Spirent

Spirent Communications plc
Annual Report 2022

Enabling rapid change

In a constantly changing world we enable rapid change for our clients

Throughout this report we spotlight how we have enabled rapid change for our clients

Strategic report

Corporate governance

Financial statements

Other information

Our strategic roadmap

Our ambition

Spirent's ambition is to be the global leader and trusted partner for innovative technology test and assurance solutions.

Read more on pages 6 and 7

Strategic priorities

Our strategy is aligned to help us achieve our ambition and is built on three pillars. We are executing on the opportunity to further develop our offerings into live networks, increasing our recurring revenue streams, and driving services and solutions across our portfolio:

Customer centricity

Innovation for growth

Operational excellence

Read more on pages 20 and 21

Delivering value across the lifecycle

We stand behind our customers' promise to deliver a new generation of innovative products and services to their customers. We are with them in every phase of the lifecycle, from development in the lab to deployment and live operation, ensuring that new technology works.

Read more on pages 16 and 17

Sustainability values

We manage our material sustainability impacts and opportunities in alignment with the values we have captured in our FuturePositive programme:

1 – Promise of a sustainable future

2 – Net zero carbon

3 – Promote diversity and invest in people

4 – Operate responsibly

5 – Be accountable and transparent

Read more on pages 32 to 39

Culture/values

Our values are the bedrock of our culture, guiding how we work with one another and our customers. Our suite of flexible working practices supports employee wellbeing, reduces our carbon footprint, creates office environments that encourage knowledge-sharing, innovation, and collaboration, and helps us attract and retain talent.

Read more on pages 14 and 15

2022 highlights

$288.1m +7%
Orderbook[1]

$607.5m +5%
Revenue

$129.5m +9%
Adjusted operating profit[2]

21.3% +1pp
Adjusted operating margin[3]

$114.6m +11%
Reported profit before tax

18.86¢ +14%
Adjusted basic earnings per share[4]

$209.6m +20%
Closing cash

7.57¢ +12%
Dividend per share

Notes
1. Orderbook is an alternative performance measure as defined on page 196.
2. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).
3. Adjusted operating profit as a percentage of revenue in the period.
4. Adjusted basic earnings per share is based on adjusted earnings as set out in note 11 of Notes to the full year consolidated financial statements.
5. Ratio of order intake to revenue recognised in the period.

Items with notes 1 to 5 are non-GAAP alternative performance measures; see pages 196 and 197 for more detail.

Financial highlights

- Orderbook[1] up 7 per cent to $288.1 million, with 30 per cent for delivery beyond the next 12 months which is a record and adds to future revenue visibility.
- Revenue up 5.5 per cent driven by renewed strength in high-speed Ethernet from market demand and new product launches, offsetting some customer timing impacts in Lifecycle Service Assurance.
- Rigorous focus on cost control, including disciplined execution of our site strategy, and carefully targeted investment in high-growth areas resulted in our cost base remaining flat year-on-year despite inflationary pressure.
- Adjusted operating profit[2] increased by 9 per cent to $129.5 million, with adjusted operating margin[3] improving to 21.3 per cent, up from 20.6 per cent in 2021.
- Despite softening in the last quarter of the year, the orderbook[1] increased $18.3 million to $288.1 million providing greater revenue visibility for outer years. Book to bill[5] across the year was 103 (2021 111).
- Strong balance sheet – cash closed at $209.6 million (2021 $174.8 million) after disciplined focus on working capital management.
- Cash flow from operations increased 24.5 per cent to $140.6 million (2021 $112.9 million).
- Full year dividend up 12 per cent (24 per cent in Pound Sterling). Final dividend of 4.94 cents per share to be paid in May 2023.
- Materially reduced balance sheet risk through an insurance buy-in of our main defined benefit scheme pension liabilities which terminates future funding requirements.

Operational highlights

- Secured over 800 5G-related wins and saw growth across our portfolio of 5G live network solutions and services, and our world-leading Wi-Fi test solutions.
- Continued to deliver for our customers through proactive, aggressive management of our global supply chain in the face of ongoing challenges.
- Aligned our organisation, tools, and processes to enable us to scale our technology-led services portfolio, which saw another year of double-digit revenue growth as we delivered large-scale services to customers around the world.
- Applied our innovation and subject matter expertise to key new solutions targeting lab and live markets, for high-speed Ethernet and Open RAN (O-RAN) test and 5G service assurance.
- Achieved a key milestone in our Sustainability Strategy with the achievement of carbon neutral certification.

Uniquely positioned, strategically and operationally

We are uniquely positioned to seize opportunities, even in the face of macroeconomic uncertainty, due to the strength of our differentiated model and proposition. As we focus on market opportunities with strong and enduring drivers, our differentiated approach provides us with distinct competitive advantages.

1 **Enduring market drivers**
We are a critical enabler in the rapid shift to a more connected world, with robust market drivers that include migration to 5G, work from anywhere, expansion of hyperscalers into the telco space, and location awareness as a key enabler.

2 **Key enabler of 5G transformation**
Operators' investment in their complex 5G networks is non-discretionary, with spectrum and network capital investment commitments already in place. Opportunities from 5G standalone ("true" 5G) and 5G private network roll-outs are still in their infancy.

3 **We go to market differently**
We have evolved our customer relationships, engaging in more consultative selling, and becoming a trusted partner that understands our customers' newer, larger business challenges and addresses them with solutions and services, not just products.

4 **Only vendor addressing the entire technology lifecycle**
We leverage the expertise and test methodologies developed in the lab to address our customers' live network test and assurance challenges. This enables us to secure larger, multi-year contracts that enhance our revenue visibility and predictability and reduce cyclicality.

5 **Disciplined investment strategy**
Our customer intimacy and governance around our portfolio management ensure that we focus our investments on the faster-growing market areas that are most critical to our customers, both organically and through highly selective, earnings-accretive acquisitions.

6 **Robust, sustainable operating model**
We focus on retaining our key talent while pursuing a policy of diversity and inclusion, and we proactively manage our supply chain to minimise customer disruption. Our commitment to sustainability led to us achieving carbon neutral certification in 2022.

Enabling 5G cloud-native evolution through automation

Facing a triple challenge, one of Europe's leading service providers asked Spirent to help tackle its complex needs and aggressive timelines. Working to move to its own cloud platform for the core network and to accelerate its standalone 5G cloud-native evolution, the operator was at the same time contending with combining the systems of two separate brands and having to address the mammoth task of swapping out much of its existing infrastructure hardware with solutions from new suppliers.

Needing to test the new multi-vendor system and make sure it delivered end-to-end performance and capacity under load, the provider needed to stress test the combined systems. It also needed to perform validation in pre-production environments and ensure consistency with its lab environments to streamline internal workflows, support continuous integration/continuous development (CI/CD) practices and embrace automation.

To address the lack of necessary in-house skills to perform pre-production validation of a cloud-native telco cloud, Spirent, along with third party vendors, deployed a Test-as-a-Service solution, providing managed services to leverage the provider's existing Spirent Landslide licences to validate that the swap-out project could deliver end-to-end performance and meet capacity requirements. Spirent VisionWorks was also deployed for pre-production validation and active assurance testing to assess pre-deployment infrastructure.

Spirent's solution is providing the customer with the confidence to proceed with its migration project, ensuring the network continues to deliver the performance and scalability that its customers expect, protecting revenues and the customer's brand.

“Spirent's solution is providing the customer with the confidence to proceed with its migration project, ensuring the network continues to deliver the performance and scalability its customers expect, protecting revenues and the customer's brand.

Doug Roberts
General Manager, Lifecycle Service Assurance, Spirent

Powering test for India's 5G superpower push

Having allocated its 5G spectrum, the government of India is determined to be a world 5G superpower. Leading the way in this rapid change is a top-tier Indian network provider, which committed itself to deploying the nation's first standalone 5G network capable of delivering new and powerful 5G-enabled services.

Spirent has worked with the network provider's R&D team and its dedicated quality assurance labs for many years. As it built its own 5G network capabilities, the provider recognised the challenge of both producing and testing its own innovations. To address this, the customer created an independent live network validation hub, run by a new network team. Without deep competencies in testing of its own, the new team turned to Spirent and its Test-as-a-Service capabilities to provide a hybrid managed solution that delivers the customer's detailed test requirements and can be rapidly delivered and scaled as required.

The customer opted to purchase Spirent's class-leading technology, that included Landslide and Velocity and to use the experienced Spirent team to run validation as a managed service. Focused on 5G SA core, cloud infrastructure and security, the solution is further enabled by Spirent's extensive automation, reinforcing the strong collaboration between the two companies.

> We are committed to providing a cloud-native, hyperscale 5G core network and our collaboration with Spirent is an important part of achieving this objective.
>
> Senior Vice President
> Leading Indian Network Provider

Spirent at a glance

Global leader, innovator and trusted partner in enabling rapid change

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

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

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

Lifecycle Service Assurance

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

$264.5m

revenue in 2022
(2021 $261.6m)

Read more on pages 40 to 43

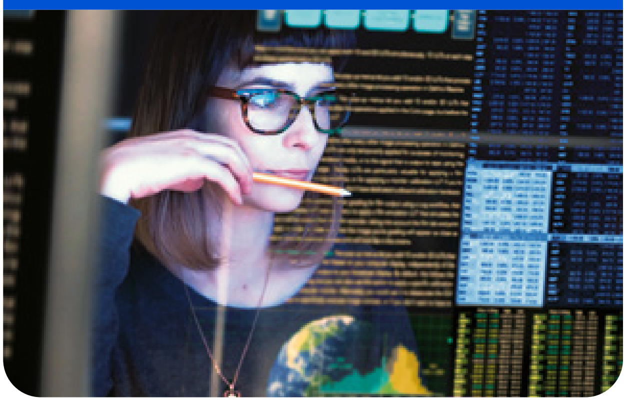
Networks & Security

An industry leader in high-speed Ethernet/IP performance testing, our Networks & Security segment develops test methodologies, tools and services for virtualised networks, cloud infrastructure and proactive security validation. As the acknowledged global leader in global navigation satellite system (GNSS) test and simulation solutions, we are applying our innovation and expertise to emerging growth opportunities across positioning, navigation and timing (PNT).

$343.0m

revenue in 2022
(2021 $314.4m)

Read more on pages 44 to 47

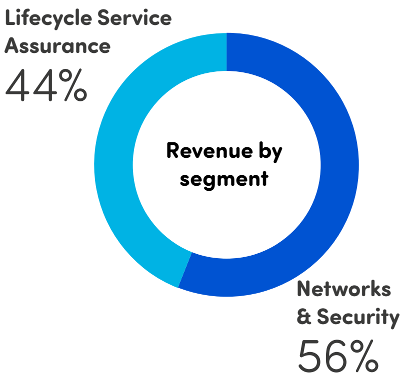


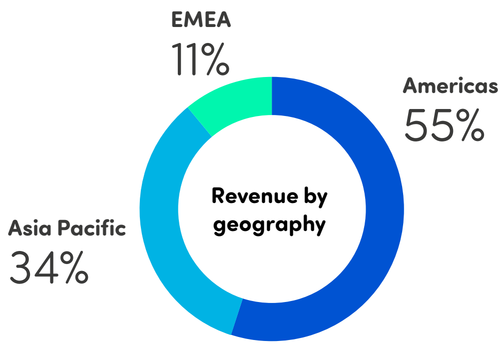
1,600+ employees

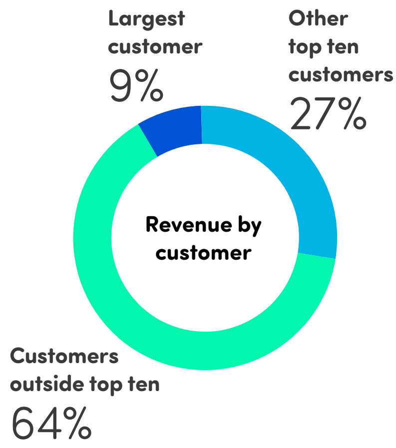
1,100+ customers served in 2022

50+ countries

10 significant engineering sites







Sustainability recognition

CDP rating 2022
Climate change: C
Supply chain: C

FTSE ESG 100 Select member 2022

FTSE4Good member 2022

CarbonNeutral® Company Certification 2021, 2022

EcoVadis Silver rating 2022

Read more on pages 32 to 39

Chairman's statement

Well positioned to support our customers

I am pleased to present our Annual Report for the year to 31 December 2022.

Performance during the year

Our performance through the year demonstrated our ability to maximise market opportunities in areas such as 5G, capitalise on growth outside our more traditional geographic markets and innovate our solutions and services offerings to solve bigger more complex problems for our customers. In the latter part of the year we began to see the impact of the wider softening in the macroeconomic environment and we saw delays in customer purchasing decisions.

I am very pleased to see another year of strong progress that we have made as a business. Revenue increased by 5 per cent to $607.5 million and we achieved a 9 per cent increase in adjusted operating profit[1], and a 14 per cent increase in adjusted basic earnings per share[2]. Reported profit before tax was up by $11.0 million to $114.6 million (2021 $103.6 million). In line with our progressive dividend policy we are proposing a 12 per cent increase to the full year dividend. This represents the sixth consecutive year of growth in revenue, profitability and dividend.

I am also pleased to see that the work we have undertaken in the last few years sees us enter into more uncertain economic times with orderbook at an all time high, and helps to give us more predictability over future revenue streams than has historically been the case.

The Board notes the level of net cash we currently hold and confirms that we continue to look at a range of opportunities to grow the business, whether through organic or inorganic opportunities. We expect the current market to potentially offer us more attractive inorganic opportunities to explore in 2023 and beyond. We were delighted that the octoScope business purchased in 2021 performed well in 2022 and we see the path to future growth in the Wi-Fi space. This performance gives us confidence in our ability to identify the right inorganic opportunities for Spirent.

18.86¢ +14%

Adjusted basic earnings per share[2]

7.57¢ +12%

Dividend per share

Notes
1. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).
2. Adjusted basic earnings per share is based on adjusted earnings as set out in note 11 of the notes to the full year consolidated financial statements.

Our employees and the right culture

It is our colleagues, through their innovation, ingenuity, hard work and resilience that deliver results of the quality that we present in this year's Annual Report. I want to thank all of them for their continued support. Through their efforts we have delivered exciting new products, grown in new customer verticals, delivered more complex services offerings and managed the impacts of the supply chain interruptions that still persist.

These achievements were made while adhering to the core values and ways of working that the Board sponsors and promotes across the Company.

The Board continues to invest time, effort and energy in our engagement with the wider workforce. By using three of our Non-executive Directors to engage with and receive feedback from our employees across all three of the regions in which we do business, we aim to understand how our strategic initiatives have taken root across the business.

Each year we seek to engage and have a constructive dialogue with different groups of employees so we understand the views of as diverse a group as possible, whether they be colleagues from engineering, sales or supply chain, and whether they work on site, flexibly or remotely.

We also monitor the long-term trends of employee engagement with our annual employee engagement survey where we continue to see good levels of engagement and high levels of participation.

Sustainability

In late 2020, Spirent set an ambitious Sustainability Strategy with medium and long-term goals. Our strategy and goals are set out publicly in our annual Sustainability Report as is the progress we have made against those goals. In 2022, we have worked to determine the initiatives that will help us deliver our energy and carbon reduction goals over the short and medium term. We have achieved carbon neutral certification during 2022 and have also made significant progress in calculating our Scope 3 emissions.

Outlook

We continue to invest in our market-leading technologies to support our customers with their development plans particularly as 5G roll-out continues.

Since the fourth quarter of 2022 we have seen delays to some of our customers' decision making and whilst we expect a more challenging first half of 2023, our business drivers remain intact and our mid-term targets remain unchanged.

We saw some customers exercise caution towards the end of last year in response to broader macroeconomic conditions and this was most notable amongst customers for our 5G lab-based Lifecycle Service Assurance applications.

We have proactively engaged with our customers and the feedback reiterates their intention to continue to develop and implement their 5G infrastructure, and we therefore expect momentum to improve in the second half of the new financial year.

Sir Bill Thomas
Chairman
7 March 2023

Our 2022 Sustainability Report

We established our FuturePositive programme to address our ESG progress in 2014. Since 2017 we have published an annual Sustainability Report, which is intended to inform all of our stakeholders of our progress.

See pages 32 to 39 for more detail on Sustainability

See pages 35 to 36 for more detail on TCFD

Read our Sustainability Report here:
corporate.spirent.com/sustainability/sustainability-reports

Strong execution

$607.5m +5.5%

Revenue

$288.1m +6.8%

Orderbook[1]

Note

1. Orderbook is an alternative performance measure as defined on page 196.

2022 was another year of strong strategic execution as we sustained our growth trajectory in the face of current macroeconomic challenges and, in the final quarter, signs of caution in our customers' spending patterns. Despite the disruption caused by inflation, COVID-19 and global conflicts, our world-class team continued to innovate, to deliver for our customers and to win larger deals across the globe.

Market overview

Our key market drivers have remained strong, led by 5G and driven by global trends such as work from anywhere, the emergence of the metaverse, the expansion of hyperscalers, and location awareness as a key application enabler. As the only vendor addressing all phases of the technology lifecycle, from end to end we consolidated our 5G leadership during the year, applying our innovation to test, automate and assure opportunities in labs through to deployment and operation of live networks. We continued to make significant progress in our ambition to address our customers' larger and most pressing business concerns, such as cost reduction and energy efficiency, by driving services and solutions growth across our portfolio. We are confident in the enduring nature of our structural growth drivers, despite near-term market conditions, and our customers remain committed to their investment plans particularly in relation to 5G roll-outs.

Strategy

To realise our ambition to be the global leader and trusted partner for innovative technology test and assurance solutions, 2022 saw us continue to focus on our proven strategic pillars: Customer Centricity, Innovation for Growth and Operational Excellence.

Customer Centricity

We continued to make significant progress during 2022 in our ambition to address our customers' larger business problems by driving outcome-based services and solutions across our portfolio. The shift from selling features and functions to selling outcomes and value resulted in larger deal sizes and has enhanced closeness to our customers, helping to cement our importance in customer accounts during a time of increasing macroeconomic uncertainty and caution around capital and operational expenditure.

Our role as a trusted partner to our customers drove us forward growing into new segments and markets. We supported over 1,100 customers across more than 50 countries in 2022, including over 260 new customers in 33 countries. Spirent's customer base continues to be highly diversified, with no single customer accounting for more than 9 per cent of total revenue in 2022.

At Spirent, we are constantly improving the ways in which we go to market. We continued to strategically expand our successful key account programme. Our partner ecosystem once again delivered good results as we targeted faster-growing segments and regions. Our technology-led services portfolio delivered another year of double-digit growth as we delivered large-scale services to customers around the world. Engagements led by services and solutions are increasing the size of our deals and are enabling us to strategically partner with customers to automate, validate and optimise their networks. This strategic progress led further growth of our orderbook, which stood at $288.1 million at the end of the year, representing 7 per cent year-on-year growth.

Innovation for Growth

To sustain and grow our global leadership in test and assurance it is critical that we make smart investments, both organic and inorganic, that address emerging market and technology opportunities. We invested 18.3 per cent of revenue in research and development in 2022. 5G remains the enduring driver for our business, with over 800 5G-related wins in the period and significant progress in our journey from the lab to deployment and operation of live networks. We brought several key new solutions and services to market in 2022 that clearly showcased our market-leading expertise. We executed well on our product road maps, whilst also implementing our site strategy to drive cost efficiency as we transferred R&D roles from higher-cost North American sites to Eastern Europe and India without losing momentum.

In the third quarter we announced the introduction of Spirent Vantage, an innovative solution that applies Spirent's industry-leading technology and subject matter expertise to dramatically simplify and automate 5G service assurance for communications service providers (CSPs). With its comprehensive turnkey approach that allows operations teams of any size and skill to understand their network and service performance, Vantage broadens our addressable live market beyond the top-tier CSPs targeted by our existing VisionWorks solution.

The Wi-Fi business we acquired as octoScope in 2021 saw strong growth during the period, driven by the widespread adoption of Wi-Fi 6 and 6E, together with our new Test-as-a-Service (TaaS) offering for Wi-Fi equipment. We also launched an industry-first, fully integrated and automated Open RAN (O-RAN) wrap-around test solution to address emerging O-RAN market opportunities.

We expanded our leadership in high-speed Ethernet test with the release of the industry's first 800G test platform which saw success with vendors designing, developing and deploying 800G technologies, including a public 800G interoperability demonstration with Nokia. We also announced a new 400G Ethernet test platform and added a 400G capability to our application security performance test solution. Customer demand for lower port speeds such as 100G was also strong, driven by backbone network upgrades in the face of continuing data growth.

Our Positioning business delivered the first high-accuracy orbital modelling software solution, specifically targeted at emerging opportunities in the Low Earth Orbit (LEO) segment. I am also proud to note that the Positioning business was honoured with a prestigious Queen's Award for Enterprise in the UK, which recognises excellence in international trade.

Operational Excellence

Our commitment to operational excellence and our robust operating model are key differentiators, critical to our continued success in uncertain times. We diligently managed our cost base in 2022 while making the smart investments needed to underpin our future growth. We successfully implemented our engineering site strategy to transfer resource to lower cost regions driving savings for our high-speed Ethernet business. Our world-class supply chain team enabled us to deliver in the face of challenges throughout the year. We were able to compensate from ongoing turbulence in the geopolitical landscape with China through expansion of our customer base and development of new market opportunities in the APAC region.

We invested once again in enhancing our go-to-market capabilities, strengthening our inside sales capabilities across all regions and bolstering our solutions and services selling bench strength in regions and in segments we have targeted for growth, including hyperscalers and chipset developers. Our digital marketing transformation strategy continued to deliver results, including growth in our marketing-qualified lead pipeline to feed into our enhanced inside sales organisation.

We continue to maintain a strong balance sheet with $209.6 million of cash and no bank debt. As we focus on sustainable, profitable growth, we are improving and organising our business to support our positive momentum. 2022 was a year of increased focus on tools and processes to underpin our growth agenda, and in organisational alignment and resource management to enable us to effectively scale our services delivery capacity globally. We continue to improve our organisational structure to break down barriers across businesses and the services function, better enabling solution selling and focus on innovation around leading-edge technologies. Moving into 2023, we plan to further enhance the leadership team, including the appointment of a Chief Information Officer to spearhead standardisation of processes and systems that enable us to scale, whilst also driving a cost efficiency agenda to ensure we have optimal effectiveness from all parts of our cost base, including our property portfolio.

At Spirent we value, invest in and empower our employees. I am proud of the progress we have made with our diversity, equity and inclusion strategy towards a culture where everyone feels welcomed. In 2022, our people completed over 1,500 hours of diversity, equity and inclusion training, and we further expanded the diverse ways in which we attract talent to Spirent, expanding our talent partnerships and launching a global college and university campus recruitment campaign. We also launched a global networking community for our early career talent that offers mentorship, development and networking opportunities.

When we revealed a more ambitious Sustainability Strategy in late 2020, we committed to achieving carbon neutral certification in 2022 and I am delighted to report that this goal has now been achieved. We also calculated our total Scope 3 emissions during the year, providing us with a comprehensive view of our carbon emissions across all sources, which will enable us to report more widely against our carbon emission reduction goals going forward. You can read more about the full scope of our work in the area of ESG on pages 32 to 36 and in our annual Sustainability Report.

Capital allocation approach

Our highly effective financial and operational management delivered another year of strong free cash flow and our balance sheet remains strong and working capital remains very efficient. We continue to implement our capital allocation policy along the lines previously stated. We invest in R&D to maintain and expand our leadership positions in the market, and in inorganic investments where we see attractive opportunities that support our strategic growth agenda, whilst still maintaining sensible levels of cash.

Eric Updyke
Chief Executive Officer
7 March 2023

Helping accelerate a nation's 5G diversity drive

The determination to accelerate 5G adoption and drive vendor diversification has seen one western European government create its own state-of-the-art national telecommunications lab, with Spirent technology playing a key role. Funded by the government, the lab will open in 2023, providing a bookable testing facility for use by network operators, network technology vendors, researchers and businesses operating within the 5G, Open RAN and telecom supplier ecosystem.

As the global leader in 5G core network testing and validation, Spirent's Landslide solution was chosen to provide versatile and agnostic 5G core network emulation for the new national lab. As demand for 5G grows, this government wants to enable rapid change, with a world-class national research facility that will underpin the country's ambition to be a world-leader in the development of future communications technologies. It also hopes to attract global companies to conduct their R&D at the facility.

The government facility will enable telecom companies and suppliers to test their equipment in a realistic environment, coming together with academic institutions to research and test innovative new ways of boosting the resilience, security and performance of mobile networks, while ensuring equipment and software are fully interoperable to deploy in the country's networks.

> Spirent is delighted to support the new national telecommunications lab with our industry-leading 5G core network test and emulation solution, providing a collaborative environment to deliver innovation, supply chain security and economic growth.
>
> **Stephen Douglas**
> Head of Market Strategy, Spirent

GNSS innovation keeping the autonomous future on track

A leading manufacturer of autonomous open-pit mining haul trucks has adopted Spirent's pioneering positioning solution to advise its customers about the availability of autonomous operations. Spirent GNSS Foresight is the first-of-its-kind cloud-based solution that enables operators to know in advance where and when global navigation satellite system (GNSS) positioning is reliable for unmanned and autonomous journeys.

To operate autonomous haul trucks safely, each mine operator has a 'minimum full autonomy mode capability' guidance requirement. In such environments, existing GNSS performance can be unpredictable due to signals being obscured or blocked, reducing the capacity to provide accurate positioning. With GNSS Foresight Risk Analysis, a GNSS-alternative sensor solution can be added to the haul vehicle by the manufacturer, enabling Spirent GNSS Foresight to share an assessment report of where and when GNSS will work well based on the mine's current configuration. Using the mine operator's excavation plans, this can be done up to five years into the future, and if excavation plans change, a new GNSS Foresight Risk Analysis can be provided.

Spirent GNSS Foresight's ability to accurately predict autonomous performance is enabling the mining, quarrying, ports and construction industries to enhance safety, efficiency and return on investment through operational improvements.

> Spirent GNSS Foresight enables operators to enhance efficiency, safety and return on investment through the resulting operational improvements.

Jeremy Bennington
Vice President of PNT Assurance, Spirent

An engaging and inclusive culture

Spirent is proud of the supportive and inclusive environment in which its employees thrive. Our people are key to our success.

Our values

1 **Join forces**
Collaborate with customers, partners and employees to drive success.

2 **Find a better way**
Create new possibilities and make change happen.

3 **Play to win**
Aim high and win responsibly.

4 **Inspire, challenge and coach**
Enable and empower our people.

5 **Take ownership**
Embrace responsibility and seek to deliver impact wherever you go.

The way we work

Our values are the bedrock of our culture, guiding how we work with one another and our customers. Our suite of flexible working practices supports employee wellbeing, reduces our carbon footprint, creates office environments that encourage knowledge sharing, innovation and collaboration, and helps us attract and retain talent.

Measuring our engagement

To help us to focus on what matters most to our people, we promote psychological safety, direct feedback and continuous improvement. Our twice-yearly employee survey measures engagement and has consistently high levels of participation.

Diversity and inclusion strategy

2022 priorities

Talent acquisition
We continued to expand the diverse ways in which we attract talent to Spirent. In 2022, we added another Historically Black College/University to our talent partner network and launched our global campus recruitment campaign.

Training and awareness
Our people share responsibility for creating a culture where everyone feels welcomed, accepted and respected. In 2022, they completed over 1,500 hours of diversity and inclusion training to understand, appreciate and help increase diversity in the workplace.

Early career development
We are dedicated to developing early career talent. In 2022, we launched our Aspire Network – a global networking community for our early career employees, offering mentorships as well as quarterly development and networking opportunities.

Measuring outcomes
Our diversity and inclusion metrics, launched in 2022, help us identify risk areas, prioritise initiatives, set targets and programme goals, assign accountability, and measure the impact of our initiatives. We will continue to track our progress against critical success measures in 2023.

Celebrating diversity
Our Spirent Celebrates programme gained momentum in 2022 as we honoured the richness and diversity of our global workforce. Our celebration of different cultures, awareness days and environmental advocacy drove greater participation with user-generated content, interviews and competitions. We also recognised how our people utilise their volunteer time off to give back to their local communities.

Read more on pages 36 to 38

Bringing our culture to life

We launched our #LifeAtSpirent social media campaign to promote our Company culture and help talent understand what it is like to work for us. The campaign, which has been a big success both internally and externally, highlights our:

- business excellence;
- development opportunities;
- social responsibility;
- diversity and inclusion;
- sustainability;
- work-life balance; and
- sense of fun.

The campaign has also allowed us to recognise the incredible talent we already have within our business.

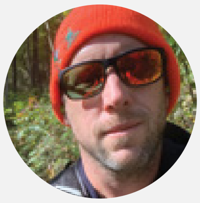
Enhanced family leave benefits

We introduced a range of enhanced, global family leave benefits to provide our people with additional flexibility when they and their families need it the most:

- we increased our parental leave entitlement for primary and secondary caregivers;
- we increased our bereavement leave; and
- we introduced family care leave to care for immediate family members.

These enhanced benefits have been well utilised and the feedback from our people tells us they have made a real difference to their work-life balance.

Our culture in action: volunteer time off



I assisted with a pre-event trail clean-up and log cutting and ran an aid station as part of an annual fundraiser to maintain the Allegrippis bike trails in Pennsylvania.

Corey Shaw
Staff PV Engineer

I supported my daughter and her friends in establishing their school food waste composting programme and chaperoned them on a visit to Maryland Senate and House to advocate for their cause.

Monika Maheshwari
Senior Manager, Engineering

I helped organise a marathon to raise funds for a local charity, which provides free, fun-filled holidays for families with seriously ill children, terminally ill parents, or recently bereaved.

Paul Duffield
Senior IT Operations Specialist

Ensuring complex technologies work in an age of rapid change

Spirent invests to sustain and expand our leadership in key technologies and markets, including 5G and Wi-Fi, high-speed Ethernet networks, Positioning, Navigation and Timing (PNT), and automation.

