Spirent™

Your
PR◯MISE
Assured

We make technology WORK

About our Sustainability Report

Committed to delivering 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 2021 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 and from the Sustainability Accounting Standards Board (SASB) Electronic Hardware Standard 2018. 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 2021
Climate change: A–
Supply chain: B–

FTSE ESG 100 Select member 2021

FTSE4Good member 2021

EcoVadis
Silver rating 2021

Progress towards FuturePositive

Welcome to our Sustainability Report for 2021. It sets out our responsible business approach and the progress we've made through FuturePositive, our sustainability strategy.

We updated our Sustainability strategy in 2020 and so this Report looks a little different from previous years, with each section focused on our five key promises.

Promise of a sustainable future

Our solutions can help customers improve their energy and carbon performance and improve the security of their data and networks. We also play a pivotal role in developing new technologies that solve global challenges. I'm particularly proud of the work we're doing in consortium with Cranfield University and aviation industry leaders through the DARTeC initiative to usher in a new wave of digital technologies that will make air travel safer and more sustainable.

Net Zero

We have continued to make progress towards becoming carbon net zero with another year of absolute carbon reductions, despite a further year of strong growth. We have embedded our carbon reduction goals into our lab and estates plans and consolidated sites. We also closed a number of sites during the year whilst running an energy efficiency campaign within our engineering labs. We decreased our Scope 1 and 2 emissions by 6.5 per cent, but our Scope 3 emissions have increased from the low we saw last year due to COVID-19. This underlines the importance we place on our wider indirect emissions; in 2022 we'll make concerted efforts to measure and manage emissions across the whole lifecycle of our products and services.

During 2021 we also completed a comprehensive review of climate-related risks and opportunities for the business. This was a valuable exercise and with the effects of the climate crisis set to increase and our responsibility to reduce our emissions, this will be integrated into our ongoing risk and opportunities planning.

Promote diversity and invest in people

This year saw us move from the planning to the action phase of our diversity strategy and we saw a number of new key partnerships, policies and practices kick off. We've developed partnerships with organisations that will help us connect with and recruit from a wider talent pool. We've also implemented a new global suite of family friendly benefits and flexible working practices to help retain and support staff during important times in their lives. This has been supported by a new mandatory five-module course on diversity and inclusion and new guidance for hiring and promotion practices and a comprehensive review of our documentation and software to remove non-inclusive terminology.

We've also established a new 24-month early career talent programme which has been piloted in our Global Sales team and will be expanded alongside our engineering early career talent framework over the coming year.

A real highlight of my year has also been able to be involved in the 'Spirent Celebrates' initiative. We have run a programme that recognises and celebrates the rich diversity of cultures, experiences and perspectives with articles, photo competitions and presentations. I've been delighted to see how teams around the world have participated in this wonderful initiative. Spirent's vibrant community is at its best when we pull together: our 'Step Into Action' challenge has shown our team in their best possible light. Not only did the initiative raise money for good causes, but it brought people together, built new friendships and helped motivated people to get active.

Operate responsibly

We have set out to achieve certification of our environmental management practices to the ISO 14001 standard across the business and we hit our first major milestone this year with our operations at Holmdel achieving certification.

Our global operations team has also continued to engage and audit key suppliers, undertaking assessments of 18 of our largest suppliers. The global challenges in sourcing during the pandemic and a corresponding change in sourcing patterns has seen a drop in some of our sustainable sourcing metrics. This is an important area for us and in 2022 we will recruit a new Global Operations ESG lead to expand our ability to engage our supply chain on sustainability issues.

Be accountable and transparent

We have created a new Executive Director-led management committee to oversee our sustainability programme and we have made a step change in the level of communication and engagement with staff around our FuturePositive programme. This has increased knowledge, awareness and engagement across the business and paves the way for progress in the years to come.

Eric Updyke
Chief Executive Officer

Global leader, innovator and trusted partner in test and assurance

Spirent helps our customers manage the complexity of their devices, networks and services, enabling them to keep the promises they make to their customers while reducing cost. We provide innovative test and assurance solutions and trusted expertise that allow our customers to bring better quality products and services to market faster, to automate the turn-up of new services and to proactively identify and resolve problems in their production networks.

Across every one of our businesses we are accelerating the transition of testing and evaluation of devices, network equipment and applications from development labs to the operational network, and evolving from a product-centric to a customer-centric organisation. We will continue to innovate towards fully automated testing and autonomous service assurance and analytics solutions.

Spirent has around 1,500 employees, serving in excess of 1,100 customers in over 50 countries, and is organised into three operating segments.

1,500
employees

1,100+
customers

50+
countries

Lifecycle Service Assurance

An established global leader in the testing of 5G mobile core networks, cellular and Wi-Fi devices in the lab, our Lifecycle Service Assurance segment is seeing rapid growth in its solutions that radically reduce the time and cost to turn up new services, as well as to rapidly diagnose, troubleshoot and resolve issues with production networks and services. With our automation, visibility and analytics, we improve customer satisfaction and retention while reducing cost and complexity.

Networks & Security

A world leader in high-speed Ethernet/IP performance testing, our Networks & Security segment develops test methodologies, tools and services for virtualised networks, Cloud and proactive security validation. We also continue to lead in global navigation satellite system (GNSS) test and simulation solutions while addressing new opportunities in the broader positioning, navigation and timing (PNT) market.

Delivering value in an age of accelerating change

In the face of accelerating change and rapidly increasing technological complexity, our customers need to bring new offerings to market faster than ever while keeping costs in check. We partner with our customers to deliver unprecedented agility, efficiency and security as they develop, deploy and operate innovative products and services.

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

Accelerate time to market
DEVELOP
Harden security defences
Reduce cost and complexity
DEPLOY
OPERATE
Optimise user experience
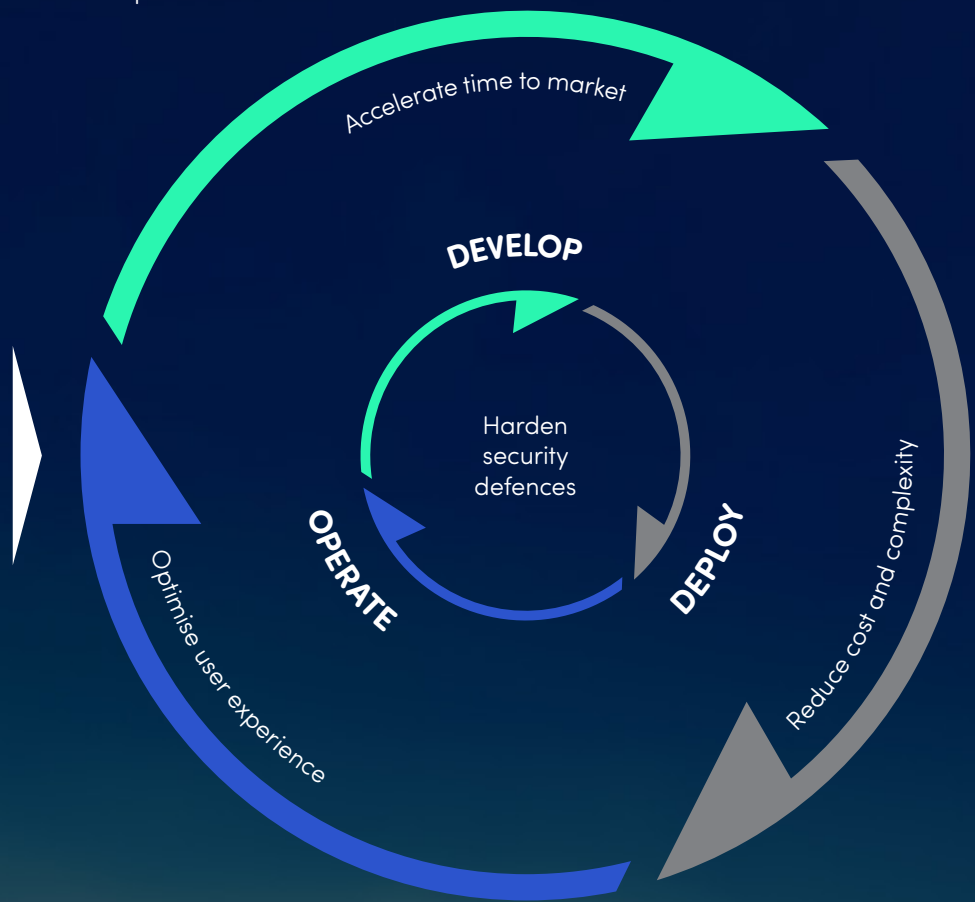
Lifecycle needs

DEVELOP

As new standards in telephony, Cloud, networking, satellites and IoT emerge, we are already talking about their replacements just a few years down the road. In this era of rapidly accelerating change, our customers urgently need to transition away from legacy innovation practices that require months or even years for major releases. To compete effectively, they must migrate to a more agile, highly automated approach that delivers a steady flow of releases every four to six weeks.

DEPLOY

This era of accelerating change is driven by exciting new use cases such as edge Cloud, Industry 4.0, drone delivery and telemedicine. The technologies underpinning these new use cases bring more than increased development complexity; they also come with more technology layers, more interconnectivity and a slew of new vendors. Service providers and their expanded vendor ecosystems need new techniques and systems that help them collaborate more effectively to ensure complex products and services work before being launched.

OPERATE

The next generation of networks are built to dynamically adapt to new environmental conditions and customer needs. The configuration of these networks will change far too rapidly for traditional reactive and manual troubleshooting. Service providers are now adopting proactive, automated approaches to ensure issues can be detected and resolved before customers are impacted.

Spirent value

Our unique value creation

Bring new technology releases to market in weeks, not months

Accelerate time to market
Spirent's Digital Twins accurately emulate real-world environments to validate networks, positioning and security systems in controlled, repeatable conditions. Turnkey automated test suites radically accelerate testing, enabling service providers and their vendors to shift to agile releases that take weeks, not months.

Manage vendors to keep costs and rising deployment complexity in check

Reduce cost and complexity
Spirent does not just automate testing; we partner with our customers to create collaborative testing environments. Our position as a trusted, independent test and assurance expert enables us to deliver certification and validation solutions for use by entire vendor ecosystems, reducing the impact of surging complexity.

Rapidly find, pinpoint and fix issues before end-users are impacted

Optimise user experience
Spirent solutions don't wait for problems to happen – they mimic end-user voice, video and data traffic to constantly scan the end-to-end network. This proactive approach to monitoring identifies problems faster, avoiding costly service level penalties and reducing the time to resolution, saving millions in troubleshooting and care costs.

Understand how security settings impact user experience

Keep users happy and safe
Security and performance are inextricably tied together. Applying every possible security protocol can dramatically degrade end-user experiences. Spirent solutions help our customers evaluate the impact of security postures on performance to find the right balance for specific services and applications.

Making complex technologies work in an age of accelerating change

Spirent continues to prioritise investments that sustain and expand its leadership in such key technologies and markets as 5G, Cloud and automation. We are focused on deepening and expanding our partnership with our customers as we help them address their larger business problems with innovative solutions and services, enabling them to keep their promise to their customers. We are building on our leadership in lab-based testing while expanding rapidly into our customers' operational networks and addressing their security challenges. We are applying our industry-leading expertise to key emerging areas, such as the expansion of 5G beyond consumer markets, new cybersecurity architectures driven by evolved ways of working, and the expansion of Cloud to the network edge. New markets provide us with fresh opportunities to grow and to build additional recurring revenue streams that support sustainable, profitable growth.
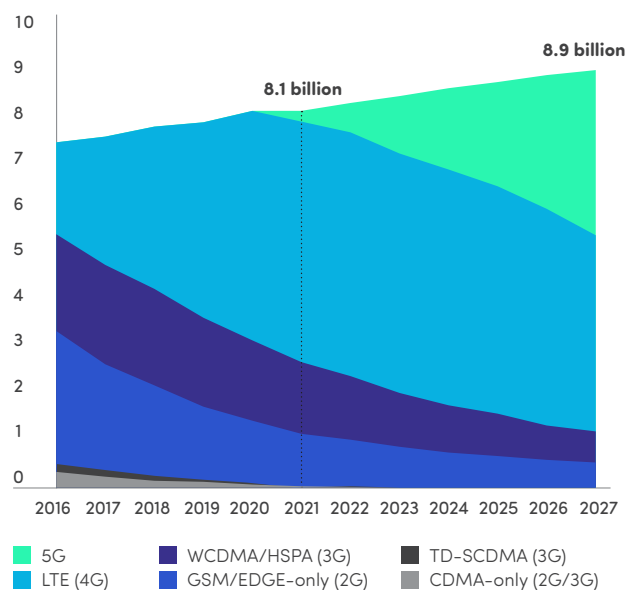
5G's race to revenue

Market driver: As 5G global deployments accelerate, increased competition between traditional service providers and new entrants is intensifying focus on new revenue opportunities in lucrative enterprise and industrial markets. New ecosystem partnerships with public Cloud providers and "open" initiatives in core and radio access networks are driving an increasingly diverse supply chain that provides agile solutions to service 5G's expansion beyond consumer markets.

Opportunities for Spirent: Complex and continuously evolving 5G networks, expanding ecosystem partnerships with public Cloud providers, and new vendor entrants, as well as a heightened focus on network agility and performance to establish market differentiation, create a wide range of new testing, automation, security and service assurance opportunities.

Our response: Spirent provides one of the industry's broadest and most innovative solution portfolios for 5G testing and automated assurance, from the mobile core to the radio access network to the end-user device. We enable our customers to achieve faster time to market and superior quality, safely accelerating technology development in the lab, while ensuring their new products and services continuously perform out in the real world.

Mobile subscriptions by technology (billion)[1]

8.1 billion · 8.9 billion

Legend: 5G, LTE (4G), WCDMA/HSPA (3G), GSM/EDGE-only (2G), TD-SCDMA (3G), CDMA-only (2G/3G)

"As 5G global deployments accelerate, we enable our customers to achieve faster time to market and superior quality, while ensuring their new products and services continuously perform out in the real world."

4.4bn
5G subscriptions are forecast to reach 4.4 billion in 2027[1]

Note
1. Ericsson Mobility Report (November 2021).

Pandemic accelerating digital transformation

Market driver: The pandemic is leaving its mark on the way we work, with many enterprises adopting a hybrid working model for their employees, blending work from home with variable time in the office. This dramatic shift, coupled with increasing reliance on Cloud services, has resulted in an urgent focus on a new cybersecurity architecture – secure access service edge (SASE), adoption of which is projected to grow rapidly over the next three to five years.

Opportunities for Spirent: Supporting the rapid adoption of a new security architecture necessitates a blended network and security testing methodology that leverages Spirent's core strengths and platforms. Managed service providers (MSPs) need multi-vendor, multi-layer and multi-platform testing solutions to mitigate security risks, accelerate testing and reduce total cost of ownership in a multi-Cloud environment.

