

# Unlocking new possibilities

**Spirent Communications plc**  
Sustainability Report 2023

# Unlocking new possibilities

Spirent is the leading global provider of automated test and assurance solutions for networks, cybersecurity and positioning. With a strong track record of innovation and a dedicated team, Spirent is driving momentum in its pursuit of pioneering solutions that will shape the future across many industries.

## Introduction

- 1 About our Sustainability Report
- 2 Introduction from our CEO
- 3 Spirent at a glance
- 4 Our business model
- 5 Our markets

## Our sustainability approach

- 6 Our sustainability approach
- 7 2023 highlights
- 8 Our priority sustainability themes
- 9 Our sites

## Promise of a sustainable future

- 10 Promise of a sustainable future
- 12 Key themes and targets
- 13 Our contribution to a sustainable economy
- 14 Support sustainable innovation
- 16 Embed sustainability in customer centricity
- 18 Driving energy efficiency of Spirent products
- 19 Supporting customers to reduce energy use and carbon emissions
- 22 ESG in our go-to-market strategy

## Net zero carbon

- 24 Net zero carbon
- 26 Key themes and targets
- 27 Journey to net zero
- 28 Emissions reduction strategy
- 29 Energy
- 32 Carbon emissions
- 34 Climate change risks and opportunities

## Promote diversity and invest in people

- 36 Promote diversity and invest in people
- 38 Key themes and targets
- 39 Support diversity and inclusion
- 45 Invest in skills, training and development
- 49 Flexible working practices
- 50 Support our communities

## Operate responsibly

- 52 Operate responsibly
- 54 Key themes and targets
- 55 Sustainable buildings
- 58 Sustainable product design
- 62 Sustainable supply chain and manufacturing

## Accountable and transparent

- 68 Accountable and transparent
- 70 Key themes and targets
- 71 Sustainability governance

## Appendix

- 76 Independent assurance statement
- 79 Compliance data
- 86 GRI Index
- 90 SASB Index



# About our Sustainability Report

## Unlocking a sustainable future for all

### 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 2023 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 Standards. The Report content has been independently assured by Challenge Sustainability Limited.

### 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.



## Recognition



**CDP rating 2023**  
Climate change: B  
Supply chain: B



**FTSE ESG 100 Select member 2023**



**FTSE4Good member 2023**



**CarbonNeutral® Company certification 2023**



**EcoVadis bronze rating 2023**



## Introduction from our CEO

# Our role in delivering a sustainable future



**Eric Updyke**  
Chief Executive Officer

I'm delighted to introduce our 2023 Sustainability Report. We remain committed to delivering our environmental and social objectives, and believe that our continued progress is a vital pillar of our overall success.

Sustainability remains high on the agenda of our customers and investors, who continue to set ever higher levels of expectation, especially around climate change. As a result, I am pleased to be able to share with you the progress we've made over the last year through FuturePositive, our sustainability strategy.

#### Note

1. Scope 3 emissions sources: transmission and distribution losses, waste, business travel and home working.



### Our role in delivering a sustainable future

Spirent is well placed to help deliver a sustainable, low carbon economy. During this year we have deployed our lab automation solutions and provided consultancy support to deliver major energy, carbon and cost savings for a tier 1 financial services company, showcasing the benefits of test automation in new segments.

Through our Academia Program, we have also supported research that will explore the impact that climate change will have on positioning technologies and how the novel use of marine and airborne drones can help monitor marine pollution more effectively.

### Towards net zero carbon

During 2023, we've continued to make progress on our journey towards net zero carbon. We submitted our carbon reduction targets and net zero plan to the Science Based Targets initiative (SBTi) for approval and have developed an innovative lab and estates strategy that will deliver 60 per cent reductions in carbon emissions in the next 3-5 years. Through a continued focus on efficiency this year, we reduced our energy consumption by 2.7 per cent, and carbon emissions by 1.8 per cent. We also published a carbon reduction roadmap and have maintained our CarbonNeutral® certification in 2023, which covers emissions from Scope 1, 2 and some of Scope 3<sup>1</sup>.

### Progress on diversity and early career talent

This year we strengthened our programme to help us attract and retain talent from more diverse backgrounds. An internal focus group worked closely with our HBCU partners to develop new resources to support more diverse recruitment. In addition, we also further expanded our internal early career programmes, delivering targeted pathways for young people to develop skills and experience.

### ISO 14001 rollout and supplier sustainability agreements

Our rollout of our ISO 14001 environmental management system continued during the year, with our Crawley and Paris offices achieving certification. We are well on track to ensure all major sites are certified by 2025 and we are seeing the benefits of more closely aligned environmental processes and controls.

In addition, a major focus for our efforts this year have been on engaging our suppliers on sustainability. We have worked closely with key suppliers to explore mutual opportunities to improve environmental and social outcomes, and implemented the first sustainable supplier agreement – a contractual agreement to deliver improved data sharing and performance.

**Eric Updyke**  
Chief Executive Officer



## Spirent at a glance

# Global leader, innovator and trusted partner, unlocking new possibilities

We help our increasingly diverse customer base manage rapid change in the complexity of devices, networks and services, enabling them to keep the promises they make to their customers while reducing cost and accelerating time to revenue.

Our innovative test and assurance solutions, trusted expertise and services allow our customers to bring better quality products and services to market faster, to automate their test labs and the turn-up of new services, and to proactively identify and resolve problems in their live networks.

As the only vendor addressing all phases of the technology lifecycle we are unlocking new possibilities, applying more of our subject matter expertise gained in the lab to our customers' automation and live network challenges. Our two operating segments are focused on helping customers accelerate the migration of testing, evaluation and assurance of devices, network elements and applications from development labs to live networks.

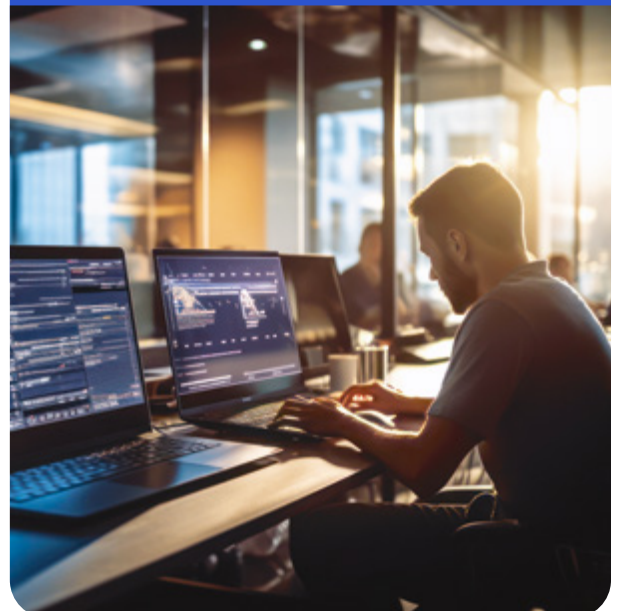
### Lifecycle Service Assurance

An established global leader in lab-based testing of 5G mobile core networks, cellular and Wi-Fi devices, as well as in lab and test automation solutions for the telecom industry and enterprises. The world-class innovation of our Lifecycle Service Assurance segment has enabled us to bring to market "live" solutions that provide end-to-end visibility, actionable insights and automated troubleshooting to radically simplify turn-up and assurance of complex 5G networks and services, reducing time and cost.



### Networks & Security

An industry leader in high-speed Ethernet/internet protocol performance testing, our Networks & Security segment develops test methodologies, tools and services for virtualised networks, cloud and artificial intelligence networking infrastructure, application performance and proactive security validation. As the acknowledged market leader in global navigation satellite system test and simulation solutions, we are applying our innovation and expertise to emerging positioning, navigation and timing growth opportunities, such as low earth orbit satellite systems.





## Our business model

# Unleashing the value of transformative technologies

We stand behind our customers' promise to deliver a new generation of innovative products and services to their customers.

We are with them in every phase of the lifecycle from development in the **lab to live** deployment and operation, ensuring that new technology works.

### Using our resources effectively

#### Financial strength

To invest in research and development

#### Intellectual property

Protected IP and patents

#### Organisation capital

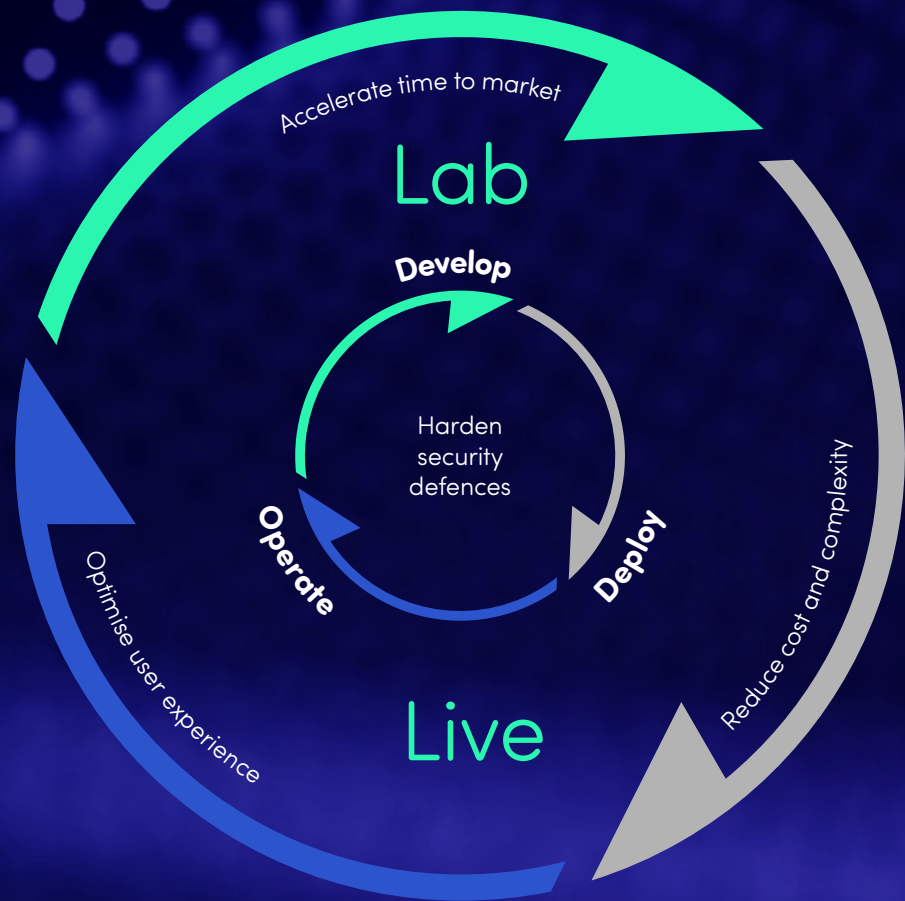
Unique systems and processes

#### Human capital

Talented and driven workforce

#### Social capital

Strong partnerships with customers and suppliers







## Our markets

# Unlocking new opportunities

Spirent invests to sustain and expand our leadership and support our profitable growth in key technologies and growth markets.

We are evolving deeper and broader partnerships with an increasingly diverse base of customers, helping them address their larger business problems with innovative solutions and services, not just products. We are leveraging subject matter expertise gained from our leadership in lab test and validation to address our customers' live network challenges, as they advance towards complex cloud-native 5G standalone networks and employ continuous integration and continuous delivery (CI/CD) models. We are applying our industry-leading expertise to key emerging areas such as 5G private networks, the expansion of telco cloud, data centre upgrades to support artificial intelligence (AI) workloads, open radio access networks (Open RAN), and low earth orbit (LEO) satellite constellations. Diversifying our markets and our customers provides us with new opportunities to grow and to build additional recurring revenue streams that support sustainable, profitable growth.

### Non-terrestrial network and LEO

#### Market driver

Growth in non-terrestrial networks (NTN) and LEO mega satellite constellations continues apace with over 5,700 satellites in orbit, and over 58,000 satellites estimated to be in active orbit by 2030, delivering mobile broadband, emergency services and Internet of Things connectivity directly to devices, while offering resilient positioning navigation and timing (PNT). Being close to earth, these new constellations enable more robust and secure connectivity to remote, underserved communities, mission-critical industries and military theatres.

#### Opportunities for Spirent

Space is an incredibly complex environment, so it is critical to validate satellite communications and PNT performance in the lab before deployment. Numerous technology and performance challenges must be tested, from signalling delays and timing variations to large Doppler shifts and signal degradation from atmospheric conditions and interference.

#### Our response

Spirent, as the industry leader in satellite PNT and end-to-end mobility testing, is well positioned to help the industry deliver on NTN's promises and bridge the technology divide between satellite providers and mobile operators. Spirent is already deeply engaged with leading players across the ecosystem, helping to test the complex performance and resiliency requirement.

### 800G and data centre networking for AI

#### Market driver

The rapidly-increasing appetite for applications such as cloud gaming, streaming services, industrial connectivity, and a new wave of AI workloads is driving bandwidth demands ever higher. Cloud service providers are focusing on AI infrastructure for learning clusters which require high bandwidth connectivity, and for inferences which require low latency.

This is all stimulating rapid evolution in Ethernet backbones and interconnects in data centres that underpin the cloud and provide support for enterprises, driving refresh cycles from 400G to 800G, as well as early 1.6Terabit research and development.

#### Opportunities for Spirent

With the rapid acceleration towards 800G, customers are demanding higher-density testing capabilities. Flexibility is needed to validate the next generation of routers and data centre fabrics for cloud computing and streaming service quality of service, for performance and latency of data centre switches, and for the latest generation of terabit core routers.

#### Our response

Spirent has developed the industry's highest-density, award-winning multi-rate 800G high-speed Ethernet test solution, leveraging our decades of leadership in Ethernet testing.

Spirent's 800G solution helps accelerate 800G adoption across next-generation chipsets, routers, switches, and data centre fabrics, and lays the foundation for future 1.6Terabit evolution.

### Financial services (digital transformation)

#### Market driver

Financial services organisations are embarking on large-scale digital transformation and automation programmes driven by competitive pressures, heightened security risks, legacy IT systems and a heritage of costly and inefficient siloed labs and manual testing processes.

This is compounded by the need for continuous regulatory compliance and certification testing while meeting aggressive sustainability targets across growing IT and data centre real estates.

#### Opportunities for Spirent

Manual methods for testing enterprise networks, regulatory compliance and the provision of new digital services are no longer viable because of the complexity, speed and frequency at which increasingly disaggregated networks need to be updated.

By automating test lab capabilities, world-leading financial services companies will be able to significantly accelerate delivery of new products, version upgrades, and services to their customers, while ensuring strict compliance and benefitting from major productivity gains and cost savings.

#### Our response

Spirent's proven lab and test automation solutions are fully applicable to these transformation programmes and to continuous testing within enterprise sectors, including financial services. This expanded market opportunity for Spirent was showcased by a large deal we won with a leading global financial services organisation in 2023.



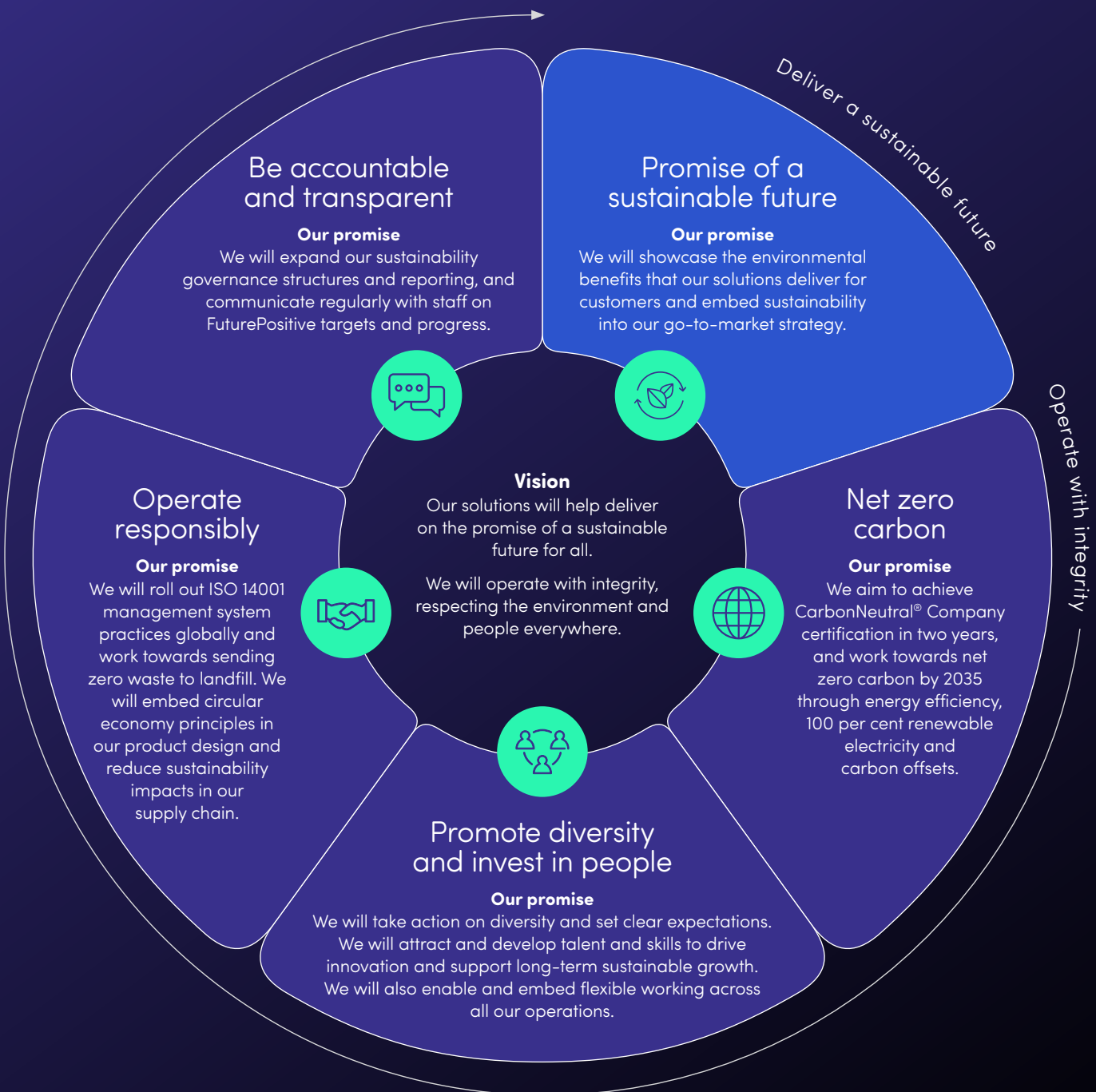
# Our sustainability approach

## About FuturePositive

FuturePositive is our sustainability programme.

Through this programme, we have embedded the highest standards of environmental management, social practices and corporate governance in our business and supply chain and help our customers tackle important global sustainability challenges.

Our sustainability strategy is focused on five key missions:







## 2023 highlights

# We have made good progress on our Sustainability programme in 2023

We are pleased to share some of the highlights from the year.



### Promise of a sustainable future

- Lab automation delivering carbon emissions for financial services company

[Read more on pages 10 to 23](#)



### Net zero carbon

- We reduced carbon emissions by 2 per cent from last year and down 11 per cent from our 2019 baseline
- We submitted our letter of intent and our science-based targets to SBTi for validation
- We improved the quality of our Scope 3 data on product use, our largest single emissions source
- We agreed an innovative lab and estates strategy which will reduce our Scope 1 and 2 emissions by 62 per cent
- We published our carbon reduction strategy

[Read more on pages 24 to 35](#)



### Promote diversity

- Conducted a global gender pay parity analysis
- Engaged with HBCUs to continue to support a more diverse applicant pool and improve access to tech jobs
- Ran a suite of early career initiatives to nurture and develop talented young people

[Read more on pages 36 to 51](#)



### Operate responsibly

- ISO 14001 extension
- Supplier engagement – collaboration to improve sustainability performance of products and manufacturing (including packaging)
- Supplier sustainability agreements introduced
- Supplier audits continued
- Enabling technologies investigated in innovation hackathon

[Read more on pages 52 to 67](#)



### Be accountable and transparent

- New policies developed, including global sustainability policy and sustainability building policy

[Read more on pages 68 to 75](#)



## Our priority sustainability themes

We seek to manage our most significant sustainability impacts, risks and opportunities

Through FuturePositive we seek to manage our most significant sustainability impacts, risks and opportunities. These fall into five categories.

Five categories:

**Responsible business practices**

- 1. Corruption and business ethics
- 2. Transparent reporting
- 3. Data security and privacy

**Circular economy**

- 4. Sustainable and transparent supply chain
- 5. Water in supply chain
- 6. Product design for the environment and a circular economy
- 7. Impact occurring during use of products and services
- 8. End of life of products and waste

**Delivering sustainability benefits for customers**

- 9. Sustainability impact through product functionality

**Energy and climate change**

- 10. Energy efficiency and renewable energy
- 11. Carbon emissions
- 12. Climate change resilience

**People and communities**

- 13. Human and labour rights
- 14. Diversity, equity and inclusion
- 15. Training, skills and development
- 16. Health and wellbeing
- 17. Flexible working practices
- 18. Supporting communities



We review our materiality assessment every two years, and completed the last review in 2022. You can read more about our materiality process on page 72.



## Our sites



### Our sites

Spirent operates from 36 sites across 14 countries. The Group headquarters is in Crawley, UK, and we have ten significant engineering sites across the world which house development and customer service labs. We also have other smaller sales and administrative offices.

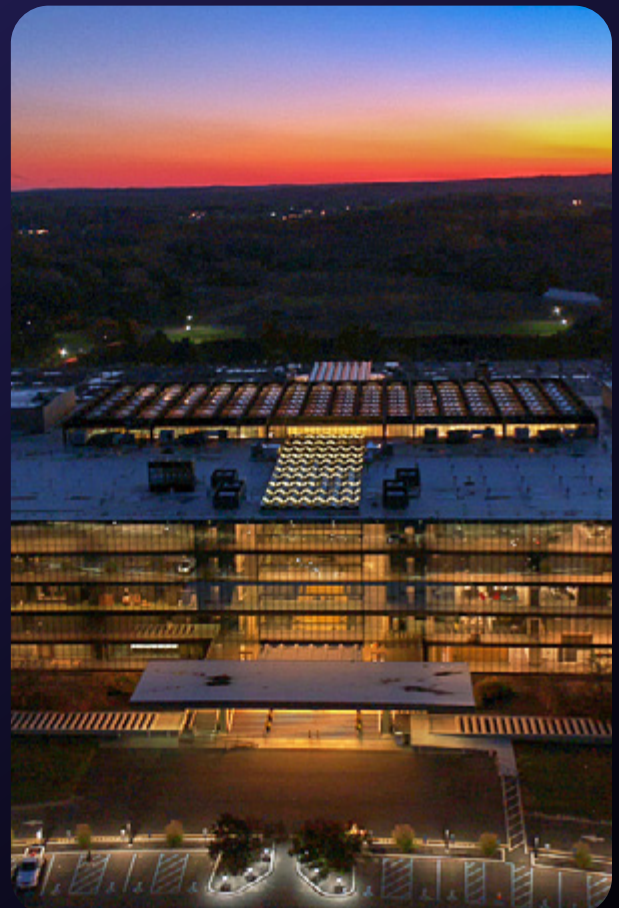
All product manufacturing is completed by contract manufacturers and only limited production processes such as quality testing, loading firmware and product repairs are completed on our sites.

We continued to operate flexible working practices with many of team regularly working from home.



**We have commenced an innovative estates strategy which will reduce our emissions by more than 60 per cent over the coming five years.**

**Ray Lee**  
Director of Global Properties







# Promise of a sustainable future



## Our promise

“We aim to showcase the environmental benefits that our solutions deliver for customers and embed sustainability into our go-to-market strategy.”

## Why is this important?

- Sustainability issues are increasingly important for our customers, with energy, climate change and cybersecurity being the most pressing.
- We are well placed to help customers reduce their direct impacts, through automation, virtualisation and analytics.
- We can help customers develop new technologies to tackle global sustainability challenges, including smart grids, autonomous vehicles and precision agriculture.
- Sustainability can play an important part in our customer centricity approach.

## 2023 highlights

- We supported customers to reduce carbon emissions, including a lab automation and redesign for a tier 1 financial services company.



**Spirent’s test solutions play a vital role in the transition to a low carbon future, helping to unlock innovation, making new technologies, development labs and networks more efficient.**

**Stephen Douglas**  
Senior Director of Market Strategy





## Key themes and targets

Spirent has an important role to play in delivering on the promise of a sustainable future

Our solutions can help customers reduce energy use and carbon emissions through innovation, automation and virtualisation, and we are helping our customers to develop new technologies that solve global sustainability challenges.