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

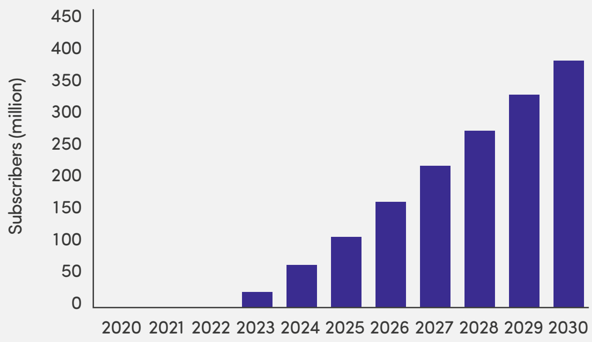
Non-terrestrial networks & LEO

Market driver
Non-terrestrial networks (NTN), including LEO satellites, are poised to take on a growing role in delivering broadband connectivity direct to phones and in resilient Positioning Navigation and Timing (PNT). Being closer to earth, these new constellations can offer more robust connectivity to remote, underserved communities and mission-critical industries. More than 3,700 LEO satellites have been deployed to date, driving an expanding vendor ecosystem.

Opportunities for Spirent
Space is an incredibly complex environment, magnifying the importance of validating satellite functions on the ground in labs before deployment. Despite the closer proximity to earth, numerous technology and performance challenges must be tested, ranging from signalling delays and timing variations to large Doppler shifts from high velocities to signal degradations from atmospheric conditions and interference.

Our response
Spirent, as the industry leader in satellite PNT and end-to-end mobility testing, is well positioned to help the industry deliver on NTNs' promises. With solutions in its portfolio such as SimORBIT that model LEO orbits, and mobility and channel emulation solutions highly applicable to testing performance in the lab, Spirent is already engaged with leading players across the ecosystem.

Subscribers in the direct satellite-to-device market, worldwide, 2020–2030



Source: NSR/Analysys Mason.

380m

direct satellite-to-device subscribers by 2030

Next-generation access networks

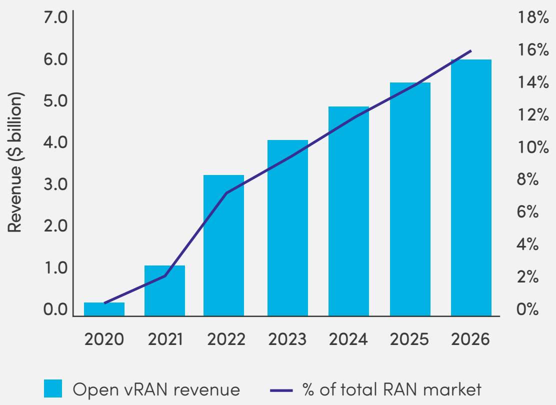
Market driver
The demand for connectivity to unlock new revenues across enterprise and consumer markets like immersive gaming is driving wireless access innovation. Operators are turning to advanced technologies including Open RAN and Wi-Fi 7 to augment current connectivity strategies and address the need for increased coverage, performance, deployment flexibility, and lower total cost of ownership.

Open RAN is the mobile industry's open ecosystem initiative to unleash innovation and vendor diversity while offering deployment flexibility across public and private networks, while Wi-Fi 7 promises an order of magnitude bandwidth increase with significantly lower latency, ideal for advanced consumer and enterprise use cases.

Opportunities for Spirent
Complex new radio technologies must perform in the harshest of conditions; multi-vendor interoperability and new vendor entrants, as well as a heightened focus on agility and cost, create a wide range of new testing, security and service assurance opportunities.

Our response
Spirent is providing a new portfolio of solutions that support the automated performance testing of Open RAN's multi-vendor, plug-and-play architecture, our industry-leading Wi-Fi 6/6E test solutions and services are evolving to enable our customers to be at the cutting edge of Wi-Fi 7.

Open vRAN revenue and as a percentage (%) of the total RAN market, 2020–26



Source: Omdia.

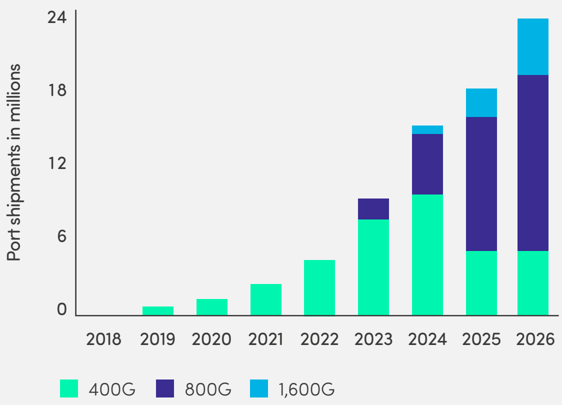
800G Ethernet

Market driver
The demand for higher bandwidth, increased throughput and ultra-low latency is unrelenting. Although cloud-based applications, work-from-home, and Internet of Things have all contributed to this trend, today's intense cloud gaming requirements, streaming, industrial connectivity, and a new wave of artificial intelligence and machine learning applications are putting even greater demands on networks, stimulating a rapid evolution in the Ethernet backbones that underpin the cloud and driving the industry to quickly follow the launch of 400G technology with 800G.

Opportunities for Spirent
Doubling capacity from 400G to 800G has required major optical and electrical innovations that introduce new challenges such as power consumption, signal integrity and heat. Meanwhile, the standards that are key to successful interoperability must be thoroughly tested and verified. Widespread industry adoption relies on the ability to validate and deploy every aspect of 800G while ensuring interoperability.

Our response
Comprehensive testing has become a critical factor in accelerating 800G toward production and deployment and meeting market demands. Spirent has developed an industry-leading, comprehensive, end-to-end 800G testing suite that leverages decades of experience in Ethernet testing to validate next-generation chipsets, routers, switches, and data centre fabrics.

Ethernet port shipments 400G vs. 800G vs. 1,600G



Source: Dell'Oro Group.

Our strategy is aligned to support 5G's race

5G's race to revenue

At the end of 2022, Spirent estimated there were over 1 billion 5G subscriptions across more than 95 countries worldwide. Analysts predict that by the end of 2026, the total worldwide 5G service market will exceed $249 billion[4], driven by a combination of consumer demand for faster data speeds, enterprise adoption as part of their digital transformation, and government policies aimed at boosting economic development and ensuring supply chain security.

So far, operators have mainly focused on building 5G radio networks to leverage their spectrum assets, provide basic national coverage, and offer an initial 5G (non-standalone 5G) service. While coverage build outs and network densification will continue for many more years, some leading operators are starting to move to the "full" version of 5G (standalone 5G) in pursuit of the cloud-native and agile capabilities provided by the introduction of the 5G core network, which is key to enabling them to unlock new revenue-generating use cases across consumer and private enterprise markets.

However, it is still early days for standalone 5G deployments. Only about 15 per cent of commercial 5G network operators globally[2] have upgraded to a true 5G core network, providing an enduring test and assurance opportunity for Spirent.

> Spirent's strategy is well aligned to support the 5G race. Our innovative solutions and flexible business models help our customers accelerate time to market and time to new revenues.
>
> Stephen Douglas
> Head of Market Strategy, Spirent

5G, collaboration and the enterprise

The costs involved in bringing 5G to market are immense. With limited opportunities to unlock new revenue from basic 5G connectivity, leading operators are now preparing networks and business offerings to engage in lucrative enterprise markets and to bring advanced use cases to consumers.

Over the next two years, these leaders will move rapidly to standalone 5G, while aiming to transform into digital service providers in pursuit of agility and differentiation, incrementally adding new capabilities required to service demanding enterprise use cases.

Collaboration between operators and cloud hyperscalers will continue to grow as operators augment their offerings with public and private edge services. Initiatives around "open" radio access networks and network lifecycle automation will continue to gain momentum as the industry strives for greater vendor diversification, agility and energy efficiency. Non-terrestrial networks will become more prevalent as operators partner with satellite providers to deliver new direct-to-phone services.

Spirent's 5G strategy is well aligned to support this race. An acknowledged industry leader in 5G core and transport network testing, offering innovative solutions such as automated and continuous testing and assurance, together with flexible business models such as Test-as-a-Service, Spirent is helping its customers accelerate their time to market and to new revenues.

$137bn
Forecasted 5G network infrastructure spend between 2023-26[1]

243
Commercial 5G launches across 95 countries (December 2022)[2]

37
Commercial 5G Standalone (full version) launches (November 2022) with another 75 operators investing towards Standalone[2]

39,000
Private 5G/LTE networks by 2027[3]

Sources
1. Omdia (December 2022).
2. Global Mobile Suppliers Association (GSA) (November 2022).
3. Analysys Mason (October 2022).
4. Markets & Markets (October 2022).

Lifecycle Service Assurance

Assuring 5G performance and reliability

Once 5G networks are deployed, operator focus naturally shifts towards guaranteeing performance and service level agreements. With new complexity from 5G's cloudification and emerging Open RAN ecosystems, demand is growing for network automation and continuous test and assurance across the 5G lifecycle.

Spirent's automated 5G test leadership was complemented in 2022 with the introduction of Vantage, an innovative solution designed to simplify and automate 5G service assurance. Spirent also introduced its innovative, automated Open RAN test solutions.

Spirent's global leadership in 5G core testing was again showcased with leading operators, including Telefónica as part of its enterprise private 5G solution.

Read more on pages 40 to 43

Networks & Security

Safely accelerating time to market

The ongoing deployment of 5G highlights its dependency on a high-capacity, tightly synchronised, low-latency and secure transport network capable of supporting a disaggregated 5G network with thousands more cell sites, new edge locations and geographically distributed data centres.

As an industry leader in high-speed Ethernet and application-aware security testing, Spirent has been helping the industry future-proof its network scalability, security and the evolution to edge clouds and Open RAN.

Spirent's 5G leadership was highlighted in 2022 in the world's largest 5G region, validating multi-speed network equipment and security efficacy from multiple vendors to support aggressive nationwide deployments.

Read more on pages 44 to 47

Managed Solutions

Delivering critical 5G test and assurance as a service

5G's increased complexity, combined with an exponential increase in the velocity and volume of software releases, inconsistent tools and processes, and a lack of in-house expertise, presents major challenges to our customers.

Managed Solutions help address these challenges by offering unparalleled subject matter expertise, tools and methodologies as a service, enabling an innovation pipeline between development and operations.

Spirent's managed solutions leadership was showcased in 2022 at a leading Indian operator with one of the world's newest 5G networks, which utilised Spirent's Test-as-a-Service managed solution to deliver automated validation and security testing of its new 5G standalone core network and cloud infrastructure.

We are focused on three strategic priorities

To realise our ambition to be the global leader and trusted partner for innovative technology test and assurance solutions, we are focused on three strategic priorities, or pillars:

Customer Centricity
Our mindset of customer centricity enables us to take a broader role on our customers' behalf, solving their larger, most pressing problems and adding more value.

Innovation for Growth
We must continue to relentlessly innovate and invest to stay ahead on key, emerging technologies, and to maintain market leadership.

Operational Excellence
Our focus on operational excellence and upholding our core values is a key differentiator that enables our sustainable, profitable growth.

> We are building on the progress we have made in addressing our customers' larger and most pressing business problems by selling outcomes and value.

Eric Updyke
Chief Executive Officer

Customer centricity

What we achieved

Our focus on staying close to our customers and addressing their larger business problems with solutions and services proved effective once again in 2022, as we accelerated our shift from selling product features and functions to selling outcomes and value. Our technology-led services portfolio helped customers across the entire lifecycle to develop, deploy and operate which resulted in larger deal sizes, and increased our relevance in customer accounts in a time of growing macroeconomic uncertainty.

Our key account programme continues to deliver, and we strategically invested to further expand the programme during 2022, adding new strategic accounts to the model, especially in the EMEA region. Our partner ecosystem once again delivered strong results as we targeted faster-growing segments and regions.

We grew our share of wallet with existing customers while expanding in target segments such as hyperscalers and chipset developers, adding new logos and expanding our geographic footprint.

Priorities for 2023

- Continue driving our shift from selling product features and functions to selling outcomes and value.
- Drive solutions and services that address our customers' current pain points, including cost-saving objectives.
- Apply our world-leading automation solutions to accelerating our customers' energy-saving goals.
- Focus on maximising opportunities in Open RAN and 5G private network markets.
- Build on our landmark services deals to win more strategic services opportunities.
- Aggressively promote our newly introduced Vantage solution to meet customer demand for a service assurance capability that addresses 5G's complexities, while being easy to deploy and use.

1,100+
customers served in 2022

Notes
1. Cash flow generated from operations, less tax and net capital expenditure, after interest paid and/or received, payment of lease liabilities, finance lease payments received and excluding acquisition related other adjusting items and one-off contributions to the UK pension scheme.
2. Adjusted operating profit as a percentage of revenue in the period.

Innovation for growth

What we achieved

We continued to make smart investments in our future growth, including R&D, key talent and business model innovation, with a continuing focus on our enduring driver of 5G.

We aligned our organisational structure to enable our expanding portfolio of services offerings to scale, and we closed several new landmark services deals across the globe during 2022.

We continued to bring innovative solutions to market that address our customers' most significant challenges. During the period, we introduced an industry-first 800G high-speed Ethernet test solution, our Vantage solution to dramatically simplify 5G service assurance, an innovative Wi-Fi Test-as-a-Service offering, as well as solutions to address emerging opportunities including Open RAN and low-earth orbit satellite systems.

Priorities for 2023

- Invest in scaling and management of our services delivery capability and increasing the software content in our solutions.
- Build on our early successes in the telco cloud resilience and scalability space.
- Leverage the breadth of our 5G portfolio, including our new Vantage and Open RAN solutions, to address evolving customer needs as 5G moves beyond the lab to deployment and production networks.
- Leverage our industry leadership in Wi-Fi test and validation to address technology evolution to Wi-Fi 7 and the growing Wi-Fi market need for Test-as a-Service offerings.
- Maintain and expand leadership in high-speed Ethernet with continued 800G innovation and quality/usability enhancements.
- Expand PNT leadership in space, chipset and live assurance applications.

$111.3m

invested in research and development in 2022, representing

18.3%

of revenue

Operational excellence

What we achieved

Our prioritisation of operational excellence resulted in continuing diligent management of our cost base throughout 2022, delivering another strong balance sheet, with $209.6 million of cash and no debt. We improved our adjusted operating margin by 0.7 percentage points to 21.3 per cent. We continued to invest in our people and made significant progress in our diversity, equity and inclusion strategy.

We focused on tools and processes to underpin our growth, on organisational alignment to enable us to scale our services delivery capacity globally, on enhancing our go-to-market capabilities, and on transfer of more R&D resource to low-cost regions. Once again, aggressive management of our supply chain by our world-class team enabled us to deliver to our customers despite ongoing global challenges.

Our unwavering commitment to sustainability delivered a major milestone in 2022 with the achievement of carbon neutral certification, and we catalogued our Scope 3 emissions to enable improved reporting clarity around our ongoing carbon emission reduction goals.

Priorities for 2023

- Continue to review our portfolio, with a view to growing it both organically and inorganically to align with our strategic objectives and attractive market growth opportunities.
- Relentless focus on operational efficiency, including site strategy execution and organisational structure optimisation.
- Focus on our sustainability and ESG objectives to ensure we remain a responsible corporate citizen.
- Implement the 2023 objectives of our diversity, equity and inclusion strategy.
- Continue to invest in our IT infrastructure, tools and processes to support our growth.
- Maintain a strong balance sheet to ensure strategic flexibility and long-term viability through a period of macroeconomic uncertainty.

$103.8m

free cash flow[1]

21.3%

adjusted operating margin[2]

Delivering value across the lab-to-live lifecycle

Using our resources effectively

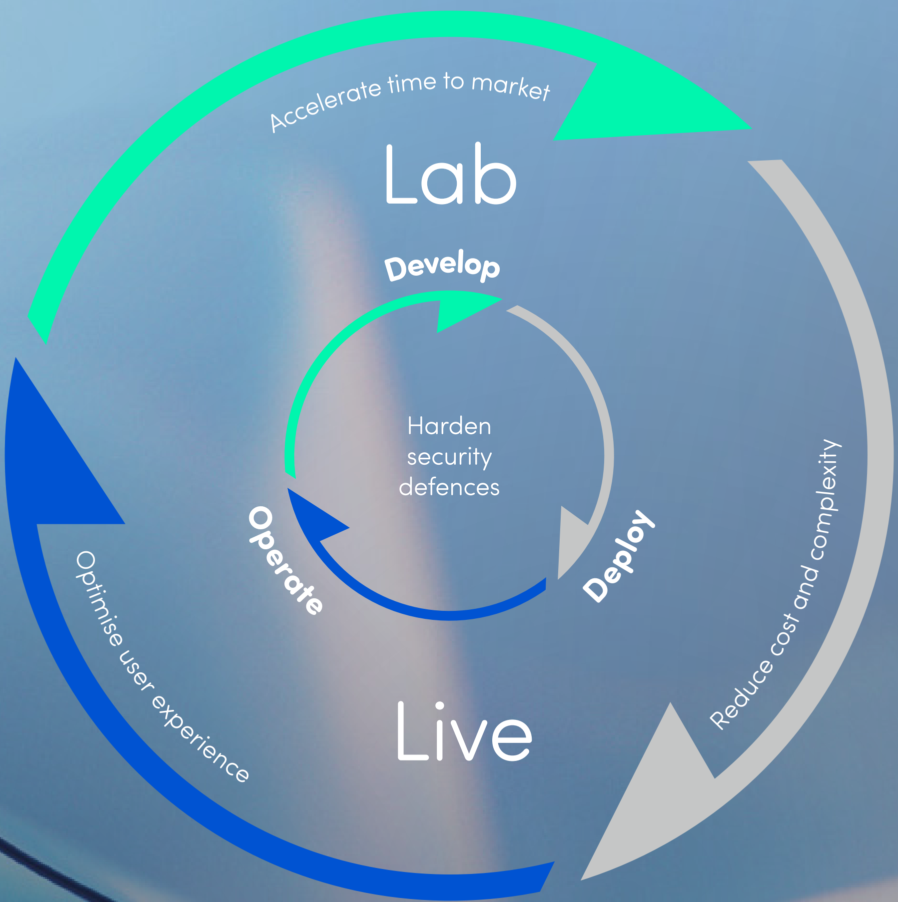
Financial strength
To invest in research and development

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



We stand behind our customers' promise to deliver a new generation of innovative products and services to their customers. We are with them in every phase of the lifecycle from development in the lab to live deployment and operation, ensuring that new technology works.

Lab-to-live lifecycle needs

Lab

As our customers grapple with cloud networking complexity, the need to shift from a telco to IT mindset, and the implications of an expanding vendor ecosystem, they are transforming technology development in the lab with agile, continuous integration and continuous deployment (CI/CD) practices. Adoption of CI/CD faces headwinds as required cloud, security and automation skills are in short supply across many industries.

Live

The transformation to CI/CD brings with it a heightened pace of technology releases which must be rapidly deployed to live environments. At the same time, new services and applications from edge computing to drone navigation come with higher performance expectations. Legacy, manual processes for deploying and operating new technology must give way to automated turn-up, monitoring and troubleshooting.

Spirent's unique value

Accelerate time to market
With years of leadership in automated cloud, network and security testing, Spirent has the expertise, test platforms and services to provide our customers solutions to rapidly adopt CI/CD and achieve new levels of agility.

Bring new technology releases to market in weeks, not months

Optimise user experience
Our Active Test technology proactively and continuously monitors cloud-based networks and services, automatically isolating problems and ensuring service levels are maintained.

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

Reduce cost and complexity
Our certification and validation solutions recreate real-world conditions such as heavy traffic loads to help the industry ensure new multi-vendor networks, devices and services perform flawlessly together.

Manage vendors to keep costs and rising deployment complexity in check

Harden security defences
As telco networks become software running on the cloud, the cybersecurity attack surface expands exponentially. Our security solutions recreate real-world cyberattacks and scan for vulnerabilities to allow proactive mitigation.

Proactively find security weaknesses and prepare for attacks before they happen

Key performance indicators

Strategy in action – demonstrable progress

Spirent's strategy focuses on medium to long-term growth and therefore its achievement cannot be measured by just looking at performance in 2022 compared to the prior year; trends over a number of years must also be considered. Executive Director remuneration is linked to certain financial, strategic and operational key performance indicators (KPIs) with further information available in the Report on Directors' Remuneration on pages 83 to 110.

Book to bill[1]

Ratio

103

Reason for measurement

The ratio of orders booked to revenue recognised is a measure of the visibility of future revenue at current levels of activity and provides an indication of the underlying trend in Spirent's future revenue stream.

Performance

Order intake was greater than revenue in the year resulting in a book to bill ratio of 103 as we continue to win larger, longer-term contracts that improve revenue visibility and build repeatable business. 2021 was a strong comparator year from an orders perspective.

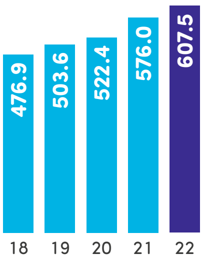
Relevance to strategy

The book to bill ratio is an indicator of the underpin to future revenue and whether activity levels are rising or slowing, and therefore how effective we have been in the execution of our strategy.

Revenue

$ million

$607.5m



Reason for measurement

Spirent monitors growth in revenue as this shows how successful Spirent has been in expanding its markets and growing its customer base.

Performance

5.5 per cent revenue increase in 2022, following a 10.3 per cent increase in 2021. 5G continues to be a strong driver of growth across our solution portfolio.

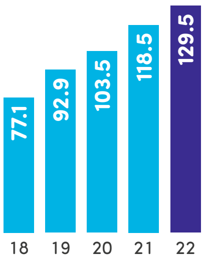
Relevance to strategy

Revenue demonstrates the effectiveness of our strategy: our success in expanding our markets both organically and through acquisition; maintaining technology leadership; and our strong relationships with our customers, all of which ensure that we continue to win and maintain business.

Adjusted operating profit[2]

$ million

$129.5m



Reason for measurement

Adjusted operating profit is the measure used to evaluate the overall performance of the Group as well as each of the operating segments.

Performance

Adjusted operating profit increased by 9.3 per cent to $129.5 million, from $118.5 million in 2021, as a result of revenue growth and effective cost management.

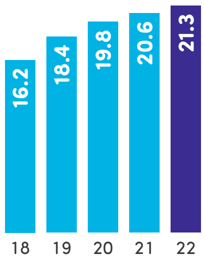
Relevance to strategy

Adjusted operating profit indicates our financial strength and our ability to invest in the business for future growth.

Adjusted operating margin[3]

%

21.3%



Reason for measurement

Adjusted operating margin is a measure of the Group's profitability. Spirent operates in markets which have high operating returns and strives to achieve best-in-class operating margin compared with its peers.

Performance

The increase in adjusted operating margin to 21.3 per cent, from 20.6 per cent in 2021, reflects a combination of revenue growth and continued cost management.

Relevance to strategy

Adjusted operating margin is a measure of how successful we are in our overall strategy and demonstrates our ability to improve profitability through efficient operations whilst being mindful of the need to invest for the future.

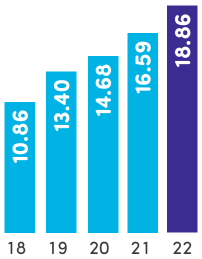
Notes

1. Ratio of orders booked to revenue recognised in the period.
2. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).
3. Adjusted operating profit as a percentage of revenue in the period.
4. Adjusted basic earnings per share is based on adjusted earnings as set out in note 11 of Notes to the full year consolidated financial statements.
5. Cash flow generated from operations, less tax and net capital expenditure, after interest paid and/or received, payment of lease liabilities, finance lease payments received and excluding acquisition related other adjusting items and one-off contributions to the UK pension scheme.

Items with notes 1 to 5 are non-GAAP alternative performance measures; see pages 196 and 197 for more detail.

Adjusted basic earnings per share[4] (EPS)
Cents

18.86¢



Reason for measurement
Long-term growth in adjusted basic EPS is a fundamental driver to increasing shareholder value.

Performance
Spirent aims to achieve growth in adjusted basic EPS. Part of the Executive Directors' remuneration is dependent on achieving EPS targets. In 2022, adjusted basic EPS grew 13.7 per cent as a result of the increase in adjusted earnings.

Relevance to strategy
Adjusted basic earnings per share is a measure of how successful we are in our strategy and ultimately how Spirent increases value for its shareholders.

Product development spend as a percentage of revenue
%

18.3%

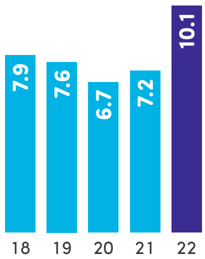
Reason for measurement
To maintain its competitive position, Spirent must invest at suitable levels to support further organic growth initiatives in line with the strategic objectives, whilst driving improved productivity and effectiveness.

Performance
In 2022, product development spend of 18.3 per cent of revenue was slightly down in comparison to 2021 (19.7 per cent) due to more targeted investment. The spend in absolute terms was $111.3 million (2021 $113.3 million).

Relevance to strategy
It is critical that Spirent's product development investment keeps pace with the speed of change in technology, and that it is directed at the right key technology areas; this enables us to expand our markets and to maintain our technology leadership position.

Voluntary employee turnover
%

10.1%



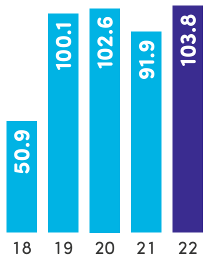
Reason for measurement
Spirent's success is dependent on its talented employees and retaining them is extremely important. Voluntary employee turnover compared to the industry average is the measure used to assess how well the Group has performed.

Performance
Our 2022 voluntary turnover rate of 10.1 per cent remains well below the global industry average of 19.5 per cent.

Relevance to strategy
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.

Free cash flow[5]
$ million

$103.8m



Reason for measurement
Free cash flow is a measure of the quality of Spirent's earnings. The aim is to achieve a high conversion of earnings into cash.

Performance
Free cash flow in 2022 was strong at $103.8 million, driven by continued effective working capital management. Free cash flow conversion for 2022 was 91 per cent of adjusted earnings (2021 91 per cent).

Relevance to strategy
Having strong free cash flow reflects Spirent's ability to generate funds for future investment. It provides financial strength and flexibility and the ability to pay sustainable dividends to our shareholders.

Considering stakeholders in key business decisions

Business does not operate in isolation. Without a good understanding of who its key stakeholders are and their differing perspectives, a business will fail to deliver sustainable growth to shareholders and other stakeholders.

Board Directors are bound by their duties under the Companies Act 2006 (the "2006 Act"), 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 and anyone tasked with preparation of Board materials give consideration to relevant stakeholders in matters requiring decision making, including strategic decisions.

Pages 26 to 29 comprise our Section 172(1) Statement and set out how the Board has, in performing its duties over the course of the year, had regard to the matters set out in Section 172(1) (a) to (f) of the 2006 Act, giving details of how each key stakeholder has been engaged and considered. Further information can be found throughout the Strategic Report on pages 1 to 61, with examples of how stakeholders were considered in key Board decisions on page 29.

Workforce

We are a people business and our 1,600+ colleagues around the world are fundamentally linked to the long-term success of our Company.

Topics for engagement

- Reinforcing understanding of our mission, vision, values and strategy
- Ensuring employees understand what is expected of them and know the role they play in our success
- Spending quality time with line managers so that they feel listened to and supported, enabling employees to feel confident that they have the skills to do their job well while identifying potential training needs for their future development
- Making sure that employees feel part of a thriving Spirent community

How we listen and engage

- Global and regional internal communication and collaboration platforms to provide access to information for all colleagues
- Learning and knowledge sharing forums for our technology and sales communities
- Biannual colleague engagement surveys to monitor developments in workforce sentiment
- Engagement events with global and local management representatives, including Non-executive Directors

2022 highlights

- Non-executive Directors met with employee groups based in their home geography through hosted sessions with small groups of colleagues (face to face where possible, but also online), with feedback from engagement sessions being used to inform Board and Committee discussions
- Biannual employee surveys continue to achieve a strong response rate with results indicating that we continue to have a highly engaged workforce
- Management Matters engagement programme continues to support people managers within the business
- Employee wellbeing programme refreshed with improved access to employee support ranging from awareness campaigns to mental health first aid training
- Enhanced family friendly benefits programme launched across the Group, effective 1 January 2022
- Employee Share Purchase Plan now operating in 11 countries, now reaching almost 98 per cent of Group employees

Shareholders

Spirent is committed to engaging with our shareholders through continued transparent and effective communication.

Topics for engagement

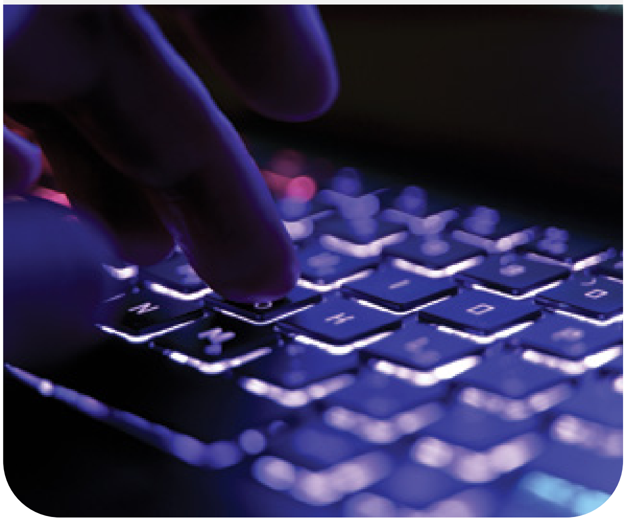
- Financial performance
- Capital management and distributions
- Sound long-term sustainability strategy
- Sound corporate governance and stewardship
- Executive remuneration

How we listen and engage

- Investor roadshows after the full and half year results
- Open door policy with investors: CEO and CFO regularly meet investors virtually and, when possible, face to face
- The Annual General Meeting (AGM)
- Chairman of Remuneration Committee consults with shareholders on application of the Group's Executive Director Remuneration Policy

2022 highlights

- All resolutions passed at 2022 AGM with votes representing more than 84 per cent of the issued share capital voting
- All Directors attended the 2022 AGM and were available to answer shareholder questions
- Payment of 2021 final dividend
- Broker presentations to the Board on market sentiment
- Regular reports and presentations provided to the Board on investors and their feedback



Customers

Providing solutions and services to help our customers keep their promises to their customers.

