Hampton-Alexander Review, November 2018. FTSE Women Leaders Report

<sup>2</sup> Source: BoardEx October 2018: Hampton-Alexander Review, November 2018. FTSE Women Leaders Report

## Age

Spirent's workforce has a diverse age distribution. The largest age group remains 40-49 with 34 per cent of employees (2017 33). Less than 10 per cent of our employees are under 30 and Spirent has no employees under 20.

	2018		2017	
		%		%
Age data unavailable	15	1	7	-
<20	-	-	-	-
20 - 29	93	7	117	8
30 - 39	393	28	431	30
40 - 49	489	34	478	33
50 - 59	326	23	320	22
60+	113	8	101	7
Total	1,429		1,454	

## Diversity in STEM

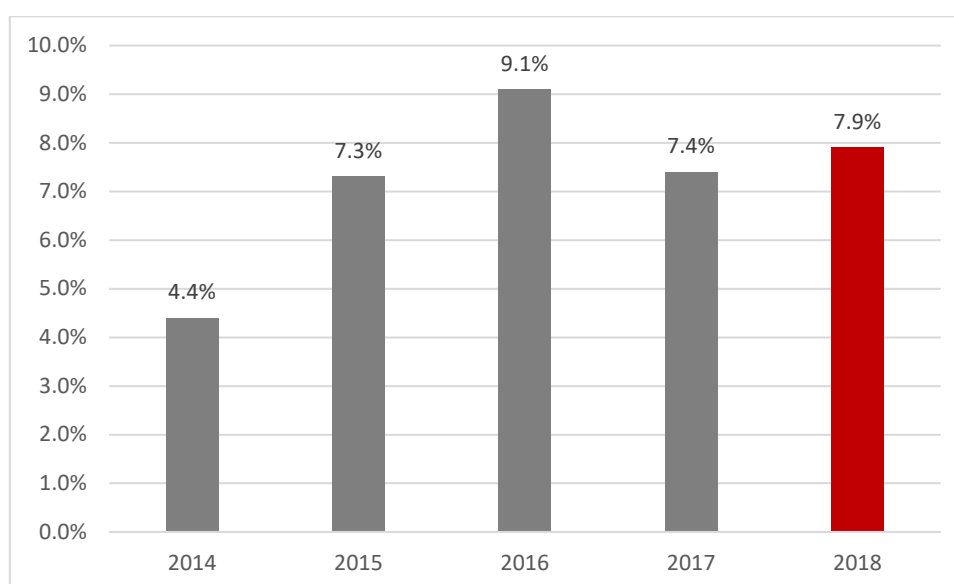
Diversity is a particular challenge for the technology industry. There is decreasing interest in Science, Technology, Engineering and Mathematics ("STEM") subjects among young people and a lack of gender diversity, particularly in technical roles.

Spirent has an established programme to encourage interest in STEM subjects and in 2018, we expanded our STEM programme to all our sites globally.

## Voluntary Employee Turnover

Our employees are central to our strategy and success. Our strategy is built around innovation and expertise. Without the best possible team we will not be able to deliver on our strategy.

Our 2018 voluntary turnover rate of 7.9 per cent remains well below the global industry average of 12.8 per cent.



## **CASE STUDY**

### **ROLL-OUT OF OUR GLOBAL STEM PROGRAMME**

In 2018, we expanded our award-winning STEM programme from our UK operations to all our regions.

Our STEM programme aims to encourage young people to study STEM subjects and to provide opportunities to pursue a career in technology and engineering. We have a particular focus on gender diversity and are keen to support more women into STEM careers through our programme. The programme has run successfully in the UK and we aimed to roll it out across our global estate in 2019.

A key challenge for us was that there is no global STEM partner to coordinate initiatives through, so our HR team have developed a bespoke programme which can be used across our three regions.

In 2018, we recruited 26 new STEM ambassadors and ran our first STEM events in the US and China and have a host of initiatives in the pipeline for 2019. Some highlights from our 2018 projects are set out below.

#### **Spirent Campus (Beijing)**

Spirent has introduced a network testing course with 30 Chinese universities. The team provides training for university lecturers, run presentations for students, and have published a book "Network Performance Testing and Analysis" to support the course.

The Beijing team also provide support to students to write strong resumes and support them with job applications.

#### **Code Ninjas (San Jose)**

Code Ninjas workshops teach students aged 7 to 14 to code through an engaging game-based curriculum that helps to develop teamwork, logic, maths and problem solving.

Supporting the Code Ninjas workshop in San Jose was the first new initiative of our global STEM programme. Our new STEM ambassadors from our San Jose location volunteer as tutors for the workshops and work with the young people to develop these critical skills.

#### **MADE Project (Paignton)**

In 2018 Spirent STEM ambassadors from our Positioning team in Paignton worked with three local schools as part of the MADE project, a UK-based design and manufacturing competition.

The competition challenges students aged 11-18 to design a product based on a demanding brief set by the company they work with. As project clients, our STEM ambassadors met regularly with the student design and manufacturing teams. The students worked through a full product design and manufacture process, including CAD modelling, prototyping and client meetings. Two of the three schools we worked with in 2018 won their age categories.

## Employee Benefit Plan Coverage

Spirent offers a comprehensive suite of benefits to employees across all regions, including health insurance, life insurance, disability, retirement benefits, parental leave, PTO/vacation.