Sustainability is a key consideration for our customers and it's vital we showcase our leadership in this area and the potential benefits our solutions offer.

<p><b>Reduce customer sustainability impacts</b></p>	<p><b>Objective:</b> We will showcase how our solutions help our customers improve their sustainability performance directly.</p>	<p><b>Action:</b> Produce case studies annually for main solutions with environmental and sustainability benefits to customers.</p>	<p><b>Targets:</b> Produce data-driven case studies for Velocity and VisionWorks.</p>	<p><b>Progress: Achieved</b> We have produced case studies which articulate the sustainability benefits of our solutions, drawing on customer data.</p>
<p><b>Support sustainable innovation</b></p>	<p><b>Objective:</b> We will showcase how our solutions unlock the technologies to solve global sustainability challenges.</p>	<p><b>Action:</b> Produce case studies annually for each business unit on environmental and sustainability innovation supported by Spirent's test solutions.</p>	<p><b>Targets:</b> Produce case studies on the new innovations that are supported by Spirent.</p>	<p><b>Progress: Progress made</b> We have produced case studies of where our solutions are supporting sustainable innovation.</p>
<p><b>Embed sustainability in customer centricity</b></p>	<p><b>Objective:</b> We will make sustainability part of our go-to-market strategy.</p>	<p><b>Action:</b> Establish a clear plan to integrate sustainability into our go-to-market strategy.</p>	<p><b>Targets:</b> Incorporate sustainability into our go-to-market plan and meet customer sustainability expectations.</p>	<p><b>Progress: Progress made</b> We have increasingly highlighted the climate change benefits of our solutions when engaging with clients and the wider market. We have continued to respond to the increasing number of specific sustainability disclosures requested from clients.</p>





## Our contribution to a sustainable economy

# Meeting customers' expectations on net zero

Many of our customers have set ambitious commitments to environmental and social practices. We have always incorporated these expectations into our sustainability programme, taking action across all key areas.

We have seen in the last year an increase in the level of expectation for suppliers, in particular with growing requests for energy and carbon performance data, details on our net zero targets and progress, and the introduction of contractual obligations to achieve carbon reductions.

Through our FuturePositive programme and own net zero commitments we are well placed to meet these growing expectations. We have set a target to achieve net zero carbon by 2035 and have reduced our Scope 1 and 2 emissions by 38 per cent since 2014. We maintained our carbon neutrality certification this year and reported Scope 3 emissions baseline as well.

This year, we started the process to have our net zero targets validated by the SBTi, and submitted our baseline and targets for validation.

We report our energy use and carbon emissions in our sustainability and annual reports, and we disclose through CDP. In 2023, we responded to CDP supply chain questionnaire requested by AT&T, BT Group, Cisco Systems, Deutsche Telekom, Juniper Networks, Swisscom, Telus and Verizon Communications.





## Support sustainable innovation



# Spirent Academia Program supporting research and innovation

Through our Academia Program, we collaborate with leading universities around the world to conduct innovative research, bring new technologies to market and develop new skills for university students and our own team.

The Program is focused on our Positioning Technologies business, but increasingly incorporates our other specialisms.

### Research and knowledge transfer

We collaborate with universities around the world to support innovative research, enhance teaching, and share knowledge and insights between academia and industry.

### Horizon scanning and solving emerging challenges

Our university research partnerships put us at the forefront of emerging technologies. Our work gives us unparalleled insights into new challenges and solutions for our customers, and places our test solutions in labs leading the research.

### Skills and development

We support industry relevant student research projects, offer early career work opportunities, and facilitate learning and development for our team.





Since 2021, we have co-authored or contributed to 25 academic papers through our research partnerships.

## Research and knowledge transfer

We operate more than 30 university partnerships worldwide. We offer three types of partnerships designed to bridge the gap between industry and academic:



- Teaching and lab support:** Through a teaching partnership, we provide universities and colleges with world-leading teaching resources on positioning, navigation and timing (PNT). We introduce students to real-life industrial challenges and provide hands-on experience to develop workforce-ready skills. The support includes ready-to-use lecture materials and workshop resources, access to industry-leading hardware and software, and support from Spirent experts. Three of our team have been appointed as visiting professors. We currently have seven teaching partnerships in place, including with South Devon College, UK and University of Sains, Malaysia.



- Collaborative research:** Through our research partnerships, we conduct joint research on PNT and emerging communications technologies. We have 22 active collaborative research partnerships in place, which are exploring:
  - core PNT themes such as aviation, maritime and handheld devices;
  - emerging and adjacent research themes, such as space weather, AI, Low earth orbit systems and autonomous vehicles; and
  - product improvement, including user experience, energy and noise reductions and data compression.

This work includes research on scintillation modelling and space weather effects, with Prof. Cathryn Mitchell at the University of Bath, autonomous navigation with Dr Ze Ji at Cardiff University, and assured PNT solutions with Dr Matthew Higgins at the University of Warwick.



- Sponsored labs:** Lab sponsorships are the most comprehensive partnerships, and include close collaboration to push the boundaries of PNT technology and accelerate market adoption. We currently run two sponsored labs, including the Digital Aviation Research and Technology Centre (DARTeC) at Cranfield University, where we are a consortium partner.

Since 2021, we have co-authored or contributed to 25 academic papers through our research partnerships.





## Embed sustainability in customer centricity

# Supporting customers to reduce energy use and carbon emissions

Energy and carbon emissions are critical issues for many of our customers. Energy costs have risen sharply and at the same time, greater demand for data is increasing energy use within networks.

Testing during the development and deployment phases for hardware and network operations are increasingly complex, which is delivered through extensive lab and physical testing. Hardware companies need validation for the innovative solutions that will deliver improved efficiency in the next generation of equipment and devices, and network operators and organisations need to test and validate energy saving strategies, which include automation, migration to the cloud, virtualisation and upgrading to new, more efficient equipment.

Spirent's promise to customers enables rapid change, and our test solutions help customers to improve energy efficiency and reduce carbon emissions across the whole business lifecycle:

- Testing new technologies
- Core network infrastructure
- Engineering labs
- Network deployment
- Service assurance

In this report, we'll showcase the impact we've helped deliver for customers in development labs, and how we have shaped our service offering to deliver cost, energy and carbon savings to our customers.





## Case study: Lab Automation – tier-one financial services company

### Lab automation delivers major energy and carbon savings for tier-one financial provider

Testing IT equipment and networks is vital for financial services companies, and with thousands of branches and offices worldwide and an ever-increasing number of network updates, the scale and complexity are daunting. Keeping up with new releases is critical to keep systems secure and any outages have a direct impact on customer experience, a company's reputation, and can lead to financial penalties.

Historically testing has been done manually, which is time consuming, expensive and leads to low equipment utilisation.

Spirent's test automation solutions like iTest and Velocity are the ideal solution, as they are able to automate both the testing process and time-consuming configuration often required between tests. We are also leveraging our extensive expertise to redesign their lab and testing framework, which will deliver additional improvements than just automating their existing test processes.

Doing so unlocks a suite of efficiencies:

- **Less hardware needed:** More efficient testing means less equipment is needed in the labs. This reduces capital costs as well as lower energy use. Additionally, this also reduces the indirect emissions associated with the manufacture, logistics and end-of-life of electronic hardware.
- **Equipment energy savings:** Our test automation solutions can switch off equipment when it's not needed, avoiding the long periods where equipment is idle but powered on.
- **Less cooling:** Hardware and energy savings on the lab bench reduce the demand for space cooling on a 1:2:1 basis, doubling the savings.
- **Smaller and fewer labs:** With less equipment needed and the ability to connect to test equipment virtually, labs can be smaller and consolidated. Our client is able to avoid using third-party labs, delivering a considerable cost saving.

- **Cost and time savings:** Manual testing is inherently inefficient, with long delays between tests and to allow for manual equipment and cable reconfiguration. Automation has delivered a 90x decrease in time taken to run tests and reduce the lab queue.

The new automated lab provides the customer the right solution to scale up test to keep their business safe and compliant, whilst delivering significant business and environmental benefits.

**\$21 million**  
saved each year

**Test 90x**  
faster

**4,000 MWh**  
of electricity saved annually

**500 tonnes**  
CO<sub>2</sub>e saved annually





## Driving energy efficiency of Spirent products

# Driving energy efficiency in Spirent products

### Better product energy use data

During 2023, we have completed detailed energy assessments of 20 of our key products to help us understand and report their energy use profile better and improve performance at the design stage.

[Read more on page 32](#)

### Virtualised solutions and test-as-a-service

We are growing our virtual test solutions, as well as investing in services and software which reduce the environmental impact of our test solutions. We are also growing our Lab- and Test-as-a-service offering, offering customers more flexible solutions that don't require shipping hardware to customers.

### Use off the shelf hardware

We are increasingly using off the shelf hardware in our solutions, leveraging the designed efficiencies which are possible when manufacturing at scale.

### Embed energy efficiency into design

Where we produce our own hardware, we are including increasingly efficient design criteria. In 2023 we published eco-design guidance for our design engineers and the first cohort of engineers took our circular economy training course.

[Read more on page 59](#)



## Research impacts: reducing energy use and noise in Spirent products

The GSS 9000 is our most comprehensive GNSS simulator, offering sophisticated multi-frequency testing suited to military, space and other high-precision applications.

This high-performance brings with it a significant energy demand and cooling requirement and we have set out to reduce energy use and fan noise in response to customer feedback.

We developed a research brief and shared it with our university partnership network through the innovation portal. This was picked up by a student at Birmingham City University as the focus for a final year project. Working with a Spirent engineer, the student is currently undertaking research into the potential opportunities to reduce energy consumption and noise.

These projects offer an excellent opportunity to share ideas between experienced engineers and students, raise awareness of our business with prospective students, and provide real-world work experience whilst solving valuable problems.





# Supporting customers to reduce energy use and carbon emissions

## Case study: Visionworks

### Reducing carbon emissions through remote testing mobile networks

We all rely on good quality mobile networks, whether for work or in our day-to-day lives. To ensure clear voice calls and good coverage, networks increasingly use mobile data and Wi-Fi networks. Network operators conduct rigorous testing to monitor performance and investigate faults to keep us all connected and as network demand expands, so does the need for testing.

Network testing however has historically been done in person, with an engineering being dispatched in a vehicle. This approach is slow, high-cost and has a significant carbon footprint. Spirent's VisionWorks solution allows mobile network operators to monitor performance and fault-find remotely. This significantly improves the quality of testing whilst reducing the time taken, the cost and emissions.

Spirent's VisionWorks gives network operators the tools to get a complete view of their networks, analyse performance and automate testing.

- **Coverage:** VisionWorks provides a comprehensive view of performance across a network. Using a combination of passive and active tests, it helps to isolate any network problems.
- **Analytics:** VisionWorks uses machine-learning to analyse massive amounts of performance data to give network operators meaningful insights, reducing the time to resolve issues.
- **Automation:** VisionWorks' automation tools allow network operators to test the roll-out of new networks, monitor performance and trouble-shoot network issues.

We work with network operators across the world to conduct scheduled and on-demand testing by installing VisionWorks probes within their networks. This has dramatically reduced the amount of testing completed by field engineers, saving millions of dollars a year and reducing carbon emissions from vehicle movements.







## Supporting customers to reduce energy use and carbon emissions continued

### Case study:

### Support sustainability across the 5G roll-out: our impact

Spirent's test and assurance solutions help customers reduce their energy use and carbon emissions, and support the innovation around energy efficiency needed to deliver 5G networks.

#### Testing and validating the new technology needed to deliver greater energy efficiency

5G networks will need to manage significantly more data. Spirent is working with equipment manufacturers to test and validate new designs that deliver energy efficiency improvements. This includes new, more efficient radios, delivering greater spectral efficiency and deploying Massive MIMO (multiple-inputs, multiple-outputs).

To drive efficiency in the network and support a transition to net zero carbon, network operators are also using virtualisation which allows their systems to operate from efficient, off-the-shelf servers rather than less efficient bespoke hardware.

**Our impact:** Spirent is working with hardware manufacturers and network operators to test the new technologies during R&D and deployment. The first wave of support has focused on the new 5G cell towers, where we provide test solution to develop the new hardware which incorporates energy efficiency improvements and validate the quality of service when deployed. We also help Ethernet switch manufacturers to unlock efficiencies when developing high-speed 800Gb switches needed to meet the growing data demands.

#### Delivering energy efficiency in the network core infrastructure

5G networks infrastructure is based within data centres which process the network traffic. Historically, these have operated from bespoke hardware in premises operated by the network operator.

**Our impact:** We have worked with network operators to deliver efficiencies in both edge hosted equipment (located near the cell sites) and central data centres. We have helped network operators improve efficiency by moving to efficient, generic hardware using network function virtualisation (NFV) and to move to hosted data centres or the cloud, which offer greater energy efficiency.

#### Driving efficiency in labs

Automation and virtualisation are key design objectives for Spirent as they help our customers do more with less. Velocity helps customers to share lab equipment globally and automate testing, allowing customers to run fewer, smaller labs. This means they need less equipment and dramatically reduces direct energy use and property costs. It also allows staff to use equipment remotely, reducing emissions from staff travel.

**Our impact:** Using Velocity, we have helped handset manufacturers and network operators reduce the size of their labs, delivering significant cost, time and carbon reductions.





## Network deployment

When deploying a new 5G network, network operators may need to deploy and test hundreds of thousands of small cells to ensure they meet service level agreements before and after the network goes live. Rather than using manual testing, Spirent's automated active assurance solution dramatically reduces the time and cost of roll-up and provides the operator with real-time analytics of service quality levels and any deviations.

**Our impact:** We worked with a tier-one network operator to deploy 25,000 small cells in one year, reducing installation times for two hours to less than five minutes per cell. More than 85 per cent of activations were zero touch, saving an estimated \$3 million, reducing deployment times, and minimising truck rolls and the associated carbon emissions.

Through Spirent's Landslide and Fit 4 Launch solutions, our customers can test the networks and devices that operate on them in the lab, avoiding costs and carbon emissions from trouble-shooting issues in situ.

## Service assurance: Vantage and VisionWorks

A major part of a network operator's carbon emissions arises from engineers travelling to investigate and fix network faults. Spirent's Vantage and VisionWorks solutions provide network operators with the tools to monitor networks on a continuous basis, identify faults remotely and even solve them without having to deploy engineers in the field.

**Our impact:** We work with network operators across the world to conduct scheduled and on-demand testing by installing VisionWorks and Vantage solutions on their networks. This has dramatically reduced the amount of testing completed by field engineers, saving millions of Dollars a year, and reducing carbon emissions from vehicle movements. VisionWorks is deployed by six large network providers globally, and our new product, Vantage is designed to provide a simpler test solution which is well suited to smaller networks or those with lower testing requirements.



Spirent is ideally placed to help deliver carbon reductions across the 5G network.

**Doug Roberts**  
Executive Vice President and General Manager,  
Automated Test and Assurance



## ESG in our go-to-market strategy

# Embedding climate change in our go-to-market strategy

The IT and telecoms sector is responsible for around 4 per cent of global carbon emissions. With an urgent need to tackle the climate crisis, forward-thinking mobile network operators are committed to net zero carbon.

In 2020, a sector-specific science-based decarbonisation pathway was published which aims to reduce operational network emissions (Scopes 1 and 2) by 45 per cent by 2030 and to reach net zero emissions by 2050.

To achieve this, new solutions are required. Advanced testing, powered by automation, will play an important part in delivering a net zero future. Spirent's suite of solutions will help customers drive energy efficiency in their networks, deliver the new technologies needed to achieve low carbon future, and respond to the emerging challenges the transition will bring.



### Spirent Academia Program: Supporting sustainable innovation

#### Research insights: Supporting research into climate impacts on positioning, navigation and timing (PNT)

Climate change will bring significant changes to the physical environment, technology and the economy. Through our research collaborations, we are helping to develop a better understanding of the impacts and potential solutions.

- Impact of electrical storms on GNSS: Climate change is likely to lead to more frequent and significant electrical storms. We are working with Prof. Catheryn Mitchell at the University of Bath to explore the impact of electrical storms on global navigation satellites systems (GNSS).
- Distributed renewable energy generation: Electricity grids are changing rapidly, with thousands of solar and wind farms and rooftop systems being added. GNSS systems are vital for synchronisation and stability of electricity networks and the financial transactions that drive smart grids. We are supporting research that will ensure that electricity grids and national infrastructure remain resilient.



#### ESG Panel discussion with the Academia Forum

We host an annual Forum 3 with academics in PNT and emerging technologies from research institutions around the world to share their research and insights. During the 2023 forum, we ran a session on sustainability to explore how technologies, practices and procedures in the positioning industry can be made more sustainable.



#### Supporting GNSS research that will enhance marine conservation

In September 2023, we submitted a letter of support for a research project with the University of Essex and Sheffield University, aimed at exploring how marine and airborne drones can be used to monitor ocean pollution. The research project is at an early stage and the letter plays an important part of funding applications, demonstrating support from industry to deliver the research and to validate the importance of the findings.

If successful, we will provide equipment, software and access to our labs in Paignton, as well as support from our engineers to deliver training, guidance and support with data collection and analysis.



## Accelerating services provider journeys to net zero emissions

<p><b>Network lifecycle automation to reduce operational emissions</b></p>	<p>Automating and consolidating energy-intensive labs and lifecycle processes (Lab to Live, DevOps) have demonstrated up to 40 per cent energy savings.</p> <p>Automating and accelerating service turn-ups by 10X to reduce energy-intensive physical and on-site activities.</p> <p>Automating service assurance and network performance monitoring activities to reduce energy-intensive triage and maintenance tasks, such as bulk data collection and transfer, site visits and truck rolls.</p>
<p><b>Accelerating the adoption of energy efficiency technology</b></p>	<p>Testing and accelerating the adoption of energy-efficient 5G New Radio (NR) equipment to utilise greater spectral efficiency and enhanced deep sleep modes. 5G NR has demonstrated the potential to consume 25 per cent less power compared to 4G solutions.</p> <p>Validating the use of public cloud and edge infrastructure for hosting the 5G core to benefit from shared (multi-tenant) and better-managed resources, advanced cooling techniques, optimised data storage, and the ability to match workloads with renewable energy availability. Cloud computing has the potential of improving energy efficiency by 93 per cent and producing 98 per cent fewer greenhouse gas emissions than on-premises IT infrastructure.</p> <p>Testing and accelerating the adoption of power-efficient next-gen high-speed Ethernet (800GE) in transport networks and data centres. Using faster 800GE is more energy-efficient than transporting an equivalent volume of traffic using multiple 400GE or 100GE links. 800GE optics consume between 20 to 40 per cent less energy per gigabit of traffic.</p>
<p><b>Supporting sustainable innovation</b></p>	<p>Accelerating 5G-enabled industry innovation around CO<sub>2</sub> reduction in high-emitting industries, such as automotive, manufacturing, energy production and transportation. Spirent's digital twin solutions speed innovation by accurately emulating complex real-world network environments in controlled and repeatable conditions.</p> <p>Automating energy-intensive private network operational processes, so enterprises and industries can easily and rapidly adopt 5G technology, enabling broader decarbonisation solutions and outcomes.</p>

## Including climate change in our marketing messaging

We have incorporated sustainability messaging into our go-to-market strategies and collateral, using the environmental benefits alongside cost and technical advantages from real projects in case studies where relevant.

During 2023, we developed updated sustainability collateral into our marketing material for our positioning products and published series of white papers and case studies to showcase the real-life emissions reductions that our customers have delivered with our solutions. Our marketing and technical teams have continued to present at industry events.



**Network operators need new solutions to deliver a low carbon future. Spirent is already helping to deliver efficiencies in labs, data centres and networks and our test solutions are critical in the development, testing and validation of new technologies.**

**Steve Douglas**  
Head of Marketing Strategy





# Net zero carbon



## Our promise

“We will achieve CarbonNeutral® certification in two years, and work towards net zero carbon by 2035 through energy efficiency, 100 per cent renewable electricity and carbon offsets.”

## Why is this important?

- Climate change is a globally important issue.
- Our operations and supply chain are vulnerable to impacts from climate-related extreme weather, wildfires and disruption.
- Our investors and customers expect us to take action.
- There is an opportunity to drive efficiencies in the business and reduce operating costs.

## 2023 highlights

- Commenced an ambitious new lab and estates strategy that will reduce direct energy use and form a keystone for our net zero strategy.
- Submitted science-based target to SBTi for approval.
- Developed enhanced data collection processes for product use, the largest single contributor of our carbon footprint, and implemented a number of improvements in new product designs.
- Engaged key suppliers to collaborate on carbon reduction initiatives.



In 2023 we developed an ambitious lab and estates strategy which will deliver significant reductions in energy use and carbon emissions. We have commenced a phased transition from on-site labs to a high-efficiency data centre powered by 100 per cent renewable energy.

Chris Francosky  
Chief Information Officer







## Key themes and targets

Climate change poses a significant threat to people and economies around the world, and we have a duty to act.

In 2023, we introduced a new lab and estates strategy that will reduce our carbon emissions by 60 per cent over the next 3–5 years. We submitted our science-based targets to SBTi for accreditation and have implemented processes to improve product use energy efficiency and data quality.

Our unabated Scope 1 and 2 carbon emissions decreased by 2 per cent compared to last year, driven predominantly by our site rationalisation process. We have reduced our carbon emissions by 38 per cent since 2014.

<b>Energy efficiency</b>	<b>Objective:</b> Reduce energy use and costs.	<b>Action:</b> Site consolidations and closer lab management.	<b>Targets:</b> Reduce energy use by at least 25 per cent from 2019 baseline by 2025.	<b>Progress: Progress made</b> Energy use reduced 2 per cent in 2023, and is down 11 per cent since 2019.
<b>Carbon reduction</b>	<b>Objective:</b> Achieve carbon neutrality certification in two years, and set a science-based target to achieve net zero carbon by 2035.	<b>Action:</b> Achieve carbon neutral certification, measure Scope 3 emissions and work with partners to reduce emissions.	<b>Targets:</b> Achieve corporate carbon neutral certification by end of 2023.  Achieve carbon net zero by 2035.	<b>Progress: Achieved</b> We achieved carbon neutral certification for emissions across Scopes 1, 2 and some Scope 3 emissions.  We developed a carbon reduction strategy that will deliver our emissions reductions in line with science-based targets.
<b>Renewable energy</b>	<b>Objective:</b> Source 100 per cent of electricity from renewable sources and work to purchase increasing energy from new generation capacity.	<b>Action:</b> Secure green electricity contracts and EACs. Work to purchase energy from additional renewable energy sources.	<b>Targets:</b> Maintain 100 per cent of electricity from renewable sources annually.  Increase the proportion of electricity sourced from new renewable energy by 2026.	<b>Progress: On track</b> We sourced 100 per cent of our electricity from renewable sources in 2023.  We conducted a feasibility assessment to expand the PT solar PV system at our Paignton site, and expect installation to occur in 2024.  We selected our new lab co-location partner that runs of 100 per cent renewable electricity.
<b>Offsetting</b>	<b>Objective:</b> Offset any remaining emissions after reductions and renewable energy.	<b>Action:</b> Purchase good-quality carbon sequestration credits.	<b>Targets:</b> Offset any emissions that we cannot reduce within the scope of our carbon neutral certification by 2023.	<b>Progress: Achieved</b> We achieved carbon neutral certification for emissions across Scopes 1, 2 and some Scope 3 emissions.
<b>Engage key partners</b>	<b>Objective:</b> Work with partners to reduce supply chain emissions.	<b>Action:</b> Engage with suppliers and establish formal carbon agreements with key partners.	<b>Targets:</b> Set formal carbon reduction targets with key suppliers and report on progress by end of 2022.  Collate Scope 3 carbon emissions from key suppliers by end of 2023.	<b>Progress: On track</b> We have engaged with key suppliers and have commenced emissions data collection.





# Journey to net zero

## Net zero target

We are committed to achieving net zero carbon by 2035 and reducing carbon emissions in line with 1.5 degree scenario. We have established a robust baseline for emissions across Scope 1, 2 and 3 and have set near- and long-term reduction targets to deliver on this.

2025	2030	2035
15 per cent reduction in Scope 1, 2 and 3 emissions by end of 2025	39 per cent reduction Scope 1, 2 and 3 emissions by end of 2030	We will reach net zero emissions across our value chain by end of 2035
Compared to 2022 baseline	Compared to 2022 baseline	By reducing our absolute Scope 1, 2 and 3 emissions by 63 per cent compared to 2022 and neutralising any remaining emissions by removing an equal amount from the atmosphere

## Target approval

This year, we sent our letter of intent to the Science Based Targets initiative (SBTi) and submitted our 2030 target and data for approval against the Net-Zero Standard.