Topics for engagement
- Understanding the challenges our customers face
- Developing solutions and services to help our customers to manage the complexity of their devices, networks and services
- Working collaboratively with customers and their partners

How we listen and engage
- Investment in an agile, collaborative organisation so that we can be responsive to customer needs
- Regular client updates and acting on their feedback
- Extension of our thought leadership to stay ahead in key technologies in sustainable growth areas

2022 highlights
- Launch of award-winning new products and services, such as the July 2022 launch of Spirent Vantage
- Teaming up with customers to innovate and create leading technology
- Acceleration of our digital-first marketing approach with targeted always-on digital marketing campaigns to grow interaction and drive demand
- Continued expansion of our library of downloadable resources with high-quality, targeted content to share thought leadership and technological expertise
- Extending geographical reach and customer engagement through an ever-expanding social media networking programme

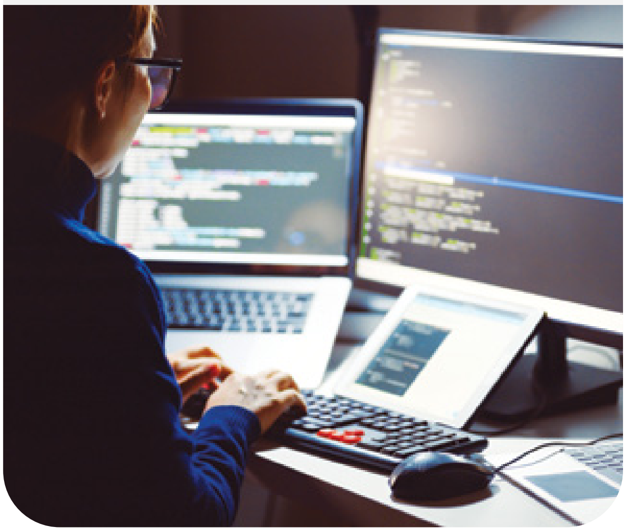
Suppliers

Spirent engages with a number of different suppliers across the business.

Topics for engagement
- Long-term trusted partnerships facilitating real margin improvement
- Strong working relationships
- Collaboration
- Fair contract and payment terms
- Management of relationships through global supply chain disruption

How we listen and engage
- Active management and monitoring of key suppliers and supply chain trends
- Meetings held with key suppliers
- Supplier surveys as an embedded part of the procurement process
- Supplier Code of Conduct assessments

2022 highlights
- Continued supply chain audit programme, auditing 30 suppliers
- Engaged with suppliers on GHG emissions in preparation for additional Scope 3 disclosures
- Minimised impact of global component shortage



The world around us

Spirent has a diverse network throughout the world around us which is critical to the ongoing success of the business, from governments and regulators to educational facilities and our local communities.

Topics for engagement

- Being mindful of our environmental impact
- Being a responsible corporate citizen
- Supporting our local communities through charitable giving
- Being a trusted partner to customers around the world
- Providing work experience and early career development programmes
- Engaging with global think tanks and trade associations to understand research priorities and opportunities, and offer expertise to shape policy and industry positions
- Participating in global thought leadership conferences and roundtable events

How we listen and engage

- Participation in environmental reporting surveys
- Enhancement of reporting framework to ensure compliance with TCFD requirements
- Apprenticeship, graduate and work experience schemes to encourage a diverse pipeline of new and developing talent

2022 highlights

- Expanded our early career talent programme, launching a new internal network and an engineering development programme
- Active move towards ongoing flexible working to reduce real estate footprint and carbon emissions

Key Board decisions and Section 172 considerations

The following are examples of some of the principal decisions made by the Board during the year under review which demonstrate how employee interests, the need to foster business relationships with other key stakeholders and other Section 172 matters have been taken into account in discussions and decision making.

Further development of the Sustainability Strategy

The Executive Director-led Management Committee on ESG matters held meetings throughout the year. Issues discussed by the Committee were communicated to the Board by the CEO, Eric Updyke, and the Board in turn provided feedback on the direction of the Group's Sustainability Strategy. In addition, in order to ensure full awareness of the Group's performance against its sustainability targets and to inform decisions on strategy and operational direction, the Board received a detailed management update in December 2022. Further details of the Group's Sustainability Strategy can be found on pages 32 to 39 of this Annual Report and in its Sustainability Report, which can be found on the Company's website at corporate.spirent.com.

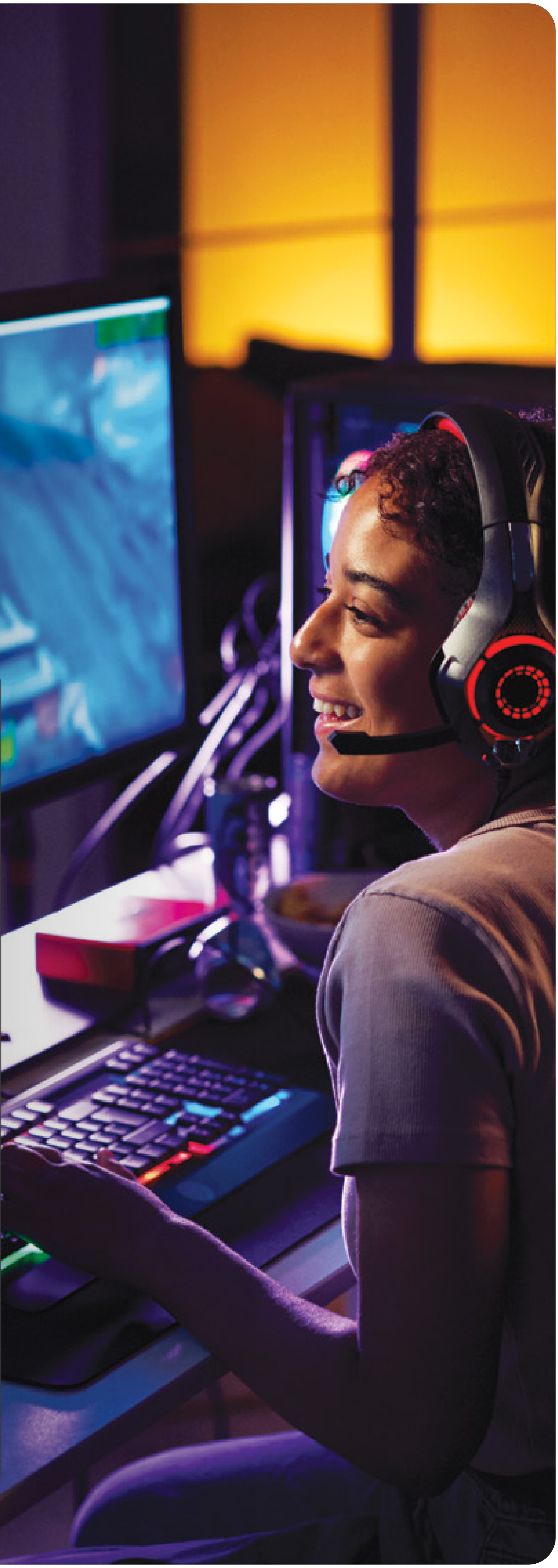
Retirement benefits for former and current employees

During the year, the Board supported the Group in securing its defined benefit pension scheme liabilities through an insurance buy-in, removing risk exposures on the Group's balance sheet. After taking advice from independent pension advisers and working with the Plan Trustees, the Group and Trustees launched a tender process to select a specialist insurer to provide strong administrative capability alongside good financial strength and resilience. The Board reviewed and approved the project plan and received updates throughout the tender process, considering the benefits to members of the two plans in addition to the potential impact for current employees and shareholders.

The Board and Remuneration Committee also considered a review of employee and employer contribution levels in the current UK retirement benefit offering. The Board reviewed a proposal to introduce a higher contribution band for the UK workforce and agreed that this would aid the attraction and retention of talent, in particular in engineering and sales.

While considering retirement benefits, the Board and Remuneration Committee also reviewed the 401(k) and Deferred Compensation Scheme offered to US employees, looking at a number of ways to improve the offering while being mindful of the financial impact of any changes to the Group. Following a benchmarking exercise, the Group now expects to introduce incremental improvements to the schemes in the coming years to bring them into line with those offered by other companies that are competing in the same talent pools.

Enabling rapid change spotlight



> Spirent's solution is performing over 250,000 proactive, continuous health checks on the customer's network every single day.
>
> **Doug Roberts**
> General Manager, Lifecycle Service Assurance, Spirent

Checking network health 250,000 times a day

Delivering core services to over 100 million business and consumer customers each day, a North American tier-one operator needed to accelerate its 5G standalone (SA) cloud-native evolution. Identifying an expansion of its automation and proactive 'health checks' approach through scalable test tools with a single interface, the operator looked to Spirent for guidance.

As part of its ongoing collaboration with Spirent, VisionWorks Mobility Service Assurance (MSA) had previously been deployed by the operator to deliver proactive health checks and help align testing across lab and live domains. With manual network monitoring no longer manageable, the customer wanted to scale the automation process to embrace additional key areas, including validation of new deployments, continuous active monitoring with increased health checks, and ad hoc testing to accelerate issue isolation and resolution.

Working closely with Spirent, the customer defined the health check requirements and Spirent, utilising VisionWorks MSA and Landslide, configured the network emulation synthetic traffic generation of the active test agents. With more tests in more locations required to ensure full, proactive visibility of the network, Spirent's solution can now perform over 250,000 daily proactive, continuous network health checks. This enables the customer to support lab, First Field Application (FFA) deployments and live network domains with a cohesive, automated test and assurance capability that supports agile CI/CD practices.

Ethernet leadership enabling explosive cloud growth

Explosive growth in cloud computing, 5G and artificial intelligence (AI) continues to drive demand for solutions to ensure that the cloud's Ethernet backbone can support the massive capacity demands of today and the future. With 800G seen to be the future workhorse of this backbone, one of the world's leading developers of networking products turned to Spirent to help in the development of its next generation of high-speed Ethernet devices.

Network equipment manufacturers (NEMs) need to test the viability of next-generation 800G solutions today to ensure these systems will be bulletproof as they begin to take over from 100G and 400G. Spirent's leadership in high-speed Ethernet, combined with its cloud and security expertise, provided the NEM with a future-looking solution to help accelerate timelines in the design, development and deployment of its next-generation products such as switches and routers for data centre networks.

Utilising Spirent's new 800G and 400G test platforms, launched in 2022, combined with Spirent TestCenter and security hardware, the solution provided the customer with a comprehensive suite to address its test and validation needs as it moves to 800G to accommodate the data growth demands of today and tomorrow.

Spirent continues to be the industry's trailblazer for Ethernet validation, bringing new test solutions to market first so that the Ethernet infrastructure ecosystem and service providers are able to keep moving forward to meet the insatiable demands for performance and capacity.

Aniket Khosla
Vice President, Cloud & IP Product Management, Spirent

About FuturePositive

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

Our Sustainability strategy is focused on five key missions:

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 CarbonNeutral® Company 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.

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.

Progress in 2022

Key achievements

- Net zero carbon: We achieved CarbonNeutral® Company certification for Scope 1 and 2 and some Scope 3 emissions.
- Diversity and inclusion: Our early careers programme helped support 37 young people as they started their careers in tech.
- Environmental management system: We achieved ISO 14001 certification for our LSA business, including our engineering sites in Plano, TX, Frederick, MD, and Littleton, MD.
- Circular economy: We developed a new circular economy training programme for our engineering teams and rolled it out for our engineering team within our Positioning business.

We manage our material sustainability impacts and opportunities through our FuturePositive programme.

Our comprehensive programme not only ensures we comply with legislation and stakeholder expectations but has positive social and environmental impacts for customers and for our own business.

The Board has designated the CEO as the Board member responsible for ESG matters within the Group. We have appointed Brite Green as ESG advisers and Challenge Sustainability as assurance auditors for ESG data.

The Board is given updates on our sustainability programme, FuturePositive, at least twice a year as part of our formal Board calendar. The Audit Committee also receives frequent updates on risk throughout the year, including cybersecurity.

Sustainability at Spirent

We are committed to embedding the highest standards of environmental management, social practices and governance into our operations and products and across our supply chain.

We look to create long-term value for our shareholders by:

- protecting our reputation and ability to grow;
- focusing on winning business from customers who value strong environmental, social and governance (ESG) performance;
- enhancing our efficiency;
- enabling our people to work productively in a safe and inclusive environment;
- helping us to attract and retain diverse talent, and encouraging employees to take pride in working for us; and
- reducing the risk of incidents and their associated costs.

Our material sustainability issues

Our material sustainability issues were updated in 2022 using a risk-based approach. The review identified climate change and carbon neutrality as priority issues, including the role our solutions can play in helping our customers reduce their impacts. Diversity, equity and inclusion, staff health and wellbeing were identified as important, along with responsible business practices, sustainable product design, human and labour rights, and robust sustainability governance. Water use is an emerging issue, especially in raw materials and manufacturing in supply chains.

Policies

Spirent maintains a suite of responsible business policies which commit the Group to compliance with high standards of ethics and business integrity, environmental management, and employee and community welfare.

> During 2022 we achieved CarbonNeutral® Company certification for our operations in 2021 and 2022. This is an important step in working towards achieving our 2035 net zero carbon target.

Angus Iveson
Company Secretary & General Counsel

Sustainability at Spirent continued

Deliver a sustainable future

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

This year we worked with customers across the project lifecycle to help them improve their sustainability performance. From working with equipment manufacturers to test and validate new, more efficient components for 5G, to our work with lab and network operators to automate and streamline operations, Spirent is helping to drive the transition to a low-carbon economy.

You can read more in our Sustainability Report which is available on our website at corporate.spirent.com.

Be net zero carbon

We set out to achieve CarbonNeutral® Company certification by 2023, and work towards net zero carbon by 2035 through energy efficiency, 100 per cent renewable electricity and carbon offsets.

During 2022, we achieved CarbonNeutral® Company certification for our Scope 1 and 2 and some Scope 3 emissions sources for 2021 and 2022: electricity transmission and distribution, waste from building operations, business travel and homeworking.

We continued to source all our electricity from renewable sources through onsite generation at our Paignton site and the purchase of Energy Attribute Certificates (EACs).

When purchasing EACs and carbon credits, we have conducted due diligence to give us comfort as to their quality and traceability. We have only selected those from high-quality and reputable projects which are independently verified and verified to recognised global standards. We have worked with Climate Impact Partners to source carbon credits in line with our regional emissions and Ecohz to purchase national EACs based on our energy usage in each country we operate in.

We have also conducted a detailed energy efficiency audit of all our labs to support our long-term carbon and energy reduction target.

Energy use

Spirent is within scope of the Streamlined Energy and Carbon Reporting (SECR) Regulations. Spirent's energy use increased by 1 per cent in 2022 to 13,157MWh (2021 13,019MWh). This is due to bringing source engineering functions in house, the roll out of a number of customer 5G labs and the increase in staff returning to the offices. It's noted that 2021 energy use was artificially low as few employees were working from the offices due to COVID restrictions. Gas use decreased in the year by around 37 per cent to 344MWh (2021 548MWh). Purchased energy in the UK during 2022 was 718MWh (2021 719MWh).

During the year we continued to drive energy efficiency campaigns in labs and our buildings and conducted a detailed energy audit to identify further energy efficiency opportunities.

Greenhouse gas emissions

Spirent is committed to combating climate change and reporting our progress. Our total Scope 1 and 2 (location-based) emissions increased by 1 per cent from 2021, and our emissions per $ million of revenue were down by 4.2 per cent. We have reduced our total location-based emissions by 37 per cent since our 2014 baseline. Carbon emissions arising from our UK operations in 2022 were 134 tonnes CO_2e (2021 150 tonnes CO_2e). Due to our purchasing 100 per cent renewable electricity, our contract-based emissions are significantly lower: 44.9 tonnes CO_2e in 2022 (2021 99.5 tonnes CO_2e).

During 2022, we completed a comprehensive review of our Scope 3 emissions and report all material emissions sources for the first time this year. The total Scope 3 emissions for the year is around 44,000 tonnes CO_2e with the largest component of our Scope 3 footprint coming from customer use of our products. A full breakdown by source is set out in our Sustainability Report which is available on our website at corporate.spirent.com.

The Group responded to the Carbon Disclosure Project in 2022, completing the Climate Change and Supply Chain questionnaires. In 2022, we achieved a Climate Change rating of C (awareness) (2021 A-). The average for our sector is B-. This reduction was due in part to not having a full Scope 3 baseline and Science-Based Target approved by SBTi at the time of submission. We expect that progress in this area will be reflected in our score for 2023.

	2022 Tonnes of CO_2e	2021 Tonnes of CO_2e
Emissions from:		
Combustion of fuel and operation of facilities (Scope 1)	**62.7**	99.5
Electricity, heat, steam and cooling purchased for own use (Scope 2)	**4,208.2**	4,128.0
Total emissions (Scope 1 and 2)	**4,270.9**	4,227.5
Scope 3	**44,415**	Data not available
Total emissions (Scope 1, 2 and 3)	**48,686**	Data not available
Emissions intensity metrics:		
Normalised per FTE employee	**2.58**	2.70
Normalised per square metre of gross internal area of our facilities	**0.113**	0.109
Normalised per $ million of revenues	**7.03**	7.34

Methodology

Reporting on emission sources is required under the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 and these sources fall within our consolidated financial statements. We have reported on all the emission sources that fall within our consolidated financial statements.

We do not have any responsibility for any emission sources that are not included in our consolidated financial statements. We report our emissions using the location-based methodology. We have used the GHG Protocol Corporate Accounting and Reporting Standard (Revised Edition), along with data gathered to fulfil our requirements under these Regulations, and the most recent emission factors available: UK Government GHG Conversion Factors for Company Reporting 2022 for the UK, US EPA 2022 eGrid emissions factors for the applicable individual states in the US, and the latest emissions factors for all other countries were sourced from the International Energy Agency's 2022 data set.

A "limited" level of assurance for the energy use and greenhouse gas emissions has been conducted, to meet the requirements of the International Standard on Assurance Engagements (ISAE) 3000 revised.

Performance against targets

We set a target to achieve CarbonNeutral® Company certification for the Group by 2023, and have achieved this target. The Group has set a target to reduce energy use by 25 per cent from 2019 levels by the end of 2025. In 2022 our energy use was broadly flat on 2021 levels (excluding acquisitions).

To the end of 2022 we have reduced energy use by 9.8 per cent.

Energy Savings Opportunity Scheme (ESOS)

Spirent qualifies for ESOS. We completed an ESOS compliance energy audit for Stage 2 and submitted the relevant disclosure to the Environment Agency. We are planning our participation in Stage 3.

Task Force on Climate-related Financial Disclosures (TCFD)

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

Governance and risk management

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.

In 2022, we expanded our sustainability governance structures, introducing a new executive sustainability committee and expanding the participation of our FuturePositive working group.

A detailed review of how climate change may impact our business in the future was completed in 2021 and the assumptions and findings were reviewed in 2022, with only minor changes being made. The significant climate-related risks and opportunities were identified and examined initially through a workshop with senior managers. These are reviewed on an ongoing basis by the Executive Director-led ESG Management Committee, the Audit Committee and its Risk Sub-Committee, as part of our business risk and financial planning processes. The materiality of the potential climate impact is assessed using the Group's materiality criteria.

Over the course of 2022, a number of investors and customers have engaged with us on the importance of climate change, and we have incorporated their expectations into our materiality, strategy and reporting planning.

Strategy

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

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

For the purpose of evaluating climate change-related risks, the Group has defined the following time horizons:

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, costs are likely to increase by an immaterial amount due to higher investment requirements in low-carbon technology and expected additional carbon-related levies and we also expect additional administrative burden on the business, likely increasing the costs for resource to deliver and report.

We have modelled the impact of carbon credits using a price per tonne CO_2e of up to £250 and the impact is not material. Transitional risks are also unlikely to lead to any impairments or write offs. We expect to purchase carbon credits in the short- to medium-term in line with our commitment to achieve CarbonNeutral® Company certification, but expect energy efficiency and renewable energy to reduce the requirement for carbon credits as we progress towards net zero carbon in 2035. Over the course of 2023, the ESG Management Committee, with the help of an external adviser, is further developing and refining Spirent's plan to reach net zero. Further development of this plan includes capturing the key activities and mitigating actions such as site strategy and consolidation, retrofitting, the sourcing of renewable energy, etc. to allow for a more detailed quantification of the cost impact to Spirent over the medium and long-term. The impact of our approach will be examined during 2023 having completed a full Scope 3 footprint calculation.

Physical risks

Acute

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

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

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

Physical risks continued

Acute continued

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.

We have identified a number of areas of opportunity. These include a reduction in costs and improved efficiency, especially from estates consolidation and automation within our labs. We also expect that a greater focus on climate change will increase our resilience from climate related weather events, both within our estate and across our supply chain.

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

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

Scenario analysis

The impact of each of the risks identified above has been assessed, quantified and considered in two climate change-related scenarios:

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

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

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

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

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

Metrics and targets

We monitor carbon emissions sources that fall within Scopes 1, 2 and 3 and report our carbon emissions annually within the Annual Report and Sustainability Report.

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

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. This is on the basis that the short-term financial impact is considered immaterial. We will continue to evaluate whether additional metrics and targets are required as part of our existing business strategy and risk management processes, in particular in relation to supply chain risks, as we further refine our longer-term strategy and plans.

Promote diversity and invest in people

We aim to take action on diversity. We will attract and develop talent and skills, and support long-term sustainable growth.

Diversity in talent acquisition

In 2022, we ran programmes to support more diverse hiring, provide more family-friendly benefits, and support early career development and leadership. We added Prairie View A&M University to our university network and created a talent acquisition video to drive diversity and early career recruitment with our partners. We also launched an employee resource group to lead talent acquisition and mentoring initiatives with Morgan State University, Prairie View A&M University and the Society of Women Engineers.

Enhanced family-friendly benefits

This year, we introduced a range of enhanced global family leave benefits to provide staff with additional flexibility and support greater equality in the workplace.

Early career development

Spirent's early career programme offers a structured pathway into a career in technology through internships, apprenticeships and university sponsorships. Our early career pathway incorporates resources, tools and training for managers and early career staff to help young, talented people start a career in technology.

In 2022 we have expanded our programme globally, offering placements and internships across EMEA, North America and APAC. We engaged with 24 universities worldwide through academic support partnerships, which include undergraduate, post graduate and post doctoral participants. We also welcomed two new industry fellows from universities.

Our 2021 cohort of young engineers in the UK completed the course in June 2022 when five new early career positions started.

Equality and diversity

The Group employs a diverse workforce and prides itself on providing equal opportunities for all. High value is placed on rewarding our people for their commitment, their integrity and their service. Our commitment to a fair and inclusive workplace is governed by our Business Ethics and HR Policies which ensure that no one is discriminated against, directly or indirectly, on the grounds of colour, race, ethnic and national origins, sexual orientation or gender, marital status, disability, religion or belief, being a part-time employee, or age.

More detail can be found in our Sustainability Report available on our website at corporate.spirent.com.

At 31 December 2022, our gender diversity was:

Level of organisation	Female		Male		Other or no gender reported		Total
Board	3	38%	5	62%	–	–	8
Executive management[1]	3	33%	6	67%	–	–	9
Senior management[2]	6	8%	68	92%	–	–	74
Total employees	378	23%	1,275	77%	3	–	1,656

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

The Board is committed to increasing the representation of women on boards and in other leadership roles. This work will continue with a focus on developing diversity of all types in executive and senior management roles and throughout the talent pipeline.

Gender pay gap

Having fewer than 250 employees in the UK, Spirent is not currently required to comply with the Gender Pay Gap Reporting Regulations introduced in 2017. However, data for the 5 April 2022 snapshot date has been collected on a voluntary basis and is set out below.

UK gender pay gap

	2022	2021
Median hourly pay difference between male and female employees	22.3%	19.6%
Mean hourly pay difference between male and female employees	16.4%	5.2%

UK bonus gap

	2022	2021
Median bonus difference between male and female employees	36.3%	(12.9)%
Mean bonus difference between male and female employees	(45.0)%	(92.0)%

UK quartile split

	2022	2021
Male employees receiving a bonus	95.5%	92.1%
Female employees receiving a bonus	86.7%	95.0%

The 2022 snapshot data shows a downturn by comparison to the previous year. We were ambitious in adding significant headcount in our UK sales team and UK business operations in late 2021 and early 2022. The hiring in that time period included a higher percentage of female employees than has historically been the case but they were not in comparable senior roles to the male hires. That hiring pattern skews the snapshot data in a negative way. Employees added late in 2021 were also not eligible to participate in our 2021 annual bonus, which also impacts the snapshot of the number of females receiving a bonus compared to male peers. The snapshot this year reflects our efforts to hire more female employees.

Business ethics and human rights

Spirent's values and principles are set out in the Group's Business Ethics Policy. These principles apply to all dealings with our customers, suppliers and other stakeholders, and are considered in pre-contract due diligence and monitored through ongoing supplier audits.

Promote diversity and invest in people continued

Business ethics and human rights continued

The Group has a zero-tolerance approach to all forms of bribery and corruption. As a UK registered company, Spirent Communications plc is bound by the laws of the UK, including the Bribery Act 2010, in respect of its conduct both at home and abroad. In addition, we will uphold all laws relevant to countering bribery and corruption, including the US Foreign Corrupt Practices Act, as well as human rights protection, in all jurisdictions in which we operate.

Regular anti-bribery training is required to be taken by certain employees. New starters received training this year and all designated employees completed the training in 2022.

Health and safety

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

The health and safety risk profile for the Group remained low during 2022, with no reported accidents (2021 three). There were no reportable accidents under the RIDDOR Regulations or required hospitalisations during the year.

Training and skills

Spirent provides all its employees with a wide range of technical and business training opportunities. We manage training through personal development plans which are assessed by all managers and updated periodically.

STEM initiatives and community impact projects

Spirent actively encourages its employees to become STEM Ambassadors around the globe.

We provide all our employees with volunteering time off to make a positive contribution to the communities in which they work.

Through financial donations and volunteering, Spirent has continued to support community projects worldwide.

Operate responsibly

We operate with integrity. We are rolling out our ISO 14001 management system practices globally and are working towards zero waste to landfill. We are also embedding circular economy principles in our product design and reducing the sustainability impacts of our supply chain.

In 2022, we expanded our ISO 14001 certification and developed circular training for our engineering teams. We also appointed a Global Operations ESG lead and continued our supplier audit programme.

ISO 14001

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 2022 we completed the implementation of our environmental management system at our LSA business, including our engineering sites in Plano, TX, Frederick, MD, and Littleton, MD.

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 on circular economy for our engineers.

Having assessed a number of training courses but felt none met our requirements, in 2022 we developed our own bespoke circular economy training course. The training incorporates both an introduction to key aspects of theory and how it applies to Spirent's product and design process specifically. This training has been piloted and, working with our Chief Technology Officer, we will run a hackathon in 2023 to develop new design concepts and innovation opportunities to help deliver more sustainable products.

Vendor assessment and auditing

Vendors are required to abide by our Code of Conduct which sets out our expectations for environmental management, labour and human rights, health and safety, and business ethics. They are assessed using a detailed questionnaire.

Priority suppliers are audited by Spirent's procurement team: 30 supplier audits were conducted in 2022, meeting the target we set. No material issues were identified. Three minor non-conformances were identified. More than 80 per cent of our hardware supply chain spend is from companies audited by us, our contract manufacturers, or through the RBA VAP audit programme. We have expanded our supplier ESG partnerships, working closely with CALNEX (a contract manufacturer) to conduct joint supplier audits and to improve packaging design; reducing material used and removing non-recyclable materials. We have also started working with smaller suppliers to provide support to improve their ESG management.

Modern slavery and human trafficking

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 we 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 corporate.spirent.com.

Electronic waste and use of hazardous materials

Spirent's business units comply with the EU's Waste Electrical and Electronic Equipment Regulations 2013, the EU's Restriction of Hazardous Substances Directive (RoHS), the Batteries Directive and the California Electronic Waste Recycling Programme.

Conflict minerals

The Group is not directly required to comply with or report under Section 1502 of the Dodd-Frank Act or the US Conflict Minerals Law. However, it has robust procedures in place to ensure that it would be in compliance if it were brought within the scope of this legislation. The Group is subject to the EU Directive on Conflict Minerals; we are monitoring the development of the legislation and are confident our existing practices meet the specifications required.

Information security

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

We operate robust information security procedures and our Applications & Security business based in Plano and San Jose operates an ISO 27001 certified information management system.

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 with the aim of preventing information security breaches. We have a whistleblowing procedure in place for staff to report information security or any other concerns.

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

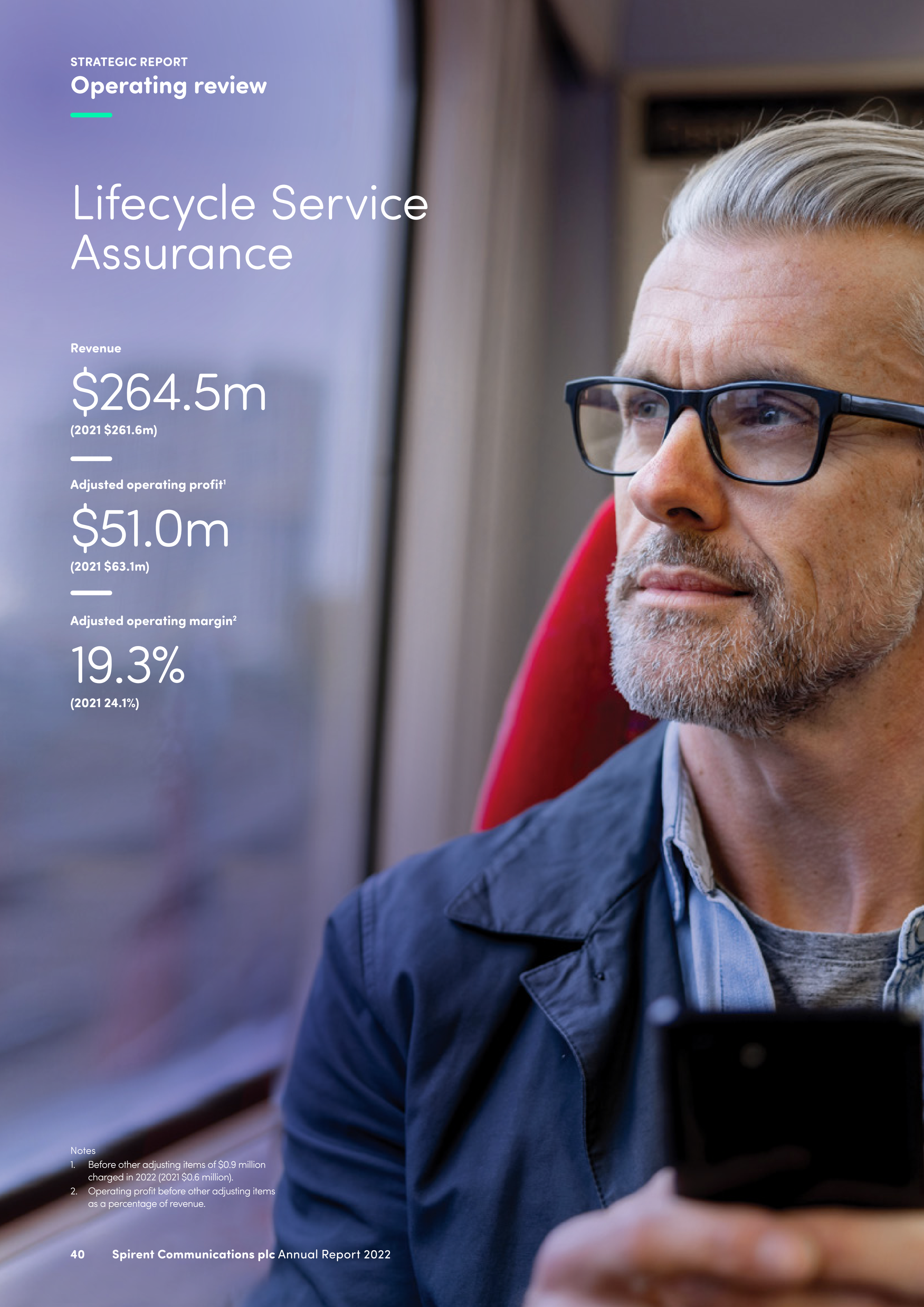
Confidential waste is shredded if in hard copy and certificates of destruction are provided for electronic storage devices disposed of at end of life.