### Parental Leave

All staff entitled to parental leave in 2018 took leave. The return rates and retention rates after 12 months are as follows:

Region	Gender	Entitled	Taken	Return rate %	Employed after 12 months %
North America	Male	2	2	100	100
	Female	8	8	75	75
APAC	Male	9	9	100	89
	Female	9	9	100	100
EMEA	Male	9	9	100	100
	Female	2	2	100	100

### Support programmes at career ending

We recognise that we have a responsibility to help members of staff who are made redundant to find a new role, and we provide a flexible outplacement service which is tailored to the needs of the member of staff. Staff are allocated a budget to spend as they see best on a range of support services including personal coaching, training and job search support.

In 2018, 54 members of staff were made redundant.

Region	Gender	Outplacement services
North America	Male	31
	Female	6
APAC	Male	9
	Female	3
EMEA	Male	4
	Female	1
Total		54

## HUMAN AND LABOUR RIGHTS

### Business Ethics and Labour Rights

Our workplace practices are governed by a suite of HR policies and our global Business Ethics Policy.

The Business Ethics Policy commits Spirent to the highest standards in human and labour rights, employee conduct and compliance with all applicable legislation. It prohibits corruption and bribery, unethical business practices, political contributions and governs conflict of interest and gifts.

The Board oversees implementation of the Business Ethics Policy.

## Human Rights

Spirent recognises human rights as set out in the Universal Declaration of Human Rights and enshrined in EU and UK law through the European Convention on Human Rights and the Human Rights Act 1998. Our Business Ethics Policy sets out our commitment to protecting the human rights of all those who work for or on behalf of the Company.

## Freedom of Association

Spirent's Business Ethics Policy sets out our commitment to ensuring employees have the freedom to associate or collectively bargain without fear of discrimination against the exercise of such freedoms. No Spirent employees were members of a trade union during 2018.

Spirent suppliers are expected to meet the same standards of freedom of association and compliance of key suppliers is assessed through supplier questionnaires. Given Spirent's supply chain includes a wide range of electronic component manufacturing activities across a number of emerging economies, the business ethics of suppliers are assessed as part of the procurement process and through announced site audits.

## Health and Safety

The Board has designated the Chief Financial Officer as responsible for health and safety performance within the Group and procedures are in place for incidents to be reported through the Audit Committee to the Board as necessary.

Spirent has health and safety committees at each business unit. Our site at Paignton has a health and safety management system, certified to ISO 45001.

The health and safety risk profile for the Group remained low during 2018, with 12 reported accidents, of which none were reportable under the RIDDOR regulations and none of which required hospitalisation.

There are no roles which have high incidence or high risk of diseases related to their occupation. There are no formal agreements with trade unions which cover health and safety as no Spirent employees were trade union members in 2018.

## Community Projects

We completed a major upgrade to our staff volunteering and charitable giving programme during 2018 and launched the new programme in January 2019. The new global programme provides each member of staff with 2 days paid volunteer time off (VTO) per year, a new scheme to match-fund employee charitable donations, and a further fund to provide financial support to local charities directly by the Company.

The upgrade aimed to address inconsistencies between regions and to provide a simple process for employees to request VTO and make charitable donations. The level of charitable giving and community support varied between regions and the site-led approach has made consistent monitoring difficult.

The use of VTO was monitored in the US during 2018 and 5 per cent of US employees took part in the scheme. We have set targets to increase participation and aim to achieve 40 per cent of all staff taking part in the VTO programme by 2020.

## **CASE STUDY**

### **SCALING-UP OUR CHARITABLE GIVING APPROACH**

We are launching our new charitable giving and volunteering programme, which gives all employees 2 volunteering days a year and a structured approach to charitable giving and company match-funding.

Philanthropy has always been important at Spirent, but to date it has been managed at the site level. As such, our volunteering and giving programmes were run differently across each region with no single recognised process for employees to request or target charitable donations. The level of giving and community support differed widely between regions, and the total level of giving has been falling in recent years.

Over the past 12 months we have been developing a new company-wide programme for volunteering and charitable giving.

#### **VTO: giving back to our community**

All staff now have 2 days a year they can use to volunteer for good causes. The time can be spent helping any registered charity: each employee has free reign to choose.

#### **Employee and company donations**

We have also introduced a dedicated central fund to donate to local good causes chosen by employees, and a separate fund to match-fund employee donations.

In 2019, \$80k will be available to donate to good causes who work to promote STEM, community and sustainability projects. Employees can nominate projects and charities that serve the community as a whole and meet the fund's criteria. To be eligible, the organisation must be a registered charity, have a non-religious primary purpose and must have non-discrimination policies in place.

The support can the good causes through monetary donations, sponsorship or equipment donation.

In addition, we will also match employee donations between \$25 and \$250 dollars per person per year. The match-funding is separate and in addition to the company donation fund. The same eligibility criteria apply, and the types of projects we can support include:

- Schools
- Cultural organisations
- Art museums
- Science museums, including zoos and botanical gardens
- Libraries
- Public television and radio
- Hospitals
- Social service organisations
- Environmental and conservation groups

We will report each year on the progress of our charitable giving and volunteering programme.