Our response: Spirent is leveraging its software-defined wide area network (SD-WAN) market leadership to enable MSPs and managed security service providers (MSSPs) to validate security efficacy, assure end-to-end application experience, and offer managed security service level agreements (SLAs). Spirent offers the broadest set of SD-WAN and SASE solutions, built on our hyper-realistic traffic scenarios and strong network test and assurance track record.
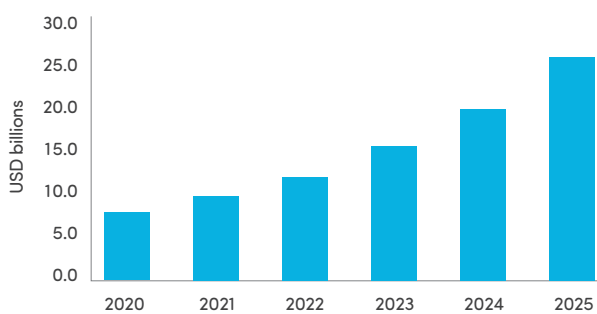
Security in the network Cloud market opportunity, 2020–2026
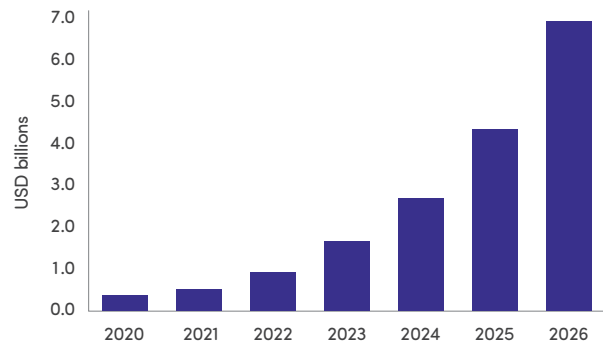
Source: Appledore Research Forecast: Security in the Network Cloud (October 2020).

The Cloud comes to the network edge

Public network edge Cloud market size, worldwide, 2020–2025

Source: Appledore Research Forecast: Network Edge Cloud Opportunity (March 2020).

Market driver: From augmented reality to industrial control systems, many applications cannot deliver a positive user experience unless processing is performed close to the user as opposed to centrally. For other applications, it is more cost efficient, reliable and secure to process data (e.g. video) locally rather than backhaul it to a central location. For these reasons and more, the Cloud is expanding from large, centralised data centers to locations closer to the user.

Opportunities for Spirent: Ensuring interoperability to run applications on all forms of Cloud (public, private, telco) was already a challenge, and as the number of Cloud players grows this becomes even more critical. The capability to differentiate application issues from underlying Cloud issues on an ongoing basis becomes essential to a quality user experience, especially in latency-sensitive applications.

Our response: Spirent is providing solutions that support testing of applications running on different Clouds under a wide range of conditions, and to test the performance and scale of the underlying Cloud. This allows administrators to establish firm SLAs between the applications and the underlying distributed Cloud, and then to instrument and measure compliance to this SLA to establish responsibility for any performance degradation.

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.

In 2020 we published a new Sustainability strategy focused on five key missions:

Vision: Our solutions will help deliver on the promise of a sustainable future for all.

We will operate with integrity, respecting the environment and people everywhere.

Deliver a sustainable future

Promise of a sustainable future

Our promise We will showcase the environmental benefits that our solutions deliver for customers and embed sustainability into our go-to-market strategy.

Operate with integrity

Net zero carbon

Our promise We aim to achieve carbon neutral certification in two years and work towards net zero carbon by 2035 through energy efficiency, 100 per cent renewable electricity and carbon offsets.

Promote diversity and invest in people

Our promise We will take action on diversity and set clear expectations. 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.

Operate responsibly

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

Be accountable and transparent

Our promise We will expand our sustainability governance structures and reporting and communicate regularly with staff on FuturePositive targets and progress.

2021 highlights

We have made good progress on our Sustainability programme in 2021.
We are pleased to share some of the highlights from the year.

Promise of a sustainable future

Supporting innovation to make air travel greener and safer

We have joined the DARTeC consortium with Cranfield University and aviation sector, supporting research into digital technologies that will make air travel greener and safer.

Net zero carbon

Reduced Scope 1 and 2 carbon emissions by 38 per cent since 2014

We reduced our Scope 1 and 2 carbon emissions by 6.5 per cent during the year, meaning we've reduce our emissions from 2014 by 38 per cent.

Promote diversity and invest in people

Partnerships to take action on diversity

We established new strategic partnerships to help us engage and recruit from a wider, more diverse talent pool.

Operate responsibly

ISO 14001 certification at Holmdel site

We achieved ISO 14001 environmental management system certification at our site in Holmdel, NJ.

Be accountable and transparent

New Executive Director-led management committee for sustainability

We established a new Executive Director-led management committee for sustainability.

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:

Responsible business practices
1. Anti-corruption and business ethics
2. Transparent reporting
3. Data security and privacy

Circular economy
4. Zero waste
5. Product design for the environment and a circular economy
6. Sustainable material use
7. Sustainable and transparent supply chain

Delivering sustainability impacts for customers
8. Sustainability impact through product functionality

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

People and communities
12. Human and labour rights
13. Diversity and equality
14. Training, skills and development
15. Health and wellbeing
16. Flexible working practices
17. Supporting communities

You can read more about our materiality process on page 58.

Our sites

Frederick, MD
Holmdel, NJ
Eatontown, NJ
San Jose, CA
Raleigh, NC
Calabasas, CA
Plano, TX
Honolulu, HI
Paignton, UK
Crawley, UK Head Office
Beijing, China
Bangalore, India

37
sites

11
significant engineering sites

13
countries

" We have consolidated sites and embraced flexible working practices."

Our sites

Spirent operates from 37 sites across 13 countries. The Group headquarters is in Crawley, UK and we have 11 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.

During 2021 we continued to operate flexible working practices with the majority of our team working from home in response to COVID-19. We closed three engineering sites in Raleigh, NC, Bangalore, India and Eatontown, NJ and expanded our site in Holmdel, NJ.

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.

2021 highlights

- We have started to incorporate sustainability messaging into our go-to-market strategy for 5G.
- We have joined the DARTeC consortium with Cranfield University and aviation sector leaders, supporting research into digital technologies that will make air travel greener and safer.

"

Spirent Communications is proud to become a member of DARTeC. We're excited by the prospect of deepening our research collaboration with Cranfield and having the opportunity to innovate alongside fellow industry leaders. This collaboration and engagement in the primary research challenges DARTeC addresses will enable and accelerate Spirent's vision of next generation Positioning, Navigation and Timing (PNT) test and assurance solutions in the autonomous aviation sector."

Mark Holbrow
VP, Engineering & Product Development

Promise of a sustainable future continued

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 is vital we showcase our leadership in this area and the potential benefits our solutions offer.

Key themes and targets

Reduce customer sustainability impacts	Support sustainable innovation	Embed sustainability in customer centricity
Objective: We will showcase how our solutions help our customers improve their sustainability performance directly.	**Objective:** We will showcase how our solutions unlock the technologies to solve global sustainability challenges.	**Objective:** We will make sustainability part of our go-to-market strategy.
Action: Produce case studies annually for main solutions with environmental and sustainability benefits to customers.	**Action:** Produce case studies annually for each business unit on environmental and sustainability innovation supported by Spirent's test solutions.	**Action:** Establish a clear plan to integrate sustainability into our go-to-market strategy.
Targets: Produce data-driven case studies for Velocity and VisionWorks by end of 2021.	**Targets:** Produce case studies on the new innovations that are supported by Spirent by end of 2021.	**Targets:** Incorporate sustainability into our go-to-market plan by end of 2021.
Progress update: **Progress made** We have produced case studies which articulate the sustainability benefits of our solutions. We will add customer-specific data when available.	**Progress update:** **Progress made** We have produced case studies of where our solutions are supporting sustainable innovation.	**Progress update:** **Progress made** We have included sustainability into some of our go-to-market plans.

Reduce customer sustainability impacts

Our test and assurance solutions can help customers reduce their energy use and carbon emissions and improve the security of their data and networks.

Velocity

Reducing power consumption and materials use by consolidating global engineering 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.

Hardware R&D labs are energy-intensive places, with test equipment and development hardware mounted in racks in a noisy, air-conditioned environment. They are often inefficient with unused equipment left on, equipment duplicated across teams either in the same lab or in other locations globally and there can be long delays between tests as equipment needs to be configured manually.

Velocity helps our customers to make a step change in how labs are designed and run. We work with leading technology companies to transform engineering labs using Velocity to:

- **Consolidate labs:** Velocity allows engineers to use and configure equipment from anywhere in the world, which means fewer labs are needed. We help customers consolidate labs, reducing the physical footprint, energy use and carbon emissions.

- **Use less equipment:** Velocity allows global sharing of equipment and automates test scheduling and can improve equipment utilisation by more than 75 per cent. Customers can do more with less equipment. This reduces the cost and environmental impact associated with the use and disposal of over-purchased equipment and allows labs to operate with more modest power and cooling infrastructure within the lab.

- **Get better data:** Velocity provides lab managers with robust data about the utilisation of each piece of equipment. This allows them to make data-driven investment decisions on equipment purchases and identify any bottlenecks in testing programmes.

- **Automatically switch off equipment when not in use:** Velocity has a suite of power management tools that can switch off equipment automatically when its not being used. Implementing power management reduces energy consumption by a further 20 per cent.

- **Reduce engineer travel:** Lab consolidation and remote access means engineers don't need to travel as much.

VisionWorks

Active assurance and fault diagnosis for mobile networks

Reducing carbon emissions through remote testing
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 WiFi 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.

Spirent Data Security Services

Making networks and devices more secure

It's vital that our customers maintain safe, secure and compliant networks. Spirent provides companies and governments with a comprehensive suite of test services. This includes network penetration and vulnerability testing, continuous compliance assessments and consulting services.

Spirent helps customers to keep data and networks safe and secure. Our approach is based around three core priorities:

- Testing security using realistic, real-world environment;
- Certifying suppliers and supply chains to build in trust; and
- Continuous assessment and auditing to increase ongoing resilience.

Testing security using realistic, real-world environment

Using solutions like VisionWorks, CyberFlood and 5G Digital twin, we can emulate realistic user activity and cyber-attacks. This helps us to identify vulnerabilities in our customers' system using real-world scenarios. Our security experts also conduct red-team exercises, where we use real-life attack techniques to a test company's security response in real-time.

Certifying suppliers and supply chains to build in trust

We conduct compliance testing for systems that handle sensitive data. This includes personal data, medical information, financial transactions, as well as CTIA IoT Cybersecurity Certification Testing.

Continuous assessment and auditing to increase ongoing resilience

Our SecurityLabs solutions combines consulting expertise with a Software-as-a-service platform, to automate and consolidate ongoing threat management. We run automated vulnerability scans on customer applications, networks, devices and source code and present the results in a clear way, which enables swift action.

Our customers include hospitals, transport providers, government departments and financial service companies.

Support sustainable innovation

Spirent is playing a pivotal role in developing new clean-tech innovation. Our global positioning and navigation solutions are helping to create precision agriculture applications, establish safe and efficient autonomous vehicles and supporting the digital transformation in aviation.

Precision agriculture
Spirent is supporting the development precision agricultural technologies which will allow farmers to apply water, fertiliser and pesticides where they are needed, reducing environmental impact whilst increasing yields. This will be increasingly important as farmers need to reduce carbon emissions and manage increasing climate-related water stress.

Autonomous vehicles
Autonomous vehicles offer the potential for significant environmental and safety benefits, with better energy and fuel efficiency, especially in urban environmental and "platooning" for heavy goods vehicles. Spirent's positioning solutions are being used by vehicle and component manufacturers to develop and assure autonomous functionality and by standards organisations to develop acceptance testing.

Aviation digital transformation
We are working in a consortium with Cranfield University and aviation industry leaders to develop new technologies that will support cleaner, more efficient and safer air travel. Through the Digital Aviation Research and Technology Centre (DARTeC), Spirent is collaborating in research that will support a sustainable, net-zero carbon future for aviation.

"

Spirent Communications is proud to become a member of DARTeC. We're excited by the prospect of deepening our research collaboration with Cranfield and having the opportunity to innovate alongside fellow Industry leaders. This collaboration and engagement in the primary research challenges DARTeC addresses will enable and accelerate Spirent's vision of next generation Positioning, Navigation and Timing (PNT) test and assurance solutions in the autonomous aviation sector."

Mark Holbrow
VP, Engineering & Product Development

Embed sustainability in customer centricity

Sustainability is an important issue for many of our customers and our strong corporate credentials and the benefits our solutions offer will help us to grow our business and deliver value to our customers.

"

We've set out to engage the market on sustainability issues, catalysing conversations about how our customers can use 5G to develop solutions that tackle global environmental challenges and how Spirent can help optimise efficiency. It's helped us understand our customers' growing ambitions around net zero carbon and for us to share how our solutions can help them achieve them."

Steven Douglas
Senior Director of Market Strategy

A key part of our sustainability strategy is to expand and enhance the way we engage existing and potential customers on sustainability issues, to better understand their requirements and to showcase our credentials and benefits.

During 2021, we introduced sustainability messaging into our go-to-market approach for 5G services and will expand the initiative into further solutions over 2022.

Sustainability messaging in 5G
The roll out of 5G will bring a radical transformation, offering fast speeds, low latency and the ability to connect more devices. Spirent sits at the forefront of this transition, providing test and assurance solutions to network operators and device manufacturers.

A key part of our strategy is to showcase the potential benefits 5G offers and we have developed sales collateral addressing a wide range of use cases including smart grids and smart cities, precision agriculture, autonomous vehicles and connected factories.

We've significantly increased how much we talk about sustainability as a business internally and this has fed through into more informed and engaged discussions with clients.

Our messaging includes the role we can play in optimising the efficiency of 5G hardware. Our solutions emulate real-life traffic and operating conditions, allowing customers to design energy efficiency into the products.

We have also partnered with key customers to present the benefits at industry conferences and have expanded our sustainability section on our corporate and investor websites to showcase our approach and performance.

NET ZERO
CARBON

Our promise

We will achieve carbon neutral 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.

2021 highlights

- In 2021, we met our annual emissions reduction target. We reduced our carbon emissions by 6.5% from the year before.
- We completed a detailed review of climate-related risks and opportunities in line with the TCFD guidance.
- We achieved an A- CDP rating

We continued to make strong progress in 2021 towards achieving our net zero objective, consolidating our estate and driving energy efficiency in our labs."

Ray Lee
Director, Facilities

Net zero carbon continued

Key themes and targets

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

In 2021, we focused on reducing our energy use in our engineering labs and assessing the climate related risks and opportunities across Spirent's entire value chain.

We reduced our Scope 1 and 2 emissions by 6.5 per cent compared to last year; which is an overall reduction since 2014 of 38 per cent.

Energy efficiency

Objective:
Reduce energy use and costs.

Action:
Site consolidations and closer lab management.

Targets:
Reduce energy use by at least 25 per cent from 2019 baseline by 2025.

Progress update:
On track

We have reduced our energy use by 8 per cent from our 2019 baseline.

Carbon reduction

Objective:
Achieve carbon neutrality certification in two years and set a science-based target to reduce Scope 1, 2 and 3 emissions to zero by 2035.

Action:
Achieve carbon neutral certification, measure Scope 3 emissions and work with partners to reduce emissions.

Targets:
Achieve corporate carbon neutral certification by end of 2023.

Reduce Scope 1, 2 and 3 emissions to zero by 2035.

Progress update:
On track

We have established a programme to achieve carbon neutral status during 2022.

Renewable energy

Objective:
Source 100 per cent of electricity from renewable sources and work to purchase increasing energy from new generation capacity.

Action:
Secure green electricity contracts and EACs. Work to purchase energy from additional renewable energy sources.

Targets:
Maintain 100 per cent of electricity from renewable sources annually.

Increase the proportion of electricity sourced from new renewable energy by 2026.

Progress update:
On track

We sourced 100 per cent of our electricity from renewable sources in 2021.

We are investigating opportunities to support new renewable generation.

Offsetting

Objective:
Offset any remaining emissions after reductions and renewable energy.

Action:
Purchase good-quality carbon sequestration credits.

Targets:
Offset any emissions that we cannot reduce within the scope of our carbon neutral certification by 2023.