Be accountable and transparent

We aim to expand our sustainability governance structure and reporting, and communicate regularly with staff on FuturePositive targets and progress.

In 2022, we expanded our sustainability governance structures, introducing a new executive sustainability committee and expanding the participation of our FuturePositive working group.

The Board and Audit Committee oversaw our climate change and sustainability programme, and senior managers have briefed staff regularly on our sustainability activities throughout the year.



Lifecycle Service Assurance

Revenue

$264.5m

(2021 $261.6m)

Adjusted operating profit[1]

$51.0m

(2021 $63.1m)

Adjusted operating margin[2]

19.3%

(2021 24.1%)

Notes
1. Before other adjusting items of $0.9 million charged in 2022 (2021 $0.6 million).
2. Operating profit before other adjusting items as a percentage of revenue.

Our Lifecycle Service Assurance portfolio boasts the industry's most comprehensive set of solutions aimed at accelerating customers' initiatives as they develop, deploy and optimise new devices, technologies and service delivery models. From lab environments to pre-production and live production networks, we dramatically reduce the time, costs and risks associated with bringing new devices and technologies such as 5G to market.

2022 performance highlights

- Despite 5G timing impacts from some customers in the face of macroeconomic uncertainty, our strong orderbook enabled delivery of year-on-year revenue growth.
- Double-digit orders growth across our "live" network operational assurance and world-leading Wi-Fi test portfolio.
- Increasing demand for our Test (TaaS) and Lab (LaaS) as-a-Service offerings, driven primarily by 5G benchmarking and Wi-Fi service offerings.
- Multi-year subscription and support contract growth at customers where we have an incumbency.
- We launched Spirent Vantage, an innovative solution that dramatically simplifies and automates 5G service assurance for communications service providers (CSPs).

Deutsche Telekom

Using IntOps to unlock 5G's full potential

Challenge:
Unlike earlier generations of network upgrades, 5G expands the supplier ecosystem to embrace software-defined network functions that bring with them agility and innovation. But with this shift, industry leaders such as Deutsche Telekom (DT) and others recognised that the old ways of building, managing and upgrading networks must adapt to modern realities.

Solution:
DT's vision of a new strategy was built on the notion of highly automated environments with integrated testing to deliver on the true potential of both 5G and interconnected telecommunications systems. Reinventing how it runs its operational workflows, DT took ownership of both Integration and Operations – defined internally as IntOps – and collaborated with Spirent to create automated continuous testing (CT) at each stage of the pipeline, rather than creating additional pipeline stages for testing.

Impact:
IntOps has been adopted by DT and is demonstrating practical benefits, while the shift towards its intrinsic methods is an emerging trend across the industry. The role for CT as defined by IntOps is also shifting in line with the needs for a more dynamic, agile and adaptive network to ensure the 5G transition to the next generation of services is better for all.

Lifecycle Service Assurance continued

Strategy

Our Lifecycle Service Assurance strategy is: 1) deliver a leading active assurance platform for 5G and next-generation service delivery and user experience assurance; 2) help service providers automate critical test activities, as the industry moves towards an always-on continuous test environment; 3) leverage our product offerings, together with our deep test and assurance expertise, to deliver a new portfolio of outcome-driven service offerings. Three key attributes set Spirent apart in the Lifecycle Service Assurance market:

- **Automation:** Automation is finding broad adoption across the board at network equipment vendors, service providers, multi-system operators (MSOs) and enterprises, with the objective of improving agility and operational efficiency. Legacy testing and service assurance activities have been mostly manual, reactive and time consuming. As continuous integration and continuous delivery (CI/CD) development principles become mainstream with the adoption of 5G, automated testing and assurance are becoming essential to support the CI/CD model across all layers. Automation enables use cases such as new service activation, continuous monitoring and automated troubleshooting to be seamlessly integrated with network management systems, with a goal of establishing fully autonomous operations. Spirent is at the forefront of this journey.
- **Coverage:** Spirent is the only vendor to offer both lab and live solutions as both a contiguous and continuous test offering. With the broadest coverage in the industry, from the user device into the radio access network, across the cloud and mobile backhaul, and into the mobile core, our solutions provide the broadest end-to-end visibility in the industry. The breadth and depth of our expertise and our portfolio enable us to quickly address net-new opportunities including O-RAN and next-generation fixed wireless access (FWA).
- **Analytics:** It is one thing to provide data, and quite another to provide actionable insights using that data. We continue to advance machine learning and signature-based analysis that allow our customers to detect, isolate and eliminate potential service interruptions or degradations before subscribers are impacted. This in turn allows rapid reduction in mean-time-to-repair by alleviating the unnecessary escalations typically found in traditional operational support models. In 2022 we expanded our analytics coverage with a newly formed 5G benchmarking offering, giving service providers unique insights into what their customers will experience prior to market turn-up of live mobile networks.

What we test and assure

Our Lifecycle Service Assurance offerings support the full lifecycle for any new technology roll-out. From pre-production emulation and certification, to post-production troubleshooting, to automating a continuous test environment, we help our customers maximise the monetisation of any new technology. The following key areas were instrumental in growing pipeline and product sales in 2022, and offer continued expansion opportunities into 2023 and beyond:

- **5G core:** For both standalone and non-standalone flavours of 5G, Spirent provides continuous testing capability across the entire lifecycle for any initiative. Beginning with the network equipment manufacturer, through service provider deployments and enterprise service consumption, our 5G offering bridges the gaps traditionally found between the develop, deploy and operate phases of a new technology roll-out. Focus areas include 3GPP network function testing, and 5G network slice testing and assurance. In 2022 we enhanced our 5G Core Automation Platform with a new security automation package.
- **Open RAN (O-RAN):** 2022 marked a significant milestone in our O-RAN strategy as we delivered a solution for full wrap-around testing of the O-RAN Radio Unit (RU) and Distributed Unit (DU) functions, to be quickly followed by full end-to-end O-RAN test capability. With this solution, Spirent has positioned itself as the industry's first vendor to deliver a single, fully integrated O-RAN offering, in contrast to competing approaches that attempt to bring together disparate products from previous generations of RAN test technologies.
- **Wi-Fi:** Following the acquisition of octoScope in 2021, Spirent became the market leader in Wi-Fi test and certification. With the adoption of Wi-Fi 6E in full swing and Wi-Fi 7 in development, this is an attractive market unto itself. However, with world-leading expertise in both technologies, the convergence of Wi-Fi and 5G represents a unique opportunity for Spirent, as trends including IoT, Smart Cities, Industry 4.0 and private 5G networks drive technology convergence. In 2022 we addressed a growing need by introducing a very successful, industry-first Wi-Fi TaaS offering.
- **Cloud (multi-cloud):** With the introduction of 5G and cloud-native infrastructure such as O-RAN, it is critical that service providers implement an automated, always-on approach to testing, troubleshooting and remediation of issues in real time as they occur. While introducing tremendous flexibility and extensibility, these infrastructures present unprecedented levels of complexity. With its cloud-native, fully virtualised implementation of automated test and troubleshooting capabilities, Spirent is well positioned to help our customers migrate their infrastructure and services to the cloud.

> Despite some purchasing delays due to the macro environment, we remain confident in our customers' commitments to their 5G investments, and the complexity challenges they need to overcome represent an enduring driver for our business.
>
> Doug Roberts
> General Manager, Lifecycle Service Assurance, Spirent

Helping to deliver lab-to-live with Active Assurance

Challenge:
Having learned valuable lessons from its 4G service launch, a tier-one North American service provider wanted to develop a clear plan for assuring its 5G network and services before it launched. With an expectation of also providing performance-intensive services with differentiated SLAs using network slicing, the ability to assure 5G performance and troubleshoot efficiently was vital.

Solution:
Deciding that an active approach was required, with a major focus on 5G standalone core, the service provider selected Spirent for its deep expertise and leadership in active assurance. Working closely with various groups within the service provider's organisation, Spirent was able to help identify how its active assurance technology could be deployed to benefit it. Spirent also deployed TaaS test platforms for lab validation and TaaS benchmarking services for field testing, as well as active assurance for live network assurance.

Impact:
Spirent now provides a full lab-to-live testing presence for the provider, with automation and consistency across the lifecycle, enabling their migration to a more agile and efficient CI/CD model.

Performance

Lifecycle Service Assurance revenue increased to $264.5 million (2021 $261.6 million). We saw demand for next-generation automated test and assurance, in combination with new outcome-driven service offerings and growth in our Wi-Fi portfolio. We continued to expand our existing Test-as-a-Service offerings, seeing success with our new Wi-Fi and 5G benchmarking capabilities.

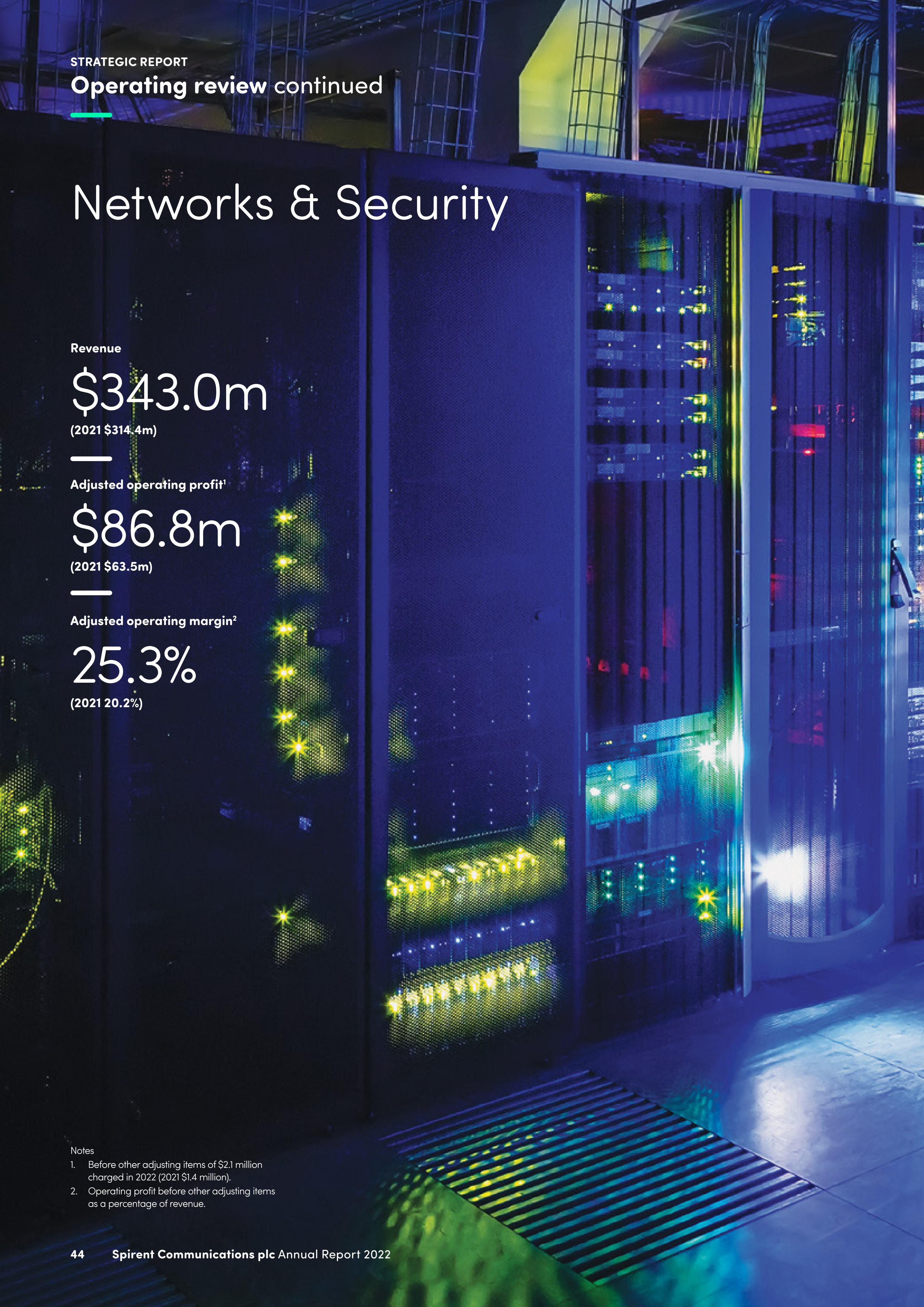
However due to current macroeconomic challenges, we experienced customer purchasing decision delays in the latter part of the year, particularly for our lab-based products. We anticipate these delays to be temporary, since the majority of 5G investment globally is already committed and non-discretionary. The number of operators investing in 5G standalone (SA) with a 5G core network is forecast to double by the end of 2023.

This had a direct adverse impact on revenue opportunities in the year and as a result Lifecycle Service Assurance adjusted operating profit decreased to $51.0 million (2021 $63.1 million).

Adjusted operating margin decreased to 19.3 per cent, from 24.1 per cent in 2021.

Accomplishments

- Wi-Fi provided a good boost this year, partially offsetting 5G investment delay headwinds, with growth across all regions.
- We launched Spirent Vantage, an innovative solution designed to automate and greatly simplify 5G's complex service assurance challenges, broadening our addressable market beyond the top-tier service providers targeted by our existing VisionWorks solution.
- Spirent's Vantage 5G Service Assurance product was a finalist in the 2022 Fierce Innovation Awards "Network Test & Measurement" category.
- Our live assurance portfolio continued to see significant double-digit growth across all regions in support of 5G infrastructure as it moves from lab certification into live operations.
- We won a large 5G core and cloud Test-as-a-Service deal at a leading service provider in India, playing a key role in enabling the customer's 5G transformation.



Networks & Security

Revenue

$343.0m

(2021 $314.4m)

Adjusted operating profit[1]

$86.8m

(2021 $63.5m)

Adjusted operating margin[2]

25.3%

(2021 20.2%)

Notes

1. Before other adjusting items of $2.1 million charged in 2022 (2021 $1.4 million).
2. Operating profit before other adjusting items as a percentage of revenue.

Networks & Security is a world leader in high-speed Ethernet/IP performance testing and automotive Ethernet, and develops test methodologies, tools and services for virtualised networks and the cloud. We provide consulting services, test tools, methodologies and proactive security validation solutions. We are leveraging our world leadership in global navigation satellite system (GNSS) simulation solutions and services as we expand further into the broader positioning, navigation and timing (PNT) market.

2022 performance highlights

- Revenue grew 9 per cent as demand for high-speed Ethernet test continued to expand, especially for 100G speeds. Our industry-first 800G solution gained traction, and we anticipate broader 800G adoption in 2023 as standards are ratified.
- Customer penetration diversified beyond our core network equipment manufacturer and service provider base to chipset vendors and hyperscalers.
- We saw strong orders growth in our application security test markets as we leveraged a refreshed hardware portfolio in the second half of the year, as well as growth in enterprise markets using virtualised and cloud solutions.
- We made important progress in our cloud resiliency and impairment solutions strategy, with wins at key tier-one mobile operators, as we combined our verification solutions with implementation and custom services.
- Our Positioning business experienced growing success in the space, automotive, PNT chipset and device segments.

Nokia

Nokia and Spirent demonstrate the 800G future

Challenge:
For today's IP networks to enable tomorrow's applications, faster is better, but networks must also be deterministic, secure, efficient and consumable. Nokia wanted to demonstrate the viability of its next-generation high-speed Ethernet devices with a public demonstration to showcase 800G interoperability in data centre environments and the readiness of the cloud's Ethernet backbone for the future.

Solution:
To demonstrate this, Nokia partnered with Spirent in a high-profile public test, leveraging the award-winning B2 800G Appliance test platform, and Nokia's 7750 Service Routing (SR) platform powered by Nokia's FP5 network processor silicon. Taking place at the 2022 Nokia SReXperts Americas event, the demonstration featured Nokia generating 1.6Tbps of data through two Nokia 7750 SR series routers using 800G QSFP-DD DR8 optical transceivers, with performance validation by Spirent's 800G test platform.

Impact:
The successful public demonstration by Nokia and Spirent of high-density 800G testing helped to validate the market readiness of Nokia's FP5 silicon, the heart of Nokia's IP service routing platforms, to deliver the right foundation to ensure IP networks can efficiently scale, evolve and stay ahead of shifting market demands.

Networks & Security continued

Strategy

- We are maintaining and expanding our market leadership in high-speed Ethernet test, with a focus on diversifying our customer base, driving growth through involvement in all stages of next-generation network and cloud infrastructure development, from verification of pre-silicon and silicon to high-density, high-capacity systems.
- We are working to drive industry standards that enable rapid adoption of technologies such as 5G, cloud, secure access service edge (SASE)/zero trust (ZT) and automotive Ethernet, expanding our test domain expertise and delivering more managed services.
- We are addressing additional enterprise and government demands through partnerships with network equipment manufacturers, cloud providers and service providers on performance and security validation essential for their development and deployment, with solutions and services addressing cloud-native, 5G/edge and SASE environments.
- We are building on our global PNT test leadership, extending our reach and influence as the trusted partner of researchers, developers and integrators in the field of PNT technology. Our broad portfolio of solutions and managed services is increasingly multi-sensor oriented, assuring that our customers in growth segments such as low-earth orbit (LEO) satellites, chipsets and automotive technologies are able to achieve their PNT ambitions.
- We are leveraging our subject expertise gained from design and verification of global navigation satellite system (GNSS) technologies in the lab into geospatial prediction services to help ensure safe and reliable navigation of vehicles, aircraft (including drones) and devices.

What we test and assure

- **High-speed Ethernet/IP, cloud and virtualisation:** Our high-speed Ethernet/IP, cloud and virtualisation test solutions enable network vendors, carriers and cloud service providers to test the performance and security of next-generation networks and applications by simulating real-world conditions in the lab and on the network. Our portfolio addresses physical data centres and virtualised networks, applications and services. Our solutions enable architects, developers and test engineers to create and transmit complex and high-capacity traffic and safely assess the performance, scalability and resilience of their products. Our customers benefit from our wide network of industry partnerships and active contributor role in standards development, enabling them to leverage the latest technology and best practices.
- **Applications performance and cybersecurity:** Spirent is a single source for security assurance of all network infrastructure elements. We provide comprehensive security and performance validation capabilities covering all elements of any production environment: physical and virtual security domains, distributed edge, 5G and Internet of Things use cases, whether legacy or virtualised, and cloud. Our flexible solution and services offerings provide hyper-realistic assessment based on real-world application, service and threat traffic emulation.
- **Positioning, navigation and timing:** We are market leaders in addressing the PNT research and development, verification and integration testing needs of customers from national government, military and space contractors to commercial PNT chipset and device developers, automotive, precision agriculture and survey players. Our market-leading RF simulation environments and record/playback systems offer a practical and robust framework to audit receiver, system or application resilience in the face of increasing threats to GNSS-based PNT. We are leaders in the testing of hybrid positioning and sensor fusion under real-world conditions for connected and autonomous vehicle development. Our latest innovation is a patented service that provides predictions of GNSS performance to assure safe and reliable navigation in live deployment scenarios for the aviation (e.g. drones), automotive and other industries.

Performance

Networks & Security revenue increased to $343.0 million (2021 $314.4 million), as we benefited from market demand, share gain and launch of new solutions in high-speed Ethernet test, while maintaining sales discipline on pricing and attach rates for software and services. Our Application Security business benefited from a refreshed portfolio, and the resulting substantial increase in our solutions' performance allowed us to take share from competition and reinforce our position as a market leader in the second half of the year. Our Positioning business expansion in space and automotive was successful.

Networks & Security adjusted operating profit increased to $86.8 million (2021 $63.5 million), reflecting favourable product mix and product development efficiencies, including execution of our site strategy, realised in our Cloud & IP business for 2022, which will better enable us to focus on addressing market expansion opportunities going forward.

Adjusted operating margin increased to 25.3 per cent, from 20.2 per cent in 2021.

> High-speed Ethernet test is one of the key pillars of Spirent's business, and I am delighted that we have extended our leadership and broadened our customer base, while also advancing our market position in application security test and cloud verification.
>
> **Dave Larson**
> General Manager, Cloud & IP, Spirent

Testing times for mission-critical aeronautics networks

Challenge:
A world leader in the design and manufacture of high-reliability connectivity solutions for aerospace, defence, space and industrial applications turned to Spirent for a time-sensitive networking (TSN) solution. The company needed to validate TSN conformance and performance of complex mission-critical TSN-based networks in aircraft, where interoperability is essential for complex systems that integrate components from different vendors.

Solution:
The conformance requirement is driven by the need to ensure that the different components share a common understanding. Once standard conformance is tested successfully, the systems are tested to ensure they meet their functional behaviour requirements, and their network performance values match the requirements defined by the applications they will support. Spirent's solution comprised the much-trusted C50 appliance workhorse, along with a full TSN software bundle that included Spirent TestCenter to test functional performance, and Spirent TTworkbench for highly automated TSN conformance testing.

Impact:
Thanks to Spirent's extensive coverage of TSN protocols, conformance testing and advanced one-armed TSN functional and performance testing, the Spirent team was able to exceed the customer's expectations with an engagement that provided further indication of the growth of TSN in the transportation domain beyond automotive.

Accomplishments

High-speed Ethernet/IP, cloud and virtualisation

- Our leadership in 800G Ethernet won share from competition and enabled us to enter new markets, while also providing strategic partner customers with the ability to test and validate their new solutions. Late in the year we also expanded our 400G Ethernet portfolio, which we anticipate will enable us to win more market share in 2023.
- Our cloud verification solutions continued to prove highly relevant to mobile operators and cloud service providers and we secured new wins in 2022, resulting in strong revenue growth.
- We responded to continuing pressure on our supply chain by optimising our high-speed Ethernet portfolio in areas such as component selection, as well as by rationalising the number of solution configurations we offer to the market.

Applications performance and cybersecurity

- We released key application performance and cybersecurity platforms in 2022, including the industry's fastest application testing platform, which helped to drive accelerating order growth in the second half, as well as a strong opportunity pipeline for 2023.
- Spirent remains a leading contributor to the MEF global industry forum. After helping to drive creation of the first SD-WAN certification programme, Spirent has made major contributions to MEF's emerging secure access service edge (SASE) and zero trust framework (ZTF) projects.

Positioning, navigation and timing

- We saw good growth in new space exploration programmes, especially in the APAC region, in automotive infotainment and driver assistance applications, and in PNT chipset and device markets.
- We released the first high-accuracy orbital modelling software solution specifically developed for Low Earth Orbit (LEO) satellite simulation, enabling developers to calculate LEO orbits and their distinctive characteristics more precisely and realistically for GNSS/PNT testing.
- Our Positioning business was honoured with a Queen's Award for Enterprise in April, one of only 226 organisations in the UK to be recognised with this prestigious award, which acknowledges the Company's excellence in international trade.

Good growth in a difficult environment

Group overview

Momentum continued in 2022 against a backdrop of global economic challenges, supply chain constraints and cost inflation. Customers continue to invest in 5G-related infrastructure, devices and services, but the final quarter of 2022 saw some delays to customer investment decisions which was as a direct result of customer expenditure scrutiny as macroeconomic challenges prevail. Despite this, our operating model remains robust and we continue to invest in our leading technology portfolio and our people.

Orderbook grew 6.8 per cent to $288.1 million compared to $269.8 million in 2021, in spite of some orders being delayed into 2023. This followed orderbook growth of 18.1 per cent in 2021 and resulted in a book to bill ratio of 103 (2021 111).

Revenue grew by 5.5 per cent to $607.5 million driven by strength in high-speed Ethernet demand and new product launches at Networks & Security. There was also growth in revenue at Lifecycle Service Assurance resulting from demand for next-generation automated test and assurance.

As we predicted, gross margin was adversely impacted by the increased cost of supply chain costs in the main which we offset with good operating expenditure management.

The cost base continues to be managed effectively, with a rigorous focus on cost control and targeted investment in high-growth areas. In the face of inflationary pressures, adjusted operating costs were flat versus 2021. The Group commenced a strategic evaluation to reshape the business to maximise market opportunities by focusing on larger bundled solutions sales and service-led engagements that address our customers' most pressing business challenges.

Adjusted operating profit grew 9.3 per cent to $129.5 million, from $118.5 million in 2021. Adjusted operating margin has increased by 0.7 percentage points to 21.3 per cent, from 20.6 per cent last year.

$607.5m +5.5%
Revenue

$129.5m +9.3%
Adjusted operating profit[1]

21.3% +0.7pp
Adjusted operating margin[2]

Notes
1. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).
2. Adjusted operating profit as a percentage of revenue in the period.

Other adjusting items were $3.6 million (2021 $4.5 million) as the R&D engineering plan continued in 2022 and the Group commenced a strategic evaluation of the organisation incurring some employee separation costs.

Reported profit before tax was up by $11.0 million to $114.6 million (2021 $103.6 million).

The Group's effective tax rate of 12.9 per cent has reduced from 2021 (14.4 per cent) due to an increased US foreign-derived intangible income (FDII) deduction and the recognition of deferred tax assets related to US state tax losses and tax credits. Adjusted basic earnings per share has increased by 13.7 per cent, up from 16.59 cents last year to 18.86 cents for 2022.

We secured the majority of defined benefit pension liabilities of $166.4 million (£137.5 million), through insurance buy-in with Pension Insurance Corporation (PIC), removing exposure to future investment, longevity, interest and inflation risks.

We retain a strong balance sheet with closing cash of $209.6 million (2021 $174.8 million), following a disciplined focus on working capital management, resulting in a free cash flow of $103.8 million (2021 $91.9 million).

As a result of the strong financial performance, we propose a 12 per cent increase to the full year dividend per share, from 6.76 cents to 7.57 cents, and looking forward we maintain our progressive dividend policy ensuring that we sustain dividend cover of 2 to 2.5 times adjusted earnings.

The following table shows summary financial performance for the Group:

$ million	**2022**	2021	Change (%)
Orderbook[1]	**288.1**	269.8	6.8
Order intake[2]	**625.7**	637.0	(1.8)
Revenue	**607.5**	576.0	5.5
Gross profit	**437.1**	424.7	2.9
Gross margin (%)	**72.0**	73.7	(1.7)pp
Adjusted operating costs[3]	**307.6**	306.2	0.5
Adjusted operating profit[3]	**129.5**	118.5	9.3
Adjusted operating margin[4] (%)	**21.3**	20.6	0.7pp
Reported operating profit	**112.7**	104.2	8.2
Reported profit before tax	**114.6**	103.6	10.6
Effective tax rate[5] (%)	**12.9**	14.4	(1.5)pp
Adjusted basic earnings per share[6] (cents)	**18.86**	16.59	13.7
Reported basic earnings per share (cents)	**16.46**	14.67	12.2
Free cash flow[7]	**103.8**	91.9	12.9
Closing cash	**209.6**	174.8	19.9
Final dividend per share[8] (cents)	**4.94**	4.37	13.0

Notes
1. Orderbook is an alternative performance measure as defined on page 196.
2. Order intake represents commitments from customers to purchase goods and/or services that will ultimately result in recognised revenue.
3. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).
4. Adjusted operating profit as a percentage of revenue in the period.
5. Effective tax rate is the adjusted tax charge, before tax on adjusting items, expressed as a percentage of adjusted profit before tax.
6. Adjusted basic earnings per share is based on adjusted earnings as set out in note 11 of Notes to the full year consolidated financial statements.
7. Cash flow generated from operations, less tax and net capital expenditure, after interest paid and/or received, payments of lease liabilities, finance lease payments received and excluding acquisition related other adjusting items and one-off contributions to the UK pension scheme.
8. Dividends are determined in US Dollars and paid in Sterling at the exchange rate prevailing when the dividend is proposed. The final dividend proposed for 2022 of 4.94 cents per Ordinary Share is equivalent to 4.12 pence per Ordinary Share.

Note on Alternative Performance Measures (APM)

The performance of the Group is assessed using a variety of performance measures, including APMs which are presented to provide users with additional financial information that is regularly reviewed by management. These APMs are not defined under IFRS and therefore may not be directly comparable with similarly identified measures used by other companies.

The APMs adopted by the Group are defined on pages 196 and 197. The APMs which relate to adjusted income statement lines are presented and reconciled to GAAP measures using a columnar approach on the face of the income statement and can be identified by the prefix 'adjusted' in the commentary. All APMs are clearly identified as such, with explanatory footnotes to the tables of financial information provided, and reconciled to reported GAAP measures in the Financial Review or Notes to the full year consolidated financial statements. The reported GAAP measures give the complete measure of financial performance.

Financial review continued

Revenue

$ million	2022	% of total	2021	% of total
Revenue by segment				
Lifecycle Service Assurance	**264.5**	**43.5**	261.6	45.4
Networks & Security	**343.0**	**56.5**	314.4	54.6
	607.5	**100.0**	576.0	100.0
Revenue by geography				
Americas	**336.3**	**55.3**	324.6	56.4
Asia Pacific	**205.8**	**33.9**	185.1	32.1
Europe, Middle East and Africa	**65.4**	**10.8**	66.3	11.5
	607.5	**100.0**	576.0	100.0

Group revenue grew by $31.5 million to $607.5 million in 2022, an increase of 5.5 per cent over the prior year.