## PERFORMANCE AGAINST TARGETS

Area of focus	Target	Status
<b>Gender pay equality</b>	Conduct a detailed review of pay and gender in line with the Gender Pay Gap Reporting Regulations and report for UK employees.	Data will be published in 2019 on a voluntary basis <b>Ongoing</b>
<b>STEM skills</b>	<p>Define a global STEM strategy by April 2018. The strategy will support and promote STEM initiatives across all regions, engage and grow local talent, and set SMART performance targets.</p> <p>We will aim to complete at least one STEM event in each region by December 2018.</p>	<p>We updated our STEM strategy and launched our new global STEM network.</p> <p>We completed six STEM events in 2018, and met our target of completing at least one in each region. <b>Complete</b></p>
<b>Training</b>	<p>Development plans and succession plans will be defined and implemented for all staff by December 2018.</p> <p>We will also design and roll out our FutureLeader programme to develop talent within our business.</p>	<p>Development plans and succession plans have been implemented for all Executive Directors and General Managers</p> <p>The FutureLeader programme was launched in December 2018.</p> <p>Sales competence framework developed and rolled out. <b>Complete</b></p>
<b>Sustainability awareness</b>	We will run an internal communications campaign to ensure all staff are aware of Spirent's Sustainability programme	We have undertaken a range of awareness raising activities for staff in 2018 via email, in-person meetings and through the Company intranet: InsideSpirent. <b>Ongoing</b>
<b>Volunteering</b>	<p>We will expand our community volunteering programme to our APAC business and actively promote the opportunities for community volunteering to staff.</p> <p>We will monitor the number of employee volunteering days and set targets to expand participation.</p>	<p>A new community volunteering and charitable giving programme has been developed.</p> <p>Current levels of participation have been assessed and targets have been set for 2020. <b>Complete</b></p>



## ACTION PLAN FOR 2019

Area of focus	Objective	Target
<b>STEM</b>	Enhance and embed the Spirent Global STEM network: Spirent STEMnet	Undertake quarterly workshops for our internal STEM ambassadors
		Each region will complete at least 2 STEM activities
		Each region will complete at least 1 women in STEM activities
<b>Development</b>	Provide staff with support, training and mentoring to enhance their technical and non-technical skills.	Deliver Spirent's FutureLeader programme for selected high-potential participants
		Create documented individual development plans for successors identified for leadership and critical roles.
		Launch new performance and development assessment software platform.
<b>Community volunteering and charitable giving</b>	Expand our community support through staff volunteering and charitable donations.	Increase participation in the VTO programme, with at least 20 per cent of staff globally taking part in the programme in 2019, and 40 per cent in 2020.