Progress update:
On track

We have established a programme to achieve carbon neutral status during 2022.

Engage key partners

Objective:
Work with partners to reduce supply chain emissions.

Action:
Engage with suppliers and establish formal carbon agreements with key partners.

Targets:
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.

Progress update:
On track

We have established a programme to collate carbon emissions data for all key suppliers.

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 and we have invested in making it as energy efficient as possible, installing hot-isle containment and in-row cooling and monitoring energy use in each rack. Our lab manager actively manages the equipment and systems to ensure they remain lean and efficient.

We have been rolling out audits and efficiency initiatives across our largest labs, which have delivered significant savings.

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.

Site energy recognition

We produce site energy and carbon reports providing staff with details on energy use and trends at their site and how they compare to other sites. Reports for the major energy using sites have been produced monthly and shared with senior executives.
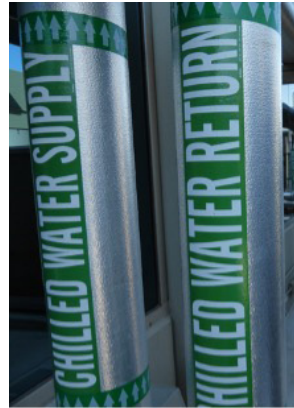
We have invested in an energy efficient cooling system for our lab in Calabasas, California.

Case study: Lab energy efficiency programme

During 2021, we established a working group of lab managers for each major engineering site to take targeted action to further improve energy management.

The team completed a detailed review of the current energy management in each lab, looking at lab equipment management and policies, staff engagement and behaviour, energy management and monitoring infrastructure and energy efficiency initiatives in place.

We have implemented a suite of enhanced lab energy management practices which include removing redundant and duplicated equipment and installing test automation tools and enhanced energy monitoring. The team of dedicated lab managers also ensure better controls and monitoring of lab practices, helping to reduce energy use.

Energy continued

"

In 2021, 100 per cent of our electricity came from renewable sources."

Renewable energy

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

In 2013 we installed a 50kWp solar array at our site in Paignton which generates 38 MWh of zero carbon electricity each year. This supplies around 8 per cent of our electricity use at the site, equivalent to around 10 homes.

Paignton, however, is the only site we own. All other global sites are leased, which has made installing renewables at other sites challenging. 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 do not have access to zero-carbon electricity tariffs, so we have sourced renewable Energy Attribute Certificates which has allowed us to meet our commitment to purchasing 100 per cent of electricity from renewable sources.

We are exploring alternative solutions that will allow us to support the development of new renewable energy capacity.

Energy performance

Energy use across the Company where we are directly responsible decreased by 3.9 per cent in 2021 to 13,019 MWh (2020 13,510 MWh). Our lab energy initiative and the continued policy supporting home working due to COVID-19 have both contributed to this reduction. During the year we also closed our engineering facilities at Raleigh, NC and Eatontown, NJ, transferring operations to other sites including taking on additional space at our Holmdel, NJ site.

There was a 1.6 per cent reduction electricity use for sites where we do not pay for energy directly but instead pay indirectly through a service charge. We have historically estimated this energy use based on the average energy use per m^2 on similar properties and reported these emissions within our Scope 2 emissions. From 2022 we will report estimated energy use and associated emissions as Scope 3 emissions.

The energy intensity of our operations has also reduced, measured in MWh per $ million of revenue: 15 per cent since 2020 and 49 per cent over five years.

	2014	2015	2016	2017	2018	2019	2020	**2021**
Electricity (actual) (MWh)	12,995	14,341	13,965	13,476	13,782	13,120	12,796	**12,266**
Electricity (est.) (MWh)	3,118	1,051	1,322	978	351	269	207	**205**
Gas (MWh)	1,433	1,388	757	546	745	798	506	**548**
Total (MWh)	**17,546**	**16,780**	**16,044**	**15,000**	**14,878**	**14,187**	**13,509**	**13,019**
Energy intensity (MWh per $ million)	38.4	35.2	35.0	33.0	31.2	28.2	26.9	**25.9**

We have reduced energy use every year since 2014 and reduced the proportion of energy use we estimate. Since 2014, we have reduced our energy use by 26 per cent.

Energy use trends

Legend: Electricity (actual) — Electricity (estimated) — Gas — Energy use per $ million
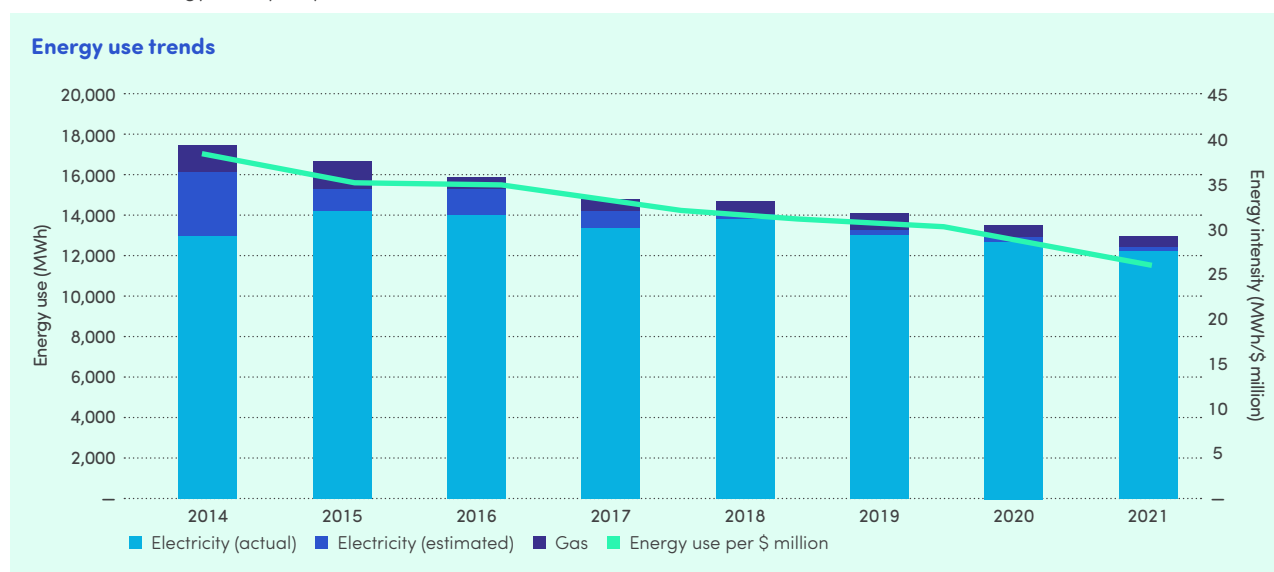
Main energy-using sites

The largest energy-using sites in 2021 were:

Site	Internal area (m2)	Energy use (2021) MWh	Energy use (2020) MWh	Change (per cent)
Calabasas, CA	7,789	3,953,726	3,922,799	1%
San Jose, CA	4,859	1,800,780	1,781,708	1%
Frederick, MD	4,470	1,342,834	1,298,402	3%
Plano, TX	2,370	1,219,127	1,176,113	4%
Beijing, China	2,198	914,322	945,869	–3%
Honolulu, HI	1,295	799,151	704,430	13%
Holmdel, NJ	3,195	790,542	443,063	78%
Paignton, UK	2,575	625,966	575,583	9%
Eatontown, NJ	5,017	414,405	1,156,830	–64%
Paris, France	585	311,708	296,443	5%

In 2021 we closed three of our largest energy using sites: Raleigh, NC, Eatontown, NJ and our Bangalore sales office. Lab equipment and staff have been moved to other major sites which, alongside staff returning to the office following the lifting of COVID-19 restrictions, is a key factor behind the small increases in energy use at many major sites. The significant increase in energy use at Holmdel is due to taking additional space to accommodate the lab moved from Eatontown.

Climate change and 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 in 2021, completing the Climate Change and Supply Chain questionnaire. In 2021 we achieved a rating of A- (2020 B) and maintained a B- supplier engagement score.

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

	Location based		Contract based	
Emissions from:	**2021 Tonnes of CO_2e**	2020 Tonnes of CO_2e	**2021 Tonnes of CO_2e**	2020 Tonnes of CO_2e
Combustion of fuel and operation of facilities (scope 1)	**99.5**	91.8	**99.5**	91.8
Electricity, heat, steam and cooling purchased for own use (scope 2)	**4,128.0**	4,427.7	**—**	—
Total emissions	**4,227.5**	4,519.5	**99.5**	91.8
Emissions intensity metrics:				
Per FTE	**2.70**	3.18	**0.06**	0.06
Normalised per $ million of revenues	**7.34**	8.65	**0.17**	0.18

2021 emissions per $m

Scope 1 ■ Scope 2 ■ Emissions per $ million
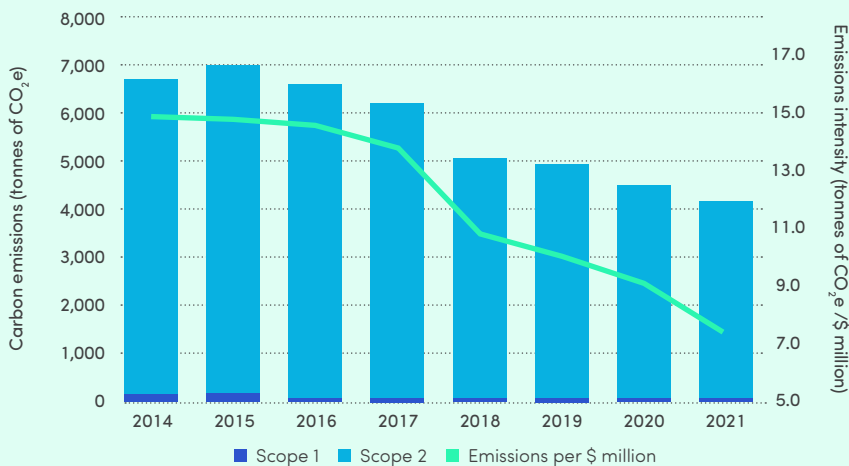
Location-based emissions

To date, our targets have been set on location-based emissions.

In 2021, total Group location-based emissions decreased by about 6.5 per cent from 2020 to 4,227.5 tonnes of CO_2e.

Since our 2014 we have reduced our location-based carbon emissions by 37.5 per cent and have made year-on-year reductions in carbon emissions in relation to revenue as well. Emissions intensity (tonnes CO_2 per $ million) is down 50 per cent since 2014 and 15 per cent down on 2020 figures.

Contract-based emissions

We first reported our emissions on a contract basis for 2018.

Our 2021 emissions remain significantly lower than our 2018 baseline, due to our continued use renewable electricity. Our emissions increased 8 per cent from 2020 due to an increase in natural gas use. This was due to an increased demand for domestic hot water as more staff return to site and a new site from the acquisition of octoScope, Inc.

Scope 1 ■ Scope 2

"
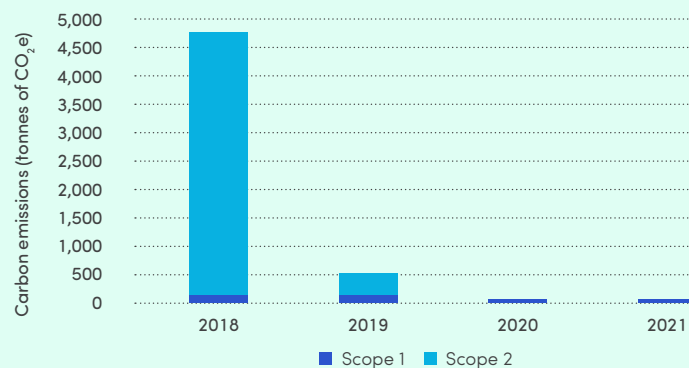
We have reduced our Scope 1 and 2 (location-based) carbon emissions by 37.5 per cent since 2014. Our contract-based emissions have reduced by 98 per cent since we first reported in 2018."

Scope 3 emissions

We have reported on a number of our Scope 3 emissions sources, including those from business air travel and contract manufacturers. 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. We are working to expand our Scope 3 emissions reporting in order to get a more complete understanding of the emissions associated with the full lifecycle of our products and services.

In 2021 carbon emissions from air travel continued to be much lower that pre-COVID-19 levels due to travel restrictions in place in response to COVID-19, but were up more than 50 per cent as global travel restrictions eased. Emissions associated with contract manufacturing were also higher than the previous year, increasing by 28 per cent.

We have expanded our scope of our Scope 3 emissions reporting this year to include a number of additional sources.

Emissions from:	2021 Tonnes of CO_2e	2020 Tonnes of CO_2e
Contract manufacturing	1,251	976
Air travel	1,206	762

Contract manufacturing

Our emissions from manufacturing increased by 28 per cent in 2021, primarily driven higher emissions from our main contract manufacturer.

Air travel

Carbon emissions from air travel remained lower than pre-COVID-19 levels. During 2021 we took around 3,000 flights, travelling 6 million km. In 2019, we took 15,000 flights and travelled 41 million km by air.

Our carbon emissions from air travel in 2021 were 1,205 tonnes of CO_2, up from 762 tonnes CO_2 in 2020.

Total carbon emissions breakdown

Our Scope 3 emissions from air travel and contract manufacturing increased in 2021, making up around 37 per cent the total footprint. They remain considerably lower than the pre-pandemic levels.

Emissions from on site electricity were the largest source in 2021, making up 62 per cent of our reported emissions.

Contract Manufacturing 19%

Gas 1%

Air travel 18%

Electricity 62%
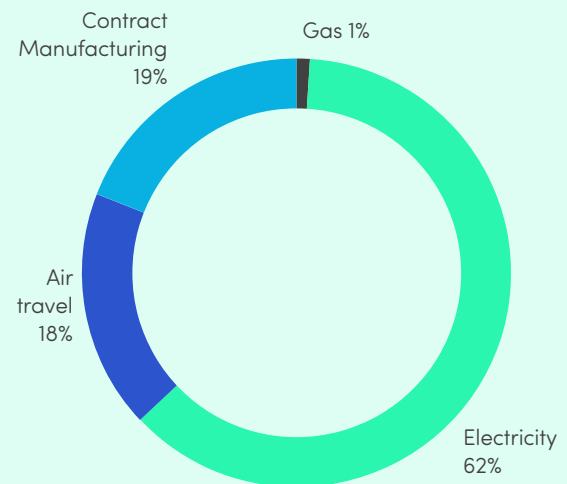
Total carbon emissions breakdown (location based)

Climate change and carbon emissions continued

Setting science-based targets
Based on a 2017 baseline, targets in line with guidance for 2 degree and 1.5 degree science-based target scenarios would be 20 per cent and 33.6 per cent respectively.

Whilst our we are confident in our approach and methodology for reducing Scope 1 and 2 emissions, a significant proportion of our carbon emissions occur in the supply chain and during the use of our products. We have made further progress in understanding our Scope 3 emissions this year, but in order to achieve a robust science-based target, further work is required to calculate our full Scope 3 emissions robustly.

Our sustainability strategy includes two carbon targets. We aim to achieve carbon neutral certification by 2023 and achieve net zero carbon by 2035. The net zero target is aligned with science-based targets.

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 aim to appoint a Global Operations ESG lead who will implement a programme to engage with key suppliers in greater detail on their energy management, carbon emissions strategies and climate change risk management.

"

We have engaged with key suppliers on sustainability issues through our supplier audit programme, including on energy use and carbon emissions.

Task Force on Climate-related Financial Disclosures (TCFD)

Task Force on Climate-related Financial Disclosures (TCFD)
Climate change will create 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.