Revenue at Lifecycle Service Assurance was slightly up as demand from the continued global roll-out of 5G networks and growth in managed solutions and services was offset by previously communicated customer purchasing deferrals into 2023. We also saw growth in our Wi-Fi portfolio driven by demand for solutions and services enabled by our 2021 octoScope acquisition, and in other services offerings, including live 5G network benchmarking. We experienced further robust growth in the orderbook in 2022 as the value of multi-year deals continued to increase.

The Networks & Security operating segment saw growth in revenue of 9.1 per cent on the back of market demand for increased network data capacity, and the release of important new solutions for high-speed Ethernet and application security test, reinforcing our position as market leader in this space. Positioning revenue also delivered progress with some key wins in Asia Pacific.

Total Group maintenance and support services revenue increased 12.6 per cent to $185.4 million (2021 $164.7 million).

Geographically, we saw growth in revenue in the Americas and Asia Pacific, notably in China and India at Networks & Security. As a percentage of total revenue the regions are similar compared to last year.

Gross margin

$ million	2022	%	2021	%
Lifecycle Service Assurance	**198.0**	**74.9**	199.0	76.1
Networks & Security	**239.1**	**69.7**	225.7	71.8
	437.1	**72.0**	424.7	73.7

Gross margin declined slightly to 72.0 per cent (2021 73.7 per cent) driven by a rise in the cost of supply chain costs.

Adjusted operating costs

$ million	2022	2021
Product development	**111.3**	113.3
Selling and marketing	**138.9**	140.7
Administration[1]	**57.4**	52.2
Adjusted operating costs[1]	**307.6**	306.2
Lifecycle Service Assurance	**147.0**	135.9
Networks & Security	**152.3**	162.2
Corporate	**8.3**	8.1
Adjusted operating costs[1]	**307.6**	306.2

Note
1. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).

Despite inflationary pressures, total Group adjusted operating costs of $307.6 million were held level compared to last year. The emphasis remained on strong financial management and a disciplined approach to our investment spend to drive our growth agenda.

The overall investment in product development decreased year-on-year from $113.3 million to $111.3 million, representing 18.3 per cent of revenue (2021 19.6 per cent), driven by cost-saving initiatives as we transferred resource in lower-cost regions. We continued to focus on our high-growth areas and to maintain investment into our market-leading products. During the year, we invested in our Lifecycle Service Assurance solutions for next-generation service assurance and O-RAN.

We continued to invest in the sales organisation to support our revenue growth plans. Selling and marketing costs decreased by $1.8 million, from $140.7 million to $138.9 million, resulting from reduced sales commissions following some order softness from the deferral of investments into 2023 by some customers.

Administration costs reflect investment into our support functions and infrastructure to sustain our growth agenda, increasing compliance requirements, as well as an inflationary increases.

We have continued to invest in our world-class employees, enhancing our family-friendly benefits and working to support employee welfare, which has contributed to an employee retention rate significantly higher than the industry average.

Operating profit

$ million	2022	Adjusted operating margin[1,2] %	2021	Adjusted operating margin[1,2] %
Lifecycle Service Assurance	**51.0**	**19.3**	63.1	24.1
Networks & Security	**86.8**	**25.3**	63.5	20.2
Corporate	**(8.3)**		(8.1)	
Adjusted operating profit[1]	**129.5**	**21.3**	118.5	20.6
Adjusting items charged in arriving at operating profit:				
Acquired intangible asset amortisation	**(4.7)**		(4.2)	
Share-based payment	**(8.5)**		(5.6)	
Other adjusting items	**(3.6)**		(4.5)	
Reported operating profit	**112.7**		104.2	

Notes
1. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).
2. Adjusted operating profit as a percentage of revenue in the period.

Adjusted operating profit increased by $11.0 million or 9.3 per cent to $129.5 million in 2022, compared with $118.5 million in 2021. Adjusted operating margin increased by 0.7 percentage points to 21.3 per cent, from 20.6 per cent in 2021.

Reported operating profit was up by $8.5 million or 8.2 per cent to $112.7 million (2021 $104.2 million). Total adjusting items were $16.8 million in 2022, compared to $14.3 million in 2021, mainly due to an increase in the share-based payment expense due to an expansion of employee share schemes.

Acquired intangible asset amortisation and share-based payment

The acquired intangible asset amortisation charge has increased slightly over the prior year due to a full year impact of the amortisation of the intangible assets recognised on the acquisition of octoScope from March 2021, with a charge of $4.7 million incurred in 2022 (2021 $4.2 million).

Share-based payment has increased to $8.9 million in 2022 (2021 $6.2 million), of which $8.5 million (2021 $5.6 million) has been treated as an adjusting item. The increase reflects the incremental cost associated with new awards and the expansion of employee share schemes.

Financial review continued

Other adjusting items

Costs of $3.6 million have been charged to other adjusting items in 2022, mainly as a direct result of the continuation of the global R&D engineering facility plan which began in 2021 and will conclude in 2023. Costs amounting to $1.5 million (2021 $1.2 million) were incurred in 2022 comprising retention payments and facility and team set-up costs. The plan has delivered material cost savings particularly for our Networks & Security division.

The Group also commenced a strategic evaluation in 2022, which led to employee separation costs of $1.3 million. This programme includes a number of initiatives designed to reshape the business to maximise market opportunities by focusing on solution sales and larger bundled solutions to customers. These include enhancement of the leadership team to include some important new roles such as a Chief Information Officer, a Chief Marketing Officer and development of our sales and marketing organisation whilst driving cost efficiency across the cost base. This programme has anticipated costs of $3-4 million in 2023.

Currency impact

The Group's revenue and costs are primarily denominated in US Dollars or US Dollar-linked currencies. Currency exposures arise from trading transactions undertaken by the Group in foreign currencies and on the retranslation of the operating results and net assets of overseas subsidiaries.

The Group's income statement includes a foreign exchange gain, included in administration costs, of $0.2 million (2021 $0.8 million loss) arising from transacting in foreign currencies, primarily US Dollars in the United Kingdom, and the translation of foreign currency cash balances.

Forward foreign currency exchange contracts are entered into to manage the exposure arising from transacting in currencies other than US Dollars.

Although the most significant currency exposure arises in relation to movements in Pound Sterling against the US Dollar, there are other less significant currency exposures, notably the Euro and Chinese Yuan.

Finance income and costs

Interest income of $2.1 million was earned from cash on deposit (2021 $0.3 million) and $0.8 million (2021 $0.3 million) of interest income was recognised in relation to the UK defined benefit pension plans. The growth in bank interest received year-on-year reflects the increase in US Dollar and Sterling interest rates. Surplus funds are held principally in the United Kingdom and United States on short-term or overnight deposits and earn market rates of interest.

Finance costs in 2022 were $1.0 million (2021 $1.2 million), relating to interest on lease liabilities (2021 $1.1 million).

Tax

The adjusted effective tax rate, being the adjusted tax charge expressed as a percentage of adjusted profit before tax, shown on the face of the consolidated income statement, was 12.9 per cent in 2022, compared with 14.4 per cent in 2021.

Spirent's effective tax rate continues to benefit from the United Kingdom Patent Box Scheme, the United States R&D Tax Credit, the US foreign-derived intangible income deduction, and a current year recognition of deferred tax assets in the United States.

Going forward it is anticipated that Spirent's effective tax rate will slightly rise over time, due to the geographical mix of profits, and 2023 will likely be around 15 per cent if statutory tax rates do not materially change. As a large proportion of the Group's profit is generated in the United States, the effective tax rate is exposed to changes in US tax legislation. The new administration has indicated its desire to increase corporate tax rates and other countries may also be considering raising their corporate tax rates. The UK corporation tax rate will be increased to 25 per cent, effective from 1 April 2023. As a result, we will be closely monitoring all proposed corporate tax rates and other tax legislative changes for their impact on the Group's effective tax rate.

Earnings per share

Adjusted basic earnings per share was up 13.7 per cent to 18.86 cents (2021 16.59 cents). Basic earnings per share was 16.46 cents (2021 14.67 cents). There were 607.0 million (2021 608.2 million) weighted average Ordinary Shares in issue. See note 11 of Notes to the full year consolidated financial statements on page 151 for the calculation of earnings per share.

Treasury management

The key objective of the Group's treasury function is to manage the financial risks of the business and to ensure that sufficient liquidity is available for the Group. All treasury activity operates within a formal control framework. The Board has approved treasury policies and guidelines and periodically reviews treasury activities. Additionally, it is the Group's policy that speculative treasury transactions are expressly forbidden.

Spirent's financial risk management objectives and policies and its exposure to risks are discussed in note 28 of Notes to the full year consolidated financial statements.

Financing and cash flow

Free cash flow increased year-on-year coming in at $103.8 million, compared to $91.9 million in 2021, resulting in a free cash flow conversion which represented 91 per cent of adjusted earnings (2021 91 per cent).

Higher adjusted operating profit was augmented by effective working capital management resulting in a net working capital outflow of $2.9 million, excluding the impact of movement in provisions; this compares to a working capital outflow of $10.1 million in the prior year.

Closing days sales outstanding of 60 remained consistent with the prior year, reflecting continued strong collections, but with lower revenue in the final quarter of 2022 compared to 2021, closing receivables were down resulting in a small cash inflow from receivables. Inventories increased by $14 million (2021 $2 million) in 2022 driven by the business need to hold higher levels of materials in order to navigate supply chain challenges and fulfil customer demand.

Free cash flow is set out below:

$ million	2022	2021
Cash flow from operations	140.6	112.9
Tax paid	(22.8)	(10.0)
Net cash inflow from operating activities	117.8	102.9
Interest received	1.5	0.4
Net capital expenditure	(8.2)	(9.8)
Payment of lease liabilities, principal and interest	(9.6)	(10.0)
Lease payments received from finance leases	0.6	0.5
Acquisition related other adjusting items (note 4):		
– Direct acquisition transaction costs	0.6	1.9
– Acquisition related performance payments	(0.1)	0.6
– Acquisition integration costs	0.3	0.8
One-off employer contribution to UK pension scheme	0.9	4.6
Free cash flow	103.8	91.9

Free cash flow includes a net cash outflow in respect of other adjusting items charged in 2021 and 2022 of $2.6 million (2021 $4.0 million in respect of other adjusting items charged in 2020 and 2021).

Tax payments made in the year increased to $22.8 million (2021 $10.0 million) due to R&D cost capitalisation rules in the US coming into effect on 1 January 2022. The new rules require that, for tax purposes, product development costs are deferred and unwound over a number of years rather than deducted in the year in which they are incurred. This results in a timing difference only so does not directly impact the Group's effective tax rate.

Net capital expenditure of $8.2 million was slightly down on the prior year (2021 $9.8 million). Capital expenditure in the period was predominantly incurred on demonstration and test equipment. The one-off employer contribution to the UK pension scheme in the prior year arose in relation to an agreement to further fund the scheme when we also made a return to shareholders.

In 2022, the final dividend for 2021 and an interim dividend for 2022, totalling $39.9 million, were paid. This compared to total dividends of $83.6 million paid in 2021, which also included payment of a special dividend of $45.6 million. In addition, 7.1 million shares were purchased and placed into the Employee Share Ownership Trust at a cost of $22.9 million (2021 3.9 million shares at a cost of $15.1 million).

Following these payments, cash and cash equivalents closed at $209.6 million at 31 December 2022, compared with $174.8 million at 31 December 2021. There continues to be no debt outside of lease liabilities.

$209.6m 2021 $174.8m

Closing cash

Financial review continued

Defined benefit pension plans

The Group operates two funded defined benefit pension plans in the United Kingdom, both of which are closed to new entrants.

As the plans near maturity the Company has sought to protect the balance sheet from further risk of market movements affecting the valuation of pension liabilities. So in October 2022, the Trustees, with the Company's support, purchased a bulk annuity insurance policy from specialist UK insurer Pension Insurance Corporation (PIC), in respect of the largest plan, the Staff Plan. The premium was met from the plan's assets and sufficient assets remain to meet the plan's ongoing costs. This insurance policy funds the plan each month exactly matching the plan's benefit payments to members, removing investment and inflation risk as well as longevity and other demographic risks. Following the purchase of the bulk annuity insurance policy, the Group does not expect to make any further cash contributions to this plan.

The accounting valuation of the funded defined benefit pension plans at 31 December 2022 gave rise to a net surplus of $8.0 million, compared with a net surplus of $37.8 million at 31 December 2021. The reduction in net surplus over the year is mainly due to a net actuarial loss of $29.0 million (2021 gain of $13.5 million) arising due to a remeasurement loss on plan assets and the bulk annuity insurance policy purchase, partly offset by contributions paid to the plans in the year of $1.1 million (2021 $6.7 million) and an actuarial gain on the plan obligations arising due to an increase in the discount rate.

Additionally, there is a liability for an unfunded plan of $0.5 million (31 December 2021 $0.7 million).

The Group also operates a deferred compensation plan for employees in the United States. As at 31 December 2022, the deferred compensation plan deficit amounted to $6.9 million (2021 $6.6 million). The key financial assumptions include a discount rate used to discount plan liabilities of 5.2 per cent (2021 2.6 per cent) and an expected investment yield of 9.5 per cent (2021 6.4 per cent).

Balance sheet

The consolidated balance sheet is set out on page 128.

Overall, net assets have increased by $17.7 million to $465.2 million at 31 December 2022, from $447.5 million at 31 December 2021.

Non-current assets have decreased by $30.9 million due to the pension buy-in which has resulted in a reduction in the fair value of defined benefit pension plan assets held in the UK Staff Plan.

Cash and cash equivalents have increased by $34.8 million within current assets to $209.6 million (2021 $174.8 million) following the robust trading performance, payment of dividends amounting to $39.9 million (2021 $83.6 million) and purchases of shares to satisfy employee awards of $22.9 million (2021 $15.1 million).

Overall, liabilities of $240.1 million are broadly flat at 31 December 2022 (2021 $243.8 million). A year-on-year increase in trade payables of $20.7 million due to timing and a disciplined focus on working capital and supply chain management has been partially offset by reduced accruals in 2022 relating to sales commissions and employee bonuses.

Liquidity and dividend policy

The Board's intention is to maintain a cash positive balance sheet over the medium to long term. This should allow the Company to maintain a strong capital position in the face of business risks, trading fluctuations and working capital demands.

The strong cash generation of the Group allows continued investment into R&D to maintain our market-leading positions and inorganic investments where opportunities support growth plans. If and when it is considered appropriate, the Company may take on modest gearing to fund inorganic investments.

The Board will regularly review the Company's balance sheet in light of current and expected trading performance and cash generation, working capital requirements and expected organic and inorganic investments. To the extent the Company has excess cash, it will consider returning such cash to shareholders. The Board will consider from time to time the appropriate mechanism for returning surplus cash to shareholders.

The Board has implemented a progressive dividend policy maintaining cover in the range of 2 to 2.5 times adjusted earnings.

Dividend

The Board is recommending the payment of a final dividend for 2022 of 4.94 cents (4.12 pence) per share which, together with the interim dividend of 2.63 cents (2.16 pence) per share paid in September 2022, brings the full year dividend to 7.57 cents (6.28 pence) per share, a dividend cover of 2.5 times adjusted earnings. This is a 12 per cent increase compared to the full year dividend for 2021. In Sterling terms this represents an increase of 24 per cent.

Paula Bell
Chief Financial & Operations Officer
7 March 2023

Principal risks and uncertainties

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.

The risk assessment process starts in the businesses, where risk registers are maintained as part of the normal operating and control procedures, and is facilitated by the Head of Risk & Internal Audit. Each business identifies its key risks and mitigating factors and nominates a risk owner. The impact and the likelihood of occurrence of each risk is ranked, which assists the Group Executive Committee in assessing the likely impact in aggregate of each risk to the Group as a whole. The individual businesses are required to update their risk registers regularly to reflect new or emerging risks as they are identified to keep them up to date.

The approach includes a process to identify, clarify and communicate emerging risks for Board discussion and assessment, along with agreed mitigating action plans.

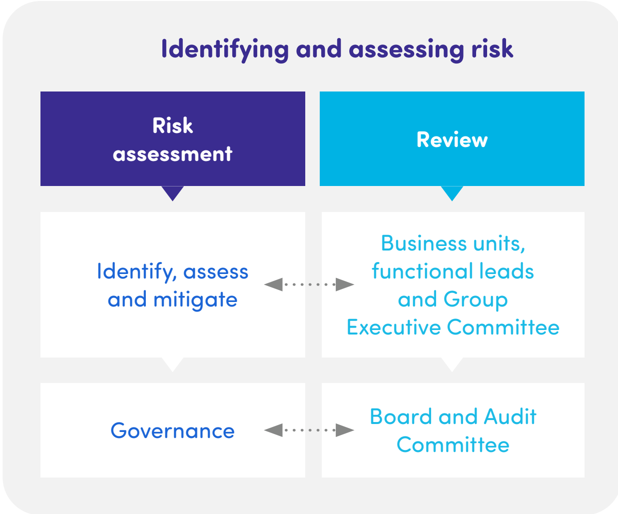
It is not possible to identify every risk that could affect the business and the actions described below to mitigate those risks cannot provide absolute assurance that the risk will not occur or adversely affect the operating or financial performance of the Group.

The Board has classified the principal risks by the impact the risk would be expected to have on the Group should it occur, and the anticipated likelihood that risk may occur using the following classifications:

Risk	Impact
Impact	High
	Medium
	Low
Likelihood of occurrence	Likely
	Possible
	Unlikely

The Board takes the view that a high-impact risk could lead to a 10 per cent or more reduction in revenue, a medium-impact risk a 5 to 10 per cent reduction in revenue and a low-impact risk a reduction of up to 5 per cent in revenue.

The Audit Committee reviews and monitors the Group's risk processes and reports to the Board on their effectiveness. Risk is considered by the Audit Committee at least twice each year, at which time the risk registers are reviewed. The Audit Committee challenges and debates the risks with reference to risk tolerance and appetite, as set by the Board. Progress made and any further actions to be taken regarding mitigation plans, as well as any changes to the risk profile, are discussed.



The Board has identified the following principal risks, each of which is discussed on pages 57 to 60:

Risk	Impact	Likelihood	Change
A. Macroeconomic change	High	Likely	No change
B. Technology change	High	Likely	No change
C. Business continuity	High	Likely	No change
D. Customer dependence/ customer investment plans	High	Likely	No change
E. Competition	Medium	Possible	No change
F. Acquisitions	Medium	Likely	No change
G. Employee skill base	Medium	Possible	No change

Current topical risks, uncertainties and emerging risks

Topical risks and uncertainties along with emerging risks are covered in detail in the table of principal risks and uncertainties, but some of the more pertinent ones are described below.

Macroeconomic uncertainty

Spirent is a global business exposed to current world economic conditions over which it has no control. Global market economic conditions have been impacting some of our customers, resulting in delays to their investment decisions.

War in Ukraine

The organisation has negligible activities within Ukraine and Russia and, therefore, it is expected to continue to have an immaterial direct financial impact on the Group unless it escalates and broadens further.

US/China trade and sanctions

The geopolitical landscape is turbulent with continuing US/China trade challenges. We have navigated regulatory changes throughout the year and continue to work closely with our customers and regulators. We make sales across a broad range of customers in China. Changes to existing US regulations to embargoed customers may impact our ability to supply affected customers in both the short and medium term. A conflict between Taiwan and the Chinese military could lead to a global recession and have an impact on the global supply of Taiwan's microchips which the organisation is currently heavily reliant upon. We maintain a watching brief as legislative requirements and these geopolitical tensions continue to evolve.

Principal risks and uncertainties continued

Current topical risks, uncertainties and emerging risks continued

Task Force on Climate-related Financial Disclosures (TCFD)

We have undertaken TCFD-aligned scenario analyses, which involved senior management, to assess our exposure to climate-related physical and transition risks. This workstream is overseen by an Executive Director-led management committee that has been established to consider ESG matters including climate-related risks and opportunities, with updates reported regularly to the Audit Committee and the Board. More details can be found on pages 32 and 36.

From a transitional risk perspective, it is expected that there will likely be a 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; however, we do not estimate the impact to be material to Spirent.

From a physical risk perspective, the potential of extreme weather events has been considered and could cause some disruption to our operations or those of our key suppliers. Spirent has mitigation plans for each of these physical risks identified, that have been developed as part of longstanding business continuity and disaster recovery plans.

See pages 32 to 36 for further detail of our approach to environmental sustainability and climate change.

Supply chain

Supply chain issues have been experienced around the world, particularly with respect to the supply of semi-conductors, in 2022 due to COVID-19, the ongoing war in Ukraine, macroeconomic issues, and a number of other localised factors that are expected to continue in the medium term. There has been no material impact on our ability to deliver goods and services to customers. However, the impact of the component shortages has meant that we are experiencing longer lead times, supply chain cost increases and supply constraints, and there has been some disruption to the delivery timelines of hardware to our customers. This is causing us to hold more inventory, make longer-term commitments to suppliers and re-engineer some products to use more readily available components. We do now see some easing of supply chain challenges.

We continue to monitor any effect from these disruptions on the sourcing of components and the effect that this may have on our ability to manufacture hardware and deliver product to our customers on a timely basis.

Risk appetite and developing the long-term Viability Statement

The UK Corporate Governance Code requires the Board to explain how it has assessed the prospects of the Group and state whether it has a reasonable expectation that the Group can continue to operate and meet its liabilities, taking into account its current position and principal risks.

The Board has determined that a three-year period should be used when assessing viability, as explained on page 114 of this Annual Report.

The Board has sought to frame its risk appetite in terms of the markets and technologies in which it is prepared to make significant investments, and those in which it would expect its scale of investment to be more modest. Except where very attractive opportunities were to present themselves to achieve greater scale in well understood markets, which would be inherently cash generative, the Board would expect to maintain a net cash position.

Management, together with members of the Board, considered which of the principal risks, either alone or in combination, might threaten the Group's viability. The expected aggregate impact of the principal risks were modelled based on historical trends experienced across the Group. A severe but plausible combination of those risks was considered for the purposes of determining the revenue and free cash flow scenarios that should be stress tested via financial modelling.

A number of scenarios that encompass the principal risks and uncertainties were modelled over the three-year period, using the Group's strategic three-year plan as a basis, and are set out in the table below. The analysis also included a reverse stress test scenario to illustrate the revenue reduction in the 12 months following approval of the financial statements that would lead to the Group ceasing to be a going concern.

	Scenario	Principal risks
1.	Revenue reduction in year 2, no growth in year 3	B, E
2.	Revenue reduction in year 1, no growth in years 2 or 3	B, E
3.	Major trade embargo	A, D
4.	Major supplier disruption	C
5.	Reverse stress test	n/a

The impacts arising from the principal risks relating to employee skill base and acquisitions were not modelled as they arise as a result of specific events or transactions, the financial effects are less extreme than other risks or they would be expected to take longer to materialise.

The analysis included assumptions in relation to the ability of the Group to take realistic and successful mitigating actions to avoid or reduce the impact or occurrence of the underlying risks, including the ability to make significant reductions in its operating costs. In doing so an appropriate and realistic adjustment was made for the cost of taking those actions.

In performing the Viability Statement modelling the Board took into consideration the Group's healthy cash balance of $209.6 million at 31 December 2022 and the ability of the Group to continue to generate positive free cash flow even in stressed scenarios, as has historically been the case.

The Board reviewed and discussed with management:

- the process undertaken by management to decide which scenarios to stress test;
- the results of the stress testing performed, including an illustration of the reduction in revenue and cash generation and consequently the availability of cash to fund operations; and
- the ability of management to successfully take the mitigating actions identified.

Based on the results of this analysis, the Directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the three-year period. The Viability Statement is set out in the Directors' Report on page 114.

A – Macroeconomic change

Spirent is a global business exposed to current world economic conditions and political and trade embargo uncertainties over which it has no control.

We have navigated regulatory changes throughout the year and continue to work closely with our customers. Trade compliance issues continue to remain a focus, particularly with China.

The business is also exposed to government spending priorities, principally in the United States.

The COVID-19 crisis, the war in Ukraine, inflationary pressures, and rises in interest rates by major central banks have combined to create uncertainty to current world economic conditions and government spending priorities. The Group continues to monitor the impact to the global economy and possibility of a prolonged recession in the organisation's key markets.

Potential impact

Deterioration in economic conditions and a change to the terms of conventional international trade and embargoing of specific customers may lead to a reduction in the level of demand for Spirent's products and services and cause customers to delay their purchasing decisions.

Mitigating actions

The Group closely monitors both market and geographic trends in order to respond to changes in demand and be in a position to take timely actions to protect profitability where possible.

In addition, Spirent has a large number of geographically diverse customers, which may mitigate the impact of issues in any one area.

B – Technology change

Spirent sells complex solutions in industries that can be subject to rapid and somewhat cyclical technological changes. Testing new technologies drives our business, but the opportunity also brings high risk since keeping at the forefront of these key future technologies is critical to our success and to ensuring that we remain competitive in our markets.

It is critical that our product development investment is directed at the right areas in order to deliver the solutions that our customers need when they need them.

Spirent's success is dependent in part on proprietary technology which may be infringed by others.

Open-source tools become more prevalent providing some of the functionality of our products.

Due to COVID-19, there is an increased risk that technology changes may take longer to occur.

Potential impact

If product development investment does not keep pace with the speed of change in technologies, or if it is not directed at the right key areas, our competitive position and financial performance will suffer.

If Spirent's solutions take longer to develop than anticipated or longer to develop than our competitors, then our competitive position and financial performance will also suffer.

Changes in technologies may lead to a short-term pause by our customers investing in our solutions.

Intellectual property claims can result in significant defence costs and may affect Spirent's ability to market its products.

Customers may choose to use open-source tools instead of some Spirent products to meet part of their testing needs.

Mitigating actions

All Spirent's businesses work very closely with customers and remain focused on their requirements.

Each business makes investment decisions specifically related to its solutions portfolio based on market needs.

Spirent continues to focus its investment into areas that offer the most potential for sustainable earnings growth. In 2022 the product development investment was $111.3 million (2021 $113.3 million) as we find new ways of investing at lower cost.

Spirent has active intellectual property protection programmes in place to obtain appropriate protection in a cost-effective manner.

Principal risks and uncertainties continued

C – 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 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 2022. 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, maintaining our reputation as well as for 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 continue 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 2023.

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

If a cyberattack were to be successful it could result in loss of data, reputation and confidential information as well as 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 2022, 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 2022, 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.

D – Customer dependence/customer investment plan

The Group sells its products and services to a wide range of companies and continually seeks to expand its customer base. In 2022, no one customer accounted for more than 10 per cent of Group revenue, although the top ten customers represented 36 per cent of Group revenue (2021 38 per cent).

In some of our markets certain customers have a dominant market share, which makes doing business with these customers and their suppliers critical to the success of our business.

In addition, many of the companies with which we do business are some of the largest global telecommunications corporations. Therefore meeting our development obligations, producing high-quality products and being on time are vital to Spirent's reputation and success.

Changes in our major customers' priorities in technology investments can also have a significant impact on their spending on Spirent products and on those in the customers' supply chain.

The industry continues to experience consolidation which does disrupt the spending patterns of affected customers.

As a result of the current economic uncertainty, customer spending patterns remain uncertain, particularly for lab and government markets. The Group has taken steps to evolve the sales team in order to strengthen relationships with customers.

Potential impact

Loss of one or more of Spirent's major customers could have a significant impact on Spirent's financial results.

Spend on Spirent's products is often capital in nature and so customer spend can fluctuate significantly from year-to-year.

Significant failings in either quality or being able to deliver in the appropriate timescale could cause long-lasting damage to Spirent's reputation and relationships.

Over recent years there has been significant consolidation in our customer base amongst service providers and network equipment manufacturers. This trend continues and often results in delays in spending, thereby reducing demand for Spirent's solutions and services. It also reduces the potential number of customers to which those solutions and services could be sold.

Changes in our customers' technology investments can result in reduced spending on our existing solutions before customers and those in the customers' supply chains increase spending on new technologies.

Mitigating actions

Strong customer relationships are critical to Spirent. We aim to provide innovative solutions which meet customers' needs and we place great emphasis on providing professional service and support.

One of the Group's strategic objectives is to invest in deepening our customer relationships and our key account management initiatives assist to ensure robust relationships with our largest customers. We place engineers on site with our customers and undertake site surveys of intended plans for the use of test solutions in their business.

We seek to establish thought leadership in our industry through participation in standards bodies and industry forums, which in turn creates additional links with customers. Our approach is to play a key part in the wider supply chain to our key service provider customers by aligning with early adopters of technology.

We also seek to broaden our customer base to mitigate customer concentration risk, investing in digital marketing, inside sales and field sales to expand the number of new customers that we win.

E – Competition

Spirent operates in a range of highly competitive niche markets which experience rapid technological change. In order to compete effectively, it is necessary to establish and maintain technological differentiation in our solutions.

The Group faces competition from new market start-ups as well as more established and well-resourced companies.

Industry consolidation amongst our direct competitors may bring about a shift in competitive advantage.

Potential impact

Actions by competitors and increased competition can bring about pressure on Spirent's gross margin. These factors could also affect Spirent's competitive position, thereby reducing revenue and consequently affecting financial results.

Consolidation continues within our sector. The consolidation of competitors may bring opportunities for Spirent but can also change the competitive landscape as competitors are able to leverage product capabilities or sales channels.

Mitigating actions

The Group's broad solution portfolio, market-leading capabilities and customer focus continue to address this risk.

Spirent aims to maintain market-leading positions through significant investment in the development of differentiated products. We also seek opportunities for attractive inorganic investments that can strengthen our competitive advantage.

Competitor activity is closely monitored with a view to maintaining clear differentiation based on Spirent's products, services and global reach.

Principal risks and uncertainties continued

F – Acquisitions

A key emerging element of Spirent's strategy is to develop new capabilities and technologies, and to expand our addressable markets, sometimes through acquisition.

Integration of acquisitions can be a complex process and the results expected from acquisitions may not be achieved due to problems encountered in integration, changes in market conditions, the rate of adoption of new technologies, or sometimes deficiencies arising in the due diligence processes.

Potential impact

Underperformance by acquisitions will impact the Group's results and may lead to impairment of goodwill and/or intangible assets.

Mitigating actions

Rigorous strategic and financial evaluations of all acquisition opportunities are carried out. Detailed financial and commercial due diligence is performed. The Board will only authorise transactions after all due diligence has been successfully completed and where the financial hurdles are within the agreed guidelines.

Integration plans and processes are carefully considered prior to acquisition.