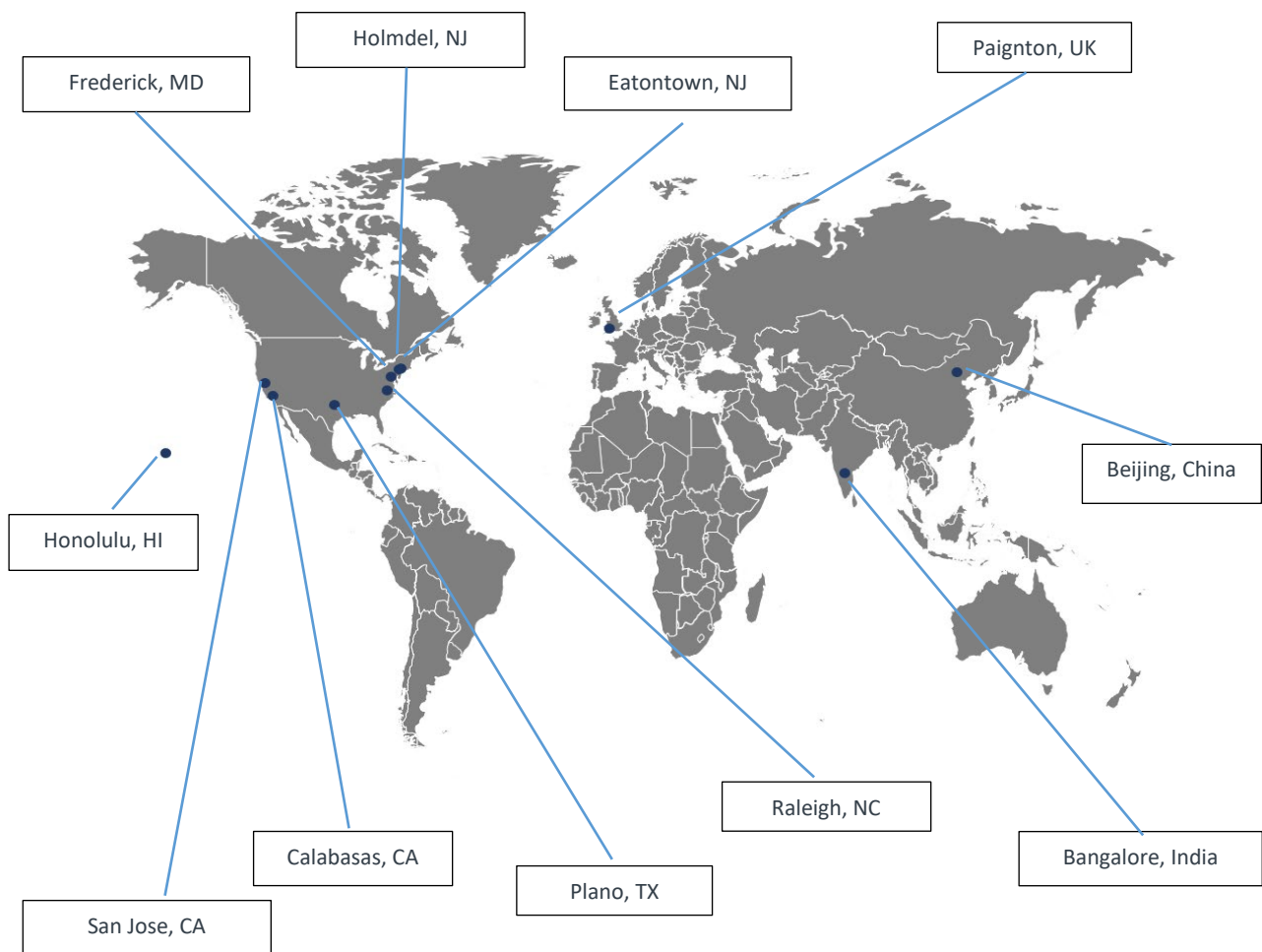
## PROPERTY

***“Our focus on energy efficiency in our labs and offices has helped Spirent to reduce carbon emissions by 25% over the past 5 years”***  
***Ray Lee (Director, Facilities)***

Spirent operates from 34 sites across 13 countries. The Group headquarters are in Crawley, UK and we have eleven significant engineering sites across the world which house development and customer service labs. We also have other sites are smaller sales or administrative offices across the world.

All product manufacturing is completed by contract manufacturers and only limited production processes such as quality testing, loading firmware, and minor repairs are completed on our sites.

We have implemented a programme of site moves and refurbishments over recent years to upgrade our staff facilities and invest in energy reduction technologies. The total floor area of our estate has remained similar to last year, with only a small number of moves and lease terminations. We have instigated a sustainability communications plan with a focus on energy efficiency and our property managers have continued our programme of energy and occupancy audits during 2018.



## KEY ISSUES

- Energy and climate change; and
- General environmental management.

## MANAGEMENT APPROACH

The Group Environmental Policy applies to the Company and all its properties. Specifically, it ensures that each site works to minimise environmental impacts and prevent pollution.

### Metrics

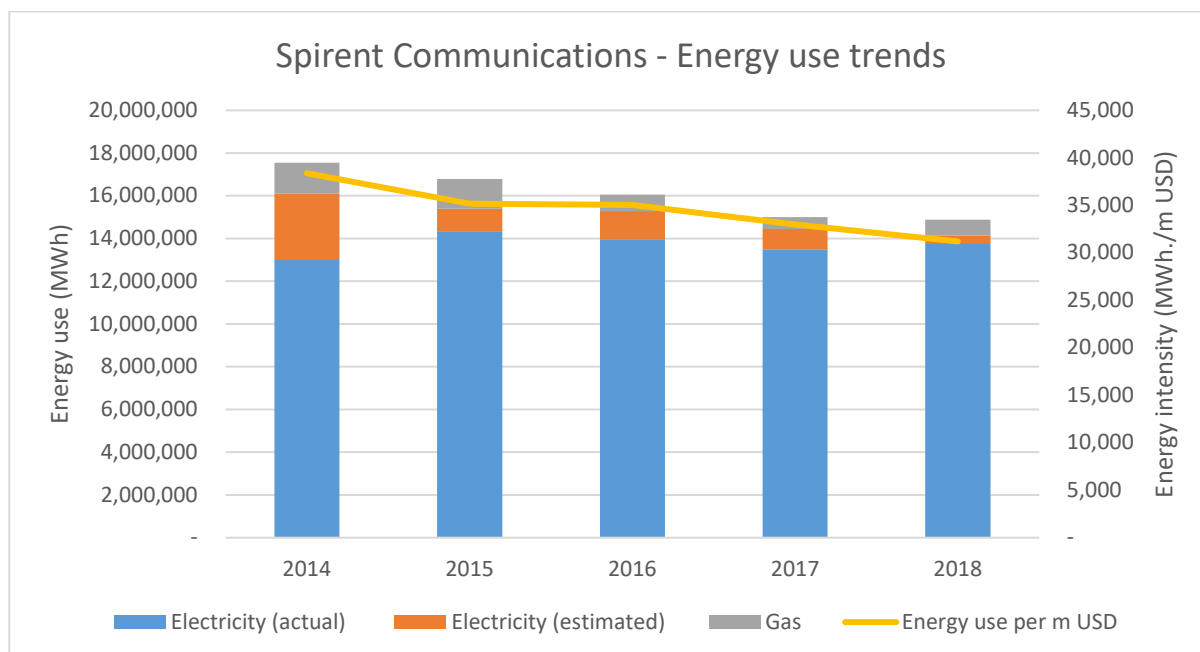
#### Energy

Energy use across the Company where we are directly responsible increased by around 4 per cent in 2018 to MWh 14,528 (2017 14,023). This increase is predominantly due to the return to typical gas usage following abnormally low usage in 2017 and increased operational activity.