Governance and risk management
During 2021 we completed a detailed review of how climate change may impact our business in the future. The Board considers sustainability issues (including climate change) throughout the year and oversees the consideration of climate-related risks and opportunities under the TCFD disclosure requirements. Having established climate scenarios, we ran a climate change risk workshop with senior managers from across the business in September to consider the most significant risks and opportunities. The findings have been considered as part of our business risk and financial planning processes and have been reviewed by the Audit Committee and its Risk Sub-Committee.

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. 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:

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

The key risks Spirent has identified 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, energy costs are likely to increase 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 do not estimate the impact to be material.

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.

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 energy use through a reduction in heating. Additionally, there may be a market opportunity relating to the provision of emerging energy efficient Spirent products. The Group is still exploring the opportunities that climate change presents and therefore they have not been incorporated into the modelling.

Scenario analysis

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.

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. 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 and assumptions items.

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 growth in the long-range plans, 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 significant impact on the organisation's strategy. Therefore, Spirent is considered resilient to climate change-related scenarios.

Metrics and targets

We monitor carbon emissions sources that fall within Scopes 1 and 2, and are increasing our ability to report on Scope 3 emissions. We report our carbon emissions annually within the Annual Report and Sustainability Report.

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 23 per cent reduction in our energy usage by 2025.

We have considered whether the existing metrics and targets support the ongoing assessment of climate-related risks and opportunities and have determined that no additional metrics or targets are required at this time. We will continue to evaluate whether additional metrics and targets are required as part of our existing business strategy and risk management processes.

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.

—

2021 highlights

- Developed new partnerships to help us recruit more female engineers and increase diversity of background.
- We launched a new diversity training and development programme for all staff.
- We have introduced enhanced family friendly benefits, which raise the level of support we give staff at important times in their lives.
- We changed the language we use in our software, technical documents and marketing to make it more inclusive.
- Established a new 24-month early career talent programme.

"

In 2021 we progressed our diversity programme from assessment to action, launching new policies, practices and partnerships that will help us attract, retain and develop talent that is truly representative of the communities we work in."

Ann Menard
Global Head of Human Resources

Promote diversity and invest in people continued

We see a diverse and inclusive workplace as vital to the success of our business and each member of staff.

In 2021 we completed a detailed review of our diversity and inclusion polices, practices and performance and implemented a number of exciting changes. We have developed a new diversity and inclusion strategy and have introduced a new suite of staff benefits, development programmes and partnerships that will enhance our diversity.

Key themes and targets

Support diversity and inclusion	Invest in skills, training and development	Flexible working practices	Support our communities
Objective: Improve our diversity practices and performance.	**Objective:** We will invest in the skills, training and development of our staff to drive innovation and support long-term sustainable growth.	**Objective:** We will actively encourage flexible working for the majority of staff by 2023.	**Objective:** Maintain support for communities at current level.
Action: Complete a detailed diversity review and set improvement targets. Report gender pay gap globally.	**Action:** Design an early career talent acquisition strategy, including school and university STEM programmes. Establish management systems to develop skills in house.	**Action:** Establish flexible working policies and practices.	**Action:** Run VTO and charitable giving initiatives.
Targets: Complete diversity and inclusion assessment and set targets by end of 2021. Report our gender pay gap for all staff by end of 2022.	**Targets:** Establish an early career talent programme and set performance metrics by end of 2021.	**Targets:** Implement flexible working practices by end of 2021 and report on progress annually.	**Targets:** Maintain our VTO and charitable giving programmes.
Progress update: Complete New diversity and inclusion targets have been set.	**Progress update: Complete** Early career talent programme has been established.	**Progress update: Complete** Flexible working practices have been implemented.	**Progress update: On track** VTO and charitable giving programme run across 2021.

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.

We all need to do more and are committed to doing so. We set an objective to complete a detailed review of our diversity and inclusion practices in 2021 to inform and set clear priorities and objectives:

Theme	Commitment
Diversity in talent acquisition	We will create talent acquisition processes and partnerships with organisations to support representative and diverse recruitment.
Supporting diversity in hiring	We will establish a policy to require gender diverse interview slates.
Enhanced family friendly benefits	We will implement a portfolio of family friendly benefits that raises the level of support for staff at important times in their lives.
Early career development	We will launch an Early Career Development programme to support and invest in young people at the start of their working lives.
Celebrate our culture	We will celebrate our diversity, cultural events and festivals together.
Choosing inclusive language	We will review and replace all non-inclusive terms such as "Master/Slave" from our products and technical documentation.

Progress in 2021

Diversity in talent acquisition

The talent pools we recruit from determine our diversity and we have made a concerted effort to reach a wider audience when we recruit. During 2021 we identified new partners and recruitment channels that will 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.

Society of Women Engineers

Spirent has established a partnership with the Society of Women Engineers.

This gives Society membership to Spirent staff, giving our female engineering staff networking and development opportunities.

It also offers us the opportunity to engage with SWE's 40,000 global members, as well as access to the Society's career centre and talent database.

We are also able to participate in the Society's outreach programme, which aligns with our STEM programme to encourage young women and girls into engineering education and careers.

Society of Women Engineers

Morgan State University is one of the US's leading Historically Black College and Universities (HBCU).

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.

Support diversity and inclusion continued

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. In 2021 we designed an enhanced parental leave scheme, based around the principle of equal eligibility for men and women, biological and adoptive parents. We have also applied our scheme globally, which has delivered a significant increase in benefits for the majority of staff members and we hope will address some of the structural and financial barriers that contribute to unequal representation in the technology sector and in management roles.

From 2022, parental leave will increase to 12 weeks for primary caregivers and 3 week for secondary caregivers, all at full pay. This is an increase in both duration and pay level from our previous policy.

We also increased paid time off to care for family members to 3 days a year and provided an additional 2 days of bereavement leave entitlement, giving 5 days at full pay.

Early career development

We have a well-established early career programme, offering internships, apprenticeships and university sponsorships. Our diversity review highlighted the need to increase the scope and scale of our efforts and so we established a pilot for a new 18–24 month programme for early career professionals.

We selected our global Inside Sales team to run the pilot for the new framework.

Our early careers pathway: what we've learned	
A scalable and impactful global early career framework	Provides tools on hiring, developing and interviewing for each early career position
Provides training to leaders, managers and supervisors on how to coach, train and develop early career employees	Ensures that we have a consistent compensation model to support each early career program
Provides tools and guidance to managers of early career employees around development plans	An e-book for managers on the early career pathway framework, available on our intranet, InsideSpirent

We have trained two early career managers in the US and UK and have recruited 3 new participants in the US and are currently recruiting for 2 in the UK.

Our established early career programme has been adapted to follow the new framework. The current cohort of young engineers in the UK will complete the course in June 2022 when five new early career positions will start. One early career employee started in November 2021 in UK, with a further position being recruited for in the US.

In 2022, we aim to create an engineering early career pathway outside of the UK and create an early careers network to share good practice and support participants.

Celebrate our culture

In 2021 we introduced the 'Spirent Celebrates' initiative. Led by our senior management team, we have celebrated events, festivals and our diverse culture together, aiming to help us get to know our colleagues better and inspire each other.

Some of the highlights of this year's programme include:

Pride

Diwali

Women in Engineering
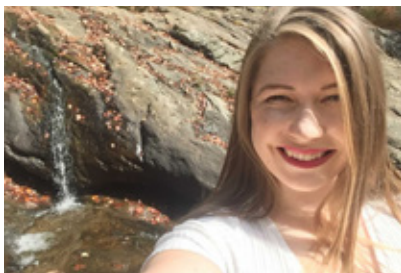
" I hope the next generation of female engineers have the same opportunities as their male colleagues to influence the technologies of the future."

Libby Glasgow
Software Engineer

" Don't be slowed down by those who say engineering is not a role for women. If you remain ever curious, you will thrive!"

Bing Yuan
Senior Product Specialist

" I was hooked on engineering from a young age. I would spend hours on end solving problems and doing engineering projects with my dad."

Esther Anyogbou
Senior Staff Systems Engineer

Support diversity and inclusion continued

Choosing inclusive language

There are opportunities to reconsider the technical language we use in order to create a more inclusive working environment, in particular removing "master–slave" terminology.

During 2021 our product managers and technical writers reviewed more than 1,500 documents have updated more than 100 of our product and marketing documents, introducing more inclusive language.

Gender

Gender is one of the most visible aspects of our diversity and is an important issue across the technology sector.

There have only been minor changes in the overall gender balance of the Company from 2020. Three women now serve on our Board of eight, increasing the female representation to 38 per cent (2020: 28.6 per cent), exceeding the Hampton–Alexander review's target of 33 per cent. We have also recruited 2 further female managers, increasing the proportion of females in senior management and executive management roles to 7 per cent (2020: 5.6 per cent). This remains lower than female representation for the Company as a whole which is around 22 per cent (2020 21 per cent).

Level of organisation	Female		Male		Other or no gender reported		Total
Board	3	38%	5	62%	—	—	8
Executive management[1]	3	30%	7	70%	—	—	10
Senior management[2]	5	7%	64	93%	—	—	69
Total employees	349	22%	1,219	78%	—	—	1,568

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 partnerships with organisations like the Society of Women Engineers and our early careers programme.

Age

Spirent's workforce has a diverse age distribution. Since 2020, we have been successful in attracting more young people into the business, but less than 7 per cent of our employees are under 30. The largest age group remains 40–49 (34 per cent).

Age group	2021	2020	Change %
<20	3	1	200
20–29	103	85	21
30–39	380	396	–4
40–49	526	502	5
50–59	408	380	7
60+	148	123	20
Total	1,568	1487	5

Invest in skills, training and development

Our skills, training and development programme approach focuses on two key themes: skills and training for our staff and programmes to engage young people in STEM subjects and careers.

Training and skills	STEM education
Investing in the skills and knowledge of our team and building knowledge partnerships with leading universities.	Supporting awareness and engagement with science, technology, engineering and maths (STEM) subjects amongst young people.

Training and skills

Training is one of the most important areas for Spirent and the Group has well-developed technical and compliance training processes in place for our employees.

Our training and skills approach focuses on three key areas:

Employee learning and development

Structured training and skills development for employees
Spirent has a well-established learning and development programme, 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 the ones they will need in the future. Training is managed through personal development plans and delivered through online and in-person (where permissible and safe to do so) training, 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 2021, Spirent employees completed more than 16,000 hours of training.

The most frequently completed training courses during the year were on technical training, IT security and diversity and inclusion.

	Courses completed	
Course content	**2021**	2020
IT security	**1,700**	220
Legal compliance	**222**	164
Technical training and IT skills	**1,902**	2,102
Global anti-bribery	**130**	141
Professional development	**1,176**	1,279
Health and safety	**134**	99
Diversity and inclusion	**1,351**	—
Total	**6,615**	4,005

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. 130 new starters were required to take global anti-bribery courses and 17 were identified as needing to complete human rights training during 2020. All those required to complete training did so.

Diversity and inclusion training

We introduced a new mandatory five-module training programme diversity and inclusion in 2021. The first module was launched in November 2021 and modules 2-5 will launched bi-monthly from January 2022.

The training will also be integrated into the onboarding induction training for all new starters.

Invest in skills, training and development continued

Training and skills continued
Employee learning and development continued

Training and skills

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

Employee category	Gender	Training hours completed	Total training hours by category
Engineering	Male	6,340	
	Female	1,415	7,755
	Other or not disclosed	—	
Sales and marketing	Male	5,614	
	Female	821	6,435
	Other or not disclosed	—	
Shared services	Male	691	
	Female	1,384	2,075
	Other or not disclosed	—	

Employee level	Gender	Training hours completed	Total training hours by category
Executive	Male	132	
	Female	—	132
	Other or not disclosed	—	
Management	Male	3,137	
	Female	942	4,079
	Other or not disclosed	—	
Professional	Male	9,089	
	Female	1,789	10,878
	Other or not disclosed	—	
Support	Male	286	
	Female	889	1,175
	Other or not disclosed	—	

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.

In 2021, performance reviews were completed for 1,461 members of staff:

Region	APAC		EMEA		North America		
Status	Female	Male	Female	Male	Female	Male	Total
Full time	76	282	47	206	181	655	1,447
Part time	—	—	8	4	2	—	14
Total	76	282	55	210	183	655	1,461

World-class research collaboration

To ensure we stay at the forefront of emerging technologies, we run a global Academia Partnership Program. We aim to collaborate with universities worldwide on research, product development and product innovation partnerships.

We offer three levels of academia partnerships:

- **Gold:** dedicated Spirent Lab
- **Silver:** Collaborative research
- **Bronze:** Entry level

Joining forces with universities expands the capabilities of knowledge and growth within the network test and assurance sector, whilst creating sustainable student relationships, offering industry experience and career development opportunities.

	Partnership objectives
Cranfield University	Supporting PhD and MSc students with sponsorship and mentoring support
	Sponsorship, research collaboration and member of DARTeC board for digital aviation research
Cranfield and Hoptroff	Innovate UK project: collaboration between Hoptroff (Timing Services), Cranfield University and Spirent as lead partner in research: "Last mile delivery of non-GNSS resilient time, frequency and synchronisation"
Cardiff University	Supporting student in their PhD with sponsorship and mentoring
University of Bath	Continuing the strong relationship with Bath University post KTP. Now submitted application for industry fellowship to continue research collaborations
WMG, Warwick	Supporting student in their PHD with sponsorship and mentoring support
University of California, Santa Cruz	Bronze Academia Partnership, providing the University with Spirent software to enhance their development and capabilities of GNSS research and product development initiatives using Spirent products
University of New Brunswick	Joint sale and research collaboration partnership – Machine learning and LEO satellite
University of Colorado Boulder	Providing Spirent equipment to the Colorado Boulder University
Teeside University – Rocket Project	Provided testing support for a student project that aims to launch a small rocket into space.
Manchester Metropolitan University	Supported student to complete testing for his thesis on spoofing.
Queen's University Belfast	Joint PT + 5G "lunch and learn" to students across relevant faculties

Our engineers work closely with academics with particular areas of expertise to share knowledge and expand the capabilities of our test solutions. We also work closely with industry bodies on future skills requirements and we are contributing the UK Government's taskforce on global positioning, navigation and timing technology skills.

Supporting higher and further STEM education

Spirent runs a number of schemes to support higher and further level STEM education. We run work experience, apprenticeships and industrial placement schemes and we sponsor the most promising placement students in their final year at college.

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.

		Number of interns, apprentices and placements students	Number of graduate new starters[1]
North America	US	14	3
EMEA	UK	7	5
APAC	China	13	—
	India	3	—

Note
1   Students who have joined the Company on completion of their internship or industrial placement, either immediately or after completing their university course.

STEM education

As a technology business, 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.

These challenges have led to decreasing interest in science, technology, engineering and mathematics (STEM) subjects amongst young people and a lack of gender diversity, especially in technical roles.

Our STEM Ambassador programme was developed 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 44 active STEM ambassadors in 2021; 15 in North America, 24 in EMEA and 5 in APAC.

Invest in skills, training and development continued

Placement students

Hello! I'm Kristine. I am studying BEng Robotics at the University of Plymouth and currently in my placement year at Spirent as a Support Services Placement Student.

I have been here for nearly seven months now and I enjoy every single day. Spirent has been supportive, understanding and welcoming from the start; if you ask a question, the team take time to give you an answer and help you learn.

I feel lucky to have the opportunity to learn more about Global Navigation Satellite Systems (GNSS) and to work with new testing equipment, especially the cutting-edge simulators.

My placement has helped me grow and develop new skills, both professionally and personally. I got to meet new and friendly people and I'm grateful for the opportunity to be part of such a supportive team.