The Board reviews post-acquisition performance.

G – 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.

Non-financial information statement

This section of the Strategic Report constitutes the Non-Financial Information Statement of Spirent Communications plc, produced to comply with Sections 414(C)(A) and 414(C)(B) of the Companies Act 2006. The information listed in the table below is incorporated by cross-reference.

Reporting requirement	Policies and standards which govern our approach	Additional information and risk management
Environmental matters	Group Environment Policy Group Sustainability Policy Supplier Code of Conduct	Stakeholder engagement (pages 26 to 29) Sustainability (pages 32 to 39) Task Force on Climate-related Financial Disclosures (pages 35 and 36) Sustainability Report at corporate.spirent.com
Employees	Business Ethics Policy Whistleblowing Policy Occupational Safety Policy Diversity and Inclusion Policy	Stakeholder engagement (pages 26 to 29) Sustainability (pages 32 to 39) Sustainability Report at corporate.spirent.com Audit Committee report (pages 77 to 82) Nomination Committee report (pages 74 to 76) Report on Directors' remuneration (pages 83 to 110)
Social matters	Group Environment Policy Group Sustainability Policy Diversity and Inclusion Policy Supplier Code of Conduct	Stakeholder engagement (pages 26 to 29) Sustainability (pages 32 to 39) Sustainability Report at corporate.spirent.com Nomination Committee report (pages 74 to 76) Directors' report (pages 111 to 114)
Respect for human rights	Modern Slavery Statement Diversity and Inclusion Policy	Stakeholder engagement (pages 26 to 29) Sustainability (pages 32 to 39) Sustainability Report at corporate.spirent.com Nomination Committee report (pages 74 to 76)
Anti-corruption and bribery	Business Ethics Policy Groupwide Dealing Policy Supplier Code of Conduct	Sustainability (pages 32 to 39) Directors' statement on corporate governance (pages 67 to 73) Audit Committee report (pages 77 to 82) Directors' report (pages 111 to 114)
Description of the business model		Our business model (pages 22 and 23)
Description of principal risks and impact of business activity		Our business model (pages 22 and 23) Principal risks and uncertainties (pages 55 to 60) Task Force on Climate-related Financial Disclosures (pages 35 to 36)
Non-financial key performance indicators		Strategic Report (pages 1 to 61) Key performance indicators (pages 24 and 25)

The policies mentioned above form part of Spirent Communications plc's Group policies, which act as the strategic link between our purpose and values and how we manage our day-to-day business. The Board has determined that the policies remain appropriate, are consistent with the Company's values and support its long-term sustainable success.

Approval

Pages 1 to 61 form part of the Strategic Report, which has been reviewed and approved by the Board.

Angus Iveson
Company Secretary
7 March 2023

Chairman's introduction to governance

Sir Bill Thomas
Chairman

Dear shareholder

On behalf of the Board, I am pleased to present the Governance Report for the year ended 31 December 2022. This review and the reports of the Nomination, Audit and Remuneration Committees that follow summarise the Board's activities during the year. The Board is committed to high standards of corporate governance, and decisions are made based on what the Board believes is likely to be for the benefit of all stakeholders by promoting and maintaining the long-term success of the Company and its reputation.

Compliance with the 2018 UK Corporate Governance Code

Our approach to governance is based on the concept that good corporate governance enhances longer-term shareholder value and sets the culture, ethics and values for the Group. Consistent with our belief in the importance of corporate governance, I am pleased to report that, from 1 January 2023, the Company is now in full compliance with the principles and provisions of the 2018 UK Corporate Governance Code (the "2018 Code"). A copy of the 2018 Code can be found at www.frc.gov.uk.

Board composition and succession planning

During the year under review, the Nomination Committee discussed succession planning for Executive and Non-executive Directors and progressive refreshing of the Board. Further information about the Nomination Committee's work can be found in the Nomination Committee Report on pages 74 to 76.

Diversity

The Board supports the FTSE Women Leaders Review, which seeks to improve Board and senior leadership gender diversity across FTSE companies, and the Parker Review on Ethnic Diversity. As at the financial year end, the Board comprised five male and three female Directors, meaning that just under 40 per cent of our Board is now female, with two Board members from ethnic minority backgrounds. The under-representation of women at all levels of Spirent and throughout the technology sector is a key challenge for all of us, and there remains significant work to do. The Group is seeking to make a material change through its partnerships with organisations like the Society of Women Engineers and the Board is monitoring developments.

Evaluating the Board's effectiveness

Each year, the Board undertakes a formal evaluation of its effectiveness and this year we carried out an internally facilitated evaluation to assist in the development of the Board. The results of the Board evaluation confirmed that the Board continues to function effectively and that there are no significant concerns among the Directors about its effectiveness. The Board members were seen as engaged and committed while the Board's culture remains open, respectful and constructive. A number of actions were identified to further enhance the Board's effectiveness, and further details can be found on page 70.

People and culture

The successful performance of the business is only possible due to the commitment, abilities and drive of our people. In the year, both the Board and management have continued to drive our employee engagement programme, build on our learning and development offering, and further embed an inclusive and safe work culture. Further details may be found in the Stakeholder engagement section on pages 26 to 29.

Re-election of Directors

In accordance with the 2018 Code provisions and following a performance evaluation of those Directors standing for re-election at the 2023 Annual General Meeting, I can confirm that they all continue to be effective and committed to their roles and have sufficient time available to perform their duties. Accordingly, as recommended by the Nomination Committee, all Directors will be offering themselves for re- election at the Company's Annual General Meeting to be held on Thursday 4 May 2023. Further information on the Directors can be found on pages 64 and 65.

Annual General Meeting

The Annual General Meeting of the Company will take place at 12.30pm on Thursday 4 May 2023 at the offices of UBS, 5 Broadgate, London EC2M 2QS. All Directors will attend this year's Annual General Meeting which will again provide an opportunity for shareholders to hear more about our performance during the year and to ask questions of the Board. I look forward to meeting any shareholders who can join us at our Annual General Meeting and extend my thanks to you all for your continued support as we look forward to the year ahead.

I hope you find this report useful.

Sir Bill Thomas
Chairman
7 March 2023

Compliance with the UK Corporate Governance Code

As a premium listed company on the London Stock Exchange, the Company is reporting in accordance with the UK Corporate Governance Code (the "Code") published in July 2018. The Code sets out standards of good practice in relation to Board leadership and Company purpose; division of responsibilities; composition, succession and evaluation; audit, risk and internal control; and remuneration. The Code is published by the UK Financial Reporting Council (FRC) and a copy of the Code is available from the FRC website at www.frc.org.uk.

The Board confirms that the Company is fully compliant with the Code, except for the alignment of the CFO's pension contribution to the level available to the UK workforce which occurred on 1 January 2023.

Board leadership and Company purpose

The Board's ultimate objective is the long-term sustainable success of the Company. Read more about our strategy in our Strategic Report and how the Board achieves this through, amongst other things, stakeholder and workforce engagement (pages 26 to 29), establishing a clear and aligned Company purpose, strategy and values (page 3) and how the Board assesses and monitors culture (pages 14 and 15).

Division of responsibilities

The Board consists of two Executive Directors, five Independent Non-executive Directors and the Non-executive Chairman, who was considered independent on appointment to the Board. Additional external appointments of Board members during 2022 received prior Board approval. Directors' other time commitments are in line with the key institutional investor and investor body guidelines.

Composition, succession and evaluation

The Nomination Committee report (pages 74 to 76) describes its activities during 2022, including information on succession planning and diversity and inclusion matters. Details of the Board's effectiveness review which took place during the period are set out on page 70 and details of Board composition on page 67.

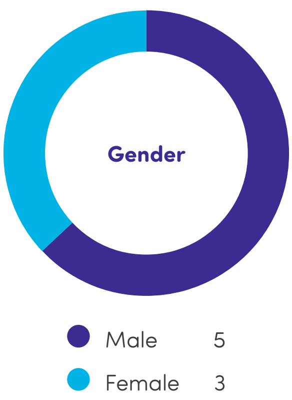
Audit, risk and internal control

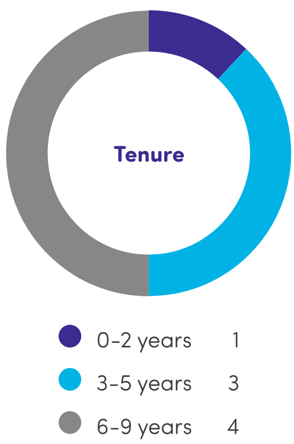
The Audit Committee report (pages 77 to 82) describes the work of the Committee and how it discharges its roles and responsibilities. The Board, supported by the Audit Committee and its Risk Sub-Committee, completed a robust assessment of the Company's emerging and principal risks during the period under review and has well established procedures to manage risk. The Company's disclosures regarding principal risks are set out on pages 55 to 60.

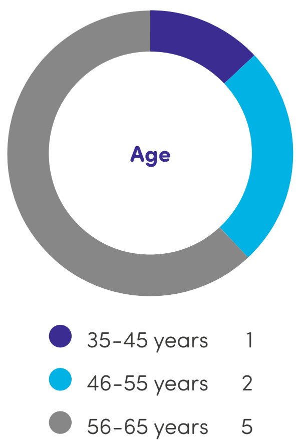
Remuneration

The Report on Directors' remuneration on pages 83 to 110 describes the work of the Remuneration Committee during 2022, and sets out how executive remuneration is aligned with the Company's purpose, values and strategy and how workforce remuneration and related policies have been considered in its decision making regarding executive remuneration.

Board composition







Board of Directors

Sir Bill Thomas
Chairman

N

Sir Bill was appointed to the Board in December 2016 as Non-executive Director and appointed Chairman in May 2017.

Skills and experience
Sir Bill brings strong commercial and management experience to the Board. His extensive international technology experience, together with his track record in leading major change in large organisations, provides valuable insight. Sir Bill is a former Senior Vice President at Hewlett Packard and was on the executive committee of EDS plc as Executive Vice President. Until March 2022, Sir Bill was Chairman of Clarkson PLC.

Other roles
Chairman of Node4, a private equity-owned IT services firm; Chairman of Jungle Creations, a private equity-owned media production company; Non-executive Director of The Co-operative Bank; member of Advisory Board of Mandiant, Inc (formerly FireEye, Inc).

Sir Bill was awarded a knighthood in the New Year Honours 2020.

Eric Updyke
Chief Executive Officer

Eric was appointed to the Board in May 2019 as Chief Executive Officer.

Skills and experience
Most recently, Eric was on the executive management team of Amdocs reporting directly to the CEO. In his capacity as Group President, Services at Amdocs Ltd he had global responsibility for the entire Managed Services, Testing and SI businesses. This business encompassed 10,000 employees and roughly $2 billion in revenue. Prior to that role, Eric was Division President for North America at Amdocs where he managed a $1 billion P&L and was responsible for the relationship with North American communications service providers. Prior to his time at Amdocs, he held executive roles at Nokia Siemens Networks and AT&T. Eric has a great track record of success, has functional expertise in every facet of the business and has excelled in multi-cultural global companies.

Eric has an MBA in Finance and a bachelor's degree in Electrical Engineering from Cornell University.

Other roles
Since 2019, Non-executive Director of Symend, Inc.

Paula Bell
Chief Financial & Operations Officer

Paula was appointed to the Board in September 2016 as Chief Financial Officer.

Skills and experience
Paula has extensive FTSE 250 board experience and, in particular, working with large scale global technology and engineering businesses. Paula has demonstrable experience of effective commercial, financial and operational management leading to increased earnings whilst driving a strategic agenda. Paula was previously CFO at John Menzies Plc from 2013 and CFO at Ricardo Plc from 2006 to 2013. Paula has held senior management roles at BAA plc, AWG plc and Rolls-Royce Plc, with wide areas of responsibility, including leading business development for international growth underpinned by extensive M&A activity. Paula was also previously at Laird Plc from 2012 to 2018 as Non-executive Director, Senior Independent Director and Chair of Audit Committee.

Paula is a Fellow of the Chartered Institute of Management Accountants and a Chartered Global Management Accountant.

Other roles
Since September 2018, Non-executive Director and, since January 2019, Chair of Audit and Risk Committee at Keller Group Plc.

Jonathan Silver
Senior Independent Non-executive Director

A N R

Jonathan was appointed to the Board in June 2015 as Non-executive Director, appointed Chair of Audit Committee in August 2015, and appointed Senior Non-executive Director in November 2016.

Skills and experience
Jonathan brings experience in finance, risk, control, governance and international business expertise. He was Chief Financial Officer at Laird plc until 2015, having held a variety of roles in his 30 years with the company.

Jonathan is a member of the Chartered Accountants of Scotland.

Other roles
Non-executive Director of Baillie Gifford China Growth Trust plc; Non-executive Director and Chairman of Audit Committee of East and North Hertfordshire NHS Trust; Non-executive Director and Chairman of Audit Committee at Henderson High Income Trust PLC.

Committee key

A Audit Committee

N Nomination Committee

R Remuneration Committee

Committee Chairman

Gary Bullard
Independent
Non-executive Director

A N R

Gary was appointed to the Board in December 2016 as Non-executive Director and appointed Chair of Remuneration Committee in May 2017.

Skills and experience
Gary brings extensive experience in senior management positions, including sales and marketing roles, at IBM and BT Group plc and was a Non-executive Director of Chloride Group plc. Until 2012 he was President at Logica UK and a member of the Executive Committee of Logica plc.

Other roles
Non-executive Chairman of Gooch & Housego PLC; Non-executive Chair of AFC Energy PLC.

Maggie Buggie
Independent
Non-executive Director

A N R

Maggie was appointed Non-executive Director in April 2021.

Skills and experience
Prior to this role, Maggie was SVP and Chief Business Officer at SAP Customer Success Services and before that, General Manager and Global Head of Innovation Services and Solutions at SAP. She has significant experience building fast-growth digital businesses and previously led Digital Sales, Markets and Industries globally at Capgemini and Global Cloud Sales and Consulting for Fujitsu.

Maggie serves on the International Committee of the UK Chartered Management Institute and also served on the Board of Green Token by SAP, winning the 'Women in the City' technology category award. She is on the next generation committee at Leap, a charity that helps young people manage conflict. She advises scale-ups in the sustainability, customer experience and enterprise AI segments.

Maggie holds both a Master of Letters and a BBS Lang in Business and French from Trinity College, Dublin. She also holds a degree from the Grande École de Commerce de Rouen, France.

Other roles
Maggie is a technology industry executive, adviser and speaker, and is currently Chief Operating Officer at Normative.

Wendy Koh
Independent
Non-executive Director

A N R

Wendy was appointed to the Board in January 2018 as Non-executive Director.

Skills and experience
Wendy is a seasoned leader in the IT industry with 27 years of experience driving growth in the APAC region. She has a strong background in partnership strategy, relationship building, go-to-market planning, and sales & business development. In her role as Vice President Pathways, Alliance & Strategy APAC at NetApp, Wendy led APAC business partnerships and drove business value by helping partners generate opportunities in the hybrid cloud and supporting customers on their digital transformation journeys. At Juniper Networks, Wendy served as Senior Vice President Global GTM Strategy and Business Development, where she was responsible for leading transformational strategy and establishing partnerships to increase the value proposition for customers. With a strong track record of developing competitive and high-performing businesses, Wendy is an expert in driving growth and delivering outstanding service.

Wendy holds a Bachelor of Engineering in Electrical and Electronics from Nanyang Technological University and a Graduate Diploma in Marketing Management from the Singapore Institute of Management.

Other roles
Executive Vice President/ Managing Director South East Asia at Capgemini.

Edgar Masri
Independent
Non-executive Director

A N R

Edgar was appointed to the Board in January 2018 as Non-executive Director.

Skills and experience
Edgar brings to the Board wide-ranging experience of managing companies across the technology sector with a focus on driving investment and profitability. Edgar is Chief Executive Officer of the Accton Group, a global leader in the design and manufacturing of networking products. Prior to this, Edgar was President and Chief Executive Officer of Qualtre, Inc., a US-based start-up acquired by Panasonic Corporation in December 2016. Prior to this, Edgar was President and CEO of 3Com Corporation, a leading global data networking company, bringing the company to record revenue and gross margins before it was taken into private ownership.

Edgar holds a Diplôme d'Ingénieur from Ecole Centrale de Paris, a Master of Science degree in Electrical Engineering from the University of California at Berkeley, and a Master of Business Administration with distinction (Arjay Miller Scholar) from Stanford University.

Other roles
Venture Partner at Sway Ventures; Chairman of the Board of Kollective Technology, Inc.

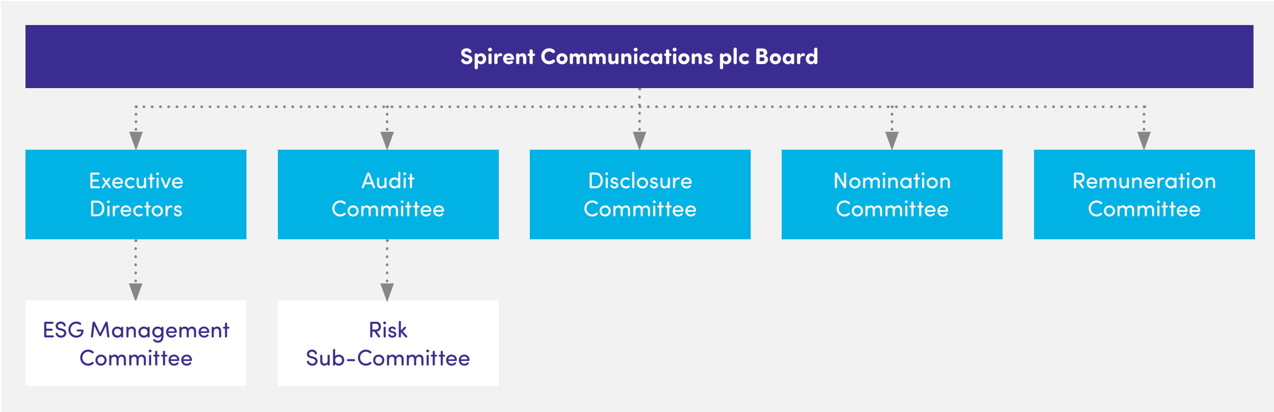
Board statements

Board statements

Requirement	Compliance statement	Where to find further information
Strategic Report	The Strategic Report was approved by the Board of Directors on 7 March 2023.	Pages 1 to 61
NFR statement	The Company has complied with the Non-Financial Reporting Directive contained in Sections 414CA and 414CB of the Companies Act 2006.	Page 61
Section 172 of the Companies Act 2006	The Board of Directors, through the Strategic Report, provides information for shareholders to help them assess how the Directors have performed their duty, under Section 172, to promote the success of the Company and, in doing so, had regard to the matters set out in that section. This includes considering the interests of other stakeholders which will have an impact on the long-term success of the Company.	Pages 26 to 29
Compliance with the UK Corporate Governance Code	In accordance with the Listing Rules of the UK Listing Authority, the Company confirms that throughout the period ended 31 December 2022 and at the date of this Annual Report, it was in compliance with all the relevant provisions as set out in the 2018 UK Corporate Governance Code, with the exception of Provision 38, relating to executive directors' pensions. Measures are set out in the Report on Directors' remuneration on pages 83 to 110 that explain how the Company achieved full compliance with the 2018 UK Corporate Governance Code at the end of 2022.	Pages 62 to 115
Going concern	After making appropriate enquiries and taking into account the matters set out in this Annual Report, the Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future and therefore continue to adopt the going concern basis when preparing the financial statements.	Page 114
Viability statement	The Directors confirm that they have a reasonable expectation that the Group will continue in operation and meet its liabilities as they fall due over the three-year period under review.	Page 114
Robust assessment of the principal risks facing the Group	The Directors confirm that they have carried out a robust assessment of the principal and emerging risks facing the Group, including those that would threaten its strategy, business model and future performance. The Directors also assessed the Group's risk appetite with regard to each risk and considered how to manage and mitigate such risks.	Pages 55 to 60
Annual review of the systems of risk management and internal control	During the period ended 31 December 2022, the Audit Committee provided transparency on the Group's systems of risk management and internal control.	Pages 77 to 82
"Fair, balanced and understandable" statement	The Board agrees with the recommendation of the Audit Committee that this Annual Report, taken as a whole, is fair, balanced and understandable.	Page 77
Report on Directors' remuneration	The Directors confirm that their report on remuneration for the period ended 31 December 2022 complies with the requirements of the Listing Rules of the UK Listing Authority, Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended) and the provisions of the 2018 UK Corporate Governance Code.	Pages 83 to 110
Competition and Markets Authority	The Audit Committee considers that the Company complied with the mandatory audit processes and Audit Committee responsibility provisions of the Competition and Markets Authority Audit Order for the period ended 31 December 2022.	Page 82
Modern Slavery Act 2015	The Directors confirm, for the financial year ended 31 December 2022, that steps have been taken in relation to our responsibilities under Section 54 of the Modern Slavery Act 2015 and that the Board approved a statement setting out the steps that have been taken to combat modern slavery in the Group's supply chain.	Page 39
Task Force on Climate-related Financial Disclosures (TCFD)	The Directors confirm that the Company has complied with the recommendations of the Task Force on Climate-related Financial Disclosures as required by Listing Rules of the UK Listing Authority.	Pages 35 and 36

Directors' statement on corporate governance

Board governance framework



The Board

The Board of Directors is collectively responsible to the Company's shareholders for the direction and oversight of the Company to ensure its long-term success.

The Board met regularly throughout the year to approve the Group's strategic objectives, to lead the Group within a framework of effective controls which enable risk to be assessed and managed, and to ensure that sufficient resources are available to meet the objectives set.

There are a number of matters which are specifically reserved for the Board's approval. These are set out in a clearly defined schedule which includes: matters relating to the Group's strategic plan; approving the annual business strategy and objectives; the nature and extent of principal risks to be taken to achieve the strategic objectives; changes relating to structure and capital; approval of trading statements, half year results, final results and Annual Report and Accounts; declaring interim dividends and recommending final dividends; the Group's policies and systems of internal control and risk management; approving capital projects, acquisitions and disposals valued at over $2 million; and provision of adequate succession planning.

The schedule of matters reserved for the Board was reviewed, approved and adopted at the December 2022 Board meeting.

Board composition

At the date of this Report, the Board comprises the Non-executive Chairman, five Independent Non-executive Directors and two Executive Directors.

The Chairman and the Non-executive Directors contribute entrepreneurial leadership and external expertise and experience in areas of importance to the Company, such as strategic investments including specific knowledge, understanding and experience of growth areas, corporate finance, general finance and corporate governance. They also contribute independent challenge and rigour to the Board's deliberations and assist in the development of the Company's strategy, scrutiny of the performance of management in meeting agreed goals and targets and satisfying themselves of the integrity of the Company's internal controls and risk management systems.

The Chairman holds regular discussions with the Non-executive Directors, both individually and as a group, without the Executive Directors present to ensure a free and frank exchange of views on the effectiveness of the Executive Directors and senior management.

Committees of the Board

Certain specific responsibilities are delegated to the Committees of the Board, notably the Audit, Nomination and Remuneration Committees, which operate within clearly defined terms of reference and report regularly to the Board. Further details are set out in the reports of each Committee that follow this statement.

A Disclosure Committee of the Board is also in place, to ensure that adequate procedures, systems and controls are maintained and operated to enable the Company to fully comply with its obligations regarding the timely and accurate identification and disclosure of all information to meet the legal and regulatory obligations and requirements arising from the Companies Act 2006, the FCA's Listing Rules, the Disclosure Guidance and Transparency Rules and the EU Market Abuse Regulation, as it forms part of retained EU law. The Board notes, however, that the existence of this Disclosure Committee does not absolve the Board from its obligations in this area. This Committee comprises the CEO, the CFO and the Company Secretary, with the Chairman and the Senior Independent Non-executive Director authorised to act as alternates in the event that a quorum of two members cannot be met. By its nature, the Disclosure Committee meets on an ad hoc basis, when circumstances require.

Membership of each Committee of the Board is reviewed annually and minutes of Committee meetings are made available to all Directors on a timely basis. The written terms of reference for the Audit, Disclosure, Nomination and Remuneration Committees, all of which were reviewed, updated where necessary and approved during the year, are available on the Company's website at corporate.spirent.com.

The Chairmen of the Audit, Nomination and Remuneration Committees intend to be available at the Annual General Meeting to answer questions on the work of their respective Committees.

Directors' statement on corporate governance continued

Committees of the Board continued

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. Further information on the issues dealt with by this Committee are set out in the Sustainability section of this Annual Report on pages 32 to 39.

There is also a formal Risk Sub-Committee of the Audit Committee to monitor risks and uncertainties at corporate and business unit levels. Further details of this Sub-Committee can be found in the Audit Committee report on page 79.

Chairman and CEO

The roles of the Chairman and the CEO are separately held. The division of their responsibilities is clearly established, set out in writing, and agreed by the Board to ensure that no one person has unfettered powers of decision. The Chairman is responsible for the operation and leadership of the Board, ensuring its effectiveness and setting its agenda. The CEO is responsible for leading and managing the Group's business within a set of authorities delegated by the Board and the implementation of Board strategy and policy.

Authority for the operational management of the Group's business has been delegated to the CEO for execution or further delegation by him for the effective day-to-day running and management of the Group.

Senior Independent Director

The role of Senior Independent Director is to act as a sounding board for the Chairman and to serve as an intermediary for other Directors as required. He is also available to shareholders to convey concerns to the Board which they have been unable to convey through the Chairman or through the Executive Directors. During the year, led by the Senior Independent Director, the Non-executive Directors have met without the presence of the Chairman (including to appraise the Chairman's performance).

Non-executive Directors

In addition to their responsibilities for strategy and business results, the Non-executive Directors play a key role in providing a solid foundation for good corporate governance and ensure that no individual or group dominates the Board's decision making. They each occupy, or have occupied, senior positions in industry, bringing valuable external perspective to the Board's deliberations through their experience and insight from other sectors which enables them to contribute significantly to Board decision making. The formal letters of appointment of the Non-executive Directors are available for inspection at the Company's registered office.

Company Secretary

The Company Secretary & General Counsel is responsible for advising and supporting the Chairman and the Board on corporate governance matters as well as ensuring that there is a smooth flow of information to enable effective decision making. All Directors have access to the advice and services of the Company Secretary and can take independent professional advice in respect of their duties, at the Company's expense.

Independence

The independence of each Non-executive Director is reviewed on appointment and at least annually. The Board determined that the current Non-executive Directors are each independent in character and judgement, save for the Chairman who was deemed independent by the Board at the date of his appointment. None have been employed by the Company previously in any capacity or have any current material business relationship with any Group company.

Non-executive Directors at Spirent receive no remuneration from the Company other than their fees (detailed in the Report on Directors' remuneration on page 95). Each Non-executive Director has confirmed that they do not represent any significant shareholder in the Company. No individual or group of individuals dominates the Board's decision making and the Code requirement stating that at least half of the Board (excluding the Chairman) should comprise independent Non-executive Directors is satisfied.

Appointments to the Board

There is a formal, rigorous and transparent procedure for the appointment of new Directors to the Board. Details are available in the Nomination Committee report on pages 74 and 76 which also provides details of the Committee's role and activities.

Commitment

The letters of appointment for the Chairman and Non-executive Directors set out the expected time commitment required of them and are available for inspection at the Company's registered office and at the Annual General Meeting.

The Board is mindful of investors' concerns on 'overboarding' and the particular attention given to the time commitment and availability of Directors. The external commitments of each Director are monitored to enable the Board to be assured that all of the Directors devote sufficient time and attention as is necessary in order to perform their duties. The list of external appointments held by Directors can be found on pages 64 and 65.

Board development

New Directors participate in an induction programme on the operations and activities of the Group, the role of the Board and the matters reserved for its decision, the Group's corporate governance practices and procedures and their duties, responsibilities and obligations as directors of a listed public limited company. This programme is normally then supplemented by visits to key locations and meetings with, and presentations by, senior executives.

Ongoing training for Directors is available as required and can be provided by means of external courses, internal computer-based training, briefings from specific consultants or in-house presentations. In addition, the Board's knowledge and understanding of the legal and regulatory environment are updated through the provision of information by the Group's advisers and by means of regular updates from the Company Secretary.

New Directors are encouraged to take advantage of opportunities to meet with major shareholders and attend presentations to analysts where possible.

Further details of the appointment and induction process are set out in the Nomination Committee report on pages 74 to 76.

Board meetings

The Board held nine meetings during the year. Discussion papers for Board and Committee meetings are provided to Directors in advance of the meeting. Should a Director be unable to participate in a meeting either in person or remotely, the Chairman will solicit their views on key terms of business in advance of the relevant meeting, so that these can be shared with the meeting.

The attendance of the Directors at Board and Committee meetings during the year under review is shown in the table below.

	Board	Audit Committee	Nomination Committee	Remuneration Committee
Sir Bill Thomas	9/9	–	3/3	–
Paula Bell	9/9	–	–	–
Eric Updyke	9/9	–	–	–
Maggie Buggie	9/9	4/4	–	7/7
Gary Bullard	9/9	4/4	3/3	7/7
Wendy Koh	9/9	4/4	3/3	7/7
Edgar Masri	9/9	4/4	3/3	7/7
Jonathan Silver	9/9	4/4	3/3	7/7

Information flow

The Company Secretary manages the provision of information to the Board at appropriate times in consultation with the Chairman and CEO. In addition to formal meetings, the Chairman and CEO maintain regular contact with all Directors. The Chairman also holds informal meetings with Non-executive Directors, without any of the executives being present, to discuss any issues affecting the Group, if this is thought necessary. Regular management updates are sent to Directors to keep the Non-executive Directors informed of events and developments throughout the Group between Board meetings and to ensure that they are kept fully advised of the latest issues affecting the Group.

Conflicts of interest procedures

The Company has procedures in place, which were reviewed and updated during the year, to deal with the situation where a Director has a conflict of interest.

As part of this process, the Board:

- considers each potential conflict situation separately on its particular facts;
- considers the potential conflict situation in conjunction with the rest of the Directors' duties under the Companies Act 2006;
- keeps records and Board minutes as to authorisations granted by Directors and the scope of any approvals given; and
- regularly reviews conflict authorisation.

At the start of each Board meeting, the Directors are reminded of their duties under the Companies Act to declare any interests in the matters to be discussed and to withdraw from the meeting prior to any voting being held on any such issue. Any Director having such an interest would not be considered to form part of the quorum for discussions on that specific matter.