We also estimate electricity use for sites where we do not pay for energy directly but instead pay indirectly through a service charge. When estimated electricity use is included, our total usage was down 1 per cent from 2017 and down 15 per cent over the last 5 years.

The energy intensity of our operations has also reduced, measured in MWh per m USD of revenue: 5 per cent since 2017 and 19 per cent over 5 years.

	2014	2015	2016	2017	2018
Electricity (actual) (MWh)	12,995	14,341	13,965	13,476	13,782
Electricity (estimated) (MWh)	3,118	1,051	1,322	978	351
Gas (MWh)	1,433	1,388	757	546	745
<b>Total (MWh)</b>	<b>17,547</b>	<b>16,781</b>	<b>16,044</b>	<b>15,001</b>	<b>14,879</b>
Energy intensity (MWh per \$m)	38.4	35.2	35.0	33.0	31.2



Over 2018 energy use decreased at Honolulu by 50 per cent and at Holmdel by 39 per cent. The reduction at our Honolulu office was due to further space reductions and a review and consolidation of equipment in the engineering lab.

Some sites increased energy usage, principally due to increased operational activity. Energy consumption at the Bangalore Engineering office (India 1) increased by 52 per cent, Bangalore Sales office (India 2) increased by 35 per cent, Paignton increased by 22 per cent.

The largest energy-using sites in 2018 were:

	Internal Area m <sup>2</sup>	Energy use (2018) MWh	Energy use (2017) MWh	Change %
Calabasas	7,789	4,379,155	4,221,020	4
Frederick	4,470	2,375,471	2,678,172	-11
San Jose	4,859	1,685,896	1,570,831	8
Eatontown	5,017	1,395,928	1,175,862	17
Plano	2,370	1,307,797	1,281,083	2
Beijing 1	2,896	1,069,233	1,230,370	-13
Paignton	2,575	597,433	488,846	22
Honolulu	2,023	376,759	720,914	-50
India 3 - Bangalore Engineering Office	1,404	257,430	169,548	52
Raleigh	1,169	256,367	232,250	9
Holmdel	1,556	251,354	357,602	-39
India 2 – Bangalore Sales Office	1,080	220,138	163,365	35

## CASE STUDY

### HONOLULU: 50 PER CENT REDUCTION IN ENERGY USE IN 2018

Our site in Hawaii is a major energy user within the Group and houses a large hardware research and development lab. As part of our energy efficiency program in 2018, we conducted a detailed lab audit in May and were able to remove redundant and under-utilised equipment. We also continued our space efficiency push, and were able to surrender 7000 sq ft of leased space back to the landlord.

These initiatives have helped us reduce our energy consumption on site by half, the largest reduction of any of our sites in 2018.

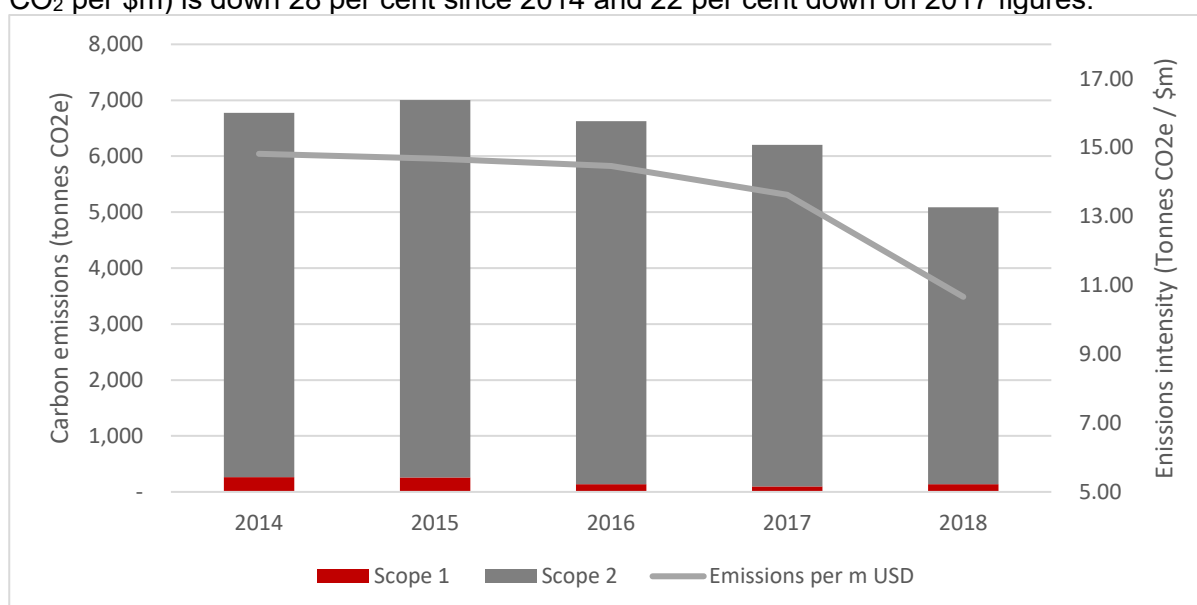
## GHG emissions

Greenhouse gas emissions are a material issue for Spirent, and we are committed to reporting emissions and acting to combat climate change. The Group once again reported to the Carbon Disclosure Project in 2018, completing the Climate Change and Supply Chain questionnaire. In 2018 we achieved a rating of C (2017 B) and a rating of B in Supplier Engagement.