Solar Car Challenge: Plano, Texas

We love to support projects which give students hands-on engineering experience and the solar car challenge in Texas is one of the best in the world.

Teams of high-school students design, fabricate and then race solar-powered cars at the Texas Speedway each summer. The programme, which last 15 months from sign-up to race day, is run by volunteers to give young people hands-on, project-based engineering experience.

This year Spirent sponsored The Plano Green team, providing financial support and mentoring to the team of eight high-school students from schools all across Plano, TX.

One of our STEM ambassadors, Andy Michaels, worked closely with the team as they designed and prototyped the bodywork to minimise drag, welded the chassis, fabricated the electrical systems and developed technical schematics.

The Plano Green team raced July 2021 and were awarded second for their mechanical schematics. The team are currently in the design process for their next car and aim to compete in the summer of 2023. We will continue to sponsor the team and support them as work their way back to the starting line again.

Flexible working practices

In response to the COVID-19 pandemic, we have made a lot of changes to the way we work. We have shown that we can collaborate effectively with colleagues virtually, allowing us to formalise a suite of flexible working practices that will:

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

Policies and practices for flexible working

In 2021 we implemented 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; and
- **Alternative schedule:** Working hours differ from typical office hours.

During 2021 we completed a review of all roles and assigned them to a category. The new ways of working allow staff to reduce commuting time and allow those with caring responsibilities to continue to thrive in the business.

The new policies reflect the changing 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 2021 we started 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.

Invest in wellbeing

Staff wellbeing has been a top priority for us over the last two years. We've adjusted to new ways of working and many team members have been affected by loss and anxiety and many have missed seeing colleagues in person.

We have invested in a suite of practices and policies to make sure we put staff wellbeing at the top of the agenda. We've had regular opportunities to get together virtually and we've created a host of resources for staff and managers to promote mindfulness and good mental health.

In 2021 our Positioning business was awarded the 'We invest in wellbeing' Gold accreditation by the internationally recognised Investors in People (IIP) standard. This Gold accreditation means that we have wellbeing policies in place and everyone takes ownership for bringing these to life and it's in addition to our 'We invest in people' Platinum accreditation from IIP.

To achieve the wellbeing accreditation – which is valid for three years – we underwent a rigorous, independent assessment process involving an anonymous employee survey, one-to-one employee interviews and an evaluation of our internal practices. The results have been presented to us in a report, with suggestions of where we can make further improvements.

The IIP report praised the Positioning business for its:

- Great teamwork and very supportive colleagues;
- Unique family feel culture;
- Flexible working practices including the new hybrid working model;
- Wellbeing focus from managers;
- Open and supportive culture where the majority feel empowered to ask for help;
- Leadership – senior management were reported as being very approachable; and
- Social engagement and fun activities.

"
This is a phenomenal and well-deserved achievement - congratulations to all involved! I am extremely proud of the Positioning business for creating an environment in which team members can work, thrive and succeed."

Martin Foulger
Manager Director, Positioning

PROMOTE DIVERSITY AND INVEST IN PEOPLE

Support our communities

Support our communities

Our approach

Spirent is committed to investing in the communities that we work in. Our staff are encouraged to use their time and skills to support good causes, as well as making financial contributions.

Our Company volunteering and charitable giving programme is designed to help our staff to support our local communities and good causes. We offer a matched-funding initiative to boost the charitable donations made by staff.

Charitable giving

Over the course of 2021 we supported nearly 100 charities. Our staff donated $34,500 and Spirent provided nearly $12,000 of match funding. One of the highlights of our charitable giving programme in 2021 was our Company-wide step challenge.

Spirent Step Into Action challenge

In May 2021 we launched our first-ever Company-wide 'Step Into Action' challenge. Organised by Mandi Kimmell and Yerica Miller, more than 400 colleagues from around the world competed in teams to walk, run, kayak and cycle the furthest to raise money for the good causes they selected. Using fitness trackers and pedometers, the teams amassed a total of more than 180 million steps during the two month-long challenges in May and October, whilst getting fitter and getting to know their colleagues better.

We raised $15,000 for charities chosen by our teams, including the American Cancer Coalition, the Stroke Association, Bernardo's UK and the Canadian Red Cross.

"

I saw an opportunity to create a company-wide step competition after organising one for the CIP business unit in 2020. This competition means so much to me because we created something really valuable for so many individuals inside and outside of Spirent. We brought people together and raised money for charities across the globe and that feels really good to be a part of! I also love the idea that we're creating and influencing a work culture around health and wellbeing, something I am very passionate about."

Yerica Miller
Executive Administrator

"

The STEP challenge certainly helped to get me active and out again. I'd had trouble with my joints for a few years and found that most exercise was painful. This got me walking again and I've not stopped since."

Samantha Jones
Executive Assistant

"

The step challenge motivated me to stay healthy, made me feel more energetic and helped me stay focused on my goals. It was also great to chat and share accomplishments with people from around the globe. Seeing everyone being very active definitely kept me going and made me want to push myself harder."

Jon Bautista
Senior IT Operations Specialist

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.

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Why is this important?

- Our sites have a significant environmental impact but we do not have Group-wide practices to manage impacts consistently or optimally.
- Our products' sustainability impacts are a visible and important area of impact.
- Much of our sustainability impact occurs in our supply chain and we have limited visibility and monitoring.

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2021 highlights

- We achieved ISO 14001 certification for our site in Holmdel, NJ.
- We redesigned packaging, reducing weight and swapping out single-use materials for recyclable alternatives.
- We continued our supply chain audit programmes, auditing 18 suppliers across the year.

"

We've taken a big step this year in expanding the scope of our ISO 14001 environmental management system. This marks an important milestone in the expansion to cover all global operations by the end of 2025."

Jim Klaassen
Senior Vice President, Global Operations

Operate responsibly continued

We are committed to operating sustainably and during 2021 we have made great progress.

We achieved ISO 14001 certification for the new environmental management system at our engineering site in Holmdel, NJ ahead of target.

We have also developed a sustainable packaging toolkit and have used it to redesign the packaging for our Positioning products. We've been able to reduce the weight of packaging and replace single-use materials with more recycled and recyclable materials.

Key themes and targets

Sustainable buildings	Sustainable product design	Sustainable supply chain and manufacturing
Objective: Manage the environmental impacts at each site and gain recognition.	**Objective:** We will embed circular economy principles into the way we design our products.	**Objective:** We will establish programmes to better understand and reduce our supply chain impacts.
Action: Achieve ISO 14001 certification across the Group and work towards zero waste to landfill by 2026.	**Action:** Provide circular economy training for engineers, introduce sustainable innovation toolkit, conduct lifecycle assessments of key products and produce product eco-profiles to showcase credentials.	**Action:** Supplier audits, sustainability agreements with key suppliers, reduce packaging sustainability impacts.
Targets: Achieve certification at one major engineering site by end of 2022 and all engineering sites by end of 2026.	**Targets:** Circular economy training to be completed by senior engineers by end of 2021.	**Targets:** 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.
Progress update: On track We achieved certification at Holmdel, NJ.	**Progress update: Behind track** We explored the training options available during the year and aim to roll our training by the end of 2022.	**Progress update: Completed** Seven on-site audits and 11 desktop audits completed. **On track:** Assessment tool developed and 20 packaging designs assessed in 2021.

Sustainable buildings

We achieved ISO 14001 certification at our site in Holmdel, within the historic Bell Works Complex.

ISO 14001 implementation

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

In 2021 we completed the implementation of our environmental management system at Holmdel, NJ and achieved certification. This represents a significant milestone in our role out plan and we aim to implement the system across our LSA business next across the engineering sites in Plano, TX, Frederick, MD and Littleton, MD.

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. In 2022 we will kick off a new project to assess our waste management practices and develop a waste strategy which will help us reduce the amount of waste we produce, improve our waste data, increase our recycling rates and avoid sending waste to landfill.

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, we report the waste electronic equipment we place on the market in accordance with the WEEE directive. The disclosures are on page 65.

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.

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 allow 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; and

- Review our practices through an internal audit and formal review by management.
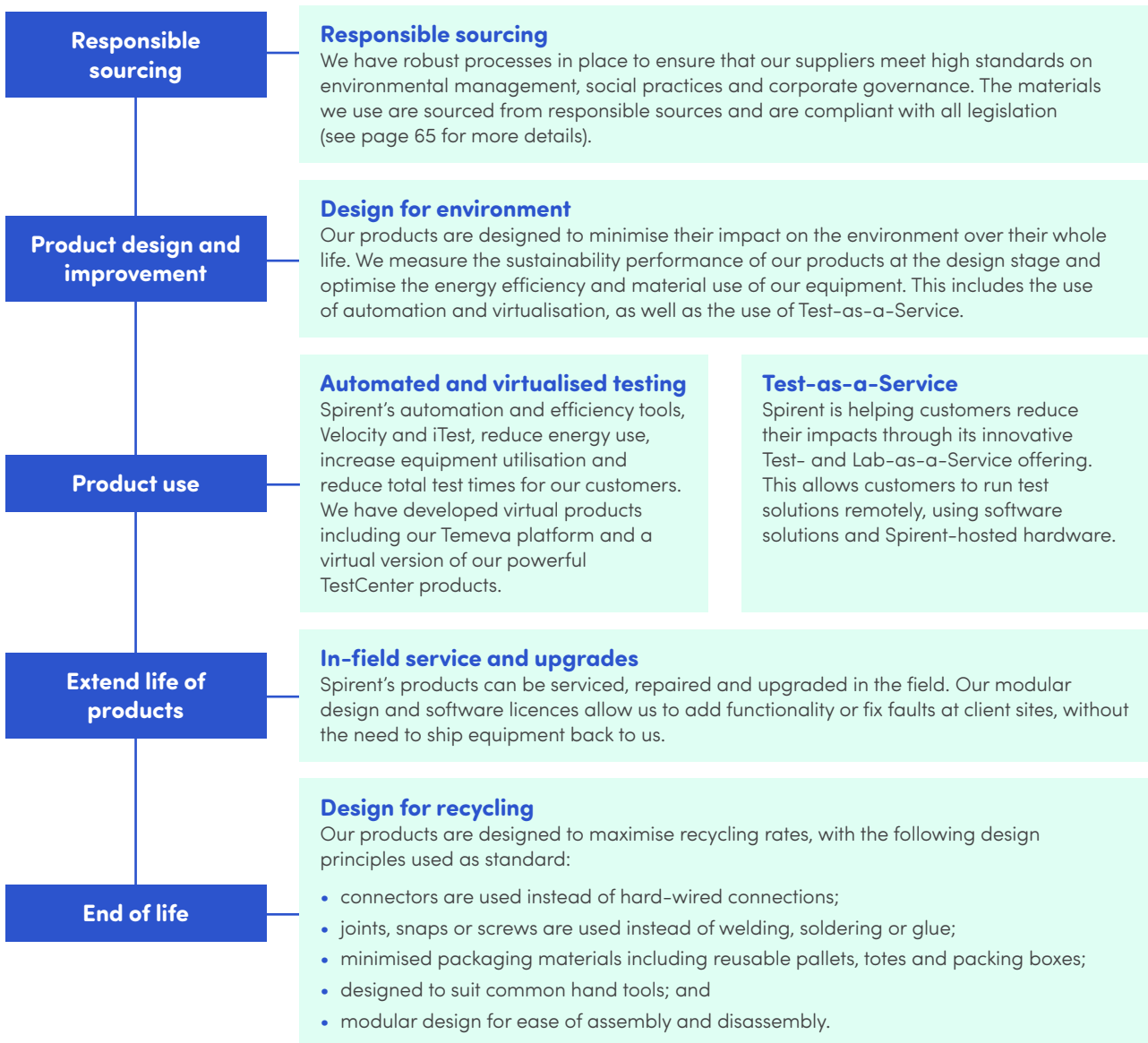
Sustainable product design

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.

Responsible sourcing	**Responsible sourcing** We have robust processes in place to ensure that our suppliers meet high standards on environmental management, social practices and corporate governance. The materials we use are sourced from responsible sources and are compliant with all legislation (see page 65 for more details).
Product design and improvement	**Design for environment** Our products are designed to minimise their impact on the environment over their whole life. We measure the sustainability performance of our products at the design stage and optimise the energy efficiency and material use of our equipment. This includes the use of automation and virtualisation, as well as the use of Test-as-a-Service.
Product use	**Automated and virtualised testing** Spirent's automation and efficiency tools, Velocity and iTest, reduce energy use, increase equipment utilisation and reduce total test times for our customers. We have developed virtual products including our Temeva platform and a virtual version of our powerful TestCenter products. / **Test-as-a-Service** Spirent is helping customers reduce their impacts through its innovative Test- and Lab-as-a-Service offering. This allows customers to run test solutions remotely, using software solutions and Spirent-hosted hardware.
Extend life of products	**In-field service and upgrades** Spirent's products can be serviced, repaired and upgraded in the field. Our modular design and software licences allow us to add functionality or fix faults at client sites, without the need to ship equipment back to us.
End of life	**Design for recycling** Our products are designed to maximise recycling rates, with the following design principles used as standard: - connectors are used instead of hard-wired connections; - joints, snaps or screws are used instead of welding, soldering or glue; - minimised packaging materials including reusable pallets, totes and packing boxes; - designed to suit common hand tools; and - modular design for ease of assembly and disassembly.

Circular economy training

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 for our senior engineers on the circular economy in 2021.
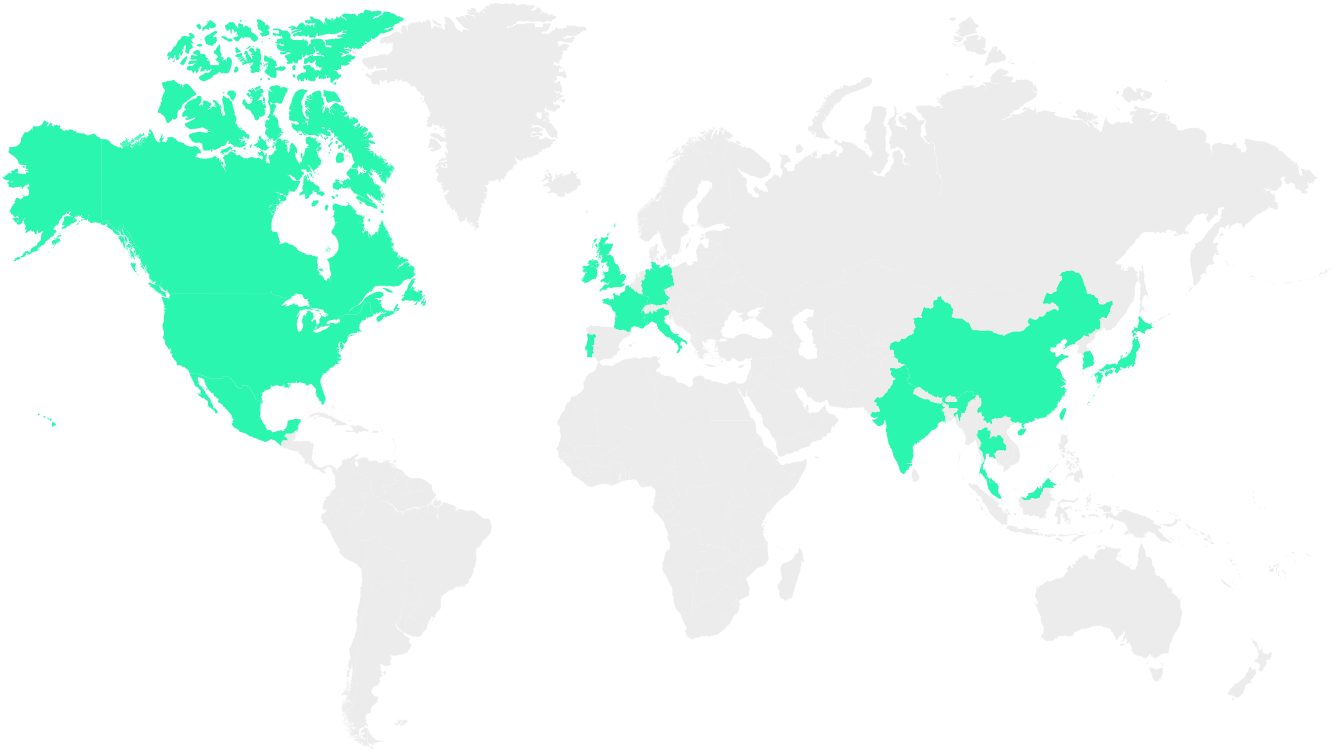
We assessed a number of training courses but felt none met our requirements and so we have rolled this objective over into 2022.