## CarbonNeutral® certification

In our net zero carbon journey, our focus is on reducing our energy use and carbon emissions. Whilst we've made good progress in the last decade to do so, there is still a long way to go. So when we refreshed our sustainability strategy in 2020, we wanted to set some tangible, interim objectives that reflect our commitment to a low carbon future.

We chose to achieve and maintain company certification in accordance with The CarbonNeutral Protocol, and have done so since 2021. Building on our long-term energy and carbon reductions, we partner with Climate Impact Partners to purchase high-quality carbon credits to offset emissions from Scope 1 and 3 (Transmission and distribution losses, Waste, Business Travel, Homeworking). We select carbon reduction projects that reflect the nature of our business and our global presence, deliver reliable carbon reductions, and create additional impact on the UN's Sustainable Development Goals.

Our projects all follow carbon standards that meet the ICROA Code of Best Practice. These standards have established robust processes of design, monitoring and independent verification that establish the quality of the projects, the emissions they reduce and remove, how they change "business as usual" and their additional benefits to communities.

For 2023, we have selected a portfolio that includes renewable energy generation, rooftop solar in India, and industrial emissions reductions in the United States. In addition, we were keen to support emerging carbon removal technologies, and bought additional credits from an innovative biochar project in Maine, US.



### Industrial emissions reductions: US

Supports sustainable infrastructure and industry by removing potent greenhouse gases from industrial processes.

- 2023: Purchased credits for 661 tCO<sub>2</sub>e.
- Verified under the American Carbon Registry.



### Orb Rooftop solar programme: India

Supports the installation of micro solar electricity and heating systems which replace kerosine and carbon intensive grid electricity.

- 2023: Purchased credits for 600 tCO<sub>2</sub>e.
- Verified under Gold standard and CDM.



### Renewable energy portfolio, global

Supports large-scale renewable electricity generation to displace fossil fuel generation.

- 2023: Purchased credits for 1,500 tCO<sub>2</sub>e.
- Sourced from Sichuan Cascade Hydro and Zhaoyuan Xinlong Shunde Wind projects, China.
- Verified under CDM.



### Enfield Biochar, US

Through Pyrolysis woodchips and sawdust are converted into biochar, which remains inert for centuries. We are supporting this early stage project to catalyse investment in this emerging technology. We are not relying on the credits purchased to meet our CarbonNeutral® certification.

- 2023: Purchased credits for 50 tCO<sub>2</sub>e
- Project to be verified under Puro.Earth





## Emissions reduction strategy

### Lab and Estates strategy

Our labs are located across the world: their location influenced Spirent's historic acquisitions. Our largest offices are located with these labs to give staff quick and easy access.

The successful adoption of flexible and remote working practices in response to COVID-19 has unlocked the opportunity to rethink our lab and wider estates strategy, as engineers no longer need the same level of hands-on access to equipment. This will deliver significant energy and carbon savings. Over the next three years, we will migrate our on-premise labs into more efficient centralised co-location environments and reduce their size, making use of our own test automation and scheduling solutions to drive further efficiency.

We conducted a rigorous search to find the right partner, who would meet our requirements on quality, environmental performance and security and selected Evoque's Lynnwood site, which is powered by 100 per cent renewable electricity.

As we relocate our labs, we will also downsize our offices which are now larger than we need due to the adoption of flexible work patterns. We have developed a new property standard which will guide our site selection. The guidelines include standards on energy efficiency, sustainable materials, sustainable travel options and on-site renewable energy.

The combination of lab and office relocations will reduce our operational carbon emissions (Scopes 1 and 2) by around 60 per cent.

The relocation process will start in early 2024 with our San Jose site, followed by our Calabasas site in 2025. All other labs will follow shortly thereafter.

### Engaging with key partners

We have engaged with key suppliers on sustainability issues through our supplier audit programme, including on energy use and carbon emissions. In 2022, we appointed a Global Operations ESG lead who has commenced an engagement programme with key suppliers to commence an ongoing dialogue on their energy management, carbon emissions strategies and climate change risk management and commence a process of target setting.

### Logistics

Since completing a detailed analysis of all our carbon emissions sources in 2022, we have started to explore how to deliver carbon savings. Logistics offers some important reduction opportunities.

Historically, the majority of our products have been dispatched to clients within the US by overnight air freight. In 2023 we conducted a trial to assess the feasibility of moving non-urgent state-to-state deliveries via ground transport.

Having worked with FedEx to implement detailed carbon reporting for logistics at the beginning of the year, we tracked the impact of the trial which ran from May to August. The trial demonstrated a positive proof of concept, with emissions per kg/km dropping 8 per cent.

We will explore the best way to deliver the potential carbon savings from this approach at scale, including appropriate policies and guidance.



**Our new lab and estates strategy will be a game changer for our business and our emissions reduction programme. We will reduce our direct carbon emissions by 60 per cent whilst delivering enhanced working environments.**

**Ray Lee**  
Director of Global Properties





# Energy



## Energy management

Our labs are the largest energy user within our operations and, as such, are the main focus of our energy efficiency initiatives.

Our lab in Calabasas is the largest in the Group. We have deployed a range of energy efficiency measures including hot-isle containment and in-row cooling and monitoring energy use in each rack.

We have a lab energy efficiency working group who actively manage lab equipment and systems to ensure they remain lean and efficient. We conducted a benchmarking exercise which allowed us to compare management approaches between our locations and changes from last year. We have been rolling out efficiency initiatives across our largest labs, which have delivered significant savings. During this year, we conducted detailed energy audits of our major engineering labs to identify further reduction opportunities.

## Lab equipment virtualisation and test automation

We have been able to remove under-utilised equipment and draw on Spirent automation solutions like Velocity and iTest to reduce the equipment in the labs by improving utilisation rates. We also use these products to help our customers improve the efficiency of their labs, which has led to carbon savings of more than 60 per cent in some cases.



We have invested in an energy-efficient cooling system for our lab in Calabasas, California.



## Energy continued

### Renewable energy

Moving away from fossil fuels is vital to reduce global emissions and have a target to source 100 per cent of our electricity from renewable sources.

Our site in Paignton has a 50kWp solar array which generated around 45 MWh of zero carbon electricity each year. This supplies around 8 per cent of our electricity use at the site, equivalent to around 12 homes.

Paignton, however, is the only site we own. All other global sites are leased, which has made installing renewables at other sites quite difficult. We have zero carbon electricity contracts in place for our Crawley, Paignton and Berlin sites, and low carbon tariffs in place at our Paris office.

Many of our sites also do not have access to zero carbon electricity tariffs, so we have partnered with Natural Capital Partners to source renewable Energy Attribute Certificates, which has allowed us to meet our commitment to purchasing 100 per cent of electricity from renewable sources.

A key part of our strategy is focused on the development of new renewable energy capacity on-site and within key suppliers. When selecting our new lab co-location partner, renewable energy was a key requirement.

### Energy performance

Energy use across the Company where we are directly responsible decreased by around 3.0 per cent in 2023 to 13,761 MWh (2022 13,157 MWh). Overall, our energy use is 12 per cent lower than in 2019, the baseline for our five year energy reduction target.

A key factor supporting the reduction in energy use during the year is that we reduced the size of our estate by around 5 per cent, including decreasing the size of our San Jose site by around 30 per cent prior to closing it entirely in 2024. During the year we also closed a number of small offices at Acorn House in Paignton, San Diego, Southborough and opened a new small sales office in Bucharest.

Around 1.5 per cent of electricity use estimated. This is on sites where we do not pay for energy directly but instead pay indirectly through a service charge.



### Case study: Expanding solar array at Paignton

When we first explored the opportunity to install solar on site at our Paignton office, the maximum size of the system was limited to 50kWp due to the capacity of the local substation. Recent network upgrades have meant that we have the opportunity to install an additional 94kWp system, which would triple the total generation capacity installed. During 2023, we conducted a feasibility study and obtained installation quotes.

Our existing installation generates around 40–45 MWh of renewable electricity, saving around 9 tonnes of carbon annually. The expanded system will generate up to 145 MWh of renewable electricity each year, enough to power 36 homes.

After implementation, we expect the system to deliver more than a quarter of the electricity at the site, and deliver more than 20 per cent of our electricity use in the UK from onsite renewables.





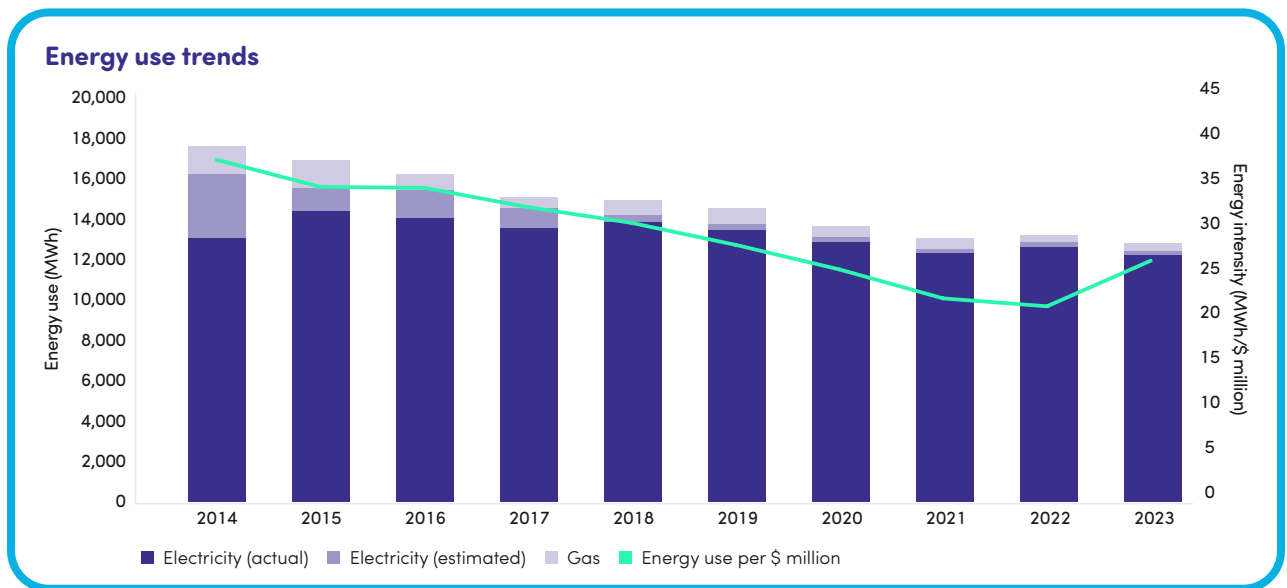
## Energy trends

The energy intensity of our operations, measured in MWh per \$ million of revenue increased by around 24 per cent since 2022 due to the decrease in revenue during 2023, but remains 30 per cent lower than 2014.

	2014	2022	2023
Electricity (actual) (MWh)	12,995	12,576	<b>12,178</b>
Electricity (est.) (MWh)	3,118	237	<b>180</b>
Gas (MWh)	1,433	344	<b>402</b>
<b>Total (MWh)</b>	<b>17,547</b>	<b>13,156</b>	<b>12,761</b>
Energy intensity (MWh per \$ million)	38.4	21.7	<b>26.9</b>



In 2023, 100 per cent of our electricity came from renewable sources.



We have achieved significant energy reductions since 2014 and reduced the proportion of energy use we estimate. Since 2014, we have reduced our energy use by 27 per cent.







# Carbon emissions

## Management approach

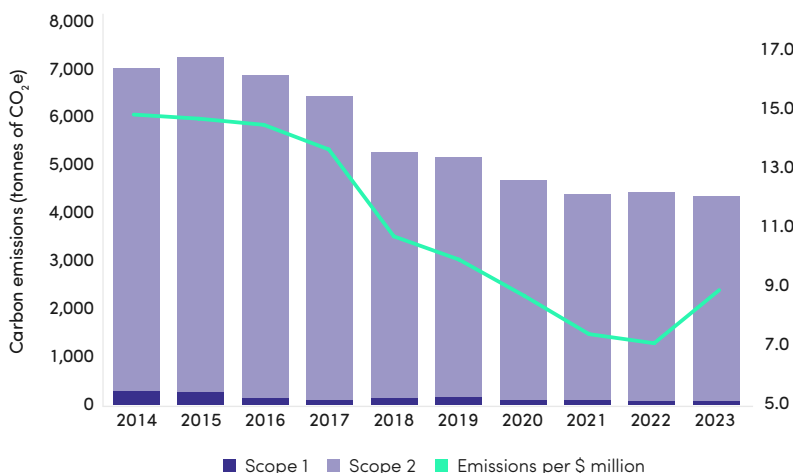
Greenhouse gas emissions are a material issue for Spirent, and we are committed to reporting emissions and acting to combat climate change. The Group once again reported to the Carbon Disclosure Project, completing the Climate Change and Supply Chain questionnaire. This year our climate change and supplier engagement scores increased to a B (2022 climate change C, supplier engagement B-).

We report our emissions using both the location and market-based methodologies set out in the GHG Protocol. The two methodologies look at our energy use in two ways. The location approach uses the averages emissions for each country, and has been the way we have reported our emissions since 2014. The market approach uses the emissions factor from the energy we buy and takes into account purchased renewable energy and so will be an important way to monitor our progress towards achieving carbon neutrality.

## Unabated carbon emissions

Emissions from:	Location based		Market based	
	2023 Tonnes of CO <sub>2</sub> e	2022 Tonnes of CO <sub>2</sub> e	2023 Tonnes of CO <sub>2</sub> e	2022 Tonnes of CO <sub>2</sub> e
Combustion of fuel and operation of facilities (Scope 1)	73.6	62.7	58.5	44.9
Electricity, heat, steam and cooling purchased for own use (Scope 2)	4,117.6	4,208.0	-	-
<b>Total emissions</b>	<b>4,191.2</b>	<b>4,270.9</b>	<b>58.5</b>	<b>44.9</b>
<b>Emissions intensity metrics:</b>				
Per FTE	2.75	2.58	0.04	0.03
Normalised per \$ million of revenues	8.84	7.03	0.12	0.07

### Location-based emissions

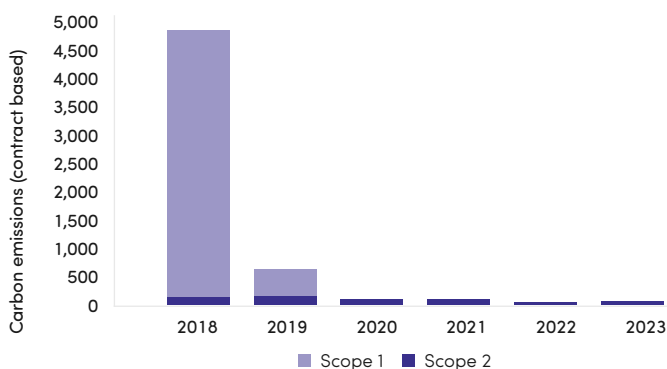


In 2023, total Group unabated location-based Scope 1 and 2 emissions reduced by 1.8 per cent from 2022 to 4,192.4 tonnes of CO<sub>2</sub>e. Revenue emissions intensity (tonnes CO<sub>2</sub> per \$ million) increased by around 26 per cent, due to the reduction in revenue this year.

Since 2014 we have reduced our location-based carbon emissions by 38 per cent and our revenue emissions intensity by 40 per cent.

### Contract-based emissions

Our 2023 emissions remain significantly lower than our 2018 baseline, due to our continued use renewable electricity. Our unabated scope 1 and 2 emissions increased by 13.6 tonnes CO<sub>2</sub>e (30 per cent) from 2022 primarily due to the increase in gas use overall in Calabasas.





## Scope 3 emissions

We have calculated Scope 3 emissions across all relevant emissions sources for Spirent, which provides insight into where indirect emissions occur across our value chain. Scope 3 emissions include those emissions that Spirent is not directly in control of, including raw materials, manufacturing, logistics, business travel and commuting, as well as emissions associated with our products during use and at the end of their life. As such we have less control and influence over these emissions, and the data availability and quality are lower than for our Scope 1 and 2 emissions.

We have improved the quality of the data of some key emissions sources (in particular, the use of products), however there still remains a level of uncertainty for this data and it may be that significant changes occur in future as data quality and availability improves.

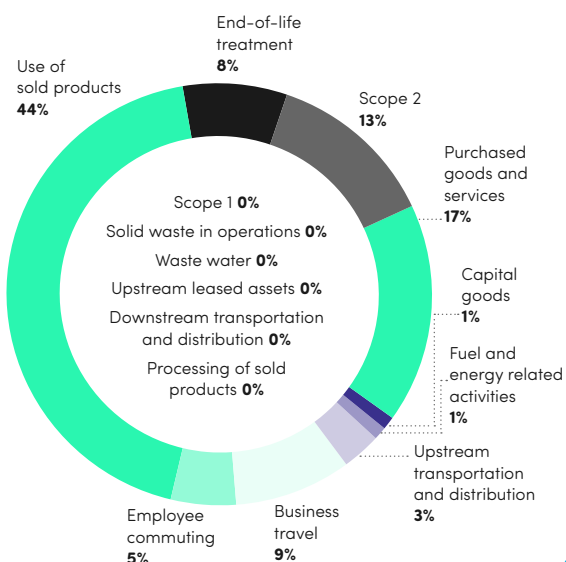
The largest emissions sources relate to the use and end of life of products, which together account for more than 70 per cent of 2023 Scope 3 emissions. Purchased goods and services and capital goods combined make up around a further 20 per cent.

	2023 tCO <sub>2</sub> e	2022 tCO <sub>2</sub> e
<b>Upstream emissions sources</b>		
Purchased goods and services	5,650	6,830
Capital goods	250	570
Fuel and energy-related activities	310	245
Transport and distribution	1,020	1,175
Waste water	10	40
Waste generated in operations	1	10
Business travel	2,860	2,785
Employee commuting and homeworking	1,475	1,460
Leased assets	n/a	n/a
<b>Downstream emissions sources</b>		
Transport and distribution		Reported within upstream data
Processing of sold products	n/a	n/a
Use of sold products	14,300	28,000
End of life of sold products	2,550	3,300
Leased assets	n/a	n/a
Franchises	n/a	n/a
Investments	n/a	n/a
<b>Total</b>	<b>28,426</b>	<b>44,415</b>

### Total carbon emissions breakdown

Our Scope 3 emissions make up more than 87 per cent of our calculated emissions for 2023.

Emissions from the customer use of our products was the largest source in 2023, making up 44 per cent of our total unabated reported emissions. The total emissions from product use was around half those of last year, mainly due to the availability of expanded product energy data and lower hardware sales.



### Case study: Improving product lifecycle data and performance

The use of sold products represents nearly 60 per cent of our total carbon footprint. With this in mind, we have focussed on improving the data on product energy use.

During 2023 we conducted further energy assessments and now have data for 20 of our top selling products across the Positioning and Cloud and IP businesses which in total represent more than a third of revenue.

The estimated emissions from product use calculated with the expanded data set is around half those from the previous year, at 14,300 CO<sub>2</sub>e. This is predominantly due to the inclusion of different product types in the data set, but the overall reduction in hardware sold in the year has also contributed.

There are significant opportunities to further improve the data we have on product energy use, both in terms of the number of products assessed and the assumptions made around how products are used by customers.

A key focus area for us will be to continue to improve our data, but we will also use this data within the product design process to seek out further energy efficiency opportunities.



# Climate change risks and opportunities

## Task Force on Climate-related Financial Disclosures (TCFD)

Climate change creates new risks and opportunities for companies. In accordance with the requirements of Listing Rule 9.8.6R, Spirent has provided disclosures against all 11 disclosure recommendations that span four key areas of governance, strategy and climate change scenario analysis, risk management, and metrics and targets. These disclosures also meet the mandatory CFD requirements and form part of the NFSI statement.

### Governance and risk management

The Board considers sustainability issues (including climate change) at least twice a year and oversees the consideration of climate-related risks and opportunities under the TCFD disclosure requirements, as well as monitoring progress against our future positive sustainability strategy, including climate-related goals and targets.

A detailed review of how climate change may impact our business in the future was completed in 2021 and the assumptions and findings were reviewed in 2022, with only minor changes being made. The significant climate-related risks and opportunities were initially identified via an analysis conducted by a sustainability consultant which considered physical, regulatory and commercial factors across various scenarios, all of which were examined through a senior manager workshop, including Executive Directors, General managers of our Business Units and Supply Chain, and Operational Executives. These are reviewed on an ongoing basis by the Executive Director-led ESG Management Committee, the Audit Committee and its Risk Sub-Committee, as part of our business risk and financial planning processes, with the CEO having overall responsibility for sustainability matters. The materiality of the potential climate impact is assessed using the Group's materiality criteria.

Over the course of 2023, a number of investors and customers have engaged with us on the importance of climate change, and we have incorporated their expectations into our materiality, strategy and reporting planning.

### Strategy

Spirent recognises the importance of climate change as an environmental threat that the world faces, and as such we have carefully considered the impact of such risk across our operations. Climate risks are entirely integrated into our risk management process.

We have identified the following risks across a variety of time horizons. The risks consider the potential for increased exposure to extreme weather events at a Group location or key supply chain site. In addition, likely changes to the regulatory system in which the Group operates have been considered.

For the purpose of evaluating climate change-related risks, the Group has defined the following time horizons, which also ensue that other timeframes, such as business planning and viability are aligned:

Short term	Medium term	Long term
0–2 years	2–10 years	10+ years

In consideration to Tables A1.1 and A1.2 of the TCFD Implementation Guidance 2021, we have considered all climate-related risk themes and their potential impact on the Group, the most important of which are as follows:

### Transitional risks

It is expected that there will likely be a large and radical change in global markets, with a drive to shift quickly towards renewables and away from fossil fuels, resulting in increased carbon taxes across all regions in the short and medium term. This may result in associated increased costs. Starting in the short term, costs are likely to increase by an immaterial amount due to higher investment requirements in low carbon technology and expected additional carbon-related levies and we also expect additional administrative burden on the business, likely increasing the costs for resource to deliver and report.

We have modelled the impact of carbon credits using a price per tonne CO<sub>2</sub>e of up to £250 and the impact is not material. Transitional risks are also unlikely to lead to any impairments or write-offs. We expect to purchase carbon credits in the short to medium term in line with our commitment to achieve CarbonNeutral<sup>®</sup> Company certification, but expect energy efficiency and renewable energy to reduce the requirement for carbon credits as we progress towards net zero carbon in 2035. Over the course of 2023 and with the help of an external adviser, we further developed and refined Spirent's plan to reach net zero. We have agreed a new lab and estates strategy which will allow our labs over time to be moved to high-efficiency, off-site which is powered 100 per cent by renewable energy. This move will allow us to further consolidate our labs and decrease our overall estate's footprint significantly. We also aim to expand the size of our on-site solar installation at Paignton. The proposed strategy will reduce Scope 1 and 2 emissions by 62 per cent in the next three years.

In addition, we have agreed a programme to reduce our indirect carbon emissions. A key area is the use of our products and we will draw on a range of approaches to help reduce our impact in this area. These include our continued migration from hardware to software test solutions and the use of more efficient white-box hardware, improved energy management in our bespoke hardware, supporting customers with test automation and scheduling, and improved data about how our products are used.

We will also work closely with our supply chain, and set requirements to reduce and report carbon emissions through supplier sustainability agreements.

### Physical risks

#### Acute

Considering the potential of increasing intensity and frequency of storms and concentrated rainfall events, and frequency of wildfires, we have assessed that these risks would possibly cause some disruption to operations. Wildfire risks are most relevant to our operations in Calabasas, CA, and flooding in our principal contract manufacturer, based in Thailand.

In the medium to long term, risks include Spirent site damage to building and infrastructure, lost time and productivity and any associated increased cost of insurance.

Additionally, a major supplier disruption event is a possible key risk, causing an outage for a period of time which we assess as causing possible delays to customer shipments and the timing of revenue recognition.

Spirent has mitigation plans for each of these physical risks identified, which have been developed as part of longstanding business continuity and disaster recovery plans. Spirent engineering centres are situated in various different locations allowing a level of flexibility and agility should one





site become affected. We endeavour to dual source key components wherever possible. Additionally, the Group has appropriate business interruption insurance in place.

### Chronic

Higher peak and average temperatures are likely to result in increased energy demand and cooling capacity required for lab and office environments. This could lead to increased capital expenditure to expand or upgrade cooling equipment across multiple Spirent sites. In addition, increased heatwaves and droughts could have an impact on the health of more vulnerable employees and their families possibly resulting in higher staff absence levels.

It is possible that the rise in average temperatures may reduce natural gas use for space heating. Additionally, there is already a market opportunity for existing products, relating to the provision of emerging energy-efficient Spirent products.