In 2018, total Group emissions decreased by 18 per cent from 2017 to 5,087.6 tonnes of CO<sub>2</sub>e.

	2018	2017
<b>Emissions from:</b>	<b>Tonnes of CO<sub>2</sub>e</b>	<b>Tonnes of CO<sub>2</sub>e</b>
Combustion of fuel & operation of facilities (scope 1)	137.2	100.5
Electricity, heat, steam and cooling purchased for own use (scope 2)	4,950.4	6,099.7
<b>Total emissions</b>	<b>5,087.6</b>	<b>6,200.2</b>
<b>Emissions intensity metrics:</b>		
Normalised per square metre of gross internal area of our facilities	0.112	0.137
Normalised per \$ million of revenues	10.67	13.63

Over the last 5 years we have reduced our carbon emissions by 25 per cent and have made year on year reductions in carbon emissions relation to revenue as well. Emissions intensity (tonnes CO<sub>2</sub> per \$m) is down 28 per cent since 2014 and 22 per cent down on 2017 figures.



## Methodology

We have reported on all of the emission sources required under the Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013. These sources fall within our consolidated financial statement. We do not have responsibility for any emission sources that are not included in our consolidated statement.

We have used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition), data gathered to fulfil our requirements under these Regulations, and emission factors from UK Government's GHG Conversion Factors for Company Reporting 2018, the US Environmental Protection Agency, and the International Energy Agency.

### Scope 3 emissions

We have conducted an initial analysis of our emissions sources that fall within Scope 3 of the GHG protocol. We have calculated emissions from our main contract manufacturers using Group-level data apportioned by spend. Manufacturers with a spend greater than \$5 million have been included in the scope of reporting. Where data was not available, emissions have been estimated using the average emissions intensity. 19 per cent of emissions have been estimated.

Emissions from:	2018
	Tonnes of CO <sub>2</sub> e
Contract manufacturing	1,883

We aim to expand the Scope 3 emissions sources we report in 2019.

### Setting science-based targets

We have reviewed the Company's options to set a science-based carbon reduction target for 2025. Based on a 2017 baseline, targets in line with guidance for 2 degree and 1.5 degree scenarios would be 20 per cent and 33.6 per cent respectively.

Whilst our we are confident in our approach and methodology for reducing scope 1 and 2 emissions, we expect a significant proportion of our carbon emissions to occur in the supply chain and during the use of our products. In order to achieve an appropriate science-based target, further work is required to calculate our scope 3 emissions.

We are not therefore in a position to set a science-based target at this point but will continue to review our ability to do so and will continue to provide updates in future reports.

### Water use

Our water use is minimal and is limited to showers, toilets and washing crockery at refreshment points. We recognise that a number of our sites are located in water stressed areas and water stress is likely to increase globally with climate change. As a result, we have a policy to reduce water use across our sites and water efficiency measures are installed as standard in our property design guide. For example, we have installed low flow taps and waterless urinals at our office in Paignton.

### Performance against targets 2018

The Group set a target to reduce carbon emissions by 5 per cent relative to revenue from 2017 figures. We achieved this target.

We have made good progress in reducing our carbon footprint and in 2018 we reduced our absolute emissions by 18 per cent from the previous year, and 26 of our 33 sites have achieved absolute reductions in GHG emissions of 5 per cent or more. Primarily these reductions have been driven by our ongoing Estate rationalisation programme and an energy efficiency campaign in our labs.

## PERFORMANCE AGAINST TARGETS

Area of focus	Target	Status
Carbon emissions	Reduce carbon emissions relative to revenue by 5 per cent, from 2017 levels.	The Group achieved an absolute carbon emissions reduction of 18 per cent, and reduced emissions relative to revenue by 22 per cent. <b>Complete</b>
	Collect and report our material scope 3 emissions sources.	Emissions related to key supplier and business travel have been collected. Further work is required to calculate a more complete GHG inventory. <b>Ongoing</b>
	Explore the options to set longer-term science-based carbon reductions targets.	The viability of setting science-based targets has been reviewed but as this stage we are not able to. <b>Ongoing</b>
Energy efficiency	Conduct preliminary reviews of the equipment in our labs and conduct detailed audits at 2 sites at least.	Lab audits have been completed at Honolulu and Paignton. <b>Complete</b>



## ACTION PLAN FOR 2019

Area of focus	Objective	Target
<b>Carbon emissions</b>	Set science-based target.	Set science-based target for 2025  Interim target. Reduce carbon emissions per \$m by 5 per cent from 2018 levels  Explore options to purchase emissions offsets.
<b>Renewable energy</b>	Purchase electricity from renewable sources.	Purchase at least 90 per cent of electricity from renewable sources by 2020.
<b>Emissions reporting</b>	Improve our carbon emissions reporting.	Report emissions using contract methodology as well as location-based methodology.
<b>Internal reporting and recognition</b>	Implement a scheme to reward and recognise energy reduction efforts at the site and individual level.	Establish a programme to reward energy performance at the site level and provide recognition for individuals who have been instrumental in reducing energy use.
<b>Energy reduction</b>	Reduce energy use in our engineering labs.	Expand the lab virtualisation and consolidation programme .