Board activities during 2022

At each Board meeting the CEO presents an update on performance, strategy and business issues such as M&A pipeline developments across the Group and the CFO presents a detailed analysis of the financial performance of the business units. Senior executives below Board level attend relevant parts of Board meetings in order to make presentations on their areas of responsibility; this gives the Board access to a broader group of executives and helps the Directors make ongoing assessments of the Group's succession plans. The Board has a rolling programme of visits to business unit locations to deepen its appreciation of the different opportunities and challenges that each unit faces.

Directors' statement on corporate governance continued

Core issues considered by the Board during 2022

	Governance/compliance	Finance	Business/strategy
January	• Board effectiveness review results • Legal review	• CFO update • 2021 Full year trading update review • 2022 Budget update	• CEO update • ESG update
March	• 2021 Full year compliance and Annual Report review • Modern Slavery Statement review • Legal update • Pensions update	• CFO update • 2021 Full year results review • Dividend Policy review • Capital Policy review • Receive Audit Committee report on internal controls, risk management and viability statement	• CEO update including sales briefing • Capital markets update
May	• AGM voting review • Stakeholder engagement feedback (investors) • Pensions update	• CFO update • 2022 Q1 results review	• CEO update • Competitive landscape review
June	• Stakeholder engagement feedback (investors)	• CFO update • Capital Policy review • Tax update	• CEO update • Broker update • People update • Strategy presentations
August	• 2022 Half year corporate governance and compliance review • Legal and trade compliance update • Workforce engagement update	• CFO update • 2022 Half year results review • Insurance update	• CEO update • Supply chain update • Customer update
October	• Stakeholder engagement feedback (investors) • Pensions update	• CFO update	• CEO update • Sales update • People update
November	• Governance compliance review • Board effectiveness review kick-off	• CFO update • 2022 Q3 results review	• CEO update • Business unit update
December	• Governance compliance review	• CFO update • 2023 Budget	• CEO update • EMEA update • Business unit update • ESG update

Board performance evaluation

The effectiveness of the Board is reviewed at least annually and conducted according to the principles of the Code and the supporting FRC Guidance on Board Effectiveness. As the 2021 review was facilitated by Tom Bonham Carter of The Effective Board LLP (neither Tom Bonham Carter nor The Effective Board LLP have any other connection to the Company or to any individual Director) the 2022 review was conducted internally by the Chairman and Company Secretary.

Evaluation process

Following discussions between the Chairman and Company Secretary, which included the provision of internal policy documents, an initial questionnaire was developed for the Board and its Audit, Nomination and Remuneration Committees. Directors completed the confidential survey online, with their answers forming a report to be discussed by the Board. The conclusions and insights gained were discussed, with areas of focus for 2023 identified for final discussion by the Board.

Evaluation findings

The review established that there continued to be firm consensus among the Board members of what defined success for the Company both in terms of scope and over the short, medium and longer term. Consistent views of the Company's strengths were reported, with the Board confirming that challenges and threats to the Company were clearly identifiable. The directors agreed that the Company's strategy is well developed and remains appropriate and that the Company's values as defined to employees are fully aligned to the strategy.

Board members agreed that there was no longer any significant skills gap in the composition of the Board, although specific topics were agreed where additional training would help to make the Board members more effective. The Board considered it was appropriate for the task of implementing the strategy of the Company to achieve the define success criteria. However, opportunities for further additions to the Board would be kept under review with diversity and succession planning in mind.

Board action plan
The Board's areas of focus for 2023 include:

- identify market segments to drive our longer term growth (both organic and inorganic);
- review implementation of agreed IT strategy;
- focus on effectiveness of research and development spend;
- continue to build a deeper understanding of our competitors' strengths and weaknesses; and
- seek input from industry experts about trends affecting our industry and how they perceive Spirent to be positioned to respond to those trends.

Election and re-election of Directors
All Non-executive Directors undertake a fixed term of three years subject to annual re-election by shareholders. The fixed term can be extended and, consistent with best practice, would not go beyond nine years unless exceptional circumstances were deemed to exist.

The Board confirms that each of the Directors standing for re-election has been subject to a formal performance evaluation by the Chairman in relation to their duty to act in the long-term interests of the Company, while also having regard to other stakeholders. The evaluation of the Chairman's performance was carried out by the Senior Independent Non-executive Director.

Biographical details, including information on other roles held, can be found on pages 64 and 65; an assessment of skills held by Board members can be found in the Nomination Committee report on page 74.

Financial and business reporting
The Board recognises its responsibility to present a fair, balanced and understandable assessment of Spirent in all of its reporting obligations. This responsibility covers the Annual Report and extends to the Half Year report and other regulatory announcements. The Directors consider this Annual Report, taken as a whole, to be fair, balanced and understandable, providing the information necessary for shareholders to assess the Company's performance, business model and strategy. In arriving at this position, the Board asked the Audit Committee to review and confirm a process is in place to support this assessment. The Audit Committee confirmed that a robust approach is in place to support the fair, balanced and understandable assessment, details of which can be found in the Audit Committee report on pages 77 to 82.

Business model
A description of the Company's business model for sustainable growth is set out in "Our business model" on pages 22 and 23. This section provides an explanation of the basis on which the Group generates value and preserves it over the long term and its strategy for delivering its objectives.

Going concern
After making enquiries, the Directors have a reasonable expectation that the Company and the Group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, and consistent with the guidance contained in the document titled "Guidance on Risk Management, Internal Control and Related Financial and Business Reporting" published by the FRC, they continue to adopt the going concern basis in preparing the annual financial statements.

Internal control and risk management
The Board acknowledges its responsibilities for the Group's system of internal control in order to facilitate the identification, assessment and management of risk, the protection of shareholders' investments and the Group's assets. The Directors recognise that they are responsible for providing a return to shareholders which is consistent with the responsible assessment and mitigation of risks.

Effective controls ensure that the Group's exposure to avoidable risk is minimised, that adequate accounting records are maintained, that the financial information used within the business is reliable and that the consolidated accounts preparation and financial reporting processes comply with all relevant regulatory reporting requirements. The dynamics of the Group and the environment within which it operates are continually evolving, together with its exposure to risk.

Internal controls can only provide reasonable and not absolute assurance against material misstatement or loss. The Directors confirm that there is an ongoing, robust process for identifying, evaluating and managing the principal risks faced by the Group and the operational effectiveness of the related controls; this has been in place for the year under review and up to the date of approval of the Annual Report and Accounts. They also confirm that they have regularly reviewed the system of risk management and internal controls utilising the review process set out below.

The Directors confirm that a robust assessment of the principal risks facing the Company has been carried out, including those risks that would threaten its business model, future performance, solvency or liquidity. Ongoing consideration is also given to potential emerging risks and whether or not any of those identified have the potential to become a principal risk to the business in the medium to long term. More details are set out in the Principal risks and uncertainties section on pages 55 to 60 of this Annual Report.

Directors' statement on corporate governance continued

Management and control of US subsidiary

Spirent Federal Systems Inc ("Spirent Federal"), which contributed approximately $46.1 million to the Group's revenue in 2022 (2021 $44.8 million), operates under a Proxy agreement, as detailed below, with the remainder of the US business operating outside the Proxy regime and therefore allowing the same reporting lines and processes as the Group's other, non-regulated businesses.

Spirent Federal and the Proxy arrangement

Spirent Federal Systems Inc is a wholly owned subsidiary of Spirent in the United States. It has been placed under a Proxy arrangement as it is required by the US National Industrial Security Program to maintain facility security clearances and to be mitigated of the risks of foreign ownership, control or influence for the business it undertakes. Under the Proxy agreement, Spirent Federal and the US Department of Defense (DoD) are parties to a Proxy agreement that relates to the management and operation of Spirent Federal.

In addition to their powers as Directors, the United States Government expects the Proxy Holders to exercise independently the prerogatives of share ownership of Spirent Federal. The Proxy holders have a fiduciary duty, and agree, to perform their interests in the best interests of Spirent as a shareholder (including the legitimate economic interest), and in a manner consistent with the national security interests of the United States. Spirent may not remove the Proxy holders other than for acts of gross negligence or wilful misconduct or for breach of the Proxy agreement (and always only with the consent of the US Defense Security Service).

In terms of the power to govern, the Proxy agreement vests certain powers solely with the Proxy holders and certain powers solely with Spirent. For example, the Proxy holders cannot carry out any of the below without Spirent's express approval:

- sell or dispose of, in any manner, capital assets or the business of Spirent Federal;
- pledge, mortgage or encumber assets of Spirent Federal for purposes other than obtaining working capital or funds for capital improvements;
- merge, consolidate, reorganise or dissolve Spirent Federal; and
- file or make any petition under the federal bankruptcy laws or similar law or statute of any state or any foreign country.

Spirent can require the above to be carried out and these are, therefore, considered to be significant participative features.

Spirent maintains its involvement in Spirent Federal's activities through normal business interaction and liaison with the Chair of the Proxy Board. Members of Spirent's senior management team attend meetings of the Proxy Board periodically.

Standards

Guidelines on the minimum Group-wide requirements for health and safety and environmental standards are set out in policy documents and procedures. There are also guidelines on the minimum level of internal control that each of the business units 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.

High-level controls

All businesses prepare annual operating plans and budgets which are supplemented by regular forecasts throughout the year. Performance against budget is monitored both at operational level and centrally, with variances being reported promptly. The cash position at Group and operational level is monitored constantly and variances from expected levels are investigated thoroughly. Clearly defined guidelines have been established for capital expenditure and investment decisions. These include the preparation of budgets, appraisal and review procedures, and delegated authority levels.

Financial reporting

Detailed management accounts are prepared every month, being consolidated in a single system and reviewed by senior management and the Board. They include a comprehensive set of financial reports and key performance indicators covering commercial and operational issues. Performance against budgets and forecasts is discussed regularly at Board meetings and at meetings between operational and Group management. The adequacy and suitability of key performance indicators is reviewed regularly.

Internal audit

All of the internal audit activities are co-ordinated by the Head of Internal Audit & Risk who has direct access to the Board Chairman and to the Audit Committee Chairman and is accountable to the Audit Committee.

All Group businesses are required to comply with the Group's financial control framework that sets out minimum control standards. A key function of the Group's internal audit resource is to undertake audits to ensure compliance with the financial control framework and make recommendations for improvement in controls where appropriate.

Senior members of the Group finance team meet with the Chairman of the Audit Committee as appropriate but at least annually, without the presence of executive management, and have direct access to the Chairman.

Remuneration

The Report on Directors' remuneration is set out on pages 83 to 110 and provides details of our Remuneration Policy and how it has been implemented, together with the activities of the Remuneration Committee.

Board relations with shareholders

The Board is committed to maintaining good communications with shareholders. As detailed on page 27 of this Annual Report, the Chairman, CEO and CFO have regular one-to-one contact with individual institutional shareholders in order to develop an understanding of their views. These are then discussed with the Board. Key themes for discussion in 2022 have continued to include developments in the Company's growth strategy.

All Directors are offered the opportunity to develop a dialogue with major shareholders to listen to their views. Presentations are made to analysts, investors and prospective investors covering the full year and half year results. Executive Directors receive regular reports prepared by an independent capital markets advisory firm which provides comprehensive information relating to the Company's major shareholders.

The Company seeks to maintain a dialogue with the various bodies which monitor the Company's governance policies and procedures.

The Company is always keen to hear the views of its private shareholders and we encourage them to access our website at corporate.spirent.com for our Company reports and business information. Detailed enquiries can be sent to our shareholder mailbox at investor.relations@spirent.com.

Any concerns raised by shareholders or their representatives, whether expressed directly or through voting patterns at the Company's AGM, are discussed by the Directors. An appropriate response is given either specifically to the concerned party or, if it is felt to be of wider benefit, made available to all shareholders via the Company's website at corporate.spirent.com.

Board relations with workforce

Employee feedback in 2022 was gathered in a number of ways including regular employee engagement surveys throughout the year and regular virtual town-hall meetings for all employees and also for smaller sub-groups.

The Board continues to engage with the workforce through its local Non-executive Directors designated as the liaison point for employees in the three geographical areas in which the Company operates:

- Americas – Edgar Masri;
- APAC – Wendy Koh; and
- EMEA – Gary Bullard.

Meetings for each of the three areas took place both in person and on a virtual basis, with feedback being reported to the Board at its regular meetings. Further details about this engagement are set out on pages 26 to 29 of this Annual Report.

Annual General Meeting

The Company's 2023 Annual General Meeting (2023 AGM) will be held at 12.30pm on Thursday 4 May 2023 at the offices of UBS at 5 Broadgate, London EC2M 2QS.

The Board continues to view the AGM as a valuable opportunity to communicate with private shareholders in particular, for whom it provides the opportunity to ask questions of the Chairman and, through him, the Chairmen of the key Committees and other Directors. The 2023 AGM is planned to take place as an in-person meeting, but notifications of any alternative arrangements that arise after the publication of this Annual Report will be published on the Company's website at corporate.spirent.com/shareholder-information/agm and by announcement via a Regulatory Information Service.

To ensure transparent representation of shareholder views, resolutions at the 2023 AGM will be subject to poll voting. This gives shareholders the ability to vote directly on the resolutions either in person at the meeting, or by submitting their proxy instructions to the Company's Registrar, Equiniti, in advance of the meeting.

Nomination Committee report

Sir Bill Thomas
Committee Chairman

Members

During the year and at the date of this Annual Report:

- Sir Bill Thomas (Chairman);
- Maggie Buggie;
- Gary Bullard;
- Wendy Koh;
- Edgar Masri; and
- Jonathan Silver.

Key duties

The terms of reference of the Nomination Committee, which were reviewed and approved during the year, are available on the Company's website at corporate.spirent.com.

In accordance with its terms of reference, the Nomination Committee's key duties include:

- regularly reviewing the Board structure, size and composition (including the skills, knowledge, independence, experience and diversity) and making recommendations to the Board about suitable candidates for the role of Senior Independent Director, and membership of the Audit and Remuneration Committees, in consultation with the Chairmen of the relevant Committees;
- considering plans for orderly succession on the Board and in the Company's senior leadership with a view to ensuring the continued ability of the organisation to compete in the marketplace; and
- leading the search process and making recommendations to the Board for the appointment of new Directors.

Board composition and succession

Following completion as part of the 2022 Board and Committee effectiveness review, the Committee agreed that there was no significant skills gap in the composition of the Board and it was appropriate for the task of implementing the strategy of the Company to achieve the defined success criteria. However, given the tenure of several Board members, preparations would be made for a timely recruitment process to identify successors while opportunities for further additions to the Board would be kept under review with diversity and succession planning in mind.

Skills and training

After completing and reviewing a self-assessed skills audit of the Board (the results of which can be seen below), the Board identified areas where they would benefit from additional training as a group, alongside more specific training for individuals on areas where they felt their knowledge and understanding could be refreshed.

Directors' skills

Skill/experience	Number of Directors (8 total)
CEO/CFO	5
US experience	7
EMEA experience	7
APAC experience	6
Strategic leadership	8
Technology industry experience	8
Cybersecurity	1
Business transformation	8
Marketing/GoToMarket	6

Skill/experience	Number of Directors (8 total)
Finance and audit	3
Financial qualifications	4
Risk management	4
FTSE250 Board experience	5
UK regulation and regulatory environment	4
M&A and capital market experience	5
Prior Committee chair	5
ESG	7
Remuneration	6

Time commitment

The Committee is mindful of investors' concerns on 'overboarding' and the particular attention given to the time commitment and availability of Directors. The external commitments of each Director are monitored to enable the Board to be assured that all of the Directors devote sufficient time and attention as is necessary in order to perform their duties. The list of external appointments held by Directors can be found on pages 64 and 65.

Performance review

The performance of the Committee was reviewed as part of the annual Board effectiveness evaluation and the Committee was found to be operating effectively.

Re-election of Directors

All Non-executive Directors undertake a fixed term of three years subject to annual re-election by shareholders. The fixed term can be extended and, consistent with best practice, would not go beyond nine years unless exceptional circumstances were deemed to exist.

The Committee reviews the results of the annual Board effectiveness evaluation that specifically relate to the composition of the Board, and whether the time commitment of those who fulfil the roles of Chairman, Senior Independent Director and Non-executive Director was appropriate.

The Board confirms that each of the Directors standing for re-election has been subject to a formal performance evaluation by the Chairman in relation to their duty to act in the long-term interests of the Company, while also having regard to other stakeholders. The evaluation of the Chairman's performance was carried out by the Senior Independent Non-executive Director.

Biographical details for each of the Board Directors, setting out skills, experience and information on other roles held, are set out on pages 64 and 65.

Succession planning for senior leadership

A key part of the Committee's role is to maintain an ongoing assessment of the senior leadership depth and improving the effectiveness of the internal talent pipeline continues to be one of the Board's priorities.

An update to the leadership development and the internal succession pipeline was undertaken during 2022, with the aim of enhancing visibility and awareness of the Group's leadership talent, strengths and gaps, while also providing an open, honest leadership team dialogue on what teams contribute and how. The Committee continues to support management in recognising that understanding and deploying the Group's talent is a critical and dynamic business planning process that can help the organisation to make huge strides in cross-functional collaboration and the sharing of knowledge and experience.

Spirent's commitment to a diverse and inclusive work environment

At Spirent, we know that having a diverse and inclusive workforce is essential if we are going to deliver on our mission to be global leader and trusted partner for innovative technology test and assurance solutions. 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 embrace a culture where difference is valued and openness, mutual respect, collaboration and fairness are 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 provide an environment where everyone feels empowered to bring their full, authentic self to work.

We strive to enable:

- workforce representation that reflects the talent market;
- equitable reward and advancement; and
- a culture of trust, fairness and respect.

We all need to do more and are committed to doing so.

Spirent's commitment to 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. We have developed a network of university partners and recruitment channels to help us to both recruit from groups that are currently under-represented, especially female engineers and people of colour, and support students to reach their full potential. In 2022, we added Prairie View A&M University to our university network and created a talent acquisition video to drive diversity and early career recruitment with our partners. We also launched an employee resource group to lead talent acquisition and mentoring initiatives with Morgan State University, Prairie View A&M University and the Society of Women Engineers.

Nomination Committee report continued

Diversity and inclusion

The Committee, the Board of Directors and the Spirent Group as a whole continue to pay full regard to the benefits of diversity, including gender and ethnic diversity, when searching for candidates for the Board, the senior management team and other appointments. We believe that better business decisions can be made by having representation from different genders and cultural backgrounds with differing skill sets, experience and knowledge, which reflect our customer base and the wider population in our markets.

Diversity of Board members is important to provide the necessary range of background experience, values and diversity of thinking and perspectives to optimise the decision making process. Gender and ethnicity are important aspects of diversity which the Chairman and the Committee consider when deciding upon the most appropriate composition of the Board.

Spirent as a whole recognises the benefits of diversity beyond that of gender, taking account of diversity of social and ethnic backgrounds and cognitive and personal strengths when considering appointments at all levels, whilst ensuring appointments are made on merit and ability to enhance the performance of the business.

At 31 December 2022, the Committee reports the Group's performance against the diversity targets set out in the FCA Listing Rule 9.8.6(9) and Listing Rule 14.3.33 as follows:

Gender identity or sex

	Number of Board members	Percentage of the Board	Number of senior positions on the Board[1]	Number in executive management[2]	Percentage of executive management[2]
Men	5	62.5	3	6	67.0
Women	3	37.5	1	3	33.0
Not specified/prefer not to say	–	–	–	–	–

Notes
1. Chairman, CEO, CFO and SID.
2. Excludes CEO, includes CFO and direct reports to the CEO only (excluding executive assistant).

Ethnic background

	Number of Board members	Percentage of the Board	Number of senior positions on the Board[1]	Number in executive management[2]	Percentage of executive management[2]
White British or other White (including minority White groups)	6	75.0	4	8	89.0
Mixed/multiple ethnic groups	–	–	–	–	–
Asian/Asian British	1	12.5	–	–	–
Black/African/Caribbean/Black British	–	–	–	–	–
Other ethnic group, including Arab	1	12.5	–	1	11.0
Not specified/prefer not to say	–	–	–	–	–

Notes
1. Chairman, CEO, CFO and SID.
2. Excludes CEO, includes CFO and direct reports to the CEO only (excluding executive assistant).

The Committee notes that the Company has achieved each of the targets set out in the relevant Listing Rules with the exception of the Board comprising at least 40 per cent women. Two of the four most recent appointments to the Board have been women, and the Committee is committed to requiring a diverse candidate list for all future Board appointments in order to continue to drive the representation of women on boards.

Sir Bill Thomas
Chairman, Nomination Committee
7 March 2023

Audit Committee report

Jonathan Silver
Committee Chairman

Fair, balanced and understandable

In making its recommendation to the Board that the Annual Report, taken as a whole, is fair, balanced and understandable, the Committee applied robust governance arrangements, including:

- clear guidance and instruction of the disclosure requirement provided to contributors;
- comprehensive Group and subsidiary accounts processes, with written confirmations provided by each business unit;
- management teams on the health of the financial control environment;
- a verification process applied to factual content with the aim of providing the information necessary to assess the Company's performance, business model and strategy;
- reviews of the Annual Report undertaken at different levels of the Group and by the senior management team that aim to ensure consistency and overall balance;
- additional scrutiny by senior management including focused review of risk registers;
- additional Committee reviews of the draft Annual Report in advance of final sign-off; and
- external audit review.

Final approval of the Annual Report is provided by the Board, on the recommendation of the Committee.

Dear shareholder

On behalf of the Audit Committee, I am pleased to present its report for the period ended 31 December 2022.

The Committee has worked to maintain the integrity of the Group's financial statements and reporting responsibilities which are at the heart of good governance. The Committee takes great care in carrying out these important tasks, while also maintaining a strong internal control and compliance culture across the Group.

In the areas of both internal and external audit work, the Committee welcomes the return to on-site and in-person audits and reviews following the wide lifting of COVID-19 related restrictions; these provide for a much better interaction between management and auditor.

Against a backdrop of continued supply chain pressures, rises in inflation and macroeconomic uncertainty, the Committee undertook a thorough review of the Group's principal and emerging risks this year and was satisfied that these were addressed appropriately in the end-of-year cash modelling exercises undertaken to support the Board's statements on going concern and viability.

Finally, an important part of the Committee's work this year has been reviewing preparations for the new reporting and governance requirements for companies proposed in the BEIS White Paper. The Committee received presentations from management and Deloitte on the likely implications for the Group and while the implementation dates and content remain uncertain, the direction of travel is clear; we need to continue to work towards a more formal and stronger control and assurance environment. This work is expected to occupy a large part of the Committee's time over the next two years.

I look forward to meeting with shareholders at the Annual General Meeting to answer any questions on the work of the Committee.

Jonathan Silver
Chairman, Audit Committee
7 March 2023

Audit Committee report continued

Members

During the year and at the date of this report, Committee members were:

- Jonathan Silver (Committee Chairman);
- Maggie Buggie;
- Gary Bullard;
- Wendy Koh; and
- Edgar Masri.

It is intended that the Audit Committee is comprised of at least three members, all of whom are Independent Non-executive Directors of the Company with the necessary range of financial and commercial expertise to challenge management. Two members constitute a quorum.

The Code requires the inclusion of one financially qualified member (as recognised by the Consultative Committee of Accountancy Bodies) with recent and relevant financial experience. Currently, the Committee Chairman fulfils this requirement.

Key duties

In accordance with its terms of reference, the Audit Committee's key duties include:

- monitoring the integrity of the Group's financial statements and any formal announcements relating to the Company's performance by reviewing significant financial reporting judgements contained in them before their submission to the Board for approval;
- on matters of financial reporting, reviewing and challenging where necessary the consistency of and any changes to accounting and treasury policies, for example considering whether the Group has followed appropriate accounting policies and made appropriate estimates and judgements, the clarity and completeness of disclosure, significant adjustments resulting from the audit, and the going concern assumption and compliance with auditing standards;
- at the request of the Board, reviewing the content of the Annual Report and Accounts and advising the Board on whether, taken as a whole, it is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy;
- as requested by the Board, assisting in relation to the Board's assessment of the principal and emerging risks facing the Company and the prospects of the Company for the purposes of disclosures required in the Annual Report and Accounts;
- reviewing the effectiveness of the Group's internal financial controls, including the policies and overall process for assessing established systems of internal financial control and timeliness and the effectiveness of corrective action taken by management;
- reviewing the most appropriate fulfilment of the internal audit function and agreeing and assessing the annual internal audit plan and its effectiveness in the context of the Company's overall risk management system;
- overseeing the Group's policies, procedures and controls for preventing bribery and identifying money laundering, and the Group's arrangements for whistleblowing; and
- overseeing the relationship with the Group's external auditor, reporting to the Board each year whether it considers the audit contract should be put out to tender taking into account any legal requirements for tendering or rotation of the audit contract, reviewing and monitoring its objectivity and independence including seeking information from the external auditor on an annual basis about its policies and procedures for maintaining independence, agreeing the scope of its work and fees paid to it for audit, assessing the effectiveness of the audit process, and agreeing the policy in relation to the provision of non-audit services.

How the Committee operates

All Committee members are expected to be financially literate and to have an understanding of the following areas:

- the principles of, and developments in, financial reporting including applicable accounting standards and statements of recommended practice;
- key aspects of the Company's operations including corporate policies and the Group's internal control environment;
- matters which may influence the presentation of accounts and key figures;
- the principles of, and developments in, company law, sector-specific laws and other relevant corporate legislation;
- the role of internal and external auditing and risk management; and
- the regulatory framework for the Group's businesses.

The Committee invites the Chairman, the CEO, the CFO, the Head of Internal Audit & Risk and senior representatives of the external auditor to attend its meetings in full, although it reserves the right to request any of these individuals to withdraw.

During the year, the Committee held two meetings with Deloitte LLP, and two meetings with the Head of Internal Audit & Risk, without the Executive Directors present.

The Committee has unrestricted access to Company documents and information, as well as to employees of the Company and the external Auditor.

The Committee's effectiveness is reviewed on an annual basis as part of the Board's performance evaluation process and in 2022 the Committee was found to be operating effectively.

The terms of reference of the Audit Committee were reviewed and approved during the year and can be viewed on the Company's website at corporate.spirent.com.

Meetings

The Audit Committee met four times during the year, with the Committee agenda linked to events in the Group's financial calendar.

Activities during 2022

The Audit Committee's activities principally related to financial reporting, internal control and risk management, the preparation for publishing a viability statement and the external audit. The Committee considered all material controls, including financial, operational and compliance controls and their effectiveness and monitored the internal audit plan as carried out by the Head of Internal Audit & Risk, assisted by PwC. The Audit Committee considered other specific matters such as the Group's approach to IT controls, site security and cybersecurity and monitored the Group's progress in preparations for disclosures in this Annual Report based on the Task Force on Climate-related Financial Disclosures. The Committee also reviewed the development of new reporting and governance requirements proposed in the BEIS White Paper, and monitored preparations by management in order that the Group is ready and able to report on the requirements when they are finalised.

Risk Sub-Committee

During the period under review, the Audit Committee had oversight of a Sub-Committee dealing with the risks and uncertainties being dealt with on a Group and business unit level.

The Risk Sub-Committee met regularly throughout 2022 to monitor the Group's risk appetite and registers, with a particular focus on supply chain risks and the ongoing COVID-19 pandemic.

Financial reporting and significant issues

During the year, the Audit Committee:

- reviewed the full year and half year financial statements, trading updates, key accounting policies and significant financial reporting judgements contained therein (with particular reference to the critical accounting assumptions and judgements as set out in note 2 of the consolidated financial statements) and recommended the financial statements to the Board for approval;
- reviewed whether the Annual Report, taken as a whole, is fair, balanced and understandable and formed an opinion thereon prior to recommending it to the Board;
- reviewed and monitored risk management processes and the potential for risks to impact on the viability of the Group;
- reviewed and considered assumptions in relation to the going concern basis for preparation of financial statements;
- reviewed, challenged and monitored the appropriateness of alternative performance measures; and
- reviewed the external auditor's report on the interim review and year end audit and management's responses to the issues raised.

The Committee Chairman reports any significant findings or identified weaknesses to the Board.

Significant financial issues considered and addressed in relation to the financial statements

The Audit Committee gives careful consideration to those aspects of the financial statements that required significant accounting judgements or where there is estimation uncertainty. These areas are set out in note 2 to the consolidated financial statements. The Committee received detailed reports from both the CFO and External Auditor on these areas and on many other matters which they believed should be drawn to the Committee's attention and challenged the treatment and assumptions where it was felt necessary to ensure that the judgements were robust and supportable. The external auditor's report on the financial statements was also reviewed, with particular reference to those matters reported as carrying risks of material misstatement.

Management override of controls

The Audit Committee is aware of the risk that management overrides the controls environment that is in place in order to misrepresent performance by the business. The effectiveness of internal controls is monitored and challenged by the Committee both directly and through the continuing internal audit work undertaken by the Head of Internal Audit & Risk and PwC.

The Committee is aware that International Accounting Standards require the External Auditor to presume risk of fraud in respect of management override of controls and that as part of its audit programme Deloitte considers the higher areas of risk deriving from inappropriate posting of journals, unintentional or intentional management bias in key judgements used in material estimates and accounting for transactions outside the ordinary course of business.

Revenue recognition

The Committee is mindful of the risk that continuing pressure on management to meet certain targets and to respond to specific customer requests may drive additional deal complexity which could, in turn, lead to complex or judgemental accounting, in particular due to the impact of external factors on business sentiment. This may result in inappropriate recognition of revenue and associated balances. It is also aware of the heightened risk around the high volume of orders fulfilled around the period end, which is highlighted as an additional fraud risk as an area that could be manipulated by management.

As part of its update to the Committee, Deloitte discussed the procedures performed in relation to reviewing specific large and judgemental transactions and revenue recognised around the period end. Deloitte and the Committee also discussed the procedures performed in relation to the Group's arrangements for sales through distributors or with the assistance of agents.

The Committee receives regular reports on management's oversight of areas where significant judgement is exercised and challenges findings to ensure compliance with accounting standards.