We have identified a number of areas of opportunity to reduce the energy footprint of our solutions in order to support competitive advantage as well as opportunities to reduce costs and improve efficiencies, especially from estates consolidation and automation within our labs. We also expect that a greater focus on climate change will increase our resilience from climate-related weather events, both within our estate and across our supply chain, through resilience planning, upgraded infrastructure as well as enhanced preparedness and response procedures.

We also recognise our role in supporting clients to develop new technology. We recognise that there may be opportunities for new use cases for our existing test solutions to support climate mitigation, in particular in the area of lab automation and consolidation.

The Group is still exploring the opportunities that climate change presents and therefore they have not been incorporated into the modelling.

### Scenario analysis

This was last conducted in 2021 and aligned to the IPCC representation concentration pathway (RPC) models. We have defined modelling assumptions for both scenarios for each relevant risk category in order to assess the financial and commercial impact to the Group. The impact of each of the risks identified above has been assessed, quantified and considered in two climate change-related scenarios:

- aggressive mitigation – emissions halved by 2050, average temperature increase of 1.5°C; and
- strong mitigation – emissions stabilised at half of today's emissions by 2080, average temperature increase of 2.4°C.

These scenarios were selected as they would include the most aggressive policy responses (which are likely to have the greatest impact on our business in the next three to five years) and because we believe that aiming to limit climate change to 1.5°C still remains the right policy objective.

In terms of modelling horizon, we have considered the impacts over the short, medium and long term, and with regard to the occurrence of the risks identified and also in comparing with the horizons adopted by peers, the most appropriate time horizon to model is 15 years, which covers short to long term. The most recent strategic three-year plans have been extrapolated to form the base case long-term plans from which to sensitise, using growth rates and assumptions

consistent with other forward-looking financial statement items (goodwill impairment, viability) and assumptions.

Given the modelling horizon, there is not likely to be a significant difference between the two scenarios in relation to our exposure to physical risks – a change of 1.5°C is expected by 2030 under all scenarios, with the same likelihood and distribution of extreme weather events and chronic changes in weather patterns and temperatures. The major differences appear between 2040 and 2080, which falls outside of the scope of our long-term plans and provides sufficient time for the business to adapt if required. In terms of transitional risk, we do expect a difference between the two scenarios, most notably in the size of increases to energy costs and the size of anticipated carbon tariffs across all regions.

Based on the modelling we have performed and given the significant financial headroom Spirent has, the relative magnitude of the impact the risks present, the mitigation plans, and the insurance cover in place, it is not anticipated that the climate-related risks identified will have a material impact in the short term and being less than 5 per cent of revenue. The longer-term impact on the organisation's strategy and plans is currently being further assessed but initial analysis does not suggest a significant financial impact. Therefore, Spirent is considered resilient to climate change-related scenarios.

### Opportunities

As part of the scenario process, a number of opportunities have been identified:

- reduction in costs and efficiency, especially in relation to estate and automation in labs;
- improved resilience from physical and transitional risks;
- additional testing opportunities to support the development of new technologies to mitigate and adapt to a changing climate; and
- expanding demand for test solutions that help reduce customer emissions, including lab automation and efficiency.

### Metrics and targets

We monitor carbon emissions sources that fall within Scopes 1, 2 and 3 and report our carbon emissions annually within the Annual Report and Sustainability Report (see page 34). We have considered cross industry climate-related metrics and do not consider these to be material. The Executive Directors' annual bonus targets also include relevant climate-related metrics and targets.

We have set clear targets to source electricity from 100 per cent renewable sources, and work towards net zero carbon by 2035. We have targeted a 25 per cent reduction in our energy usage by 2025.

In 2023 we committed to the Science Based Targets initiative (SBTi) which commits us to a medium-term carbon emissions reduction targets of 39 per cent by 2030. We will continue to evaluate whether additional metrics and targets are required as part of our existing business strategy and risk management processes, in particular in relation to supply chain risks, as we further refine our longer-term strategy and plans.



# Promote diversity and invest in people



## Our promise

“We will take action on diversity and set clear targets. We will attract and develop talent and skills to drive innovation and support long-term sustainable growth. We will also enable and embed flexible working across all our operations.”

## Why is this important?

- Diversity and inclusion are key challenges for our communities.
- The technology sector faces a particular challenge on gender diversity.
- Our success relies on a pipeline of new talent and developing talent within our business.
- Spirent plays an important role in the communities it operates in.

## 2023 highlights

- Conducted a global gender pay parity analysis.
- Strengthened partnerships with HBCUs to support a more diverse candidate pool.
- Further expanded our internal early career programmes.



**We are committed to empowering our employees to progress personally and professionally by investing in career development, diversity and inclusion initiatives, and health and wellness programmes.**

**Ann Menard**  
Global Head of Human Resources









## Key themes and targets

In 2023 we continued our focus on expanding diversity and ran a suite of initiatives focused on early career development.

During 2023 we strengthened our diversity recruitment initiatives, engaging with prospective candidates at our HBCU partners in person and through a new video showcasing Spirent. We expanded our gender pay gap analysis to cover all employees globally, and we continued our suite of early career programmes. Despite the initiatives and progress detailed below, due to workforce reductions and limited hiring across the Group, our diversity metrics remained flat compared to 2022.

<p><b>Support diversity and inclusion</b></p>	<p><b>Objective:</b> Improve our diversity practices and performance.</p>	<p><b>Action:</b> Complete a detailed diversity review and set improvement targets. Report gender pay gap globally.</p>	<p><b>Targets:</b> Complete diversity and inclusion assessment and set targets by end of 2021.  Report our gender pay gap for all staff by end of 2022.</p>	<p><b>Progress: Complete</b> Our work continues: We voluntarily partnered with a third-party provider to complete our gender pay parity analysis globally and establish the framework and tools to embed pay parity review in our business-as-usual compensation practices. We continue to report our UK gender pay gap.</p>
<p><b>Invest in skills, training and development</b></p>	<p><b>Objective:</b> We will invest in the skills, training and development of our staff to drive innovation and support long-term sustainable growth.</p>	<p><b>Action:</b> Design an early career talent acquisition strategy, including school and university STEM programmes. Establish management systems to develop skills in house.</p>	<p><b>Targets:</b> Establish an early career talent programme and set performance metrics by end of 2021.</p>	<p><b>Progress: Complete</b> Our work continues: We increased participation in our programmes, particularly in APAC. We expanded our professional development curriculum and enhanced global networking opportunities.</p>
<p><b>Flexible working practices</b></p>	<p><b>Objective:</b> We will actively encourage flexible working for the majority of staff by 2023.</p>	<p><b>Action:</b> Establish flexible working policies and practices.</p>	<p><b>Targets:</b> Implement flexible working practices by end of 2021 and report on progress annually.</p>	<p><b>Progress: Complete</b> Our work continues: We standardised collaboration tools and invested in site based and virtual events to stay connected.</p>
<p><b>Support our communities</b></p>	<p><b>Objective:</b> Maintain support for communities at current level.</p>	<p><b>Action:</b> Run VTO and charitable giving initiatives.</p>	<p><b>Targets:</b> Maintain our VTO and charitable giving programmes.</p>	<p><b>Progress: On track</b> VTO and charitable giving programme run across 2023.</p>



# Support diversity and inclusion

## Our approach

At Spirent, we believe that diversity and inclusion are essential to thriving in the ever-changing world of global technology. We embrace a culture where difference is valued and openness, mutual respect, collaboration and fairness are considered fundamental. Spirent does not tolerate discrimination or offensive behaviour of any kind. We are committed to creating workplaces that genuinely reflect the diversity of the world we serve and an environment where everyone feels empowered to bring their full, authentic self to work. As a global leader, we know how critical diverse and inclusive teams are to fuel our innovation and genuinely connect with the communities in which we live and work.

## Our diversity and inclusion objectives

Our diversity and inclusion priorities and objectives are:

### Diversity in talent acquisition

Operate talent acquisition processes and partnerships with organisations to support representative and diverse recruitment

### Supporting diversity in hiring

Policies that require gender diverse interview slates

### Enhanced family friendly benefits

Operate a portfolio of family friendly benefits that support staff at important times in their lives

### Early career development

Early Career Development programmes to support and invest in young people at the start of their working lives

### Celebrate our culture

Celebrate our diversity, cultural events and festivals together

### Choosing inclusive language

Ensure our products and technical documentation only contains inclusive language

PROMOTE DIVERSITY AND INVEST IN PEOPLE





## Support diversity and inclusion continued

# Partnerships

The talent pools we recruit from determine our diversity and we have made a concerted effort to reach a wider audience when we recruit.

We have developed a network of university partners and recruitment challenges to help us both to recruit from groups that are currently under-represented, especially female engineers and people of colour, and support students to reach their full potential. In 2023, despite our limited ability to add incremental headcount, we retained investment in global internships and strengthened our brand presence with Historically Black Colleges and Universities (HBCUs) in the United States.

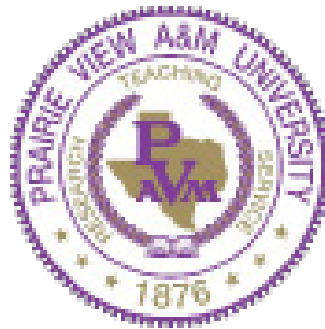


### Morgan State University

Morgan State University (MSU) is one of the US’s leading HBCUs.

Our partnership allows us to support students through the “turning theory into practice” programme, where Spirent staff work directly with students on research and classroom projects.

Morgan State have an excellent pedigree in computer science, cybersecurity and artificial intelligence. We aim to attract MSU graduates to join Spirent and attend on-campus career fairs and networks events to raise our profile with prospective applicants.



### Prairie View A&M University

Prairie View A&M University is the second-oldest public institute of higher education in the state of Texas.

A long-standing partner with Spirent on cybersecurity, the university uses the Spirent CyberFlood for teaching and research within its SECURE Cybersecurity Centre of Excellence and Centre of Excellence for Communication Systems Technology Research (CECSTR).

Spirent’s partnership will provide a route for students to gain practical work experience and join our early career programmes.







## Case study: Attracting a more diverse candidate pool

To strengthen our partnerships and employer profile with HBCUs in the United States, we consulted with a focus group of our African American employees, all graduates from HBCUs, to understand how we could more effectively recruit Black candidates.

In early 2023, we created a video aimed at recruiting HBCU students and graduates. The video featured members of our focus group, who were also involved in its production. It provides an overview of who we are, what we do, our work culture, where we are on our diversity and inclusion journey, and why HBCU students should consider launching their careers at Spirent. We sent the video to students we met at HBCU recruitment fairs, utilised it during campus visits, and shared it with a range of HBCUs for distribution to their students. Due to limited incremental headcount in 2023, the success of this initiative is based on Spirent participation and candidate engagement for future opportunities at HBCU career events. We participated in multiple HBCU career events.



**We have to find a way to bring a diverse cultural background to Spirent because that brings new ideas, it brings innovation.**

**Dwayne Burns**  
Technical Design Engineer  
Global Services

## Enhanced family friendly benefits

The benefits we offer staff have a significant impact on how we attract and retain talent and our diversity review identified opportunities to make our benefits portfolio more inclusive. Spirent offers a comprehensive suite of benefits to employees across all regions. This includes health insurance, life insurance, disability, 401(k)/pension, parental leave and paid time off/vacation.

We offer enhanced global family leave benefits to provide staff with additional flexibility and support greater equality in the workplace.

We provide 12 weeks of parental leave for primary caregivers and three weeks for secondary caregivers, all at full pay. This is an increase in both duration and pay level from our previous policy.

We also offer three days of paid time off to care for family members and five days of bereavement leave entitlement at full pay.

This scheme operates globally, which offers a significant increase in benefits for the majority of staff members and we hope it will help to address some of the structural and financial barriers that contribute to unequal representation in the technology sector and in management roles.



## Support diversity and inclusion continued

### Celebrate our culture

In 2021, we launched Spirent Celebrates – a programme to honour the rich diversity of our global workforce. Since then, we have celebrated a wide variety of events, festivals and awareness days. Celebrations throughout 2023 included Lunar New Year, International Women’s Day, Neurodiversity Celebration Week, Pride Month, Bastille Day, Mid-Autumn Festival, Movember, Diwali, International Volunteering Day, and more. Other highlights included:



#### Onam

In August, we celebrated Onam. Our team in India introduced colleagues to the festival that commemorates the mythical King Mahabali, celebrates the end of the monsoon season and welcomes the harvest. Food, fun and flowers were in abundance!



#### Black History Month

In February, we celebrated Black History Month. A selection of our African American employees shared their cultural traditions, their inspirations, what Black History Month means to them, and why it’s important we celebrate it.



**Black History Month strengthens our sense of community and is open to everyone interested in learning about the different stories, topics and perspectives that make up the Black experience.**

**LaWanda Edmond**  
Director, Operational Governance and Compliance



#### National Intern Day

In July, we celebrated National Intern Day. Some of our interns, including Phillip Lee (Intern – IT Support), shone the spotlight on their workplace experience and how it has helped nurture their learning and development.



**I’ve gained experience in my field of study, explored various career paths, expanded my network, and have grown personally and professionally in a collaborative and supportive work environment.**

**Phillip Lee,**  
2023 Intern – IT Support, now full-time employee



## International Women in Engineering Day



When I was 12, I fell in love with programming, and I've not looked back since then! It's so satisfying to witness your efforts come to fruition.

Deseree Villanueva  
Software Team Manager



I'm working on an automotive project that aims to make our roads safer, smarter and greener. This fills me with immense pride!

Rui Xu  
Senior Staff Software Engineer



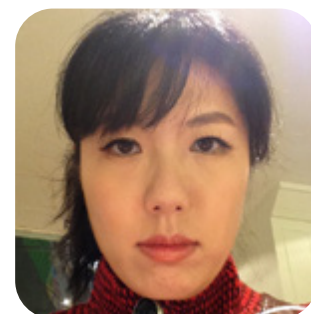
I deliver new product functionality, troubleshoot and triage existing failures, provide fixes for those, and mentor my young team members.

Olga Wagner  
Manager, Software Engineering



To encourage the next generation of women to pursue engineering, we need to nurture girls' interest in STEM and surround them with relatable female role models.

Yujie Lin  
Senior Manager, Engineering - Test & Automation







## Support diversity and inclusion continued

# By the numbers

### Gender

Gender is one of the most visible aspects of employee diversity and is an important improvement area across the technology sector.

There have only been minor changes in the overall gender balance of the Company from 2022. Three women continue to serve on our Board of eight, maintaining female representation at 38 per cent: above the Hampton-Alexander review's target of 33 per cent. The proportion of females in senior management and executive management roles increased slightly to 9 per cent (2022 8 per cent). This remains lower than female representation for the Company as a whole, which is around 23 per cent (2022 23 per cent).

Level of organisation	Female		Male		Other or no gender reported		Total
Board	<b>3</b>	38%	<b>5</b>	62%	<b>0</b>	0%	<b>8</b>
Executive management <sup>1</sup>	<b>4</b>	40%	<b>6</b>	60%	<b>0</b>	0%	<b>10</b>
Senior management <sup>2</sup>	<b>6</b>	9%	<b>64</b>	91%	<b>0</b>	0%	<b>70</b>
<b>Total employees</b>	<b>352</b>	23%	<b>1,174</b>	77%	<b>0</b>	0%	<b>1,526</b>

Notes

1. The data for executive management includes direct reports to the CEO only, excluding assistants.
2. The data for senior management includes all other Vice Presidents (including Regional Sales VPs and Client Partner Executives) and Senior Directors.

The under-representation of women at all levels at Spirent and the technology sector in general is a key challenge for us, and there remains significant work to do to achieve greater representation, especially in senior roles. We seek to make a material change through our early careers programme and are committed to leadership development for our women managers. Despite the initiatives and progress described below, due to workforce reductions and limited hiring across the Group each diversity metric remains flat compared to 2022 and we did not materially improve.

### Age

Spirent's workforce has a diverse age distribution. Since 2020, we have been successful in attracting more young people into the business, increasing the percentage of our employees under 30 from 6 per cent to 8 per cent. The largest age group remains 40-49 which is 32 per cent of our total headcount (2022 31 per cent in 2021).

Age group	2023	2022	Change
<20	<b>1</b>	2	-50%
20-29	<b>119</b>	127	-6%
30-39	<b>355</b>	390	-9%
40-49	<b>490</b>	515	-5%
50-59	<b>390</b>	443	-12%
60+	<b>171</b>	179	-4%
Total	<b>1,526</b>	1,656	-8%



# Invest in skills, training and development

Spirent has well-established learning and development programmes and a continuous improvement and coaching culture. We establish clear performance objectives, provide regular feedback, and offer technical and professional skills training.

## STEM education

### Supporting awareness and engagement with science, technology, engineering and maths (STEM) subjects amongst young people

We are passionate about science and engineering, but we recognise that there are barriers that prevent talented young people from studying STEM subjects and pursuing careers in technology. We operate a STEM Ambassadors Programme to engage with young people and help foster an interest in STEM subjects that we hope will lead them to fulfilling careers in science and engineering.

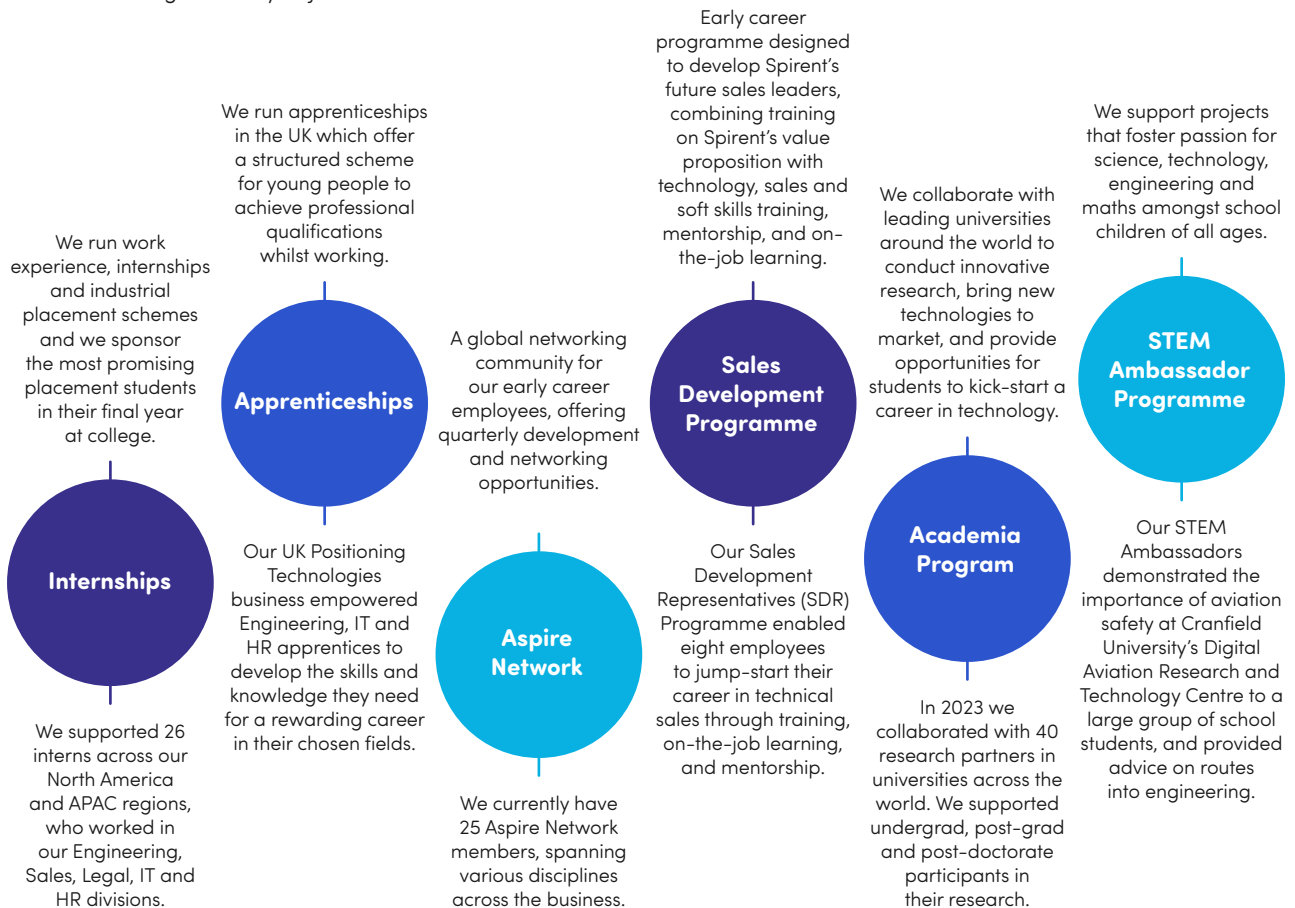
We had 30 active STEM Ambassadors in 2023: 5 in North America, 20 in EMEA and 5 in APAC.

Spirent runs a number of schemes to support higher and further level STEM education.

We work closely with local colleges and universities and provide input to the curriculum to ensure the most up-to-date skills and technologies are included.

## Early career support

Spirent's early career programmes offer a structured pathway into a career in technology through internships, apprenticeships, university sponsorships and on-the-job development. These programmes help to attract and develop younger people and deliver on our age diversity objectives.





## Invest in skills, training and development continued

### Case study: Support early career opportunities in China

In late 2022, the Spirent China team hosted a virtual campus recruiting event. The aim was to onboard and nurture young talent, to help diversify its employee population and forge closer relationships with establishments who can provide a pipeline for young talent into the telecommunications industry. As a result, in 2023, 265 graduates applied for a range of open positions in the China team, seven of whom were successfully recruited into its Sales, Engineering and Global Services divisions.

All graduate new hires have embarked on a structured 12–18-month development plan, with a 70/20/10 learning focus:

- 70 per cent job-related experience – an experienced employee mentor works with the graduate to design a tailor-made training plan, which is reviewed on a quarterly basis.
- 20 per cent networking – all graduates were enrolled on the Aspire Network, an exclusive internal community for early career employees that enables members to connect, learn and grow alongside their global colleagues.
- 10 per cent formal educational events – a range of technical and interpersonal workshops and training are part of the development offering, covering topics such as time management and communication skills. Workshops including presentation skills and project management are being planned for 2024.

In 2024, our China team plans to extend its graduate development plan to include additional workshops in presentation skills and project management, Spirent portfolio discussion forums with leaders, job rotation, and more.



**My technical, problem-solving, and interpersonal skills have been taken to a new level! Thanks to the support I've been given and the opportunities to join my more experienced colleagues in meeting both new and established customers, I've gained experience in situations that I'll no doubt encounter soon.**

**Haocheng Cao**  
Associate System Engineer







## Case study: Developing future sales leaders

The Spirent Sales Development Representatives (SDR) Programme, launched in 2022, was designed to help us hire and develop the next generation of sales leaders. The programme enables us to recruit and hire high-performance individuals early in their careers from a variety of backgrounds.

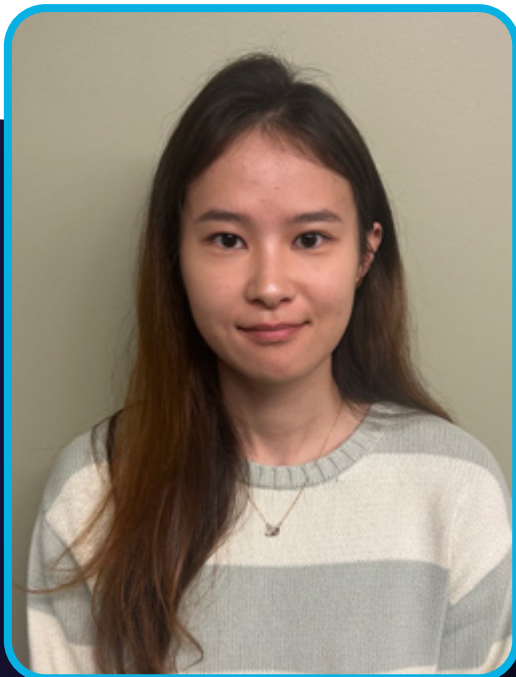
Throughout the 12–24-month programme, representatives are provided with technical and soft skills training on-the-job learning, networking opportunities and mentorship to help jump-start their career in technical sales at Spirent. From day one, teams from across our business collaborate to help build a solid foundation on which representatives can grow both professionally and personally.

Since its inception in 2022, the SDR organisation has built a \$40 million pipeline for Spirent, leading to over \$4.6 million in closed business won. In 2024, we will look at opportunities to expand the programme with the addition of specialist external training and technology certification.