# AUDITOR'S ASSURANCE STATEMENT

## SCOPE AND OBJECTIVES

Spirent Communications plc ("Spirent"), acting through Brite Green Ltd ("Brite Green"), commissioned Adrian Henriques (the "Auditor") to undertake independent assurance of its 2018 Sustainability Report (the "Report"). The Auditor has no other relationships with Spirent or Brite Green that might compromise its independence. The assurance process was conducted in line with AA1000AS (2008) and designed to provide Type 1 moderate assurance. The Global Reporting Initiative (GRI) Quality of Information Principles were used as criteria for evaluating performance information.

## RESPONSIBILITIES OF THE DIRECTORS OF SPIRENT COMMUNICATIONS PLC AND OF THE AUDITOR

The directors of Spirent have sole responsibility for the preparation of the Report, which was produced for them by Brite Green. This statement represents the Auditor's independent opinion and is intended to inform Spirent management. The Auditor was not involved in the preparation of the Report; see [www.henriques.info](http://www.henriques.info) for information on independence and competence.

## BASIS OF OUR OPINION

The Auditor's work was designed to gather evidence with the objective of providing assurance as defined in AA1000AS (2008).

To prepare this statement, the Auditor reviewed the Report and supplementary information, and interviewed Brite Green and Spirent staff. Feedback was provided to Spirent on drafts of the Report and other material and where necessary changes were made.

## Findings and Opinion

On the basis of the work we have done, we believe the Report fairly represents Spirent's principal stakeholder relationships, impacts on its stakeholders and its responses to their concerns.

On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe Spirent's adherence to the principles.

## Observations

Without affecting our assurance opinion, we also provide the following observations related to the principles.

### *Inclusivity*

The Report clearly articulates Spirent's approach to its social and environmental impacts. Spirent has continued its engagement with its supply chain beyond its first tier suppliers.

Spirent engages with most of its stakeholders systematically. However it is important that Spirent expands its consultations with staff to discover systematically the issues of concern to them.

### *Materiality*

The Report covers the material issues relevant to Spirent. And it is helpful to see greater coverage of staff-related issues. It is also welcome to see the start of an exploration of its Scope 3 carbon emissions. However, the process to determine its material issues should be developed with greater rigour.

It would be helpful to have a more systematic understanding of the comparative impacts of its various products. The move into virtual products, rather than those based on dedicated hardware, could have important consequences: future reports should analyse these carefully.

### **Responsiveness**

Spirent has set targets for its main impacts. However, the targets in many areas need to be set in terms of measurable results, rather than on management processes alone. Moreover, further thought needs to be given to how Spirent's targets should relate to the global sustainability context.

It is welcome to see progress on carbon emissions, despite a small rise in energy use. While there has been action to reduce the use of hardware at some sites, the reduction in emissions was largely a result of improvements in the grid mix for electricity.



**Adrian Henriques**

London, August 2019

## GRI INDEX

This Report includes standard disclosures from the Global Reporting Initiative (GRI) G4 Sustainability Reporting Framework. This index sets out the indicators we have and have not included, those that are not material to Spirent and where we have provided partial information from a particular disclosure.

### Key

Y – Reported  
 NM – Not Material  
 P – Partially Reported  
 N – Not Reported

Aspects		Indicators	Reported	Report page
	G4-DMA	Disclosures on management approach (DMA)	Y	20
<b>Category: Economic</b>				
Economic Performance	G4-EC1	Economic value	Y	6
	G4-EC2	Climate change risks	P	50
	G4-EC3	Benefit plan coverage	N	-
Market Presence	G4-EC4	Financial assistance from the government	NM	-
	G4-EC5	Ratio of entry level wage to local minimum wage	N	-
	G4-EC6	Proportion of senior management hired from the local community	N	-
Indirect Economic Impacts	G4-EC7	Infrastructure investments	N	-
	G4-EC8	Indirect economic impacts	N	-
Procurement Practices	G4-EC9	Local suppliers	P	33
<b>Category: Environmental</b>				
Materials	G4-EN1	Materials by weight or volume	N	-
	G4-EN2	Recycled input materials	P	29
Energy	G4-EN3	Energy consumption (Scope 1 + 2)	Y	50
	G4-EN4	Energy consumption (Scope 3)	N	-
	G4-EN5	Energy intensity	Y	49
	G4-EN6	Energy reductions	Y	50
	G4-EN7	Energy reductions in products and services	P	29
Water	G4-EN8	Water withdrawals by source	NM	-
	G4-EN9	Water sources affected by withdrawals	NM	-
	G4-EN10	Water recycled and reused	NM	-
Biodiversity	G4-EN11	Facilities in or near areas of high diversity	NM	-
	G4-EN12	Impacts on biodiversity	NM	-
	G4-EN13	Habitats protected or restored	NM	-
	G4-EN14	IUCN Red List species	NM	-