Sustainable supply chain and manufacturing

Spirent's product supply chain is global, with

900+

specialist suppliers across

25+

countries worldwide

Our supply chain

Spirent's product supply chain is global, with more than 900 specialist suppliers across more than 25 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	Pre-contract	Ongoing management	
Supplier Code of Conduct	**Supplier initial assessment and approval**	**Supplier engagement and audits**	**Parts and spend from verified sources**
Setting expectations of the way that environmental, social and governance issues are managed by suppliers.	Reviewing potential suppliers' environmental, social and governance practices to ensure they meet our standards before a vendor is approved.	Conducting on-site audits and ongoing supplier reviews to ensure suppliers continue to meet our expected standards and to collaborate on improvement opportunities.	Monitoring 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 of environmental, social and corporate governance practices throughout our supply chain, we have a Supplier Code of Conduct, based on the Responsible Business Alliance (RBA) Code v5.1.

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.

A copy of our Supplier Code of Conduct is available here at https://corporate.spirent.com.
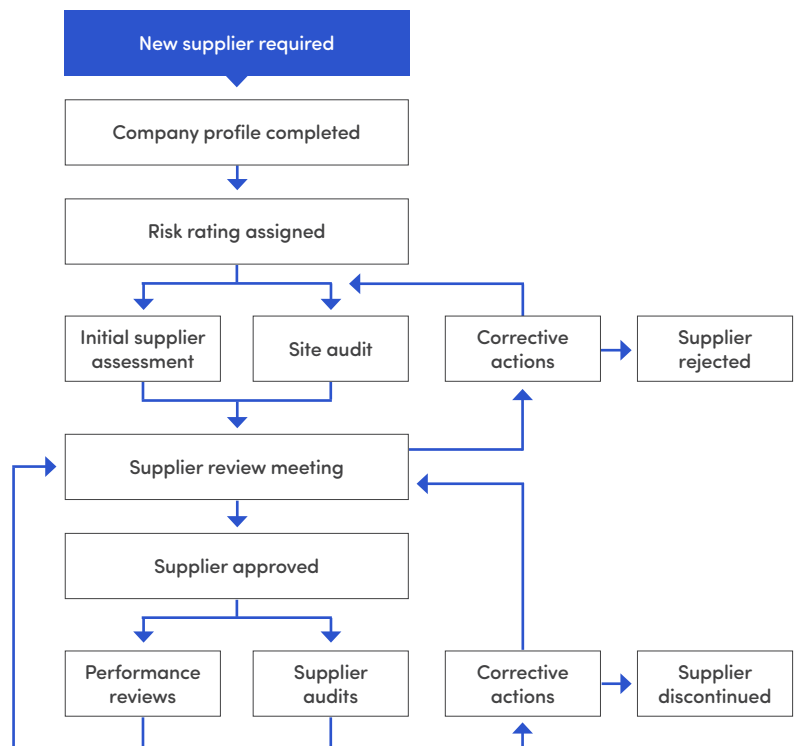
Spirent's supplier approval and management process allows us to ensure that all new suppliers meet our requirements before we use them and that existing suppliers maintain the high standards we set.

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.

The approval status of key suppliers is reviewed each quarter.

Supplier engagement and audits

We conduct on-site supplier audits to include the management of environmental and social issues. We conduct on-site supplier audits to include the management of environmental and social issues. We set a target of conducting audits on the companies that represent at least 60 per cent of our direct spend and 85 per cent of our hardware spend.

We achieved our supplier audit target for the year, completing seven on-site audits and a further 11 desk-top assessments.

We did not however meet our targeted spend with suppliers that have been audited in the last 5 years.

A contributing factor to missing our spend audit targets is that we have focused our audits on hardware suppliers as we feel there are higher sustainability impacts and risks connected to this type of supplier. The proportion of non-hardware suppliers has grown in the last few years, as has the number of suppliers we are using. In particular, we have increased spend with two suppliers that were not scheduled for audit during the year.

Total supply chain spend also increased in 2021, as did spend with smaller suppliers.

The audits undertaken during the year raised three corrective action requests and seven observations. The corrective actions include two minor non-conformances related to a quality process issue and evidence of ISO certification and a major non-conformance where a supplier demonstrated a pattern of non-engagement with our supplier audit process. This supplier has been discontinued.

The observations sought improvement in training, quality management, health and safety and communication of corporate responsibility initiatives.

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.

Supplier audits

We completed 18 supplier reviews in 2021. With COVID-19 travel restrictions lifting, we were able to conduct seven of these as on-site audits, with 11 completed remotely or as document reviews.

2016	2017	2018	2019	2020	2021
6	18	19	22	18	18

■ Audits completed ■ Target
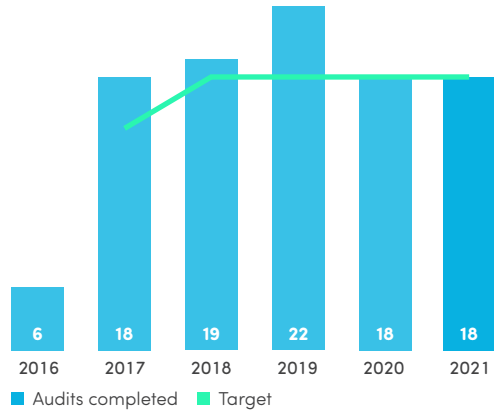
Total spend with verified sources

We missed our target, achieving 54 per cent of total spend from suppliers audited by us, our manufacturing partners or an industry scheme over the last five years.

2016	2017	2018	2019	2020	2021
46.3%	51.9%	61.8%	60.8%	59.0%	54.0%

■ % of spending to verified source ■ Target
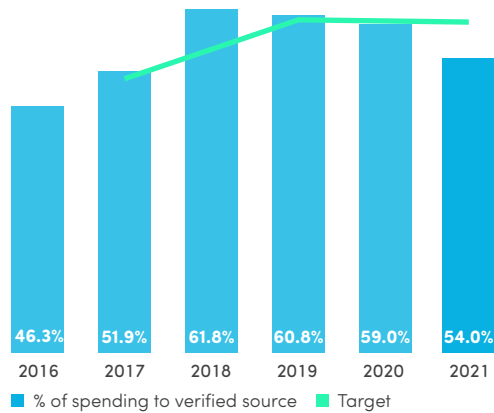
Hardware spend with verified sources

We did not achieve our hardware spend with verified sources target of 85 per cent, achieving 77 per cent.

2017	2018	2019	2020	2021
75.5%	89.0%	88.9%	86.6%	77%

■ % of hardware spending to verified source ■ Target
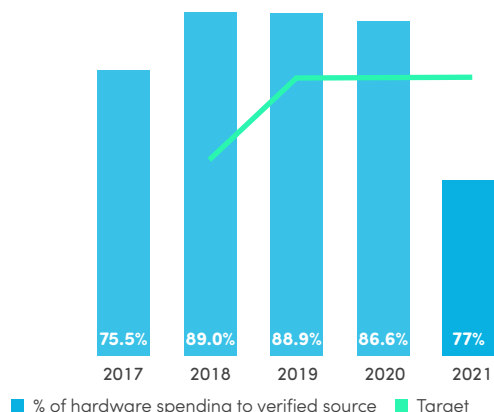
Supply from verified sources

As the component supply chain includes higher environmental and social risks, we monitor the number of parts 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.

We set a target to ensure that 73 per cent of all parts purchased were from verified sources. We met our target in 2021, achieved 74.2 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 one year of contract initiation. There were five new Risk A vendors in 2021 but only two have completed the survey process (40 per cent). The remaining new vendors are planned to supply products which are currently in the prototype stage; they are currently still being reviewed and we expect them to complete the survey satisfactorily during the coming months.

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 will commence a programme to collect energy and emissions data from our key suppliers and assess the carbon reduction targets they have in place.

> **"**
> As we looked into each packaging solution, it became clear that there were easy ways to improve. By removing materials, selecting more sustainable options and labelling packaging we've delivered meaningful improvements."
>
> **Mark Walker**
> Director of Operations, Supply Chain

Case study: Packing redesign

In 2021 we developed a new sustainable packaging framework which is helping us to reduce the environmental footprint of our packaging.

Innovative sustainable packaging scorecards

The framework uses environmental lifecycle assessment (LCA) data to score the packaging materials and designs, allowing us to:

- avoid the use of packaging wherever possible;
- reduce the amount of material used (size and thickness);
- select the materials with the lowest environmental impacts; and
- communicate and promote recycling on packaging.

Our aim is to select sustainable materials, avoiding single-use non-recyclable materials and improve labelling to help customers to recycle packaging. This approach has allowed us to identify and quantify the opportunities to improve the design and compare designs across the business.

Improving packaging designs

We reviewed 20 packaging designs in 2021 from across the business. The initial pilot was run in our Positioning business and we analysed designs from our Cloud & IP and Wireless businesses towards the end of the year.

The assessments produce a scorecard for each product, showing the proportion of recyclable packaging used, the starting score and the potential score. Following design updates, the new score is also included.

The Positioning packaging designs we reviewed included the large GSS 7000 and 9000 products as well as smaller designs for peripherals and spares. The assessments highlighted that in some areas, we were already doing well. For example, on average, 87 per cent of the packaging was recyclable. We were also able to pinpoint improvements, which included removing packaging material entirely and using card instead of plastics. Potential improvements have been identified that could improve the packaging scores by 40 per cent and with the improvements already made, we have been able to deliver an 18 per cent improvement.

The initial analysis of Wireless and Cloud & IP packaging design found even greater opportunities for improvement, with a potential score improvement of up to 50 per cent. We have incorporated our findings into our packaging requirement guide and have a programme to complete at least a ten further assessments in 2022

ACCOUNTABLE
AND TRANSPARENT

Our promise

We will expand our sustainability governance structures and reporting and communicate regularly with employees 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 employees well enough on sustainability.
- New legislation requires Spirent to establish director-level oversight on climate change.

2021 highlights

- We established a new Executive Director-led management committee to oversee sustainability and climate change.
- Executives and senior managers have run regular staff briefings and presentations for employees on our sustainability programme.
- We have implemented a new internal sustainability communications programme.

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In 2021 we have delivered improvements in the way we communicate our sustainability programme and our governance structures to our team."

Angus Iveson
General Counsel & Company Secretary
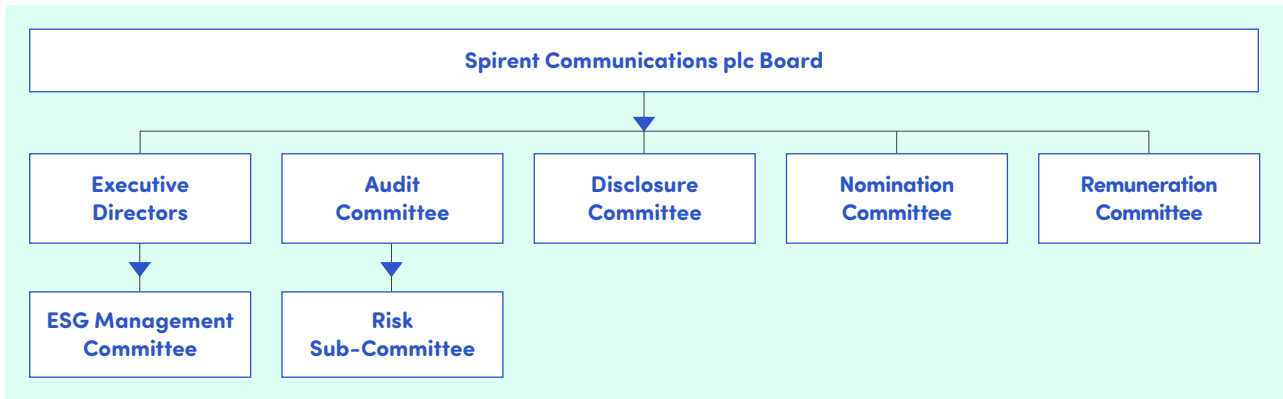
Accountable and transparent continued

An effective sustainability programme relies on robust governance and engagement.

In 2021, we established a new Executive Director-led management committee to oversee sustainability and climate change and expanded our internal engagement programme.

Executives and senior managers have run briefings for staff on key sustainability themes, including climate change and diversity. We have also expanded our internal communications, increasing the frequency and channels of communication.

Key themes and targets

Robust sustainability governance	Robust reporting and communications
Objective: Ensure Director-level and senior management involvement in sustainability management.	**Objective:** We will enhance our external communications and engage with employees effectively and regularly on sustainability issues.
Action: Establish a new Executive Director-led management committee and expand the FuturePositive working group. Establish a balanced score card on sustainability for the Board.	**Action:** 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.
Targets: Establish Executive Director-led management committee and report on sustainability performance to them regularly.	**Targets:** Produce a sustainability report in accordance with the GRI standard for financial year ending December 2021.
Progress update: Complete We established a new Executive Director-led management committee for sustainability.	**Progress update: On track** We expanded our reporting to include metrics from both the GRI standard and the SASB reporting framework.

Sustainability governance

Board governance framework

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│              Spirent Communications plc Board                     │
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Executive Directors	Audit Committee	Disclosure Committee	Nomination Committee	Remuneration Committee

ESG Management Committee	Risk Sub-Committee

An Executive Director-led Management Committee has been established to lead and monitor ESG matters and co-ordinate the reporting of issues and updates to the Board.

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.

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

Sustainability management
Maintaining an effective governance structure for environmental and social issues.

Materiality
Identifying the most important environmental, social and corporate governance issues for Spirent to manage.

New sustainability strategy
We have launched our new sustainability strategy, with five key promises.

Stakeholder engagement
Understanding and responding to the needs and expectations of our most important stakeholders.

Risk management
Understanding and managing the principal sustainability risks for Spirent.

Compliance data
Ensuring we comply with all applicable legislation and policies.

Sustainability management
Governance structure
The Board has designated the CEO as the Board member responsible for corporate social responsibility matters within the Group, overseeing how we manage our material environmental, social and governance (ESG) issues. A Committee for the FuturePositive programme was established in 2016 comprising senior management representatives who have responsibility for each aspect of the strategy.

The FuturePositive Committee comprises:

Committee Chair	• Company Secretary & General Counsel
Procurement	• Senior Vice President, Global Operations
	• Director, Global Procurement
Property	• Director, Facilities
People	• Global Head of Human Resources
Product	• VP, Engineering & Product Development

External advisers have been appointed 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.

The FuturePositive Committee meets four times a year to coordinate and monitor progress on the programme. The Committee is chaired by the Company Secretary who reports progress to the Board. We have established a new Executive Director-led management committee on sustainability and climate change who will oversee our new sustainability strategy, monitor climate-related risks and opportunities and our performance against targets.