**The ongoing development, support and networking opportunities provided as part of the Spirent SDR Programme have been incredible! I've received great training from both a technical and sales perspective and feel well prepared to pursue a career in sales.**

**Claire Liang**  
Sales Development Representative





## Invest in skills, training and development continued

### Employee development

Spirent has well-established learning and development programmes, providing employees with technical and business administration training. As our work often includes new and emerging technologies, we actively review the skills that our team need now and those they will need in the future. Training is managed through personal development plans and delivered through online and in-person training (where permissible and safe to do so), peer mentoring and informal skills sharing. We also bring new skills into our team through strategic hiring and our relationships with leading universities around the world help us to attract the talent we need.

In 2023, Spirent employees completed nearly 13,000 hours of training. See page 84 to find out more detail about our development and training programmes.

### Training and skills

Technical courses include technical, product, solution and application training, and professional development includes the new go-to-market training and the wide array of courses, including management skills.

### Performance reviews

Performance reviews are a core part of our people process, and provide an opportunity to respond to staff feedback and set personalised development objectives for each members of staff.



### Spirent Academia Program: supporting skills and development

#### Student projects

We support undergraduate, masters and doctoral research projects. We share industry-relevant research topics and abstracts, and provide equipment, supervision and funding. In 2023, we supported 33 projects in total, including 12 undergraduate projects, 8 masters projects and 5 PhD theses.

#### Student placements and internships

We offer a range of student work experience placements and internships which supports Spirent's Early Careers Program. These are typically 1-3 months and help provide young people to gain valuable experience as they start their career. This Program has helped us encourage graduates to start their careers with us, with eight students exploring full-time roles in our Positioning Business over the last two years.

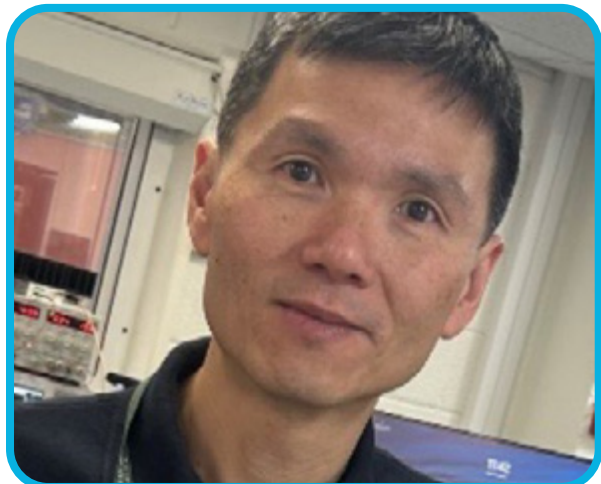
#### Spirent staff development

Our staff benefit significantly from involvement in our Academia Program. By working with leading academics they develop new knowledge within their core competencies of GNSS and timing, as well as expanding their understanding of adjacent technologies, such as lidar and radar. In addition, staff are able to develop a wide range of professional skills, including presenting technical information, mentoring and teaching, and public speaking.

### Case study: Circular economy scheme supporting STEM education

Spirent solutions are regularly used to test cutting edge, emerging technologies. As such, it can be the case that clients need to upgrade equipment to deliver testing on the very latest technologies, but have older, fully functioning equipment they no longer need.

To ensure this equipment doesn't go to waste, we offer an equipment trade-in scheme. Our engineers review and refurbish any equipment that is sent back through the scheme, and we make it available to colleges and universities for teaching and student research. This provides world-class learning and research opportunities whilst extending the useful life of our products.





## Flexible working practices

### Case study: Investing in our people and academia research

Our Academia Program enables Spirent to collaborate with world-leading academics to bridge the gap between ground-breaking research and industrial innovation. We have 40 academic research partners worldwide, working with us on emerging technologies and product improvements.

Ron Wong, one of our Lead Academia Engineering Champions, supports universities in utilising Spirent products and solutions for academic research purposes. In 2023, Ron provided academics at the University College South Devon with training on the fundamentals of Positioning, Navigation and Timing (PNT) and how to use a Spirent GSS7000 simulator to emulate space based GNSS signals in their new Student Research and Innovation Centre.

Through his work with the Spirent Academia Program, Ron has supported over 20 different universities worldwide and more than 100 academics and students.



I've learned what our academia partners need from Spirent to facilitate, support and excel their PNT next generation research. My work with the academia community has also improved my ability to effectively present technical information and opened doors internally as I join discussions on how to apply the latest advancements to the Spirent product roadmap, so we can deliver state-of-the-art technology for our customers.

Ron Wong  
Senior Staff Systems Engineer

We employ flexible working practices across our global business and have implemented effective processes that:

- Support employee wellbeing
- Attract and retain diverse talent
- Reduce the size of our offices and carbon footprint
- Create office environments that support knowledge-sharing, innovation and collaboration

### Policies and practices for flexible working

We have a suite of flexible working policies which align working practice with the requirements for each role and employee. There are four categories:

- **Remote:** The employee always works from home
- **Flexible:** Work is split between the office and at home
- **On site:** The employee always works from the office
- **Alternative schedule:** Working hours differ from typical office hours

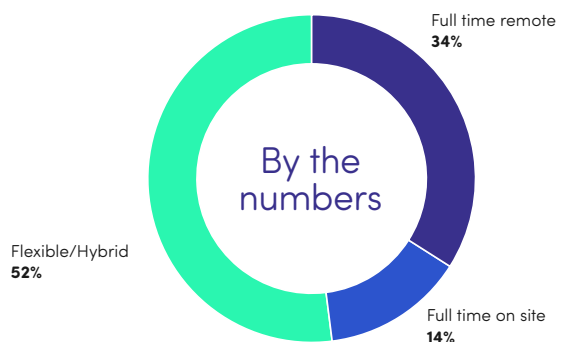
The flexible working practices allow staff to reduce commuting time and allow those with caring responsibilities to continue to thrive in the business.

The flexible working policies include requirements for health and safety and information security, as well as the provision of equipment for home working.

### Our office environment

With more staff working at home some or all of the time, we need smaller offices that support different type of activities.

During 2023 we continued to reduce the size of our offices and consolidate sites as leases come up for renewal. We have also started to redesign our office spaces, creating more formal and informal meeting and collaboration spaces, and moving from private offices and cubicles to hot desking and open plan offices.







## Support our communities

### Our approach

We are committed to investing in the communities in which we live and work. Our staff use their time and skills to support good causes, as well as make financial contributions. Our Company volunteering and charitable giving programme are designed to help our staff support their local communities and good causes. We offer a match funding scheme to boost the charitable donations made by staff.

### Charitable giving

Throughout 2023 we supported over 60 charities. The Company donated around \$90,000, including \$10,000 through our staff donation match funding scheme. One of the highlights of our charitable giving programme in 2023 was our Company-wide Summer Strides Challenge.



### Spirent Summer Strides Challenge

In June 2023 we launched the Summer Strides Challenge. Organised by Mandi Kimmel (Assistant to CIO & Office Administrator), 152 colleagues from around the world competed in teams to walk, run, swim, cycle, kayak and more, to raise money for their chosen charities. Using fitness trackers, the teams amassed a total of 85 million steps during the two-month-long challenge, whilst getting fitter and getting to know each other better. As a result, we donated over \$9,500 to charities chosen by our teams, including UNICEF USA, North Texas Food Bank, Doctors without Borders, PINNT, Gables Dogs and Cats Home, and The Akshaya Patra Foundation.

### Volunteer Time Off (VTO)

Supporting staff to get out and give back to their local communities is a core part of our community programme. Staff can take two days each year to volunteer in their community. Highlighted below are some of our team's stories from 2023.



#### Helping Medical Patients



I used my Spirent Volunteer Time Off to fly a patient, for Lifeline Pilots, from Tennessee to Michigan. He was coming home, having been given a clean bill of health after a six-year battle with cancer.

Jeremy Bennington  
VP, PNT Assurance



#### Coaching Girls Rugby



My Volunteer Time Off has been an enormous help in enabling girls, who probably would have never found rugby, to actively get involved.

Mark Walker  
Director of Operations, Supply Chain



### Keeping Our Beaches Clean



It was great to do our bit for the marine ecosystem, reduce plastic accumulation on beaches, build awareness of beach pollution, and create a safe beach environment for visitors.

Sam Jones  
Executive Assistant



### Supporting Local Community Events



I assisted the Devon Strut with a fly-in event for the local community. Giving back has enabled me to meet people, learn new skills and feel a sense of achievement beyond my day job.

Neil Pearce  
Senior Staff Project Technical Lead



### Empowering Young Women



Volunteering for Alpha Phi, my university's fraternity, gives me the opportunity to support the growth of young women through, amongst other things, leadership and workplace skills training.

Laura Chavez  
Principal Human Resources Business Partner

### Assisting Independent Charities



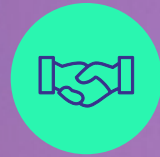
I helped with a local hospice Thankathon and felt humbled to have been given the opportunity to make a nominal contribution to their ongoing and vital mission. I feel inspired to do more!

Victoria Phillips  
HR Manager





# Operate responsibly



## Our promise

“We will roll out ISO 14001 management system practices globally and work towards zero waste to landfill. We will embed circular economy principles in our product design and reduce sustainability impacts in our supply chain.”

## Why is this important?

- Our sites contribute to our environment impact and require group-wide and regional practices to manage consistently.
- Our products' sustainability impacts are a visible and important area of impact.
- Much of our sustainability impact occurs in our supply chain and it is imperative that we work with suppliers to improve visibility and monitoring.

## 2023 highlights

- In 2023 we have continued to expand our ISO 14001 EMS, with new sites certified in North America and European region including our Crawley HQ.
- We've engaged with key suppliers with the aim of driving improvement in our ESG data and begun to introduce formal sustainability agreements into supplier contracts.
- The first cohort of engineers completed our circular economy training and we ran a circular economy hackathon.
- We concentrated on engaging with suppliers that could help to improve third-party carbon emissions data in business travel and logistics, plus began to introduce sustainability agreements on supplier contract renewal.



In 2023 we have continued to expand our ISO 14001 environmental management system, with our Crawley (HQ), Paris, San Jose, Honolulu and Calabasas sites achieving certification. We've also engaged with key suppliers on sustainability and have introduced formal sustainability agreements into contracts.

**Jim Klaassen**  
Senior Vice President, Global Operations







## Key themes and targets

We are committed to operating sustainably and we continued to make good progress across 2023.

We continue to expand ISO 14001 EMS certification across our global operations. We are tracking and responding to customers' requests for material sustainability data and commitments. We have started introducing sustainability agreements into key supplier contracts on renewal, and are capturing diversity data from suppliers who voluntarily disclose. We have adjusted our logistics planning, moving from air freight where possible to road and rail to reduce carbon emissions.

### Sustainable buildings

<p><b>Objective:</b> Manage the environmental impacts at each site and gain recognition.</p>	<p><b>Action:</b> Achieve ISO 14001 certification across the Group and work towards zero waste to landfill by 2026.</p>	<p><b>Targets:</b> Achieve certification at one major engineering site by end of 2022 and all engineering sites by end of 2026.</p>	<p><b>Progress: On track</b> We achieved ISO 14001 certification at our HQ at Crawley and Paris, bringing the total of major sites to 11 in US and EMEA.</p>
--	---	---	--

### Sustainable product design

<p><b>Objective:</b> We will embed circular economy principles into the way we design our products.</p>	<p><b>Action:</b> Provide circular economy training for engineers, introduce sustainable innovation toolkit, conduct lifecycle assessments of key products and produce product eco-profiles to showcase credentials.</p>	<p><b>Targets:</b> Circular economy training to be completed by senior engineers by end of 2021.</p>	<p><b>Progress: Behind track</b> We have developed a circular economy training packaging and have started to roll this training out.</p>
---	--	--	--

### Sustainable supply chain and manufacturing

<p><b>Objective:</b> We will establish programmes to better understand and reduce our supply chain impacts.</p>	<p><b>Action:</b> Supplier audits, sustainability agreements with key suppliers, reduce packaging sustainability impacts.</p>	<p><b>Targets:</b> Complete 18 supplier audits annually.  Review packaging and develop sustainable packaging strategy by end of 2022.  Establish sustainability agreements with key suppliers by end of 2023.  Map sustainability risks in supply chain and develop enhanced supply chain sustainability strategy.</p>	<p><b>Progress: Completed</b> 25 on-site audits completed.</p> <p><b>In progress</b> First round of agreements introduced in 2023.</p> <p><b>In progress</b> Have implemented new software supplier risk assessments.</p>
---	---	--	---



# Sustainable buildings

## ISO 14001 implementation

We set a target to expand the coverage of formal environmental management systems (EMS) and achieve ISO 14001 certification at one major engineering site by 2022 and all major sites by the end of 2025.

In 2023 we expanded our ISO 14001 EMS to include our HQ site in Crawley and our Paris office, achieving certification in July. We now operate ISO 14001 systems at 11 major sites across EMEA and the US: Calabasas, Crawley, Daventry, Frederick, Holmdel, Honolulu, Littleton, Paignton, Paris, Plano and San Jose. Our sites in Bucharest and Munich will be added in 2024, with our operations in APAC to follow.

Key benefits from expanding our ISO 14001 management system include:

- Improved and consistent environmental practices
- Enhanced compliance controls and site-specific legal registers using the Q Pulse software platform
- A network of dedicated environmental champions at each site
- A new regional environmental policy for EMEA

The regional executive sponsor of the management system in the EMEA is Peter Terry-Brown, the General Manager for our Positioning Business.

The regional executive sponsor of the management system for the North America region is Doug Roberts, the General Manager for our Automated Test and Assurance business.



**Europe leads the world on sustainability and the creation of industrial strategies, policies and legislation set to drive sustainable growth, resilience and innovation.**

**It's not enough to acknowledge and comply with these principles. At Spirent, we must champion them. Champion them in our operations, our people and our products and innovation.**

**Peter Terry-Brown**  
General Manager, Positioning Technologies



## What is ISO 14001?



An ISO 14001 environmental management system provides a best-practice framework to manage environmental issues effectively. Certification is awarded by independent auditors and demonstrates our strong commitment to environmental management and continuous improvement.

Governed by our environmental policy, the formalised and structured approach allows us to:

- Identify our significant environmental impacts, and how we can affect and be affected by environmental impacts, market requirements and environmental legislation
- Provide leadership and governance for environmental programmes
- Develop robust procedures to control our environmental impacts and plan for any emergency situations that might arise
- Provide staff with the right knowledge, skills and resources to manage environmental issues effectively
- Measure and monitor our performance
- Review our practices through an internal audit and formal review by management





## Sustainable buildings continued

### Waste

Spirent's operations are primarily office-based and as such our waste streams include paper, card and other office wastes, as well as small amounts of hazardous waste including batteries and light bulbs. We also generate electrical and electronic waste when lab and IT hardware reaches the end of its life.

We have set an ambition to improve our waste management approach and work towards zero to landfill. Our project to assess our waste management practices and develop a waste strategy was pushed back from 2022 to 2023. The project aims to reduce the amount of waste we produce, improve our waste data, increase our recycling rates and avoid sending waste to landfill.

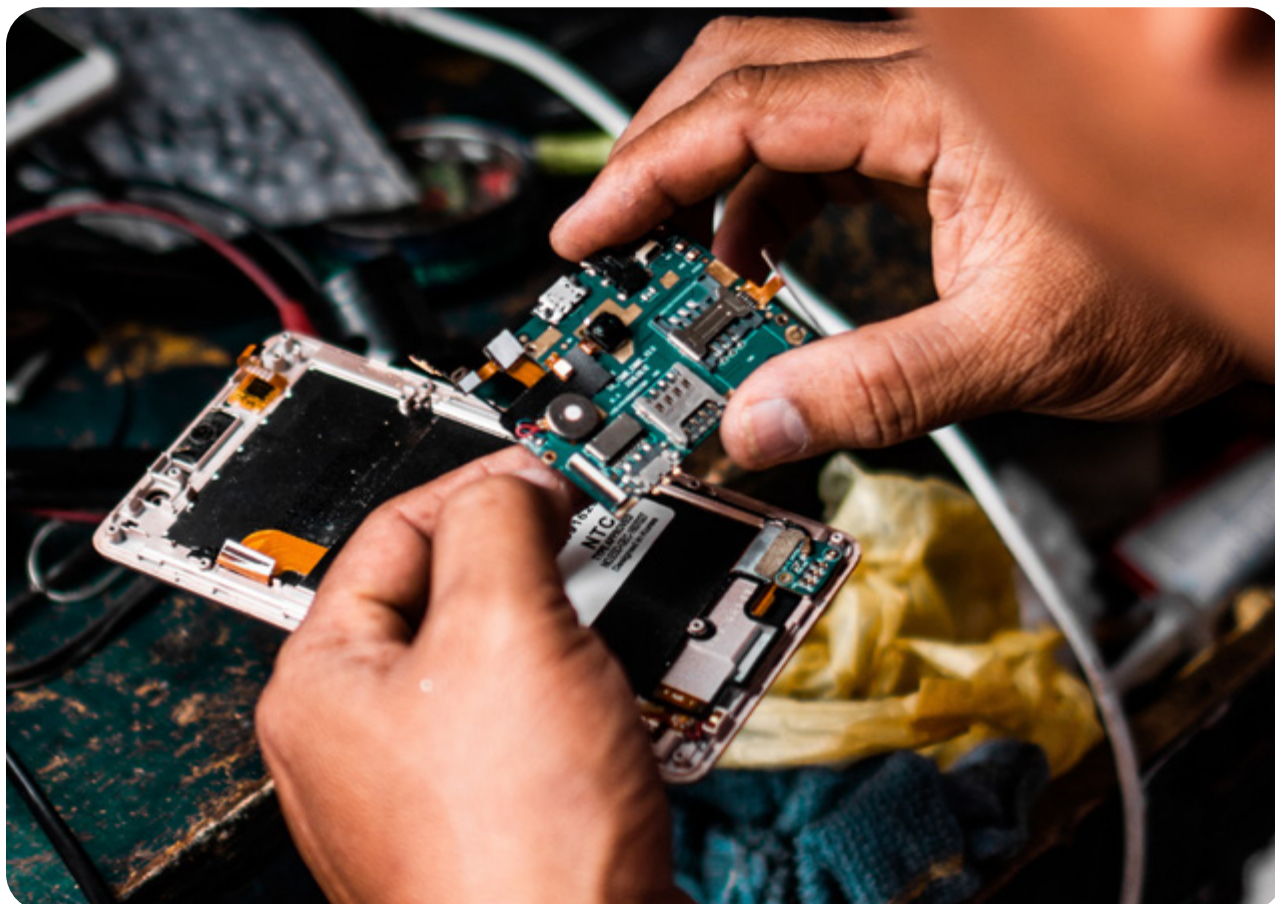
Over the course of 2023, we improved the quality of our waste data and developed a comprehensive waste management plan, focused on electronic waste. As part of our ISO 14001 rollout we have developed waste training for satellite office and contractor site inductions, and have engaged landlords on waste compliance.

The design of our test and assurance solutions also has a material impact on the amount and type of waste that is generated. We have incorporated sustainable design principles into our product development processes, and we report the waste electronic equipment we place on the market in accordance with the WEEE Directive. The disclosures are on page 79.

### Water

Our water use is minimal and is limited to showers, toilets and washing crockery at coffee 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, UK.

In 2023 we were requested to complete the CDP water management disclosure for the first time by a number of customers. We did so and will seek to expand and improve the disclosure in the coming years.





### Sustainable building policy

Through our new lab and estates strategy, we are set to relocate to new sites as the leases end over the coming 3–5 years. During 2023, we have developed a comprehensive guide to help us reflect the new strategy and select the most sustainable buildings.

The policy sets out to:

- Consolidate and optimise offices and labs
- Relocate labs to purpose-build, low carbon sites
- Set preferences for buildings certified to recognised energy and sustainability standards, such as LEED or BREEAM
- Define minimum energy performance standards

The new policy will support our carbon reduction objectives by significantly reducing the amount of office space we need, and operating from locations designed to deliver excellent environmental and sustainability performance.



# Sustainable product design

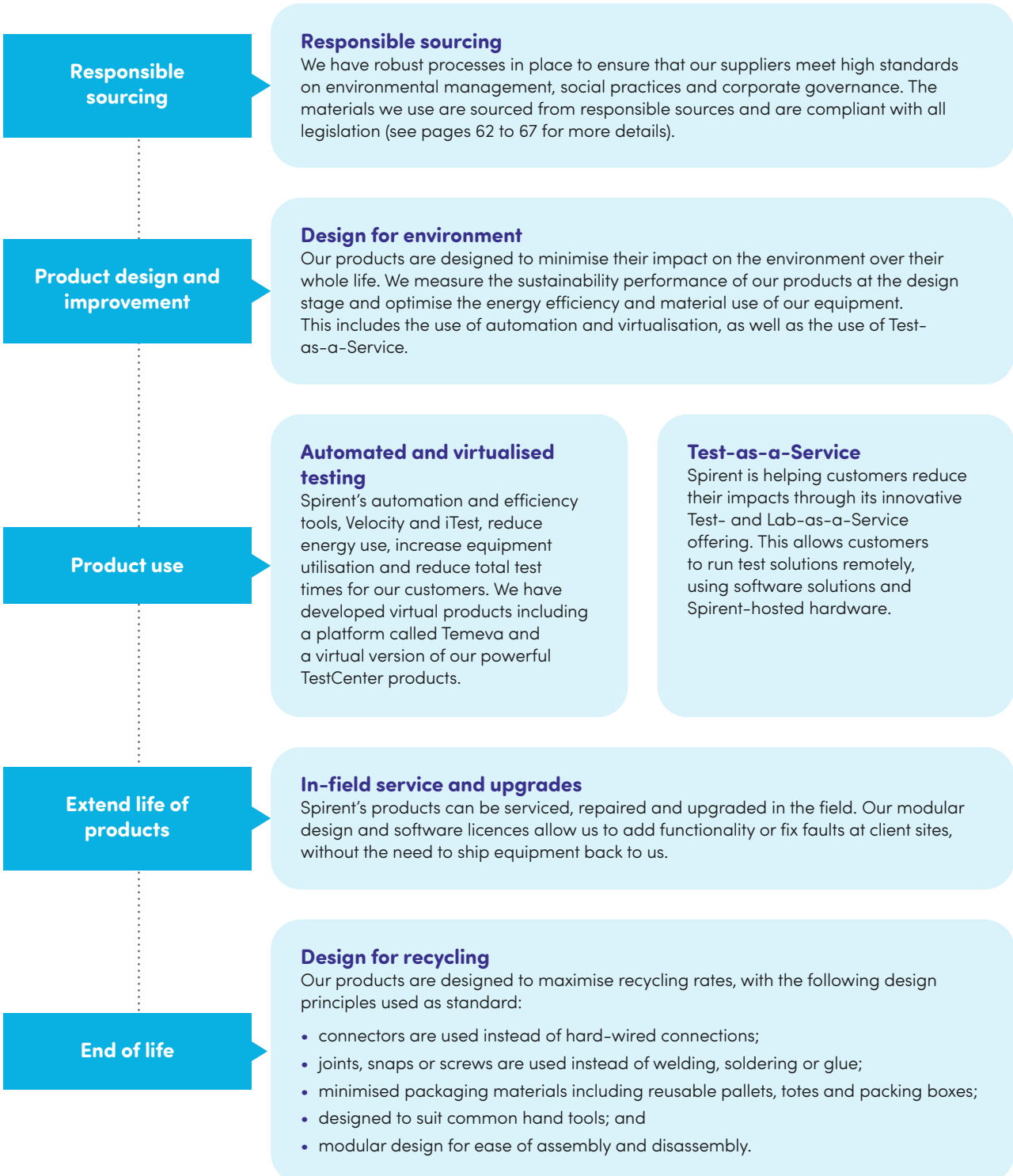
## Our approach

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

- designing for environment and end of life, including compliance with all legal requirements;

- reducing the size, weight, noise and power use of our products;
- virtualisation and the development of Test-as-a-Service;
- improving utilisation and automation; and
- in-field servicing and upgrades.

We use formal sustainability metrics in the product development process across all our business units and have made good improvements since we introduced the scheme.







# Circular economy training

We ran a circular economy workshop in 2023 to develop new concepts and innovation opportunities.

The design of our products significantly influences the environmental impact of our products across the whole lifecycle. We have seen significant improvements since implementing sustainability metrics in our product design process and to support further gains in this area, we set an objective to roll out training on circular economy for our engineers.

In 2023, we rolled out training on design for circular economy to the first cohort of 20 engineers. The training incorporates both an introduction to key aspects of theory and how it applies to Spirent's product and design process specifically.

In addition, we ran a workshop to explore new design concepts and innovation opportunities from adopting circular economy principles. The session identified a number of enabling technology research projects, including opportunities to reduce standby current and ambient noise.

## Case study: Engaging suppliers on sustainable packaging policy

Sustainable packaging design has been a key focus for the FuturePositive strategy, and we have made significant improvements in our own packaging designs, drawing on lifecycle assessments and design toolkits.