Emissions	G4-EN15	GHG emissions (Scope 1)	Y	50
	G4-EN16	GHG emissions (Scope 2)	Y	50
	G4-EN17	GHG emissions (Scope 3)	N	-
	G4-EN18	GHG emissions intensity	Y	49
	G4-EN19	Reduction of GHG emissions	Y	50
	G4-EN20	Ozone-depleting substances (ODS)	N	-
Effluents & Waste	G4-EN21	NOx, SOx and other emissions	N	-
	G4-EN22	Water discharge	NM	-
	G4-EN23	Waste by type and disposal method	N	-
	G4-EN24	Significant spills	NM	-
	G4-EN25	Hazardous waste	N	-
	G4-EN26	Biodiversity affected by runoff	NM	-
Products & Services	G4-EN27	Mitigation of environmental impacts of products and services	Y	29
	G4-EN28	Products and packaging materials reclaimed	P	29
Compliance	G4-EN29	Environmental fines and sanctions	NM	-
Transport	G4-EN30	Environmental impacts from product distribution and employee travel	N	-
Environmental Investments	G4-EN31	Environmental investments	N	-
Supplier Environmental	G4-EN32	New suppliers screened using environmental criteria	Y	33
	G4-EN33	Supply chain environmental impacts	Y	33
Environmental Grievance Mechanisms	G4-EN34	Environmental grievances	NM	-
<b>Category: Social</b>		<b>Sub-category: Labour Practices &amp; Decent Work</b>		
Employment	G4-LA1	Number and rate of new employee hires and turnover	N	-
	G4-LA2	Benefits provided to full-time employees	N	-
	G4-LA3	Return to work and retention rates after parental leave	N	-
Labour/ Management Relations	G4-LA4	Notice periods regarding operational changes	N	-
Occupational Health & Safety	G4-LA5	Workforce represented in health and safety committees	Y	44
	G4-LA6	Rates of injury, occupational disease, lost days, absenteeism, and work-related fatalities	Y	44
	G4-LA7	Workers with high incidence risk of diseases	Y	44
	G4-LA8	Health and safety topics covered in agreements with trade unions	Y	44

Training & Education	G4-LA9	Average hours of training for employees	N	-
	G4-LA10	Programmes for skills management managing career endings	P	43
	G4-LA11	Employees receiving performance and career development reviews	P	38
Diversity	G4-LA12	Composition of governance bodies and employees	P	38
Equal Pay for Women & Men	G4-LA13	Ratio of basic salary and remuneration of women to men	N	-
Supplier Assessment for Labour Practices	G4-LA14	New suppliers that were screened using labour practices criteria	Y	33
	G4-LA15	Negative impacts for labour practices in the supply chain	P	33
Labour Practices Grievance Mechanisms	G4-LA16	Grievances about labour practices	NM	-
<b>Category: Social</b>		<b>Sub-category: Human Rights</b>		
Human Rights Investments	G4-HR1	Investment agreements and contracts that include human rights clauses or underwent screening	N	-
	G4-HR2	Employee training on human rights	P	44
Non-discrimination	G4-HR3	Incidents of discrimination	NM	-
Freedom of Association	G4-HR4	Significant risk of freedom of association in operations and suppliers	Y	33
Child Labour	G4-HR5	Significant risk of child labour in operations and suppliers	Y	33
Forced or Compulsory Labour	G4-HR6	Significant risk of forced or compulsory labour in operations and suppliers	P	33
Security Practices	G4-HR7	Security personnel trained in the organization's human rights policies	N	-
Indigenous Rights	G4-HR8	Incidents of violations involving rights of indigenous peoples	NM	-
Human Rights Assessments	G4-HR9	Operations that have been subject to human rights assessments	P	44
Supplier Human Rights Assessments	G4-HR10	New suppliers screened for human rights	Y	33
	G4-HR11	Human rights impacts in the supply chain	Y	33
Human Rights Grievance Mechanisms	G4-HR12	Grievances about human rights impacts	NM	-

Category: Social		Sub-category: Society		
Local Communities	G4-SO1	Local community engagement, impact assessments and development programmes	P	44
	G4-SO2	Negative impacts on local communities	N	-
Anti-corruption	G4-SO3	Risks related to corruption	Y	25
	G4-SO4	Communications and training on anti-corruption	N	-
	G4-SO5	Confirmed incidents of corruption	NM	-
Public Policy	G4-SO6	Political contributions	NM	-
Anti-competitive Behaviour	G4-SO7	Anti-competitive behaviour	NM	-
Compliance	G4-SO8	Fines for non-compliance with laws	NM	-
Supplier Assessment for Impacts on Society	G4-SO9	New suppliers screened for impacts on society	Y	33
	G4-SO10	Negative impacts on society in the supply chain	N	-
Grievance Mechanisms for Impacts on Society	G4-SO11	Grievances about impacts on society	N	-
Category: Social		Sub-category: Product Responsibility		
Customer Health & Safety	G4-PR1	Health and safety impact assessments of products and services	P	44
	G4-PR2	Non-compliance concerning the health and safety impacts of products and services	N	-
Product & Service Labelling	G4-PR3	Product and service information required for labelling	N	-
	G4-PR4	Non-compliance with regulations concerning product and service labelling	N	-
	G4-PR5	Surveys measuring customer satisfaction	N	-
Marketing & Communications	G4-PR6	Sale of banned or disputed products	N	-
	G4-PR7	Non-compliance with regulations concerning marketing communications	N	-
Customer Privacy	G4-PR8	Complaints regarding breaches of customer privacy and losses of customer data	N	-
Product Compliance	G4-PR9	Fines for non-compliance with laws and regulations concerning products and services	NM	-





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