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 environmental, social and governance issues.

Sustainability governance continued

Materiality

In 2020 we re-examined the sustainability issues that are material to Spirent 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
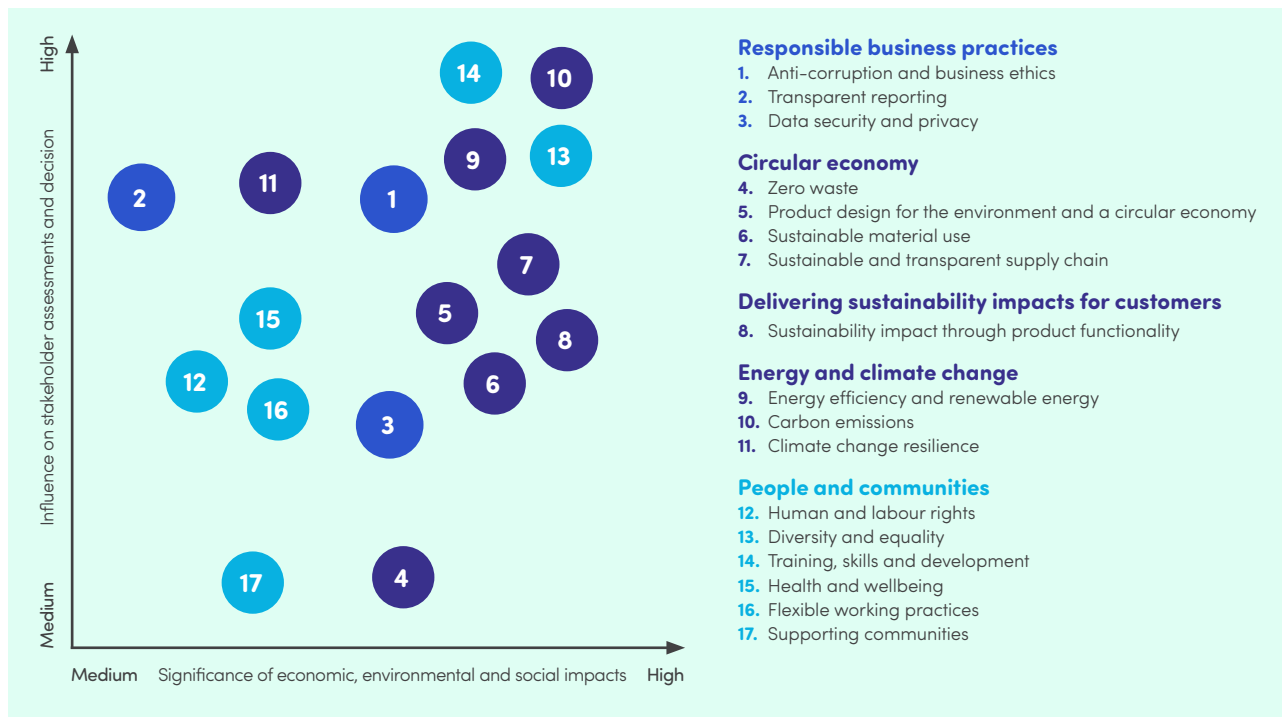- social norms (including legislation).

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, human capital development and data security, along with how our products can help our customers deliver sustainability performance improvements.

The analysis is undertaken at least every two years and will next be updated in 2022.

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).

Responsible business practices
1. Anti-corruption and business ethics
2. Transparent reporting
3. Data security and privacy

Circular economy
4. Zero waste
5. Product design for the environment and a circular economy
6. Sustainable material use
7. Sustainable and transparent supply chain

Delivering sustainability impacts for customers
8. Sustainability impact through product functionality

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

People and communities
12. Human and labour rights
13. Diversity and equality
14. Training, skills and development
15. Health and wellbeing
16. Flexible working practices
17. Supporting communities

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

Our business activities	How our material sustainability issues apply
Our test solutions 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.	The use of our equipment and test solutions has a direct environmental impact across their lifecycle. Our hardware uses raw materials and energy in its manufacture and transport. The equipment also consumes energy and is responsible for associated carbon emissions during its use, and becomes 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. 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). 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&D lab efficiency, reducing service engineer call-outs for telecoms operators and keeping networks and data safe from cyber-attacks.
Our business activities Our operations include hardware and software design, testing, research and development. We have in-house finance, HR and IT and procurement functions as well as an in-house sales and marketing team. In some cases, we also work with third-party sales partners.	We influence the environmental performance of our products through our design process. We aim to reduce the physical impacts of hardware, employing design for environment principles, virtualising hardware and using software where possible. Business ethics is a key issue, especially for those in sales, finance and HR. Those staff in higher-risk roles are given regular anti-corruption and bribery training and the business ethics practices of our third-party sales partners are assessed prior to and during the appointment. As an office-based business, the work that our staff conduct is predominantly low risk from a health and safety perspective.
Manufacturing, logistics and components We do not carry out any manufacturing activities ourselves but instead leverage the expertise and scale of specialist manufacturing partners. Similarly, logistics are also completed by third parties. We have a global supply chain. Our products contain regulated materials which can have environmental and social impacts during their extraction, processing and transportation.	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. We set high environmental, social and governance standards for all suppliers and conduct regular assessments and audits. We are expanding our environmental monitoring of key suppliers through our Scope 3 emissions reporting. We maintain very close control of the components and suppliers used to ensure only compliant components are used from suppliers that meet our standards. All products are manufactured to our exacting specifications and records are maintained. Where possible, we reduce the environmental impacts from logistics by shipping hardware directly to customers and allowing customers to expand the capability of equipment in situ with key product upgrades. We are also expanding our software-based and Test-as-a-Service (TAAS) solution portfolio which will further reduce environmental impacts.

ACCOUNTABLE AND TRANSPARENT

Sustainability governance continued

Materiality continued

Our business activities	How our material sustainability issues apply
Product use and end of life Predominantly the customer use and end-of-life stages of our products' lifecycles have been outside our direct influence, but our suite of hosted test services is expanding.	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. Energy efficiency, noise and size are key considerations for our products during use and we have processes in place to improve the performance of our products in these areas. We have also developed products that maximise equipment utilisation and test automation for clients to reduce in-use impacts even further (Velocity and iTest). With more of our test services being hosted by Spirent, we are also responsible for ongoing energy consumption. Our products are designed for disassembly at end-of-life and are subject to waste electronics regulations.
Confidential and personal data By the nature of the work we do, we hold commercially sensitive data and personal information related to our own business and our customers.	We process personal data and commercially sensitive information which we need to keep secure. As a result, we operate robust information security procedures and our SecurityLabs business achieved certification to ISO 27001 in 2018. Cybersecurity is also critical for our customers and we have developed industry-leading security and performance solutions to help them manage cybersecurity risks.
Stakeholders We work with national governments and some of the world's largest companies and we are listed on the London Stock Exchange. As a result, our clients, investors and other stakeholders have high expectations of our environmental, social and governance management and ask us to disclose detailed information about how sustainability issues are relevant to our business and how we are managing them. We also recognise that we operate within communities and we have an obligation to ensure that we operate responsibly and create a positive impact.	We are expected to demonstrate good management of environmental, social and governance issues and report on our performance. We respond to customer questionnaires and participate in industry-wide initiatives (such as CDP). We aim to create a positive impact on the communities we work in through volunteering and charitable donations and introduced a new Company-wide programme in 2018 to ensure we do this consistently and effectively.

Our business activities	How our material sustainability issues apply
Our facilities We operate from 37 sites across the world. With the exception of our site in Paignton, UK, all our sites are leased. Around a third of these sites have an engineering lab or significant customer lab. The rest are sales or administrative offices.	The most important impact we have through our facilities is energy use; however, we have limited control over much of the infrastructure in the leased buildings we operate from. The main areas of influence are the engineering labs and our site in Paignton, UK, where we own the building. We only use water on our sites for domestic use.
Talent We operate in a sector with high competition for talent and in some areas there are sector-wide challenges with diversity and interest in science and technology jobs. Our employees require a high level of education and technical knowledge.	Our business relies heavily on human capital. Attracting, retaining and developing world-class talent is critical for our success. We also need to engage talented young people to encourage them into careers in science and technology and contribute to the curriculum in schools and universities.

ACCOUNTABLE AND TRANSPARENT

Sustainability governance continued

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 2021 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 2021, 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. The survey has also identified a number of areas where we perform especially well, including Balance, Shared Values, and Feedback and some areas for improvement, including Role Clarity and Goal Support.

Stakeholder expectations

As part of our materiality analysis we have identified the needs and expectations of five main stakeholder groups: workforce, shareholders, customers, the world around us and suppliers.

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.

The Board believes that considering stakeholders in key business decisions is not just the right thing to do but is fundamental to the Group's ability to drive sustainable growth over the longer term.

Board directors are bound by their duties under the Companies Act 2006, but the principles underpinning Section 172 are not only considered at Board level, they form part of everything we do as a Company.

Supported by the Company Secretary & General Counsel, the Board, management or anyone tasked with preparation of Board materials give consideration to relevant stakeholders in matters requiring decision making, including strategic decisions.

Risk management

Like all businesses, 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 supports 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 the internal control system. We employ the precautionary principle in relation to material environmental impacts.

The Directors confirm that they have carried out an ongoing, robust process to identify, evaluate and manage the principal and emerging risks facing the Group and the operational effectiveness of the related controls that are 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 2021 Annual Report.

We have included the findings of our review of climate-related risks and opportunities into our risk management processes.

Business continuity

Operational risks are present in the Group's businesses, including the risk of failed internal and external processes and systems, human error and external events, such as a natural disaster, climate change, a global pandemic or cybersecurity attacks. For example, a significant portion of our communications operations are located in California which has in the past experienced natural disasters, including earthquakes and wildfires.

Our TCFD-related analysis has considered the potential of increasing intensity and frequency of storms and concentrated rainfall events, and frequency of wildfires, and we have assessed that these risks would possibly cause some disruption to operations. The understanding of climate change related risks is incorporated into the risk management framework.

The Group has therefore taken steps to manage the increase to business continuity risk, including invoking business continuity plans in each location, closely monitoring the impact to the supply chain with additional inventory procured on key components and by adding alternate suppliers, making last time buys as necessary, and by boosting the global Spirent information technology systems to enable the workforce to work remotely.

Contract manufacturers are used for a substantial amount of Spirent's products and have experienced cost increases, end of life notices, lead time and delivery challenges with semi-conductors, leading to some shortages and increased costs during 2021. Spirent's major contract manufacturer is located in Thailand.

The incidence of cybercrime continues to rise. Spirent is dependent on its information technology systems for both internal and external communications as well as for its day-to-day operations.

Potential impact

A significant natural disaster or global pandemic could disrupt the Group's ability to conduct business and adversely impact revenue and operating results.

Higher peak and average temperatures could lead to increased capital expenditure to expand or upgrade cooling equipment across multiple Spirent sites.

The shift towards renewables and away from fossil fuels may result in associated increased costs. Starting in the short term, energy costs are likely to increase due to higher investment requirements in low carbon technology and expected additional carbon-related levies. We also expect additional administrative burden on the business, likely increasing the costs for resource to deliver and report. We do not estimate the impact to be material to Spirent.

In the medium to long term, our TCFD climate-related analysis has highlighted the risks of 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. Disruption, financial problems of contract manufacturers or limitations in their manufacturing capacity could limit supply and/or increase cost.

The ongoing semi-conductor supply chain shortage could lead to further disruption to the delivery of hardware to customers and further supply chain cost increases in 2022.

Failed internal and external processes, systems or human error could lead to compliance issues.

If a cyber-attack were to be successful it could result in loss of data and confidential information and damage to Spirent's intellectual property, causing major disruption to the business. Any security vulnerabilities in our products could also adversely impact our customers. There would also be a potential impact on Spirent's credibility in the security market.

Mitigating actions

An important component of Spirent's corporate governance is its risk management strategy. IT disaster recovery plans are in place for all core business systems and ensure that the wider operations are all fully covered. In 2021, we performed the annual refresh and test of the Group Business Continuity and Disaster Recovery Policy and Procedure.

Spirent has mitigation plans for each of the TCFD physical risks identified, that have been developed as part of longstanding business continuity and disaster recovery plans. Spirent engineering centres are situated across the globe allowing flexibility and agility should one site become affected. Where possible we have second source component supply to assist with the mitigation of interruptions in supply and regular meetings are held with contract manufacturers. In addition, the Group's largest manufacturing subcontractor has multiple worldwide sites and comprehensive business continuity plans.

The Group has appropriate business interruption insurance in place.

We are working closely with our contract manufacturers and are in frequent direct consultation with key component suppliers worldwide to mitigate the impact of the ongoing semi-conductor supply chain challenges. The situation is dynamic and we will take appropriate action to mitigate the supply chain risk including the careful management of planning and fulfilment.

During 2021, we continued with a programme of work to enhance processes and procedures in the area of cybersecurity. Third party providers are used in both the testing and monitoring of our security profile.

Sustainability governance continued

Employee skill base

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

Potential impact

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

Mitigating actions

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

We have refined our employee value proposition and continue to make Spirent a more inclusive, diverse and engaging place to work to attract and retain talent.

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

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

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

Reporting and communications

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

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

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 Sustainability 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.

Compliance data

Spirent has robust processes in place that aim to ensure that it operates in compliance with all applicable legislation, contractual obligations and any voluntary agreements we subscribe to. Our key policies and approaches are set out below.

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 there from.

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.

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 2021 we sold around 5.7 tonnes of electronic equipment in European markets, a 18 per cent increase from 2020.

Electronic equipment sold in European markets by weight

Country	Marketed products (kg)		Change %
	2021	2020	
Sweden	**58**	182	−68
Germany	**1,562**	1,154	35
France	**2,378**	2,473	−4
UK	**1,746**	1,060	65
Total	**5,744**	4,869	18

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 2021.

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 2021, all new hires and current members of the supply chain team were required to complete human rights training. 17 members of staff completed the one hour 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 2021.

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

Health and safety

The Board has designated the CFO as the Board member 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 882 members of staff, which is 56 per cent (2020 78 per cent). The significant reduction from 2020 is due to the implementation of flexible/remote working; 32 per cent of our team are remote works (2020 21 per cent).

The health and safety risk profile for the Group remained low during 2021, with four reported accidents, including an injury to a member of the public in a motor-vehicle accident (2019 two), none of which were reportable under the RIDDOR regulations and none of which required hospitalisation.

There are no roles which have high incidence or high risk of diseases related to their occupation. There are no formal agreements with trade unions which cover health and safety as no Spirent employees were trade union members in 2021.

	North America	EMEA	APAC	Total
Deaths	—	—	—	**—**
Serious injuries (e.g. loss of limb or function, loss of sight, etc.)	—	—	—	**—**
Over-seven-day injuries (where a person is unable to work for at least a week)	—	1	—	**1**
Work-related diseases (including work-related mental health, stress, anxiety, etc.)	1	1	—	**2**
Injuries to members of the public (i.e. not employees)	1	—	—	**1**
Dangerous occurrences identified (e.g. where an accident almost happened)	6	3	3	**12**

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 2021 130 members of staff were identified as needing to complete anti-corruption training. All members of staff that were required to, completed the training.

Number of corruption incidents during reporting year	0
Number of employees dismissed for corruption during reporting year	0
Number of legal cases due to corruption during the reporting year	0

Energy Savings Opportunity Scheme (ESOS)

We have determined that Spirent did qualify for Stage 2 of the ESOS, having previously reported that we did not. We have completed 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 Streamlined Energy and Carbon Reporting (SECR) Regulations and meets its requirements through this Sustainability Report and the disclosures made in the Annual Report.