During 2023, we developed sustainable packaging standards and have engaged key suppliers, seeking their input on the policy which aims to reduce the environmental impact of packaging for components delivered to Spirent and finished products shipped to customers.

The policy aims to deliver two key outcomes:

- Consistency across the brand where all packaging procured across the Group will meet clearly defined standards, including legal compliance, recycled content, recyclability, lightweight design and quality standards.
- Consistency inside the box where products distributed by Spirent incorporating components and packaging of other suppliers meet defined sustainable packaging standards as well as maintaining performance.

We ran a roundtable event with representatives from Calnex, a key supplier, and Dewers, a bespoke packaging supplier to both Spirent and Calnex. The session explored our sustainability agenda and the challenges and opportunities to deliver improvements in packaging. We received positive feedback on the packaging policy and agreed a number of design decisions, policy wording and the key areas to include in an annual data return, which will include country of origin, certificates of conformity, weights and types.

The workshop proved an excellent opportunity to gain consensus of vision and approach, and to continue to strengthen our collaborative relationships with suppliers to deliver sustainability improvements.

**"We had a really useful roundtable with Dewars, Calnex and Spirent on sustainable packaging policy and came away with even more options than we expected."**

**Gill Mauchline**  
Quality and compliance officer, Calnex

**"We had an interesting discussion of sustainable packaging, and it was great to learn about ESG from the perspective of our customers."**

**Jamie Costello**  
Director and co-founder, Dewers

**"We can't meet our FuturePositive promises without the direct engagement of our suppliers and roundtables like this are great way to inform, educate and refine our purpose."**

**Tolu Omideyi**  
Global Operations ESG Lead



## Sustainable product design continued

# Cybersecurity solutions

Spirent is a leader in cybersecurity solutions. Our ISO 27001 certified SecurityLabs offers clients with a suite of consultancy, hardware and software solutions to keep networks secure.

### Our solutions include:

- **Manual penetration testing** of network infrastructure, web and mobile applications, embedded devices, and source code
- **Automated scanning and reporting** via a unique, unified SaaS platform that offers continuous visibility of the security posture by scanning, analysing and monitoring an organisation's IT infrastructure
- **Continuous compliance** through independent, customised, automated, on-demand testing
- **Sector-specific vulnerability testing** covering every industry and geography
- **Consulting services** ranging from implementation of best-practice testing methodologies to risk analysis of potential attack scenarios to remediation strategies
- **5G Core Security Testing** providing security compliance. testing; basic vulnerability assessment; enhanced security assessment and penetration testing; 3GPP general security requirements; incorporating public key infrastructure security
- **Accounting for New Cybersecurity Frameworks** including Secure Access Secure Edge (SASE), Zero Trust and Zero Trust Network Access (ZTNA), Transport Layer Security (TLS), Mutual authentication





## Managing information security within our products

At Spirent, we recognise the importance of maintaining the confidentiality, integrity and availability of data, while ensuring that we meet regulatory and legal requirements. To that end, we have a security controls programme that aligns with the ISO 27001 standard and maintain the UK Cyber Essentials Standard. The information management systems operated by our SecurityLabs and Positioning Technologies businesses are certified to ISO 27001. Our security programme is working towards maturing our Governance, Risk and Compliance processes as we move into 2024.

In 2023, the first designated Global Security leader was appointed to help steer refinements in the overall programme. While the enterprise governing programme will be centralised within the Global Security programme, management of hardware and software solutions will remain headed by our product managers.

We are committed to continuous improvement of our information security practices, monitoring for emerging threats and adapting our strategies accordingly.

### Emerging cybersecurity trends

The diverse nature of the Spirent portfolio gives us visibility of security trends and patterns affecting both Spirent and its customers. We have observed an increase in phishing attacks, unauthorised scans of internet-facing services and a general upward trends in the number of security deficiencies in third-party software.

In addition to this, the teams monitor for changes in the threat landscape to adequately prepare for and respond to security threats within operational systems and products.

### Managing vulnerabilities and risks

Our Security Vulnerability Management Process establishes the workflow, tasks, responsibilities and functions of the activity of managing the potential security vulnerabilities within the Spirent network. Scans are performed on a regular basis (including, but not limited to, code reviews, static code and binary object scanning) and the results are recorded and a corrective action plan is established to address identified vulnerabilities.

In addition, enhancements to the process exist on a local and geographical level to support both vulnerability management and product security. This may include security councils who exercise vulnerability response activities from both an operational and product security perspective.

Our Software Development Policy establishes a framework for the development, testing and maintenance of software applications. The requirements in this document establish a common minimum baseline; such requirements may be exceeded as required or in response to business needs.

Security deficiencies and risks identified through these detection mechanisms are appropriately managed through the risk management process and monitored until risks are appropriately remediated. The risk management process covers standards aspects including financial, legal and reputational, with severity ratings and actions plans defined against the identified risk item.

In addition to vulnerability code scanning, we employ a reputable, external firm on a regular basis to assess various aspects of our product security.

### Enhanced data security

In relation to security functions and features integrated into products, Spirent manufactures and distributes a wide array of products and services that meet the security baseline and are then further tailored to support enhanced security requirements. Due to this, security enhancements vary on a product-by-products basis which may typically include secrets management software/hardware, secure communications via TLS, identity management and monitoring via SIEM services.

Many of our solutions are designed to work in sensitive environments, including critical national infrastructure and government departments. We have the security clearances needed for testing classified and military systems. We run a test lab for CTIA IoT Authorized Cybersecurity Certification and are able to formally test and certify the security design and capabilities of cellular-connected Internet of Things (IoT) devices.

### Managing information security across the product lifecycle

In addition to the design areas already covered, we employ several controls to mitigate risk in our supply chain. We undergo an annual audit process of our suppliers, and any new supplier undergoes a global trade and security evaluation. As a part of this process, manufacturers must have formal processes in place to evaluate distributors and to screen and protect against counterfeit components. We also maintain our Authorised Economic Operators (AEO) status, which we are audited on every four years. Lastly, we align with the ISO 28001 standard.

Our shipping areas are limited access to only authorised personnel. We also ship directly to customers to limit on-hand inventory. Furthermore, we apply tamper-proof labels on some products that if removed will void the warranty.

For the product use phase, we ensure that security updates address bugs and vulnerabilities.

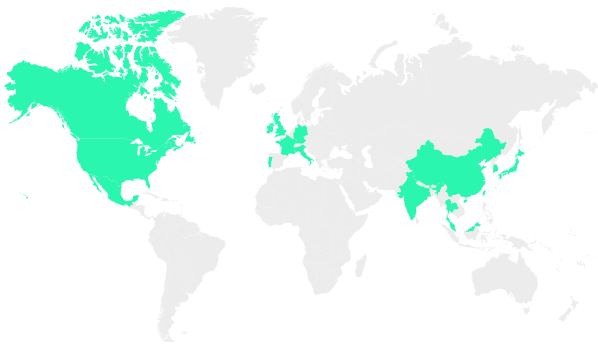
For end-of-life management, we are expanding our core central product "life to death" process to the entire organisation. We have processes in place to ensure vulnerable obsolete components are scrapped in a secured manner. Additionally, we are working to ensure product design evaluation is included in our Mergers and Acquisition process.





# Sustainable supply chain and manufacturing

## Our supply chain



Spirent's product supply chain is global, with:

**1,100**

specialist suppliers across

**44**

countries worldwide

Spirent's product supply chain is global, with more than 1,100 specialist suppliers across more than 44 countries worldwide.

Our supply chain partners include contract manufacturers, equipment and component manufacturers and resellers, consultancies, R&D partners, software companies and IT service providers.

We work with contract manufacturers in Thailand, the UK and the US and we source components and equipment directly as well as through our contract manufacturers.

Our supply chain includes a large number of specialist suppliers but 80 per cent of our supply chain spend is with around 50 companies.

The objective of our sustainable supply chain programme is to ensure our products and suppliers comply with the high standards of environmental management, social practices, corporate governance and business ethics set out in legislation and our Supplier Code of Conduct. We also aim to partner with suppliers to reduce the overall environmental impact of our products and drive continuous improvement by sharing good practices and technologies.

## Our approach

Our sustainable supply chain programme comprises four key themes. Our Supplier Code of Conduct sets out our expectations for suppliers. We review potential suppliers' practices before they are approved and we audit and engage with suppliers on an ongoing basis to ensure standards continue to be met and to drive improvement. We monitor the total spend with suppliers who have been audited, and monitor the proportion of our hardware spend and component parts from audited suppliers as hardware suppliers have a higher risk profile.



### Standards

#### Supplier Code of Conduct

Setting expectations of the way that environmental, social and governance issues are managed by suppliers

### Pre-contract

#### Supplier initial assessment and approval

Reviewing potential suppliers' environment, social and governance practices to ensure they meet our standards before a vendor is approved

### Ongoing management

#### Supplier engagement and audits

Conduct on-site audits and ongoing supplier reviews to ensure suppliers continue to meet our expected standards and to collaborate on improvement opportunities

#### Parts and spend from verified sources

We monitor the number of parts and the spend with suppliers which have been audited by Spirent or one of our contract manufacturers or through the RBA VAP audit programme



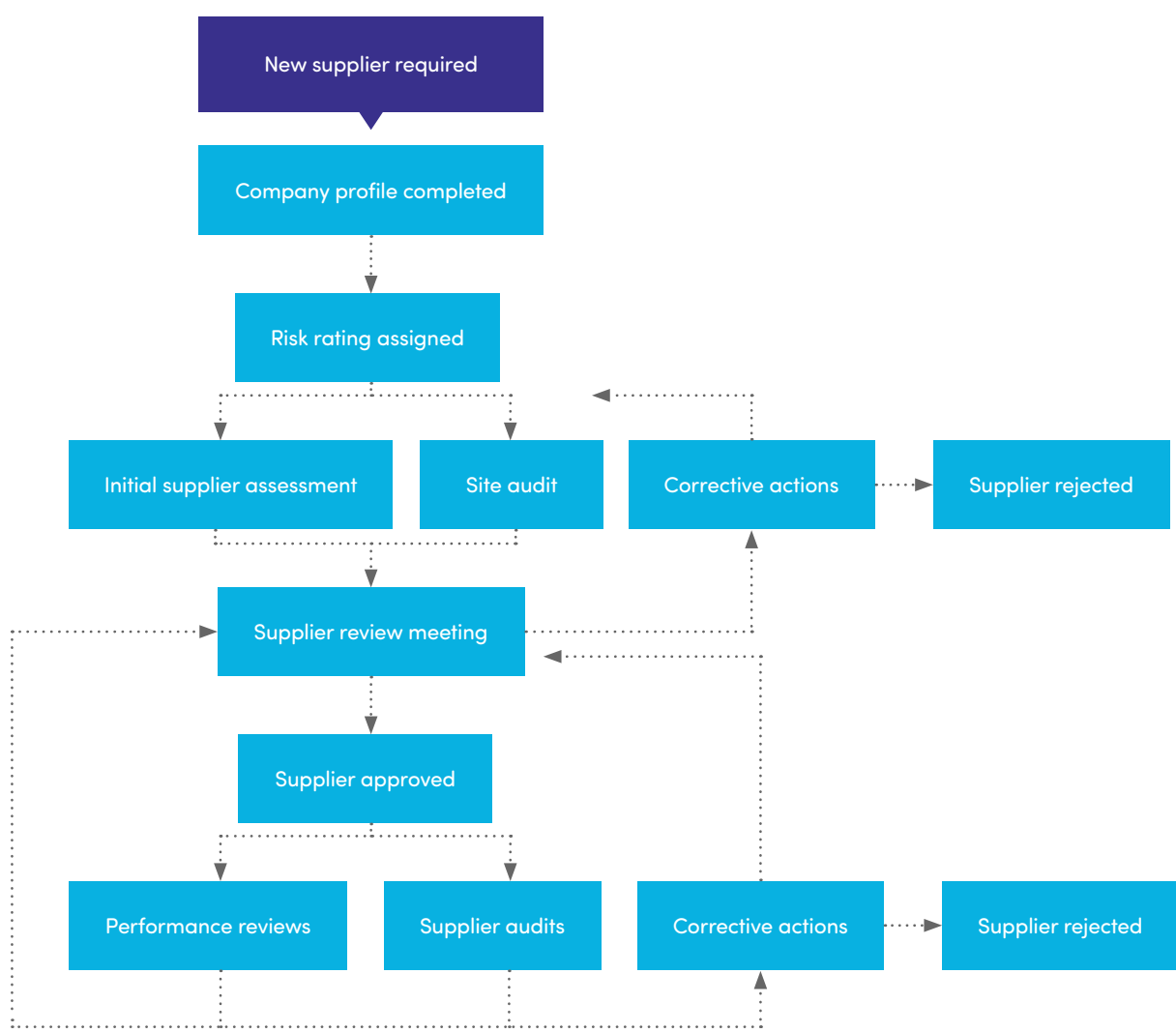
# Supplier Code of Conduct

Our suppliers are located globally and range from large multi-national companies to small, family businesses. To ensure good standards on environmental, social and corporate governance throughout our supply chain, we have a Supplier Code of Conduct, based on the Responsible Business Alliance (RBA) Code v7.0.

The Supplier Code of Conduct sets out our expectations for environmental management, health and safety, labour rights and management systems as well as the provision of sustainability data. We expect all our suppliers to meet the standards set out in our Supplier Code of Conduct and have been rolling out the code over the last two years.

162 suppliers have been asked to sign the code of conduct and to date, we have received formal confirmation from 142, which represents around 53 per cent of total spend. A copy of our Supplier Code of Conduct is available here at <https://corporate.spirent.com>.

Spirent's supplier approval and management process allows us to ensure that all new suppliers meet our requirements before we use them and that existing suppliers maintain the high standards we set.





## Sustainable supply chain and manufacturing continued

### Supplier assessment and approval

Suppliers' sustainability management is analysed in detail before they can work with Spirent. 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.

As part of the initial review, all suppliers are assigned an A (High) B (Medium) and C (Low) risk rating.

For all suppliers deemed active and approved in 2023, the distribution of risk is as follows

- A – 11%
- B – 43%
- C – 36%

We monitor the risk profiles of more than 1,000 active suppliers annually to determine whether to maintain their active status or where performance is unsatisfactory, to undertake a review or disqualify them as an approved supplier. The criteria used to assess suppliers includes spend, location, material criticality and other ESG factors.

### Supplier engagement and audits

We conduct on-site supplier audits that include the management of environmental and social issues.

In 2020, we identified around 200 suppliers for a closer audit and inspection regime on quality matters and adherence to our Supplier Code of Conduct which includes labour rights, environment, health and safety, and restricted materials.

Audits are carried out by the quality team included a mix of desktop and onsite audits. To date, approximately 46 per cent of all strategic suppliers have been audited over four years, and 19 per cent audited in last 12 months.

We set three key targets for supplier sustainability. We aim to complete at least 20 audits annually, and ensure that at least 60 per cent of our direct spend and 85 per cent of our hardware spend is with companies that have been audited in the last five years. These benchmarks have proved difficult to achieve.

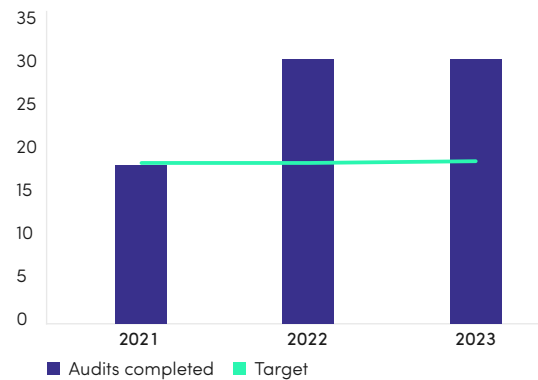
We achieved our supplier audit target for the year, completing 30 onsite audits during the year, including one joint supplier audit with key manufacturing partners.

Despite exceeding the target number of supplier audits in 2023, our total spend with suppliers that have been audited by us, our manufacturing partners or an industry scheme over the last five years dropped to 46 per cent. This falls short of our target of 60 per cent.

This is in part due to the diversification of our supply chain spend, meaning each company audited typically represents a smaller proportion of overall spend. In addition, we have focused our supplier audits on hardware suppliers as we feel there have higher sustainability impacts and risks. The proportion of non-hardware suppliers has grown in the last few years, as has the total number of suppliers we are using.

#### Supplier audits

We completed 30 supplier audits in 2023.



### Case study: Supplier ESG risk management

Managing ESG risks in our supply chain is a core pillar of our operate responsibly programme.

Our supplier risk software solution allows us to monitor commercial and ESG risks, including:

- corruption;
- corporate malpractice;
- human rights;
- environmental;
- workplace safety; and
- physical risk from climate change – flooding and cyclones.

The software solution uses artificial intelligence (AI) to assess a wide range of risk factors, providing real-time supplier risk monitoring. Our operations team reviews the risk status of suppliers on a monthly basis or following a significant change in risk status.

This detailed risk picture allows us to prioritise suppliers with the highest risk exposure and monitor improvements over time.

During 2023, we have explored potential software to collate better data on supply chain ESG performance and to support campaigns to deliver co-ordinated action on key issues.



## Case study: Introducing sustainable agreement with strategic suppliers

### Supply chain sustainability is an essential component in Spirent's FuturePositive Strategy.

There is a recognised need for alignment between Spirent's corporate ESG goals and the outlook, values and action of strategic suppliers.

To deliver on our sustainability commitments, it is vital that our suppliers are aligned with our goals, values and actions. Our supplier code of conduct forms the foundation of good management of environmental, social and governance issues, but we believe that where possible, collaboration with suppliers is the best way to develop mutually successful ways to tackle the common challenges we all face. Whilst we have previously successfully engaged with suppliers to deliver sustainability improvements, during 2023 we initiated a more concerted programme to develop concrete sustainability agreements, whether formal (contractual) or informal (common practice) to ensure we will deliver on our commitments.

As part of this initiative, we engaged with Impulse Embedded Ltd, an SME, to develop a formal sustainability agreement.

This process involved a number of structured meetings to communicate our respective sustainability goals, expectations capabilities and to explore the opportunities to deliver improved sustainability performance. These sessions included a review of the supplier code of conduct and explored what support we could provide to help deliver compliance across all areas of the standard.

The discussions highlighted a number of ways in which Impulse can help reduce environmental impacts, including consolidation of deliveries and conducting a review of the components they supply to us to suggest more efficient alternatives.

A contractual sustainability agreement was developed, which set out commitments for both parties. For Impulse, this included commitments to:

- Consolidate deliveries to reduce carbon footprint from logistics
- Participate in ESG supply chain assessments
- Provide sustainability data annually (Scope 1 & 2 carbon emissions and waste)
- Comply with Spirent's Supplier Code of Conduct
- Provide review of a key product to identify power supply efficiency opportunities

Spirent agreed to:

- Agree joint training session/s focusing on key sustainability objectives for both businesses to increase competence on the subject matter within Impulse and Spirent.
- Consult with Impulse and other suppliers on proposed sustainable packaging policy

Engaging with key suppliers has proved valuable. It has established a productive platform for collaboration, identifying opportunities for innovation, and to share skills, knowledge and competence. The initiative has delivered early successes, with Impulse identifying alternative, more efficient components which are now being reviewed by our engineering team for approval. Seeking to establish formal contractual agreements has also focused our intent and will support the delivery of key goals on climate change and help define clear metrics to monitor the sustainability performance of suppliers in the future.

This engagement was with an SME employing approximately 20 people so it shows that smaller suppliers are actually able to be responsive, pivot quickly and shouldn't be underestimated.



We are glad to be strengthening the connection and alignment on sustainability between Spirent and Impulse. We've benefitted from Spirent's direction and signposting to resources on our ESG journey.

Mark Vickers  
Impulse  
QHSE Manager



# Sustainable supply chain and manufacturing continued

## Supplier engagement and audits continued

During 2023 the audits raised one corrective action request. One supplier has been discontinued for use as a result of the audit process.

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 and health and safety, and has identified new market information and technologies for the Group.

We focus our supplier audits on companies that we do the most business with, those which supply critical components, those which operate in higher-risk geographies, and those which 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.

## Supply from verified sources

As the component supply chain includes higher environmental and social risks, we monitor the number of part numbers sourced from verified sources: suppliers which had either been audited by Spirent directly or by our contract manufacturers or through the RBA VAP audit programme. We also monitor total spend and hardware spend with verified sources and ensure we maximise sourcing from our Preferred Supplier List.

Our aim is for more than 73 per cent of all part numbers to be from verified sources. We did not meet this in 2023, achieving 66.7 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, our target is that a minimum of 75 per cent of our new key suppliers categorised as Risk A satisfactorily completed a vendor assessment survey within the year. There were 15 new A risk vendors in 2023. To date, six have satisfactorily completed the survey and we are working with the remainder to complete the assessment.

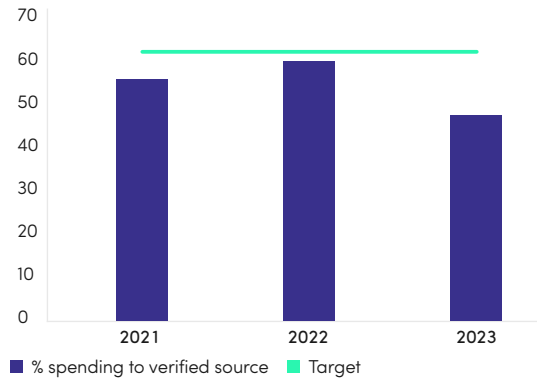
## Supplier engagement on GHG emissions

We recognise that emissions associated with the manufacture and distribution of our products are a key part of our net zero objective. In 2022 we commenced a programme to collect energy and emissions data from our key suppliers, and determine the carbon reduction targets they have in place.

Building on this, we engaged with a number of key suppliers to obtain carbon data and explore opportunities to reduce emissions. During 2023, we established sustainability agreements with TT Electronics Plc (a contract manufacturer) and Impulse Embedded Ltd, and expect to finalise further agreements with Calnex and Celestica early in 2024.

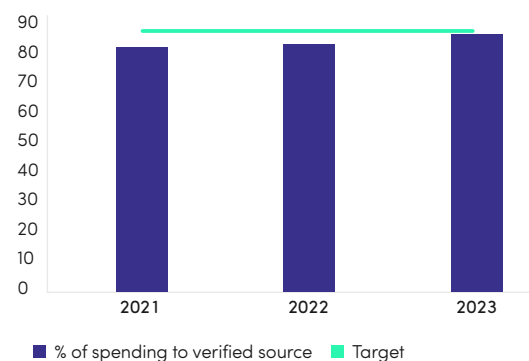
### Total spend with verified sources

46 per cent of our total spend was with suppliers audited by us, our manufacturing partners or an industry scheme over the last five years (verified suppliers). This is below our target level of 60 per cent. A key contributing factor has been the diversification of supplier spend and changing supply chain spending trends.



### Hardware spend with verified sources

Our hardware spend with suppliers that have been audited in the last five years was 84 per cent in 2023, just below our target of 85 per cent.



## Management of critical materials

The procurement and engineering teams manage critical materials closely. Weekly reviews of critical materials are conducted and risk rating of materials and components are assigned based on lead times, costs, sole and single source components.

The Company has invested in new source to pay purchasing systems to tighten controls and tracking on purchasing.

Furthermore, engineering service teams focused on product environmental compliance notify engineering teams on end-of-life dates for certain components by manufacturers as well as regulatory driven sunset and phase out dates of certain chemicals. This informs design decisions for each iteration of new products placed on the market.



## Case study: Supplier collaboration on diversity

During 2023, we conducted a review to understand our current engagement and spend with suppliers that meet certain diversity characteristics in USA and Europe as a basis for future action.

We have long championed diversity within our own business, and our supply chain offers an excellent opportunity to extend our social impact and the benefits to our business that diversity brings.

Engaging with suppliers who reflect a rich variety of backgrounds, cultures and experiences will help deliver innovation and new thinking, but also offers an opportunity to create social value.

We are in the early stages of exploring the diversity of our supply chain, and during 2023 we started to develop a framework that reflects our global footprint and collate data. In North America, key considerations include ethnicity, gender and supporting veteran-owned businesses, whereas the size and type of organisation are also important in the UK and Europe.

When onboarding new suppliers, we have included a non-mandatory field to capture diversity data. This includes

- Minority and/or women owned business enterprises (MWBE)
- Veteran owned businesses
- Ex-offender owned businesses
- Small and Medium Sized Enterprises (SMEs)

Building on the foundations set out in the UK's Social Value Act, we are also exploring how we might engage with suppliers on diversity, inclusion and skills to amplify the potential positive impacts.



**Expanding our focus on diversity into our supply chain will offer an excellent opportunity to seek out innovation and deliver social impact.**

**Fanny Yan**  
Senior Director and Global Head of Procurement





# Accountable and transparent



## Our promise

“We will expand our sustainability governance structures and reporting, and communicate regularly with staff on FuturePositive targets and progress.”

## Why is this important?

- Investors and customers expect increasingly detailed information on our sustainability practices and performance.
- We have not historically communicated and engaged with staff well enough on sustainability.
- New legislation requires Spirent to establish Board-level oversight on climate change.

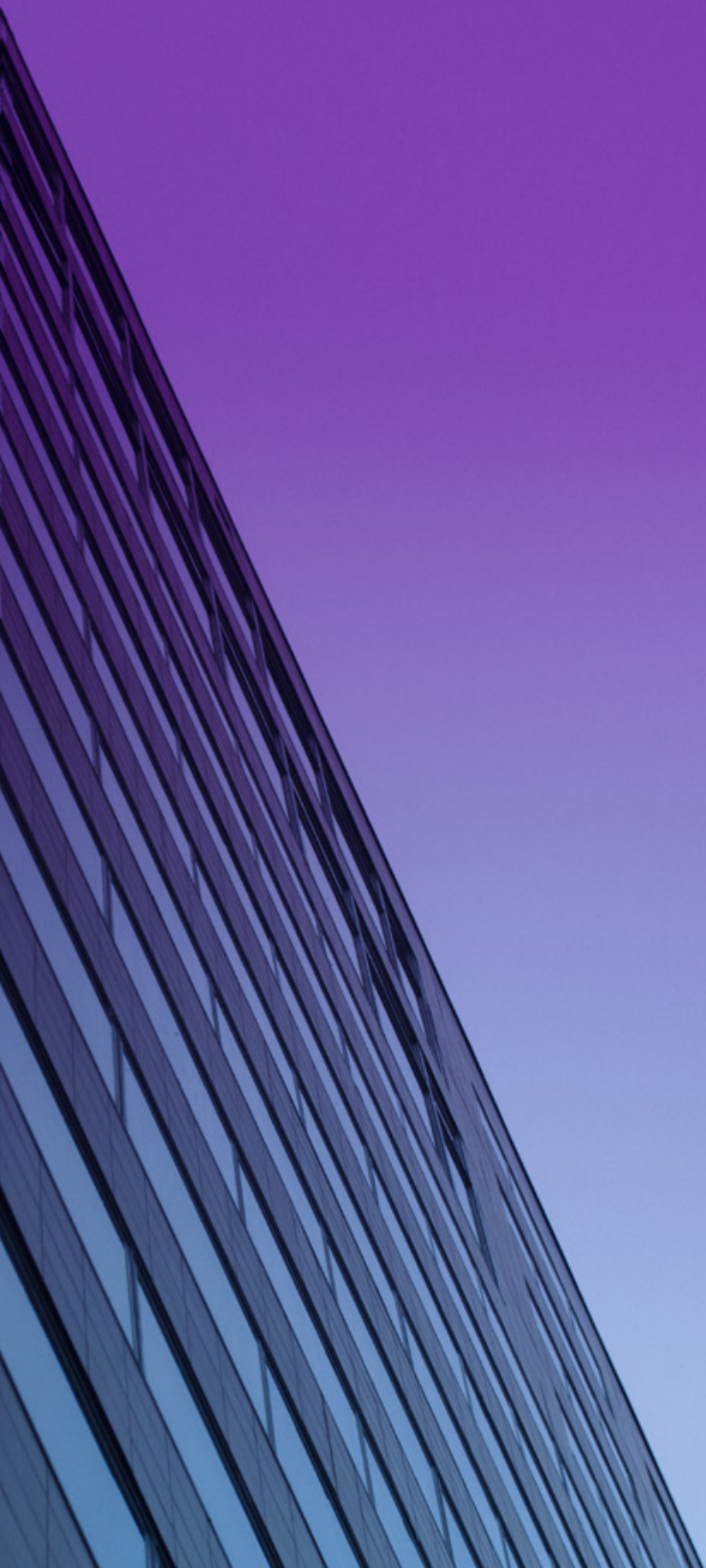
## 2023 highlights

- We introduced a suite of new sustainability policies, including an EMEA region environmental policy.



We introduced a suite of new sustainability policies, including an EMEA region environmental policy.

Angus Iveson  
Company Secretary and General Counsel





## Key themes and targets

An effective sustainability programme relies on robust governance and engagement.

In 2023 we implemented a number of new policies, including an EMEA region environmental policy.

<p><b>Robust sustainability governance</b></p>	<p><b>Objective:</b> Ensure Board-level and senior management involvement in sustainability management.</p>	<p><b>Action:</b> Establish a new Board sub-committee and expand the FuturePositive working group. Establish a balanced score card for sustainability for the Board.</p>	<p><b>Targets:</b> Establish Board sub-committee and report on sustainability performance to them quarterly.</p>	<p><b>Progress: Complete</b> We established a new Board sub-committee for sustainability.</p>
<p><b>Robust reporting and communications</b></p>	<p><b>Objective:</b> We will enhance our external communications and engage with staff effectively and regularly on sustainability issues.</p>	<p><b>Action:</b> We will report in accordance with the GRI Standard and TCFD. We will develop an effective internal communications programme and integrate sustainability into our external communications.</p>	<p><b>Targets:</b> Produce a sustainability report in accordance with the GRI standard for financial year ending December 2021.</p>	<p><b>Progress: On track</b> We expanded our reporting to include metrics from both the GRI standard and the SASB reporting framework</p>



# Sustainability governance

Spirent has a robust approach to managing environmental and social issues. There are six key areas to our responsible operating approach.

<p><b>Sustainability management</b> An effective governance structure for environmental and social issues.</p>	<p><b>Materiality</b> Identifying the most important environmental, social and corporate governance issues for Spirent to manage.</p>
<p><b>Sustainability strategy</b> We operate a sustainability strategy, with five key promises.</p>	<p><b>Stakeholder engagement</b> Understanding and responding to the needs and expectations of our most important stakeholders.</p>
<p><b>Risk management</b> Understanding and managing the principal sustainability risks for Spirent.</p>	<p><b>Compliance data</b> Ensuring we comply with all applicable legislation and policies.</p>

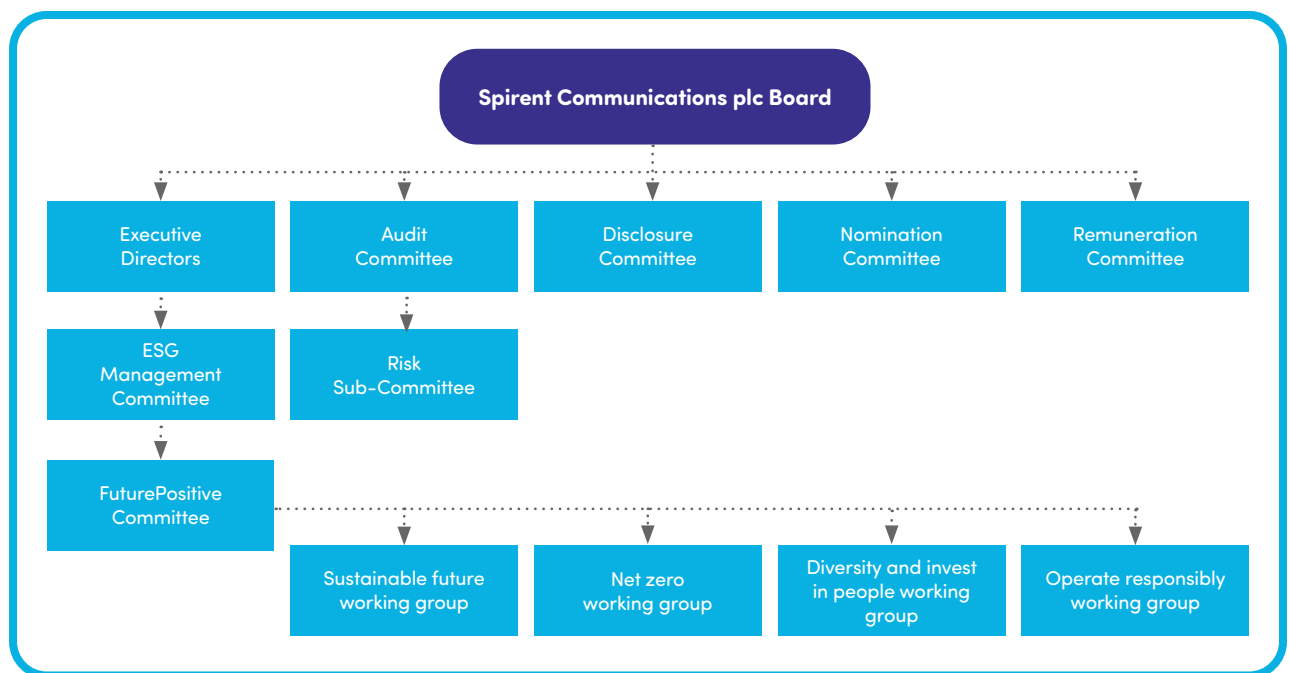
## Sustainability management

### Governance structure

The CEO is ultimately responsible for sustainability at Spirent and oversees the management of our material ESG issues. The Executive Director-led ESG Management Committee lead and monitor ESG matters, oversees our sustainability strategy, monitors climate-related risks and opportunities and our performance against targets, and co ordinates the reporting of issues and updates to the Board.

The FuturePositive Committee comprises:

<b>Committee Chair</b>	<ul style="list-style-type: none"> <li>Company Secretary and General Counsel</li> </ul>
<b>Procurement</b>	<ul style="list-style-type: none"> <li>Vice-President, Global Operations</li> <li>Global Procurement Director</li> </ul>
<b>Property</b>	<ul style="list-style-type: none"> <li>Director of Global Properties</li> </ul>
<b>People</b>	<ul style="list-style-type: none"> <li>Global Human Resources Director</li> </ul>
<b>Product</b>	<ul style="list-style-type: none"> <li>Senior Director Research and Development Product Development</li> </ul>







# Sustainability governance continued

## Sustainability management continued

There is also a formal Risk Sub-Committee of the Audit Committee to monitor risks and uncertainties at corporate and business unit levels, including those related to ESG issues.

The FuturePositive committee is chaired by the Company Secretary and comprises senior managers with responsibility for key aspects of the strategy. The FuturePositive Committee meets across the year to coordinate and monitor progress on the programme and reports progress to the ESG Management Committee.

Progress on our ESG objectives is delivered through thematic working groups and departmental initiatives. We intend to review the committee and working group structure in 2024 to integrate ESG governance more closely into core business management.

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 and annual workstreams.

### Policies

Our sustainability approach is governed by an overarching Sustainability Policy. It can be found at <https://corporate.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 strategy is supported by specific policies and programmes related to management of ESG issues.

## Materiality

We last updated the sustainability issues that are material to Spirent in 2022 using the five criteria set out in the AA 1000 standard using a risk-based approach:

- direct financial impacts;
- policy-related performance;
- peer-based norm;
- 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, climate change and carbon emissions, human capital development and data security, along with how our products can help our customers deliver sustainability performance improvements. Water in the supply chain was identified as an emerging issue.

The analysis is undertaken at least every two years and will next be updated in 2024.

### Responsible business practices

1. Corruption and business ethics
2. Transparent reporting
3. Data security and privacy

### Circular economy

4. Sustainable and transparent supply chain
5. Water in supply chain
6. Product design for the environment and a circular economy
7. Impact occurring during use of products and services
8. End of life of products and waste

### Delivering sustainability impacts for customers

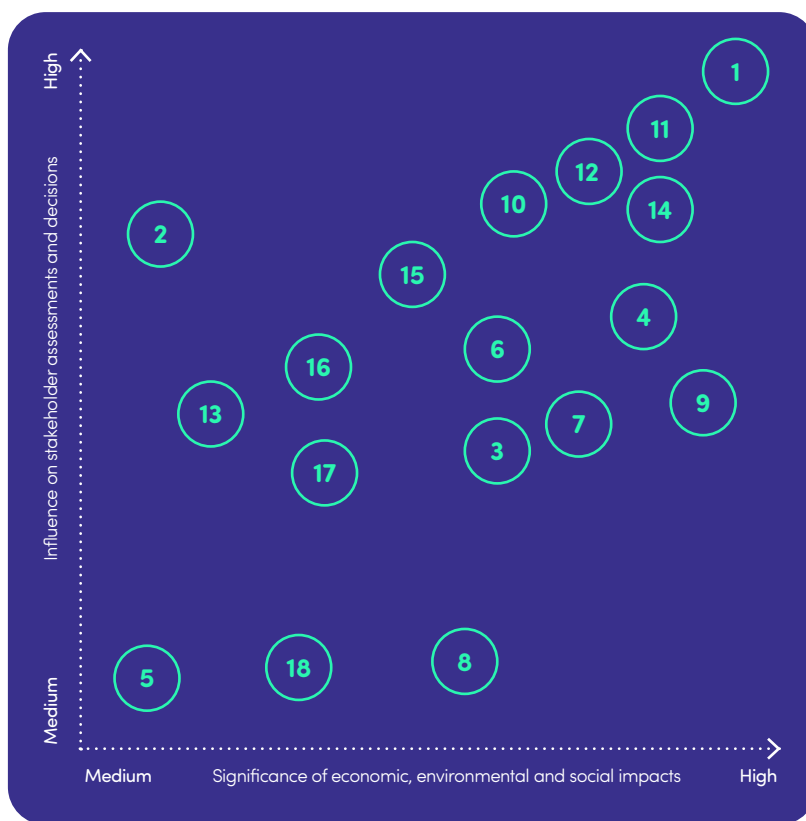
9. Sustainability impact through product functionality

### Energy and climate change

10. Energy efficiency and renewable energy
11. Carbon emissions
12. Climate change resilience

### People and communities

13. Human and labour rights
14. Diversity, equity and inclusion
15. Training, skills and development
16. Health and wellbeing
17. Flexible working practices
18. Supporting communities





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 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
<p><b>Our test solutions</b></p> <p>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>	<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 focused 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>
<p><b>Our business activities</b></p> <p>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.</p> <p>In some cases, we also work with third-party sales partners.</p>	<p>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.</p> <p>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.</p> <p>As an office-based business, the work that our staff conduct is predominantly low risk from a health and safety perspective.</p>
<p><b>Manufacturing, logistics and components</b></p> <p>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.</p> <p>We have a global supply chain. Our products contain regulated materials which can have environmental and social impacts during their extraction, processing and transportation.</p>	<p>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.</p> <p>As such, we set high environmental, social and governance standards for all suppliers and conduct regular assessments and audits. We monitor the environmental performance of key suppliers through our Scope 3 emissions reporting.</p> <p>We maintain very close control of the components and suppliers used to ensure only compliant components are used from suppliers which meet our standards. All products are manufactured to our exacting specifications and records are maintained.</p> <p>Where possible, we reduce the environmental impacts from logistics by shipping hardware directly to customers and allow customers to expand the capability of 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.</p>



## Sustainability governance continued

### Materiality continued

Our business activities	How our material sustainability issues apply
<p><b>Product use and end of life</b> Predominantly the customer use and end-of-life stages of our products' lifecycles have been outside of our direct influence, but our suite of hosted test services is increasing.</p>	<p>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 desktop use.</p> <p>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).</p> <p>With more of our test services being hosted by Spirent, we are also responsible for ongoing energy consumption.</p> <p>Our products are designed for disassembly at end of life and are subject to waste electronics regulations.</p>
<p><b>Confidential and personal data</b> By the nature of the work we do, we hold commercially sensitive data and personal information related to our own business and our customers.</p>	<p>We process personal data and commercially sensitive information which we need to keep secure.</p> <p>As a result, we operate robust information security procedures and our SecurityLabs and Positioning businesses hold ISO 27001 certifications.</p> <p>Cybersecurity is also critical for our customers and we have developed industry-leading security and performance solutions to help them manage cybersecurity risks.</p>
<p><b>Stakeholders</b> We work with national governments and some of the world's largest companies and we are listed on the Main Market of the London Stock Exchange.</p> <p>As a result, our clients, investors and other stakeholders have high expectations of our ESG management and ask us to disclose detailed information about how sustainability issues are relevant to our business and how we are managing them.</p> <p>We also recognise that we operate within communities and we have an obligation to ensure that we operate responsibly and create a positive impact.</p>	<p>We are expected to demonstrate good management of ESG issues and report on our performance.</p> <p>We respond to customer questionnaires and participate in industry-wide initiatives (such as CDP and Ecovadis).</p> <p>We aim to create a positive impact on the communities we work in through volunteering and charitable donations and we operate a Company-wide programme to ensure we do this consistently and effectively.</p>
<p><b>Our facilities</b> We operate from 36 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.</p>	<p>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.</p> <p>We only use water on our sites for domestic use.</p>
<p><b>Talent</b> 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.</p>	<p>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.</p>



## Stakeholder engagement

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

In 2023 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.

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 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. In 2023, we continued our partnership with Emplify to conduct two employee engagement surveys. The survey reviews 17 key themes including meaning, purpose, professional development, shared values, leadership and autonomy. We complete the surveys every six months and they have shown high levels of staff engagement and improvement in each area. The survey has also identified a number of areas where we perform especially well, including fairness and staff feedback, and some areas for improvement, including addressing bottlenecks. We launched the "business bottleneck" anonymous feedback form and tracking resolution for approximately 24 reported bottlenecks.

## Stakeholder expectations

As part of our materiality analysis we have identified the needs and expectations of six main stakeholder groups: investors, workforce, customers, suppliers, government/regulatory bodies, and community and environment.

The 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 annually.

We have designed this report to address the key themes raised by our stakeholders and we also respond to specific requests for information from stakeholders.

Details of our stakeholder engagement approach are set out in the 2023 Annual Report.

## 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 each year.

The Directors confirm that there is an ongoing, robust process to identify, evaluate and manage 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 over 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. The full set of risks is set out in the 2023 Annual Report.

## Reporting and communications

### 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.

### 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.





## Independent assurance statement



### Scope of engagement

Challenge Sustainability Limited ("Challenge Sustainability", "us" or "we") was commissioned by Spirent Communications plc (Spirent), acting through Brite Green Ltd ("Brite Green") with the objective of providing assurance on its Sustainability Report 2023 (the "Report") in relation to the AA1000 AccountAbility Principles and assurance over the Subject Matter presented in the Report, for the reporting year ended 31st December 2023. When considering the Subject Matter, our agreed objective was to determine whether data are fairly presented, in all material respects, in accordance with the reporting criteria. Our assurance engagement does not extend to information relating to earlier periods or to any other information included in the Report.

### AA1000 Principles

We assessed the nature and extent of adherence of the Report to the AA1000 Principles of inclusivity, materiality, responsiveness and impact (the "AA1000 Principles"). To assess the AA1000 Principles we have used the publicly available AA1000 AccountAbility Principles (AA1000AP, 2018), (the "Principles Criteria").

### Subject Matter

To assess the Subject Matter, which includes an assessment of the risk of material misstatement in the Report, we have used Spirent's carbon emissions calculations methodology, as reported on page 82 of the Report (the "Reporting Criteria"). The Management of Spirent is responsible for preparing the Report in accordance with the Reporting Criteria. We have not performed any work, and do not express any conclusion, on any other information that may be published in the Report or on Spirent's website for the current reporting period or for previous periods.

The scope and boundary of our work is restricted to the following key performance indicators as reported in the Report:

- Energy use (MWh), as reported on page 31 of the Report
- Scope 1&2 total GHG emissions, location (tonnes CO<sub>2</sub>e), as reported on page 32 of the Report
- Scope 1&2 total GHG emissions, market (tonnes CO<sub>2</sub>e), as reported on page 32 of the Report
- Scope 3 GHG emissions, upstream and downstream (tonnes CO<sub>2</sub>e), as reported on page 33 of the Report

### Basis of our conclusion

We are required to plan and perform our work in order to consider the risk of material misstatement of the Subject Matter. Our work included, but was not restricted to:

- Assessing the appropriateness of the Reporting Criteria for the Subject Matter;
- Reviewing the effectiveness of internal controls and the processes for collecting and consolidating relevant data and information;
- Conducting remote interviews with Spirent's Management to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report relevant data and information;
- Remote meetings with Spirent's staff to review the processes for gathering and consolidating relevant data and information and checking its consolidation;
- Examining, on a sample basis, source evidence to support the reported Subject Matter, specifically to establish the relationship between data and information aggregated at Head Office level, with the data and information gathered at an operational level;
- Reviewing the evidence, measurements and their scope provided to us by Spirent for the Subject Matter to assess whether it was prepared in line with the Reporting Criteria; and
- Reviewing the Report and narrative accompanying the Subject Matter in the Report with regards to the Reporting Criteria.

### Our conclusion – AA1000 Principles

Based on the work we have undertaken; nothing has come to our attention that leads us to conclude that the Report is not in adherence with the AA1000 Principles as described in the Principles Criteria. We comment on the nature and extent of each individually below.

### Inclusiveness

Spirent engages with all key stakeholder groups, most notably over the past year with selected customers and suppliers on sustainability issues. We also note the efforts taken last year to strengthen partnerships and Spirent's employer profile with Historically Black Colleges & Universities.

We understand that Spirent intends to further refine its governance approach with respect to social and environmental issues in 2024 based upon experience of how governance arrangements have been working in practice to date. In 2023, the company's proposals for the Science-Based Target initiative and People aspects of ESG were considered at the Spirent Board.

We repeat our recommendation that Spirent should develop a dashboard of performance metrics using data from each of the issue-specific sustainability working groups, to provide a more structured view of ongoing progress across all material issues. The development of metrics should specifically integrate the outcome of engagement with stakeholders upon the specific issues.



### Materiality

Spirent undertook the last update to its materiality analysis in 2022, which fed into the revision of Spirent's sustainability strategy and is again reflected in the content of the Report. We understand that Spirent is committed to updating the analysis again before publication of the 2024 Report, which should consider the significance of information security and generative AI, among other new and emerging potential risks. The indicators within the scope of our assurance include two of the issues identified most material by Spirent (energy use and GHG emissions).

We repeat our recommendation that in future years, the scope of assurance should be extended to cover additional indicators to ensure coverage of other high materiality issues.

### Responsiveness

Spirent has responded to increasing customer demands on sustainability impact through product design. Amongst the technology sector, customers are signalling a convergence around the need to establish science-based targets for reductions in carbon intensity. Spirent has submitted science-based targets to SBTi for approval and continues to reduce emissions in a number of ways. The shift from hardware towards software-based solutions and services; and the consolidation of Spirent's laboratory and testing operations has created the platform for considerable further reductions in carbon intensity. We recommend that further impetus should be provided to the programme to incorporate mandatory consideration of sustainability factors in product design and development.

### Impact

The most important sustainability-related issues are integrated into Spirent's sustainability strategy and relevant performance measures are disclosed in the Report for some issues, supported elsewhere by case studies. We recommend that Spirent should continue to explore opportunities to measure the social and environmental impacts of its products and services.

It is noteworthy that Spirent has conducted a global gender pay parity analysis in the last year, however the results have not been disclosed and future management action in response has not been described, beyond statutory disclosures for the UK. Spirent should consider how to report data on its gender pay according to the range of roles within the company, in a way that supports an explanation of the current position. Spirent continues to demonstrate incremental improvements in the quality of data reported relating to Scope 3 carbon emissions. The case study describing the emissions avoided through provision of lab automation services for one financial services provider customer, illustrates the scale of the potential for Spirent to have a positive climate impact through its products and services.

We note that progress against targets has been reported and recommend that those that have been met during the reporting period should be updated, to maintain the momentum of progress. We recommend again that quantitative targets should be developed and reported for diversity and inclusion, to further expand on the diversity and inclusion themes and commitments described in the Report.

### Our Conclusion – Subject Matter

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the subject matter information is not prepared, in all material respects, in accordance with the applicable criteria. This conclusion relates only to the Subject Matter and is to be read in the context of this Assurance Statement, in particular the inherent limitations explained below.

### Responsibilities of the Management of Spirent

The Management of Spirent has sole responsibility for preparing the Report, including presentation of Subject Matter in accordance with the Reporting Criteria. Spirent's responsibilities also include maintaining effective internal controls over the information and data, resulting in the preparation of the Subject Matter in a way that is free from material misstatements.

### Responsibilities of Challenge Sustainability

Our responsibility is to plan and perform our work to obtain assurance over whether the Subject Matter has been prepared in accordance with the Reporting Criteria and to report to Spirent in the form of an independent assurance conclusion, based on the work performed and the evidence obtained. We must also express a conclusion over whether the Report adheres to the AA1000 Principles, as described in the Principles Criteria, and comment on the nature and extent of each Principle individually. The intended users of this assurance statement are Spirent and its stakeholders. We do not accept, or assume responsibility to anyone else, except to Spirent, for our work or for the conclusions that we have reached. We have not been responsible for the preparation of the Report.