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 2021.

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 2020, the US Environmental Protection Agency and the International Energy Agency. Contract-based emissions factors were sourced from the energy providers.

Scope 3 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.

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 included in the scope of reporting. Where data was not available, emissions have been estimated using the average emissions intensity.

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 dropped increased to 7.2 per cent in 2021 from the significantly lower rate seen in 2020. The rate remains below the 5 year average of 7.3.

Our staff voluntary turnover rate remains well below the global industry average of 13.8 per cent.

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

Voluntary staff turnover

2017	2018	2019	2020	2021
7.4	7.9	7.6	6.6	7.2
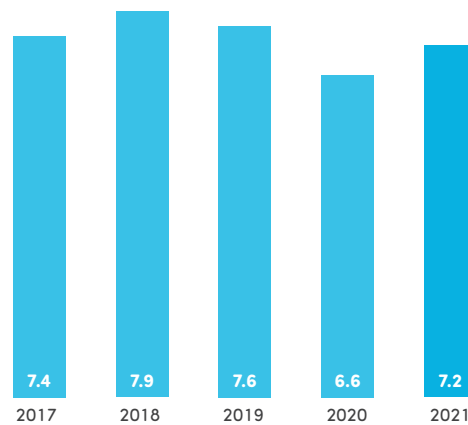
Note
1   Radford Technology Benchmark.

Compliance data continued

Parental leave

All staff entitled to parental leave in 2021 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	4	4	4	3
	Female	5	5	4	3
APAC	Male	6	6	6	6
	Female	2	2	2	2
EMEA	Male	8	8	8	7
	Female	3	3	1	1

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 2021, 31 members of staff left the Group due to organisational restructuring.

Region	Gender	Outplacement services offered
North America	Male	22
	Female	5
APAC	Male	1
	Female	—
EMEA	Male	3
	Female	—
Total		31

Independent assurance statement

Scope of engagement

Challenge Sustainability Limited ("Challenge Sustainability", "us" or "we") were commissioned by Spirent Communications plc (Spirent), acting through Brite Green Ltd ("Brite Green") with the objective to provide assurance of its Corporate Sustainability Report 2021 (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 2021.

Our agreed objective was to obtain a 'limited' level of assurance for the Subject Matter, to meet the requirements of the International Standard on Assurance Engagements (ISAE) 3000 revised.

For the 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.

The scope and boundary of our work is restricted to the following areas:

1. Subject Matter

- Energy use (MWh), as reported on page 25 of the Report

- Total GHG emissions (tonnes CO_2e), as reported on page 26 of the Report

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 calculation methodology, found on page 67 of the Report and the Global Reporting Initiative (GRI) Quality of Information Principles (the "Reporting Criteria"). The Management of Spirent are responsible for preparing the Sustainability Report in accordance with the Reporting Criteria.

2. 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").

We have not performed any work, and do not express any conclusions, on any other information outside of the Subject Matter that may be published in the Report or on Spirent's website for the current reporting period or for previous periods.

Our Conclusions

Subject Matter

Based on the procedures we have performed and the evidence we have obtained, in our opinion, nothing has come to our attention to suggest that the Subject Matter is not fairly stated and has not been prepared, in all material respects, in accordance with the Reporting Criteria.

This conclusion relates only to the Subject Matter and is to be read in the context of this Statement.

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.

Our Observations

We provide our observations and areas for improvement in a separate report to Spirent's Management team. Only selected observations are provided below. These observations do not affect our conclusions set out above.

Subject Matter

The indicators within the scope of our assurance include two (Energy use and GHG emissions) of the four issues identified most material by Spirent. We recommend that in future years, the scope of assurance should be extended to cover additional indicators in relation to all the highest materiality issues.

AA1000 Principles

Inclusiveness

Spirent engages with all key stakeholder groups and has taken steps to improve engagement mechanisms in 2021 with suppliers. This is important, as expectations of customers and investors are increasing rapidly in relation to climate change commitments and demonstrating progress. Spirent has demonstrated a clear and transparent approach to assessing climate-related financial risks and opportunities. Overall sustainability governance arrangements have been strengthened, with quarterly meetings between Executive Directors and General Managers on Future Positive commitments. These arrangements will now ensure greater accountability and regular flows of information. Continued dialogue across the company will be needed to align on actions to achieve progress towards climate change targets.

Materiality

Spirent undertook a materiality analysis in 2020, which fed into the revision of Spirent's sustainability strategy and is reflected in the content of the Report. The next update to the materiality analysis is expected to be conducted in 2022.

Independent assurance statement continued

Our Observations continued
AA1000 Principles continued
Responsiveness

Spirent launched their new sustainability strategy in 2021. Good progress was made with scope 1 and scope 2 carbon emissions reductions, and a net zero target has been set. The roll out of ISO 14001 management system certification continues, and Spirent sites are working towards zero waste to landfill. We recommend that Spirent should review the suitability of metrics to demonstrate product impacts, as part of the move to embed circular economy principles in product design and reduce sustainability impacts of Spirent's supply chain.

Spirent has also developed new partnerships and established policies to support the roll out of a new diversity strategy, embedding inclusive practices and guiding principles into business processes. The initial success and continued application of this work, for example through the diversity and inclusion awareness curriculum, should now be expected to support talent acquisition and retention in the years to come.

Impact

The most important sustainability-related issues are integrated into Spirent's sustainability strategy and are disclosed in the Report. We recommend that Spirent should continue to improve data collection for scope 3 emissions from suppliers and should accelerate progress towards setting a science-based target. We also recommend targets are disclosed for all of Spirent's most material issues, such as diversity and inclusion.

Responsibilities of the Management of Spirent Communications plc

The Management of Spirent has sole responsibility for preparing and presenting the Subject Matter in accordance with Spirent's Reporting Criteria and preparing the Report in adherence to the AA1000 Principles. 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 the conclusions that we have reached. We have not been responsible for the preparation of the Report.

Standards and level of assurance

For the Subject Matter, we performed our 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. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain a specified level of assurance. We obtained a limited level of assurance and 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. We have evaluated the processes for collecting and consolidating the Subject Matter and performed testing on a sample basis to evaluate whether the Subject Matter is reported according to the Reporting Criteria.

For the 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.

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 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 Assurance Report. 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. 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). The Statement has been reviewed for quality by AccountAbility in relation to the use of the AA1000 Assurance Standard.

Basis of our conclusion

Subject Matter

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 interviews with Spirent Management to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report relevant data and information;

- Examining, on a sample basis, source evidence to support the reported Subject Matter, specifically to establish the relationship between data and information aggregated at Corporate level, with the data and information gathered at a site 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.

AA1000 Principles

We are required to plan and perform our work in order to form an opinion over the Report's adherence to the A1000 Principles. Our work included, but was not restricted to:

- Reviewing the current sustainability issues that could affect Spirent and would be of interest to stakeholders;

- Reviewing Spirent's approach to stakeholder engagement;

- Reviewing information provided to us by Spirent on its reporting and management processes relating to the AA10000 Principles; and

- Interviewing senior management with responsibility for management of sustainability issues and reviewing selected evidence to support the issues discussed.

For and on behalf of:

Challenge Sustainability Limited

Jon Woodhead, Director   **Rob Pearson, Director**
United Kingdom

30th March 2022

AA1000
Licensed Report
000-277/V3-FHNIS

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/ disclosure
GRI 102: General disclosures		
Organisational profile		
102–1 Name of the organisation	Y	1
102–2 Activities, brands, products and services	Y	3–7
102–3 Location of headquarters	Y	78
102–4 Location of operations	Y	11
102–5 Ownership and legal form	Y	1
102–6 Markets served	Y	6–7
102–7 Scale of the organisation	Y	3
102–8 Information on employees and other workers	Y	3, 36
102–9 Supply chain	Y	50
102–10 Significant changes to the organisation and its supply chain	Y	52
102–11 Precautionary Principle or approach	Y	62
102–12 External initiatives	Y	1
102–13 Membership of associations	N	—
Strategy		
102–14 Statement from senior decision–maker	Y	2
102–15 Key impacts, risks and opportunities	Y	8, 10, 58–61
Ethics and integrity		
102–16 Values, principles, standards and norms of behaviour	Y	65
102–17 Mechanisms for advice and concerns about ethics	Y	65
Governance		
102–18 Governance structure	Y	57
102–19 Delegating authority	Y	57
102–20 Executive-level responsibility for economic, environmental and social topics	Y	57
102–21 Consulting stakeholders on economic, environmental and social topics	Y	62
102–22 Composition of the highest governance body and its committees	Y	Annual report
102–23 Chair of the highest governance body	Y	Annual report
102–24 Nominating and selecting the highest governance body	Y	Annual report
102–25 Conflicts of interest	Y	Annual report
102–26 Role of highest governance body in setting purpose, values and strategy	Y	Annual report
102–27 Collective knowledge of highest governance body	Y	Annual report

Key

Y	Reported
NM	Not material
P	Partially reported
N	Not reported

GRI Standard	Reported	Page number/ disclosure
Governance continued		
102–28 Evaluating the highest governance body's performance	Y	Annual report
102–29 Identifying and managing economic, environmental and social impacts	Y	10, 58–61
102–30 Effectiveness of risk management processes	Y	62
102–31 Review of economic, environmental and social topics	Y	57
102–32 Highest governance body's role in sustainability reporting	Y	57
102–33 Communicating critical concerns	Y	65
102–34 Nature and total number of critical concerns	N	—
102–35 Remuneration policies	Y	Annual report
102–36 Process for determining remuneration	Y	Annual report
102–37 Stakeholders' involvement in remuneration	Y	Annual report
102–38 Annual total compensation ratio	Y	Annual report
102–39 Percentage increase in annual total compensation ratio	Y	Annual report
Stakeholder engagement		
102–40 List of stakeholder groups	Y	61–62, Annual report
102–41 Collective bargaining agreements	Y	66
102–42 Identifying and selecting stakeholders	Y	Annual report
102–43 Approach to stakeholder engagement	Y	61–62, Annual report
102–44 Key topics and concerns raised	Y	61–62
Reporting practices		
102–45 Entities included in the consolidated financial statements	Y	1
102–46 Defining report content and topic boundaries	Y	1, 58–61
102–47 List of material topics	Y	10, 58–61
102–48 Restatements of information	Y	n/a
102–49 Changes in reporting	Y	n/a
102–50 Reporting period	Y	1
102–51 Date of most recent report	Y	31 December 2020
102–52 Reporting cycle	Y	Annual
102–53 Contact point for questions regarding the report	Y	—
102–54 Claims of reporting in accordance with the GRI Standards	Y	1
102–55 GRI content index	Y	72
102–56 External assurance	Y	71

APPENDIX

Key

Y   Reported
NM   Not material
P   Partially reported
N   Not reported

GRI Index continued

GRI Standard	Reported	Page number/ disclosure
GRI 103: Management approach		
103-1 Explanation of the material topic and its Boundary	Y	10, 58–61
103-2 The management approach and its components	Y	10, 12–68
103-3 Evaluation of the management approach	N	—
GRI 205: Anti-corruption		
205-1 Operations assessed for risks related to corruption	Y	59, 64, 66
205-2 Communication and training about anti-corruption policies and procedures	Y	66
205-3 Confirmed incidents of corruption and actions taken	Y	66
GRI 302: Energy		
302-1 Energy consumption within the organization	Y	23–25
302-2 Energy consumption outside of the organization	Y	28
302-3 Energy intensity	Y	24–25
302-4 Reduction of energy consumption	Y	23–25
302-5 Reductions in energy requirements of products and services	N	—
GRI 305: Emissions		
305-1 Direct (Scope 1) GHG emissions	Y	26–27
305-2 Energy indirect (Scope 2) GHG emissions	Y	26–27
305-3 Other indirect (Scope 3) GHG emissions	Y	26–27
305-4 GHG emissions intensity	Y	26–27
305-5 Reduction of GHG emissions	Y	26–27
305-6 Emissions of ozone-depleting substances (ODS)	NM	—
305-7 Nitrogen oxides (NOX), sulphur oxides (SOX) and other significant air emissions	NM	—
GRI 306: Waste		
306-1 Waste generation and significant waste-related impacts	P	47, 65
306-2 Management of significant waste-related impacts	P	47, 65
306-3 Waste generated	P	65
306-4 Waste diverted from disposal	N	—
306-5 Waste directed to disposal	N	—
GRI 308: Supplier environmental assessment		
308-1 New suppliers that were screened using environmental criteria	Y	50–53
308-2 Negative environmental impacts in the supply chain and actions taken	Y	50–53

Key

Y	Reported
NM	Not material
P	Partially reported
N	Not reported

APPENDIX

GRI Standard	Reported	Page number/ disclosure
GRI 401: Employment		
401–1 New employee hires and employee turnover	Y	67
401–2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Y	33, 34
401–3 Parental leave	Y	68
GRI 402: Labour/management relations		
402–1 Minimum notice periods regarding operational changes	N	—
GRI 403: Occupational health and safety		
403–1 Occupational health and safety management system	Y	59, 62, 66
403–2 Hazard identification, risk assessment and incident investigation	Y	59, 62, 66
403–3 Occupational health services	Y	66
403–4 Worker participation, consultation and communication on occupational health and safety	Y	66
403–5 Worker training on occupational health and safety	Y	37
403–6 Promotion of worker health	Y	37, 41–43, 51–52, 59, 66
403–7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Y	66
403–8 Workers covered by an occupational health and safety management system	Y	66
403–9 Work–related injuries	Y	66
403–10 Work–related ill health	Y	66
GRI 404: Training and education		
404–1 Average hours of training per year per employee	Y	37–38
404–2 Programmes for upgrading employee skills and transition assistance programmes	Y	37–38, 68
404–3 Percentage of employees receiving regular performance and career development reviews	Y	38
GRI 405: Diversity and equal opportunity		
405–1 Diversity of governance bodies and employees	Y	36
405–2 Ratio of basic salary and remuneration of women to men	P	Annual report
GRI 406: Non-discrimination		
406–1 Incidents of discrimination and corrective actions taken	N	—
GRI 407: Freedom of association and collective bargaining		
407–1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Y	66
GRI 408: Child labour		
408–1 Operations and suppliers at significant risk for incidents of child labour	P	65

Key

Y	Reported
NM	Not material
P	Partially reported
N	Not reported

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GRI Standard	Reported	Page number/ disclosure
GRI 409: Forced or compulsory labour		
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	N	—
GRI 412: Human rights assessment		
412-1 Operations that have been subject to human rights reviews or impact assessments	Y	59, 65, 66
412-2 Employee training on human rights policies or procedures	Y	66
412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Y	50–53
GRI 414: Supplier social assessment		
414-1 New suppliers that were screened using social criteria	Y	50–53
414-2 Negative social impacts in the supply chain and actions taken	Y	50–53
GRI 418: Customer privacy		
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	N	—

Key

Y	Reported
NM	Not material
P	Partially reported
N	Not reported

SASB Index

Topic	Accounting metric	Reported	Page number/ disclosure
Product security	Description of approach to identifying and addressing data security risks in products	N	—
Employee diversity and inclusion	Percentage of gender and racial/ethnic group representation for (1) management, (2) technical staff, and (3) all other employees	Y	36
Product lifecycle management	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	65
Supply chain management	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	50–53
	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	52
Material sourcing	Description of the management of risks associated with the use of critical materials	Y	65
Activity	Number of units produced by product category	N	—
	Area of manufacturing facilities	Y	50–53
	Percentage of production from owned facilities	Y	0%

APPENDIX

Key

Y	Reported
NM	Not material
P	Partially reported
N	Not reported

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