### Standards and level of assurance – AA1000 Principles

Our assurance engagement was planned and performed to meet the requirements of a Type 1 "moderate level" of assurance as defined by AA1000 Assurance Standard (AA1000AS) v3.

### Standards and level of assurance – Subject Matter

We performed a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' (revised), issued by the International Auditing and Assurance Standards Board. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion, so that the risk of this conclusion being in error is reduced but not reduced to very low.



## Independent assurance statement continued



### Inherent Limitations

All assurance engagements are subject to inherent limitations as selective testing (sampling) may not detect errors, fraud or other irregularities. Non-financial data may be subject to greater inherent uncertainty than financial data, given the nature and methods used for calculating, estimating and determining such data. The selection of different, but acceptable, measurement techniques may result in different quantifications between different entities. The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our assurance relies on the premise that the data and information provided to us by Spirent have been provided in good faith. Challenge Sustainability expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Assurance Statement.

### Our competence, independence and quality control

Challenge Sustainability has established policies and procedures that are designed to ensure that our team maintain independence and integrity. Our quality management arrangements are at least as demanding as the relevant sections of ISQM-1 and ISQM-2 (2022). Challenge Sustainability operates under a Code of Conduct to ensure that its employees maintain integrity, objectivity, professional competence and high ethical standards in their work. Our processes are designed and implemented to ensure that the work we undertake is objective, impartial and free from bias and conflict of interest. Our management arrangements covering independence and ethical requirements are at least as demanding as the relevant sections of Parts A & B of the IESBA Code relating to assurance engagements.

In relation to use of the AA1000 Assurance Standard, Challenge Sustainability is bound by rules of conduct and professional practice relating to independence and quality overseen by AccountAbility ([www.accountability.org/standards/licensing/aa1000as-licensed-providers](http://www.accountability.org/standards/licensing/aa1000as-licensed-providers)). The Statement has been reviewed for quality by AccountAbility in relation to the use of the AA1000 Assurance Standard.

Challenge Sustainability had no additional engagement with Spirent during the reporting year that would constitute a conflict of interest or otherwise compromise our independence. This engagement was carried out by an independent team of sustainability assurance professionals. Further information on our competencies and experience can be found at [www.challengesustainability.com](http://www.challengesustainability.com).

### Challenge Sustainability Limited

United Kingdom

20/03/24





# Compliance data

## Ethics and integrity

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

Any critical concerns can be communicated to the Board through the Group's "whistleblowing" procedure. The procedure, which forms part of the Business Ethics Policy, contains arrangements for a confidential reporting facility for reporting to the Audit Committee as appropriate. The Audit Committee reviews any reports and the actions arising therefrom.

## Data protection

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's processes are compliant with the General Data Protection Regulation (GDPR) and we operated an Information Security Management system certified to ISO 27001 for our SecurityLabs business based in Plano and San Jose and our Positioning Business in Paignton.

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 whistleblowing 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.

## 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 also comply with the requirements of the EU Water Framework Directive and US Toxic Substances Control Act (TSCA). We operate a software solution that allows us to ascertain and document the compliance status of all components used in our products and we have component compliance team who manage the process, working with engineers and our procurement team to ensure effective controls.

We monitor the weight of electronic equipment sold in European markets and participate in WEEE compliance schemes. In 2023 we sold around 10 tonnes of electronic equipment in European markets, a 22 per cent increase from 2022.

## Electronic equipment sold in European markets by weight

Country	Marketed products (kg)		
	2023	2022	Change (per cent)
Belgium <sup>1</sup>	196	595	-67%
France	857	2,310	-63%
Germany	1,551	1,080	44%
Netherlands <sup>2</sup>	501	1,180	-58%
UK	6,914	3,038	128%
<b>Total</b>	<b>10,019</b>	<b>5,744</b>	<b>22%</b>

Note

1. Belgian data for Q4 only.

## 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.

## Modern slavery

We comply with the requirements of the UK Modern Slavery Act 2015 and the California Transparency in Supply Chains Act 2010. We require slavery and human trafficking to be eradicated from our direct supply chain for the products we sell and monitor suppliers by performing regular evaluation surveys to assure ourselves of each supplier's commitment in this area. Spirent's full statement on modern slavery and human trafficking can be found on the Company's website at <https://corporate.spirent.com>.

## 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 and political contributions and governs conflict of interest and gifts.

The Board oversees implementation of the Business Ethics Policy.

There were no reported incidents, dismissals or legal cases related to corruption during 2023.





## Compliance data continued

### 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.

In 2023, all new hires and current members of the supply chain team were required to complete human rights training. 9 members of staff completed the 30 minute course.

### 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 2023.

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.

### Corruption

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.

In 2023 681 members of staff were identified as needing to complete anti-corruption training. 652 members of staff that were required to, completed the training (96 per cent).

# 0

**Corruption incidents during reporting year**

# 0

**Number of employees dismissed for corruption during reporting year**

# 0

**Legal cases due to corruption during the reporting year**

### 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. Health and safety committees cover 895 members of staff, which is 59 per cent (2022 51 per cent). The continued level is due to the implementation of flexible/remote working; 34 per cent of our team are remote works (2022 37 per cent).

The health and safety risk profile for the Group remained low during 2023. There were no reported accidents and no incidents reportable under the RIDDOR regulations. There no work-related disease incidents (including work-related mental health, stress and anxiety) and three near-misses were reported, where it was deemed a dangerous incident was narrowly avoided.

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 2023.

Site	North			Total
	America	EMEA	APAC	
Deaths	0	0	0	0
Serious injuries (e.g. loss of limb or function, loss of sight, etc.)	0	0	0	0
Over-seven-day injuries (where a person is unable to work for at least a week)	0	0	0	0
Work-related diseases (including work-related mental health, stress, anxiety, etc.)	0	0	0	0
Injuries to members of the public (i.e not employees)	0	0	0	0
Dangerous occurrences identified (e.g. where an accident almost happened)	2	1	0	3



## Energy performance

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Electricity (actual) (MWh)	12,995	14,341	13,965	13,476	13,782	13,120	12,796	12,266	12,576	12,178
Electricity (Est.) (MWh)	3,118	1,051	1,322	978	351	269	207	205	237	226
Gas (MWh)	1,433	1,388	757	546	745	798	506	548	344	402
<b>Total (MWh)</b>	<b>17,547</b>	<b>16,781</b>	<b>16,044</b>	<b>15,001</b>	<b>14,879</b>	<b>14,187</b>	<b>13,509</b>	<b>13,019</b>	<b>13,156</b>	<b>12,807</b>
Energy intensity (MWh per \$ million)	38.4	35.2	35.0	33.0	31.2	28.2	26.9	25.9	21.6	27.0

## Main energy using sites

The largest energy-using sites in 2023 were:

Site	Internal area (m <sup>2</sup> )	Energy use (2023) MWh	Energy use (2022) MWh	Change (per cent)
Calabasas	7,789	4,250,687	4,189,528	1%
Plano	2,370	1,591,950	1,894,624	-16%
Frederick	3,706	1,330,791	1,354,216	-2%
San Jose	3,332	1,327,659	1,259,204	5%
Beijing	2,198	1,034,301	992,834	4%
Holmdel	3,195	990,718	934,617	6%
Paignton	2,575	650,213	728,171	-11%
Honolulu	1,295	544,427	614,692	-11%
Bangalore	1,404	339,847	317,243	7%
Paris	585	269,190	305,155	-12%

## ESOS

Spirent qualifies for stage 3 of the UK Energy Savings Opportunity Scheme (ESOS). We will complete an ESOS compliance energy audit and submitted the relevant disclosure to the Environment Agency.

## Streamlined Energy and Carbon Reporting (SECR)

Spirent is within scope of the SECR Regulations and meets its requirements through this Sustainability Report and the disclosures made in the Annual Report.



## Compliance data continued

### Carbon emissions calculation 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 statements. We do not have responsibility for any emission sources that are not included in our consolidated financial statements as reported in the Company's Annual Report 2023.

We have used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition), data gathered to fulfil our requirements under these Regulations, and location-based emission factors from the UK Government's GHG Conversion Factors for Company Reporting 2023, the US Environmental Protection Agency and the International Energy Agency. Contract-based emissions factors were sourced from the energy providers.

Scope 3 emissions from all relevant emissions sources have been calculated. The methodology followed for each relevant emissions source is set out below:

#### Upstream sources

<b>Purchased goods and services</b>	Emissions from our main contract manufacturers are calculated using Group-level data apportioned by spend. Manufacturers with a spend of greater than \$3 million have been calculated directly or, where data was not available, emissions have been estimated using the average emissions intensity.  Emissions from all other spend has been calculated using sector emissions factors provided by the Office for National Statistics (ONS).
<b>Capital goods</b>	Emissions for capital goods have been calculated from capital spend by type using emissions factors provided by the ONS.
<b>Electricity transmission and distribution losses</b>	Emissions from transmission and distribution losses were calculated from electricity used and regional T&D factors. UK: DEFRA, US: US EIA, all other countries: Enerdata.
<b>Upstream transport and logistics</b>	Emissions for transport and logistics have been calculated based on emissions reported by the three main logistics provider used, and extrapolated based on emissions intensity of spend.
<b>Waste</b>	Waste data is available for only some sites. Where site data was not available, it has been estimated based on waste arising per FTE on similar Spirent sites.
<b>Waste water</b>	Waste water data is available for only some sites. Where site data was not available, it has been estimated based on water consumption per m <sup>2</sup> on similar Spirent sites.
<b>Business travel</b>	Emissions from air travel were calculated from data provided by travel agents and airlines on distance flown. Detailed emissions data was provided for UK flights based on aircraft type used. For all other regions, DEFRA short- and long-haul emissions factors were used. Business travel by car has been calculated by mileage expenses using 2023 DEFRA emissions factors.
<b>Hotels</b>	Emissions data was calculated based on the total number of nights booked using DEFRA 2023 emissions factors.
<b>Home-working</b>	Homeworking emissions calculated based on number of staff-days worked from home and energy use assumptions from DEFRA 2023 emissions factors.
<b>Employee commuting</b>	Emissions from employee commuting were calculated from the results of the 2022 staff travel survey, adjusted to reflect total employee numbers in 2023. The Journey distance, visits per week and mode of transport were reported and DEFRA emissions factors were used to estimate emissions.

#### Downstream sources

<b>Downstream logistics</b>	Downstream logistics is reported as part of upstream logistics due to the format of available data.
<b>Use of sold product</b>	Emissions from the use of sold products were calculated using the rated power for the top ten products sold in the Positioning division and top ten products sold in the Cloud and IP division, extrapolated to reflect all Spirent hardware sales during the year. The useful lifetime of products was based on the product warranty. US emissions factors for grid electricity were used.
<b>End of life of products</b>	End-of-life emissions were calculated using shipping weight for all hardware sold from sales reports. DEFRA emission factor for reuse/recycling of electrical items used.

### CarbonNeutral certification

CarbonNeutral® company certification has been achieved through the Carbon Neutral Protocol. Certification provided by Climate Impact Partners for the calendar year 2023 for the following emissions sources:

- Scope 1: Direct emissions from fuel use and fugitive emissions
- Scope 2: Emissions from purchased electricity (market-based)
- Scope 3: Transmission and distribution losses, Waste, Business travel, Employee homeworking



### Voluntary employee turnover

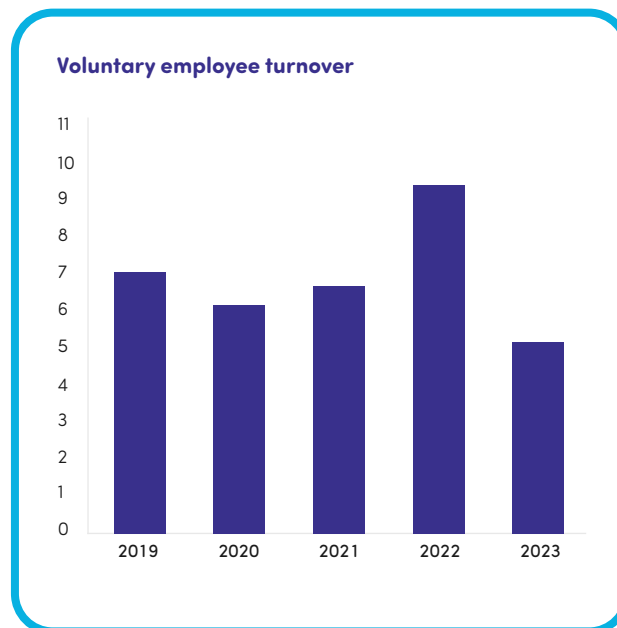
We cannot avoid the fact that some of our employees will move on but we can avoid a skills shortage by appropriately managing, recognising and rewarding our people. Voluntary employee turnover is a measure of how successful Spirent is in its strategy of retaining and investing in its people.

Spirent's success is dependent on its talented employees and retaining them is extremely important. Voluntary employee turnover compared to the industry average is the measure used to assess how well the Group has performed.

Voluntary turnover rates decreased to 5.6 per cent in 2023 from 10.1 in 2022.

The rate is lower than the average for the last five years (7.4) and is well below the global industry average of 14.2 per cent<sup>1</sup>, which also saw a significant decrease in the year.

We aim to make Spirent a great place to work and one where everyone can thrive. Our staff turnover rate demonstrates that we are succeeding in this.



### Parental leave

All staff entitled to parental leave in 2023 took leave. The return rates and retention rates after 12 months are as follows:

Region	Gender	Number entitled	Number who took leave	Number returning to work	Number employed after 12 months
North America	Male	21	21	21	19
	Female	8	8	8	5
APAC	Male	12	12	12	11
	Female	3	3	3	3
EMEA	Male	3	3	3	3
	Female	2	2	1	0

### Support programmes at career endings

We recognise that we have a responsibility to help members of staff who leave the Group due to organisational restructuring 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 2023, 184 members of staff left the Group due to organisational restructuring.

Region	Gender	Outplacement services offered
North America	Male	96
	Female	31
APAC	Male	12
	Female	3
EMEA	Male	32
	Female	10
Total		184

1. Radford Technology Benchmark.





## Compliance data continued

### Training and development

We have a number of courses that are mandatory for staff to complete every two years. This includes human rights, IT security, legal compliance and anti-bribery courses, which include criminal finance, anti-harassment and GDPR. 652 members of staff were required to take global anti-bribery courses and 13 were identified as needing to complete human rights training during 2022. All those required to complete training did so.

Course content	Courses completed	
	2023	2022
IT security	355	1,784
Legal compliance	1,086	450
Technical training and IT skills	4,485	3,273
Global anti-bribery	652	146
Professional development	433	3,849
Health and safety	62	87
Diversity and inclusion	1,239	6,449
Total	8,417	16,038

### Training and skills

Employee category	Gender	Training hours completed	Total training hours by category
Engineering	Male	3,972.50	4,914.75
	Female	942.25	
	Other or not disclosed	–	
Sales and marketing	Male	3,431.25	4,391.75
	Female	960.50	
	Other or not disclosed	–	
Shared services	Male	1,851.25	3,611.00
	Female	1,759.75	
	Other or not disclosed	–	

Employee level	Gender	Training hours completed	Total training hours by category
Executive	Male	151.75	170.00
	Female	18.25	
	Other or not disclosed	–	
Management	Male	1,976.45	2,817.75
	Female	841.00	
	Other or not disclosed	–	
Professional	Male	6,862.75	8,993.25
	Female	2,130.50	
	Other or not disclosed	–	
Support	Male	263.75	936.50
	Female	672.75	
	Other or not disclosed	–	



### Performance reviews

In 2023 performance reviews were completed for 1,505 members of staff:

Region	APAC			EMEA			North America		Total
	Female	Male	Other or not disclosed	Female	Male	Other or not disclosed	Female	Male	
Full time	102	318	–	47	218	–	192	615	1,492
Part time	0	0	–	4	2	–	4	3	13
Total	102	318	–	51	220	–	196	618	1,505



## GRI Index

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

GRI Standard	Reported	Page number
<b>GRI 2: General Disclosures 2021</b>		
2-1 Organizational details	Y	1, 9, 91
2-2 Entities included in the organization's sustainability reporting	Y	1
2-3 Reporting period, frequency and contact point	Y	1, 91
2-4 Restatements of information	Y	n/a
2-5 External assurance	Y	75, 76
2-6 Activities, value chain and other business relationships	Y	3-5, 62
2-7 Employees	Y	44, 83
2-8 Workers who are not employees	N	-
2-9 Governance structure and composition	Y	Annual report
2-10 Nomination and selection of the highest governance body	Y	Annual report
2-11 Chair of the highest governance body	Y	Annual report
2-12 Role of the highest governance body in overseeing the management of impacts	Y	71-72
2-13 Delegation of responsibility for managing impacts	Y	71-72
2-14 Role of the highest governance body in sustainability reporting	Y	71-72
2-15 Conflicts of interest	Y	Annual report
2-16 Communication of critical concerns	Y	79
2-17 Collective knowledge of the highest governance body	Y	Annual report
2-18 Evaluation of the performance of the highest governance body	Y	Annual report
2-19 Remuneration policies	Y	Annual report
2-20 Process to determine remuneration	Y	Annual report
2-21 Annual total compensation ratio	N	Annual report
2-22 Statement on sustainable development strategy	Y	6
2-23 Policy commitments	Y	72
2-24 Embedding policy commitments	Y	39, 49, 71-72
2-25 Processes to remediate negative impacts	N	-
2-26 Mechanisms for seeking advice and raising concerns	Y	79
2-27 Compliance with laws and regulations	Y	80
2-28 Membership associations	Y	1
2-29 Approach to stakeholder engagement	Y	71, 72, 74, 75
2-30 Collective bargaining agreements	Y	80
<b>GRI 3: Material Topics 2021</b>		
3-1 Process to determine material topics	Y	72
3-2 List of material topics	Y	72
3-3 Management of material topics	Y	72-74

### Key

Y	Reported
NM	Not material
P	Partially reported
N	Not reported



GRI Standard	Reported	Page number
<b>GRI 201: Economic Performance 2016</b>		
201-2 Financial implications and other risks and opportunities due to climate change	Y	34-35
<b>GRI 203: Indirect Economic Impacts 2016</b>		
203-1 Infrastructure investments and services supported	NM	-
203-2 Significant indirect economic impacts	NM	-
<b>GRI 204: Procurement Practices 2016</b>		
204-1 Proportion of spending on local suppliers	N	-
<b>GRI 205: Anti-corruption 2016</b>		
205-1 Operations assessed for risks related to corruption	Y	67, 73, 80
205-2 Communication and training about anti-corruption policies and procedures	Y	73, 80, 84
205-3 Confirmed incidents of corruption and actions taken	Y	80
<b>GRI 301: Materials 2016</b>		
301-1 Materials used by weight or volume	N	-
301-2 Recycled input materials used	N	-
301-3 Reclaimed products and their packaging materials	N	-
<b>GRI 302: Energy 2016</b>		
302-1 Energy consumption within the organization	Y	29-31, 81
302-2 Energy consumption outside of the organization	Y	16-17
302-3 Energy intensity	Y	29-31
302-4 Reduction of energy consumption	Y	29-31
302-5 Reductions in energy requirements of products and services	Y	18
<b>GRI 303: Water and Effluents 2018</b>		
303-1 Interactions with water as a shared resource	Y	57
303-2 Management of water discharge-related impacts	NM	-
303-3 Water withdrawal	NM	-
303-4 Water discharge	NM	-
303-5 Water consumption	N	-
<b>GRI 304: Biodiversity 2016</b>		
304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	NM	-
304-2 Significant impacts of activities, products and services on biodiversity	NM	-
304-3 Habitats protected or restored	NM	-
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	NM	-





## GRI Index continued

GRI Standard	Reported	Page number
<b>GRI 305: Emissions 2016</b>		
305-1 Direct (Scope 1) GHG emissions	Y	32-33
305-2 Energy indirect (Scope 2) GHG emissions	Y	32-33
305-3 Other indirect (Scope 3) GHG emissions	Y	32-33
305-4 GHG emissions intensity	Y	32-33
305-5 Reduction of GHG emissions	Y	32-33
305-6 Emissions of ozone-depleting substances (ODS)	Y	32-33
305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	NM	-
<b>GRI 306: Waste 2020</b>		
306-1 Waste generation and significant waste-related impacts	P	56, 79
306-2 Management of significant waste-related impacts	P	56, 79
306-3 Waste generated	P	56, 79
306-4 Waste diverted from disposal	N	-
306-5 Waste directed to disposal	N	-
<b>GRI 308: Supplier Environmental Assessment 2016</b>		
308-1 New suppliers that were screened using environmental criteria	Y	62-67
308-2 Negative environmental impacts in the supply chain and actions taken	Y	62-67
<b>GRI 401: Employment 2016</b>		
401-1 New employee hires and employee turnover	Y	83
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Y	41
401-3 Parental leave	Y	41, 83
<b>GRI 402: Labor/Management Relations 2016</b>		
402-1 Minimum notice periods regarding operational changes	N	-
<b>GRI 403: Occupational Health and Safety 2018</b>		
403-1 Occupational health and safety management system	Y	49, 63, 64, 66, 73, 75, 80, 84
403-2 Hazard identification, risk assessment, and incident investigation	Y	80
403-3 Occupational health services	Y	80
403-4 Worker participation, consultation, and communication on occupational health and safety	Y	80
403-5 Worker training on occupational health and safety	Y	80, 84
403-6 Promotion of worker health	Y	80
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Y	80
403-8 Workers covered by an occupational health and safety management system	Y	80
403-9 Work-related injuries	Y	80
403-10 Work-related ill health	Y	80

### Key

Y	Reported
NM	Not material
P	Partially reported
N	Not reported



GRI Standard	Reported	Page number
<b>GRI 404: Training and Education 2016</b>		
404-1 Average hours of training per year per employee	Y	84
404-2 Programs for upgrading employee skills and transition assistance programs	Y	45-49
404-3 Percentage of employees receiving regular performance and career development reviews	Y	85
<b>GRI 405: Diversity and Equal Opportunity 2016</b>		
405-1 Diversity of governance bodies and employees	Y	44
405-2 Ratio of basic salary and remuneration of women to men	P	Annual report
<b>GRI 406: Non-discrimination 2016</b>		
406-1 Incidents of discrimination and corrective actions taken	N	-
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>		
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Y	67, 80
<b>GRI 408: Child Labor 2016</b>		
408-1 Operations and suppliers at significant risk for incidents of child labor	Y	67
<b>GRI 409: Forced or Compulsory Labor 2016</b>		
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Y	67
<b>GRI 414: Supplier Social Assessment 2016</b>		
414-1 New suppliers that were screened using social criteria		62-67
414-2 Negative social impacts in the supply chain and actions taken		62-67
<b>GRI 418: Customer Privacy 2016</b>		
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data		60-61



## SASB Index

Topic	Accounting metric	Reported	Page number/ disclosure
<b>Product security</b>	Description of approach to identifying and addressing data security risks in products	N	61
<b>Employee diversity and inclusion</b>	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	Y	44
<b>Product lifecycle management</b>	Percentage of products by revenue that contain IEC 62474 declarable substances	N	–
	Percentage of eligible products, by revenue, meeting the requirements for EPEAT registration or equivalent	n/a	–
	Percentage of eligible products, by revenue, meeting ENERGY STAR® criteria	n/a	–
	Weight of end-of-life products and e-waste recovered, percentage recycled	Y	78
<b>Supply chain management</b>	Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by (a) all facilities and (b) high-risk facilities	Y	64–67
	Tier 1 suppliers' (1) non-conformance rate with the RBA Validated Audit Process (VAP) or equivalent, and (2) associated corrective action rate for (a) priority non-conformances and (b) other non-conformances	Y	64–67
<b>Material sourcing</b>	Description of the management of risks associated with the use of critical materials	Y	67
<b>Activity</b>	Number of units produced by product category	N	–
	Area of manufacturing facilities	Y	62
	Percentage of production from owned facilities	Y	0%

**Key**

Y	Reported
NM	Not material
P	Partially reported
N	Not reported



**Spirent Communications plc**

Origin One

108 High Street

Crawley

West Sussex RH10 1BD

United Kingdom

Tel: +44 (0)1293 767676

Email: [investor.relations@spirent.com](mailto:investor.relations@spirent.com)

Website: [corporate.spirent.com](http://corporate.spirent.com)

Registered in England No: 470893

Spirent and the Spirent logo are trademarks or registered trademarks of Spirent Communications plc. All other trademarks or registered trademarks mentioned herein are held by their respective companies. All rights reserved.