Significant financial issues considered and addressed in relation to the financial statements continued

Additional areas of financial statement risk

In addition to these areas, the Committee noted the following:

- **Pensions**
  The Committee receives regular updates on the accounting for the funded defined benefit pension plans. The Committee monitors the approach and assumptions made by management and advisers in relation to recognition of the current surplus. In addition, the Committee monitored the project for the transfer of legacy UK pension plans to an insurer, which progressed through the year, completing in October.
- **Adjusting items**
  The Committee kept the definition and use of adjusting items under review throughout the period, in particular because of the potential impact upon the Group's reported profitability. The Committee paid close attention to the treatment of costs connected to the octoScope acquisition in 2021.
- **Tax accounting**
  The Committee received regular updates from the VP of Global Tax and Group Financial Controller on the appropriateness of recognised tax provisions, recoverability of deferred tax assets and the key tax judgements. The Committee evaluated updates from management in respect of uncertain tax positions, the tax provision and the deferred tax position. The Committee was satisfied that management's approach to the accounting for taxation was appropriate. The Committee also noted Deloitte's use of tax specialists and considered its view on the tax accounting matters.
- **Goodwill impairment**
  The Committee receives a report setting out the approach and outcomes of the Group's annual goodwill impairment exercise which takes place each year, together with additional reviews of the impact on the goodwill position of specific events or changes to the assumptions made.

Misstatements

Management reported to the Committee that it was not aware of any material or immaterial misstatements made intentionally to achieve a particular outcome. The External Auditor reported to the Committee misstatements it had found in the course of its work. After due consideration the Committee concurred with management that no adjustments were required.

Internal control and risk management

During the year the Audit Committee:

- monitored and reviewed internal control and risk management systems;
- reviewed and approved the internal audit programme for 2022; and
- reviewed regular reports on taxation, treasury operations, health and safety and cybersecurity.

The Board is responsible for the effectiveness of the Group's system of internal control, which has been designed and implemented to meet the particular requirements of the Group and the risks to which it is exposed. Details can be found below on the Group's internal control environment, how risk is managed and the Committee's review of the effectiveness of the risk management and internal control systems.

Internal control environment

The primary aim of the Group's internal controls is to operate a system which is appropriate to the business and which can support the Group in delivering its strategic objectives, safeguard the Group's assets and, over time, enhance shareholder value. The system is designed to identify, evaluate and manage the significant risks faced by the Group rather than to eliminate the risk of failure to achieve business objectives and can only provide reasonable and not absolute assurance against material misstatement or loss. This is in accordance with the Guidance on Risk Management, Internal Control and Related Financial and Business Reporting issued by the FRC in September 2014.

The CFO is responsible for internal financial control and for ensuring that the finance department employs a level of management and specialists appropriate for maintaining financial records and processes that provide financial information that is relevant and reliable, complies with applicable laws and regulations, and is distributed both internally and externally in a timely manner. A review of the consolidation and financial statements is undertaken by senior management to ensure that the financial position and results of the Group are appropriately reflected. All financial information published by the Group is subject to the approval of the Audit Committee prior to it being approved by the Board.

The following key elements comprise the internal control environment:

- an appropriate organisational structure with clear lines of responsibility;
- an experienced and qualified finance function which regularly assesses the possible financial impact of the risks facing the Group;
- a comprehensive annual business planning process and strategy review;systems of control procedures and delegated authorities which operate within defined guidelines, and approval limits for capital and operating expenditure together with other key business transactions and decisions;
- a robust financial control, budgeting and forecast system which includes regular monitoring, variance analysis, key performance indicator reviews and risk and opportunity assessments at Board level;procedures by which the consolidated financial statements are prepared, which are monitored and maintained through the use of internal control frameworks addressing key financial reporting risks arising from changes in the business and accounting standards;
- established policies and procedures setting out expected standards of integrity and ethical standards which reinforce the need for all employees to adhere to all legal and regulatory requirements;

- an annual internal controls compliance checklist; and
- the Head of Internal Audit & Risk, who is supported by a co-sourced internal audit resource. During the year ended 31 December 2017, the Group adopted co-source arrangements and appointed PwC, which continues to support the Head of Internal Audit & Risk to formulate and execute the Group's internal audit plan. The plan for 2022 was approved to ensure that there was appropriate coverage of the internal control environment, strategic priorities and key risks identified by the Board. At each Committee meeting the Head of Internal Audit & Risk, assisted by PwC, gives an update on the progress of the internal audit plan, which is reviewed to ensure that it is in line with the Committee's expectations.

During the year the internal audit plan was amended so that additional areas were added to the plan based on the changes that gave rise to increased levels of risk. These changes to the agreed audit plan were approved by the Committee.

The Head of Internal Audit & Risk has direct access to the Board Chairman and to the Committee Chairman and is accountable to the Committee, meeting regularly with both the Committee and its Chairman, without the presence of management, to consider the work of internal audit.

The effectiveness of the execution of the internal audit plan is monitored at each Audit Committee meeting and also forms part of the Board's annual evaluation process.

The 2022 evaluation confirmed that the Directors are satisfied with the arrangements and approach currently in place.

Risk management

Members of the Executive Risk Committee meet to challenge and debate the assessment of risk including emerging risks, for the Group as a whole and within each business unit, which have submitted local risk registers for analysis and ranking together with Company-wide risks to form a robust corporate risk register. This corporate risk register is presented to the Audit Committee at least twice each year. Actions arising from the Audit Committee's review of the corporate risk register are fed back to the business units for their management.

Committee oversight

Day-to-day responsibility for effective internal control and risk management and monitoring rests with senior management at business unit level. During the year, the CFO and Head of Internal Audit & Risk attended all Audit Committee meetings to report on internal control and risk management and notified the Committee of any control weaknesses, control failings and risks, their impact and the actions taken to deal with the issues.

Detailed updates on specific areas, such as cybersecurity or business continuity, are provided at the Committee's request.

Business Ethics Policy

A policy that sets standards of professionalism and integrity for all employees and operations was relaunched in 2020 and is regularly refreshed. The Business Ethics Policy includes sections relating to bribery and corruption to ensure that all of Spirent's systems, controls and training comply with the anti-bribery and corruption legislation in the countries in which we operate, and that a culture of prevention and detection of all forms of bribery and corruption is in place. Anti-bribery training is required to be taken by certain employees periodically. New employees and all designated employees completed the training in 2022.

Acquisitions and divestments

Disciplined due diligence processes and post-acquisition integration programmes are in place.

Fraud

The Board of Directors is aware that it bears the primary responsibility for the detection and prevention of fraud. The Directors are aware of the potential for fraud and this features as an element of the Board's risk assessment and corporate governance procedures. The Audit Committee reviews these procedures to ensure that they are in place and working effectively. This oversight is supported by the work of the Head of Internal Audit & Risk and PwC as part of their internal audit work.

The Group's Business Ethics Policy, which has been communicated to all employees, makes clear that employees also have a responsibility for fraud prevention and detection and any suspicion of fraud will be reported immediately and investigated vigorously.

Raising concerns at work

The Committee aims to ensure that employees are able to raise any concern in confidence about any possible improprieties in business practices or other matters. A Group-wide Whistleblowing Policy is in place and is regularly highlighted to employees and an external third party reporting service is available to employees for the reporting of any concerns.

Disclosures under this arrangement are investigated promptly by the Company Secretary and the Head of Internal Audit & Risk, and are escalated to the Executive Directors and the Committee as appropriate, with follow-up action being taken as soon as practicable thereafter.

The Committee is satisfied that the means for employees to raise concerns at work are appropriate to the size and scale of the Group.

External audit

The Committee is responsible for overseeing the Company's relations with the External Auditor.

The Committee places great importance on ensuring that high standards of quality and effectiveness are maintained within the external audit process. It considers a number of areas in relation to the External Auditor: its performance in discharging the audit and interim review of financial statements, its independence and objectivity, and its re-appointment, remuneration and feedback on these matters is given to the External Audit Partner.

Auditor appointment

Each year the Committee assesses and reports to the Board on the qualification, expertise, resources and effectiveness, as well as the independence of the External Audit Partner and his team.

The Committee notes and confirms compliance with the Competition and Markets Authority Order 2014 (the "CMA" Order) in respect of statutory audit services for large companies.

In line with the CMA Order and the EU Audit Regulations the Committee completed a tender process during 2020 in order to select a new external audit firm to replace EY following the audit of the 2020 financial statements. After a rigorous selection process resulted in a recommendation by the Board to shareholders, Deloitte LLP was appointed by the Company at its Annual General Meeting on 28 April 2021 to audit the financial statements of the Company for the period ending 31 December 2021 and subsequent financial periods.

There are no contractual obligations in existence that restrict the Company's choice of auditor.

Auditor effectiveness

The Committee assesses the effectiveness of the audit process on an ongoing basis, with particular attention to the mindset and culture, skills, character and knowledge, quality control and judgement of the External Auditor in its handling of key judgements, its responsiveness to the Committee and its commentary where appropriate on the systems of internal control.

The Committee holds regular private meetings with the External Auditor to assist with its assessment, including discussion of:

- how the External Auditor has identified and addressed potential risks to audit quality;
- the controls in place within the External Audit firm to identify risks to audit quality, including the results of internal and external inspections of the External Audit team and firm;
- whether the External Auditor has met the agreed audit plan, in particular how it has responded to any changes that have been required during the process;
- feedback from the key people involved in the audit; and
- the content of the External Auditor's management letter.

In addition, the Committee monitors the External Audit partner's involvement in his team's work to ensure sufficient oversight and direction of work was evident, in particular with regard to the audit of significant components involving judgements.

The effectiveness of the External Auditor also forms part of the Board's annual evaluation process.

Auditor independence

The Committee assesses the independence and objectivity of the External Auditor annually, taking into consideration relevant UK law, regulation, the FRC Revised Ethical Standard and other professional requirements. Deloitte has provided a letter confirming its belief that it remained independent throughout 2022 and has discussed with the Committee the threats to its independence and the safeguards applied to mitigate those threats.

As part of this review, the Committee examined in particular:

- a report from the External Auditor describing its arrangements to identify, report and manage any conflicts of interest; and
- the extent of non-audit services provided by the External Auditor.

Policy on non-audit services

The Committee is responsible for pre-approving the engagement of the External Auditor for any and all non-audit services, with the objective of ensuring that the provision of such services by the External Auditor does not impair its independence or objectivity. Taking into account relevant ethical guidance, the Committee's policy precludes a number of non-audit services, including those relating to the accounting records and financial statements, internal audit, IT consulting, legal and investment services and other services deemed by regulators to be precluded.

The Committee accepts that certain work of a non-audit nature may be best undertaken by the External Auditor. The policy is reviewed annually and financial limits for the provision of non-audit services, including audit-related fees and other fees, are set on the same annual basis (2022 $0.3 million (2021 $0.3 million)). These were less than one-third of the Group's audit fee of $1.4 million (2021 $1.3 million). The Committee can confirm that no non-audit services were provided by Deloitte during the period under review other than the interim review fee of $0.1 million (2021 $0.1 million).

Report on Directors' remuneration

Gary Bullard
Committee Chairman

Compliance statement

This Report on Directors' remuneration for the year ended 31 December 2022 has been prepared on behalf of the Board by the Remuneration Committee in accordance with Schedule 8 to the Large and Medium sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013 and the relevant sections of the Companies Act 2006 and meets the requirements of the Listing Rules of the Financial Conduct Authority.

The Report also describes how the Board has complied with the provisions of the 2018 UK Corporate Governance Code and explains what steps have been taken by the Committee to make the Company compliant.

The Report is presented in two parts: the Directors' Annual Remuneration Report and the Directors' Remuneration Policy.

The Directors' Annual Remuneration Report sets out details of how our Remuneration Policy was implemented for the year ended 31 December 2022 and how it will be applied for the year ending 31 December 2023.

The Company's Directors' Remuneration Policy was approved by a binding vote at the 2021 AGM and became effective on 28 April 2021 and will apply for the following three years.

Dear shareholder

I am pleased to present the Directors' Remuneration Report for the year. The Committee's principal activities in the year were to assess the outcomes of performance under the Company's incentive plans and to consult with shareholders over a salary increase for the CEO, Eric Updyke, details of which are set out below.

Executive pay and shareholder consultation

Spirent operates in a global market with a significant portion of its operational footprint in the United States, and this shapes the talent market from which we draw the leadership of the Group. We must take into account this global context when we consider what pay arrangements are competitive, motivational and fair.

Eric Updyke was appointed in April 2019 and has implemented significant changes to ensure the continued growth of the Company. Now approaching four years in the role, the Board considers that he is now a proven CEO and are keen to retain his services for the next phase of the Company's growth. As a consequence during 2022 we commissioned a detailed external benchmark and review of his levels of remuneration. This showed that the total remuneration package available to our CEO was very significantly adrift of our peers and competitors, the large majority of which are based in the US, where he is also based. It also showed a significant gap had emerged between him and comparable FTSE 250 companies, especially on fixed pay.

In accordance with the current Remuneration Policy, the Committee took into account the individual's experience, progression since appointment and performance in role. Consequently, the Committee consulted with the Company's 25 largest shareholders, who account for approximately 70 per cent of the Company's issued share capital, with a proposal to increase the CEO's base salary by 15 per cent. This change would reposition the CEO's remuneration at the mid-market for similar UK companies. Although he would remain well below US peers, the Committee believes that this resulting position strikes a balance between recognising his performance, experience, and the fact that he is a US national running the Group from the US, whilst acknowledging the governance environment in which the Company operates.

There was clear support for this change amongst the majority of shareholders who responded to the consultation or met with myself and the Chairman to discuss in more detail. Many shareholders acknowledged that the Committee's proposal was mindful and respectful of the level of pay in the UK environment, even though the CEO is US-based. Feedback about phasing in any increases over time was considered, however on balance, the Committee concluded that since there was already such a large gap to the overall total remuneration opportunity for US-based executives, and as it was almost four years since his appointment, the Committee did not feel comfortable waiting longer to implement what it concluded was a necessary change. Some shareholders indicated that whilst being very supportive of the job that the CEO had done thus far, they would struggle to support the proposal. The Committee understands that view, but believes it is in the best interests of the Company and shareholders to retain the CEO.

Executive pay and shareholder consultation continued

The Committee considers this increase as an exceptional one-time repositioning of his fixed pay, and in the future we expect that we will keep such increases in line with the wider workforce. We also received valuable feedback on other areas of our remuneration approach, including LTIP targets, which we can implement this year. Next year we will embark on another investor consultation prior to bringing a new remuneration policy to a binding vote at next year's AGM.

Executive remuneration outcomes in 2022

In 2022 our management team executed well against the targets we set despite macroeconomic challenges which impacted the Company later in the year. We grew revenue, adjusted operating profit and our order backlog during the year. The pay outcomes for our Executive Directors reflect that strong performance against the challenging targets we set ourselves.

The Annual Incentive for 2022 was based on achievement of targets for profitability, revenue and strategic and operational priorities. Spirent performed well, continuing to deliver order backlog, revenue, and profitability growth in 2022. Full details of the specific financial and non-financial targets set and the performance against those targets can be found on pages 86 to 88. One-third of the Annual Incentive achieved for 2022 will again be deferred into shares, to be retained for a period of three years.

The Long-term Incentive Plan awards granted to the Executive Directors in 2019 partially vested in 2022, with 74.9 per cent vesting on the Earnings Per Share performance condition and 100 per cent vesting on the Absolute Total Shareholder Return condition, reflecting the strong growth of the Company over the performance period.

The third and final tranche of Eric Updyke's buyout award of Restricted Stock (awarded in 2019 under Listing Rule 9.4.2) vested in full in May 2022, following the Committee's consideration and approval of his satisfactory performance since his appointment.

I believe that the pay outcomes show that the Remuneration Policy acted as intended in 2022. No discretion was exercised by the Committee during the year.

Executive remuneration in 2023

As discussed above, the base salary for the CEO has been increased by 15 per cent for 2023; base salary for the CFO has also been increased by 5 per cent over the prior year.

The Committee reviewed management proposals for wider workforce salary increases and was particularly sensitive to the proposal for 2023 given the inflationary environment. In addition, the Committee reviews pay in the wider workforce before setting any pay increases for the Executive Directors. The workforce increase was 5 per cent.

As previously promised, from 1 January 2023 we have now aligned our CFO's pension contribution to the level available to the UK workforce, where she is based, bringing the Company into compliance with the 2018 UK Corporate Governance Code.

For the Annual Incentive, the metrics of profitability, revenue and strategic and operational priorities remain the same. The Committee believes the targets it has set across all of the metrics to be challenging and appropriate, especially in the context of the macroeconomic challenges that began to impact the Company at the end of 2022. Details of the actual targets will be disclosed in the 2023 Annual Report. One-third of the Annual Incentive achieved will be deferred into shares, to be retained for a period of three years.

We engaged with a number of shareholders during the shareholder consultation who expressed that they would prefer to see more than one LTIP metric and, in particular, would like there to be a metric which was more directly aligned to the shareholders' experience. In response, for the LTIP awards in 2023 we retained an EPS growth metric for 50% of the award, introduced a relative TSR metric for 40% of the award and included an ESG measure for 10% of the award. We have, in the past, argued that there is no appropriate bespoke TSR peer group and the Committee feels that remains the case. Accordingly, the relative TSR metric will be measured based on performance compared to the FTSE 250 index as a whole (excluding financial services and investment trusts). We will be bringing a revised remuneration policy to shareholders at the 2024 AGM and will review the LTIP metrics further as part of that process.

Other Committee activities in 2022

The Committee's other activities during the year continue to take into account the wider remit introduced by the Code:

- The Committee reviewed metrics and set targets for Annual Incentives and share-based Long-Term Incentives.
- The Committee considered and approved the reward structure and levels of remuneration for each of the CEO's direct reports.
- The Committee considered and approved the budget of the Long-Term Incentive Plan awards for employees and approved the awards to the Executive Committee. The Committee once again approved the roll-out of the discounted employee share purchase plan to all full-time employees.
- Employee engagement meetings in all three geographies continued through the year, with feedback being reported to the Board and, where it specifically relates to remuneration, to the Remuneration Committee.

I hope you find this report clear and informative. I will be available at the 2023 AGM to respond to any questions that shareholders may have with respect to the work of the Committee.

Gary Bullard
Chairman, Remuneration Committee
7 March 2023

At a glance

Performance snapshot

	Annual Incentive performance		
	Performance opportunity (%)		Achievement (% of max)
Measure	CEO	CFO	
Adjusted operating profit	50.00	50.00	68.6
Revenue	30.00	30.00	53.3
Services and solutions	6.67	6.67	60.6
ESG	6.67	6.67	100.0
Hyperscalers	6.67	–	–
Cash flow	–	6.67	100.0

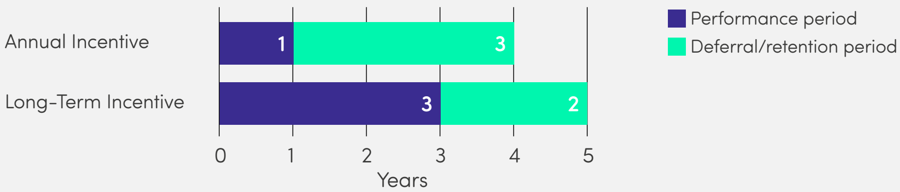
	Long-Term Incentive performance	
Measure	Performance (%)	Achievement (% of max)
Earnings per share[1]	50.00	100.00
Absolute Total Shareholder Return[2]	50.00	100.00

Notes
1. Data shown relates to the EPS element of the LTIP award which will vest in May 2023, based on performance to 31 December 2022.
2. Data shown relates to the TSR element of the LTIP award which vested in May 2022.

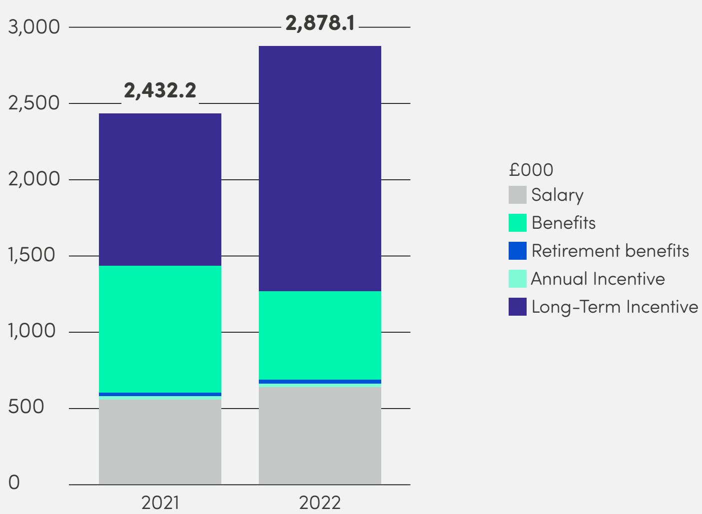
Alignment of executive remuneration with Group strategy

Performance measure	Annual Incentive	LTIP	Reason for selection
Adjusted operating profit	✓		A key performance indicator showing overall performance of the Group
Revenue	✓		A key performance indicator showing how successful Spirent has been in expanding its markets and growing its customer base
Strategic and operational priorities	✓		A focus on specific factors aligned with Spirent's short and medium-term strategic objectives that promote long-term performance
Adjusted EPS		✓	A key measure of underlying profitability
Absolute TSR		✓	A key measure of Spirent's return to shareholders through the cycle

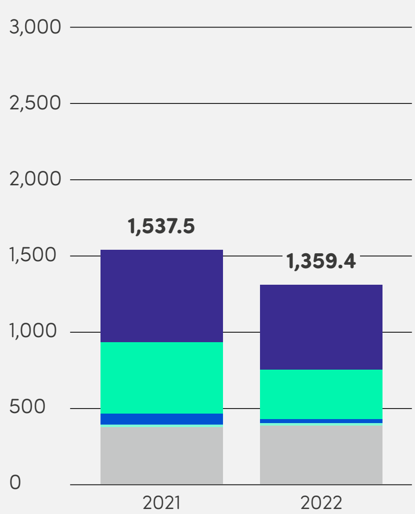
Incentive timelines



Total CEO remuneration £000



Total CFO remuneration £000



Report on Directors' remuneration continued

Annual remuneration report

Single figure of total Executive Directors' remuneration 2022 (audited)

The tables below set out the single figure of remuneration received by the Executive Directors during 2022. Details of performance under the Annual Incentive and Long-Term Incentive Plans are set out on pages 86 to 88 and 89 respectively.

	Paula Bell £000		Eric Updyke[1] £000	
	2022	2021	**2022**	2021
Salary/fees[2]	**384.4**	373.4	**635.8**	555.2
Benefits[3]	**16.9**	16.8	**25.4**	21.4
Retirement benefits[4]	**76.9**	74.6	**25.2**	22.2
Fixed remuneration	**478.2**	464.8	**686.4**	598.8
Annual Incentive[5]	**325.1**	466.5	**582.4**	833.6
Long-Term Incentive[6]	**556.1**	606.2	**1,609.3**	999.8
Variable remuneration	**881.2**	1,072.7	**2,191.7**	1,833.4
Total[7]	**1,359.4**	1,537.5	**2,878.1**	2,432.2

Notes
1. 2022 data for Eric Updyke, who is US based and paid in US Dollars, has been converted using an exchange rate of $1.236:£1 (2021 $1.3745:£1).
2. Salary/fees: cash paid in respect of the year.
3. Benefits: taxable value of all benefits in respect of the year which comprise private healthcare, permanent health insurance, life insurance and car allowance.
4. Retirement benefits: cash value in lieu of pension for Paula Bell; Company contributions to 401(k) plan and to Deferred Compensation Plan for Eric Updyke.
5. Annual Incentive: cash incentive payable in respect of performance during 2022, one-third of the value of which will be deferred into shares.
6. Long-Term Incentive: value of elements of LTIP awards vesting based on performance during 2022.
7. The total single figure of remuneration for 2021 for each Executive Director has been restated to reflect the actual Long-Term Incentive figure using the share price at the date of vesting of 226.00 pence.

Annual Incentive (audited)

During 2022, incentives were available to Executive Directors on an annual basis, with the following maximum total Annual Incentive available:

	2022 base salary £000	On-target total incentive available Per cent of base salary	On-target total incentive available £000	Maximum total incentive available Per cent of base salary	Maximum total incentive available £000
Paula Bell	384.4	75	288.3	125	480.5
Eric Updyke	636.5	90	572.9	150	954.8

The maximum Annual Incentive which could be earned was determined by reference to growth targets in the Company's adjusted operating profit and revenue, representing 50 per cent and 30 per cent of the incentive respectively, with performance against an agreed set of strategic and operational priorities linked to improving Spirent's performance representing the remaining 20 per cent of the incentive.

Adjusted operating profit element (50 per cent of Annual Incentive)

	Target $ million	Achievement $ million
Entry point (20 per cent)	121.0	
On target (60 per cent)	128.0	129.5
Maximum (100 per cent)	135.0	
Achievement		68.6 per cent

Revenue (30 per cent of Annual Incentive)

	Target $ million	Achievement $ million
Entry point (20 per cent)	580.0	
On target (60 per cent)	613.0	607.5
Maximum (100 per cent)	625.0	
Achievement		53.3 per cent

Strategic and operational priorities (20 per cent of Annual Incentive)
Eric Updyke and Paula Bell were each set priorities at the start of 2022, with performance of each target to be equally weighted.

Services and Solutions (CEO: Eric Updyke; CFO: Paula Bell)
Objective: Managed Solutions bookings growth.

Managed Solutions growth is a key element of our strategy, providing greater confidence over future revenue projections and helping mitigate the impacts of technical cyclicality.

Growth targets for bookings of $35.0 million at entry, $43.5 million at target and $50.0 million at stretch were set by the Committee.

	Bookings	Achievement
Achievement	$43.6 million	60.6 per cent

ESG (CEO: Eric Updyke; CFO: Paula Bell)
Objective: Carbon reduction targets across Scope 1, 2 and 3.

As part of our ESG strategy, the Committee set challenging targets to achieve carbon neutral status across Scope 1 and 2 carbon emissions and selected Scope 3 emissions by the end of 2022.

	Status	Achievement
Achievement	Achieved	100 per cent

Hyperscalers (CEO: Eric Updyke)
Objective: Demonstrate sustainable, profitable growth with Hyperscaler customers.

Cloud strategy is an important focus area to drive sustainable, profitable growth. One measure of our progress in this area is bookings growth within the Hyperscaler segment. Growth targets for bookings with this group of customers were set at $45.0 million at entry, $52.8 million at target and $60.0 million at stretch.

	Bookings	Achievement
Achievement	$40.5 million	0 per cent

Cash flow (CFO: Paula Bell)
Objective: Maintain strong free cash flow generation in line with the agreed budget.

Strong conversion of operating profit into free cash flow allows Spirent to fund growth opportunities, both organic and inorganic, in addition to making returns to shareholders through dividends. The free cash flow target for the full year assumes budget profitability is delivered, and excludes other adjusting items, one-off contributions to the UK pension scheme and other one-off adjustments to working capital and tax. Targets were set at $99.0 million at entry, $104.0 million at target and $109.0 million at stretch.

	Free cash flow	Achievement
Achievement	$127.5 million	100 per cent

Discretion
Following assessment of performance against the targets that had been set, the Committee agreed that no discretion would be exercised with regard to the outcomes for the 2022 Annual Incentive.

Annual Incentive (audited) continued
Summary of Annual Incentive target outcomes

	Per cent of total incentive	CFO Paula Bell Achievement as per cent of maximum opportunity	CEO Eric Updyke Achievement as per cent of maximum opportunity
Adjusted operating profit	50	68.6	68.6
Revenue	30	53.3	53.3
Strategic and operational priorities	20	86.9	53.5
• Services and solutions		60.6	60.6
• ESG		100.0	100.0
• Hyperscalers		n/a	–
• Cash flow		100.0	n/a
Total	100	67.7	61.0

	2022			2021		
	Per cent of maximum Annual Incentive opportunity	**Per cent of annual base salary**	**£**	Per cent of maximum Annual Incentive opportunity	Per cent of annual base salary	£
Paula Bell	**67.7**	**84.6**	**325,122**	100.0	125.0	466,526
Eric Updyke	**61.0**	**91.5**	**582,371**	100.0	150.0	833,592

Deferred Bonus Plan (audited)
The Remuneration Policy approved by shareholders at the 2019 AGM introduced the deferral of one-third of the incentive achieved under the Annual Incentive into shares, to be retained for a period of three years. This applies to Executive Directors employed by the Group at the date of the payment of the 2022 Annual Incentive.

The deferral element of the 2022 Annual Incentive will be applied as follows:

	Total value of Annual Incentive achieved £	Value of Annual Incentive payable as cash £	Value of Annual Incentive deferred into shares £	Vesting date for deferred shares
Paula Bell	325,122	216,748	108,374	March 2026
Eric Updyke	582,371	388,247	194,124	March 2026

Total retirement entitlements (audited)
During 2022, Paula Bell received a taxable cash allowance in lieu of pension of 20 per cent of base salary; the allowance paid was £76,884 (2021 £74,644). The Committee notes this will be aligned to the wider workforce from 1 January 2023, with an allowance of 14 per cent of base salary.

Eric Updyke is eligible to participate in the Spirent Communications, Inc 401(k) programme with a 4 per cent Company match of his own contributions, subject to any applicable IRS cap. Mr Updyke enrolled in the programme on 1 January 2020, receiving Company contributions for 2022 of £9,871 (2021 £8,439). Mr Updyke is also eligible to participate in the US Deferred Compensation Plan, a scheme which allows individuals to elect to defer compensation from the Company until a later date. A 4 per cent Company match was applied to compensation deferred in 2022, with Mr Updyke receiving £15,310 (2021 £13,767).

Long-Term Incentive Plan outcomes (audited)
In line with previous years, the operation of the LTIP is such that the EPS and absolute TSR performance measures run over different performance periods.

EPS	Absolute TSR
The performance period for EPS performance conditions starts at the beginning of the financial year in which the award is granted and ends three financial years later.	The performance period for Absolute TSR performance conditions starts shortly before the date of grant and ends three years later.

The LTIP value reported in the Single Total Figure of Remuneration on page 86 relates to measures where the performance period completed during the relevant year. Consequently, the EPS and Absolute TSR elements disclosed in the Single Total Figure of Remuneration relate to different LTIP awards. This is set out in further detail below.

Award	Performance metrics	Weighting per cent	Threshold	Maximum	Actual	Achievement per cent
2019 LTIP	EPS (2021 Single Figure)	50	12.90 cents	18.75 cents	16.59 cents	74.93
	Absolute TSR (2022 Single Figure)	50	17.00 per cent	42.00 per cent	72.90 per cent	100.00
2020 LTIP	EPS (2022 Single Figure)	50	15.50 cents	18.82 cents	18.86 cents	100.00
	Absolute TSR (2023 Single Figure)	50	17.00 per cent	42.00 per cent	Performance period not yet complete	

2022 LTIP Single figure reconciliation

			Absolute TSR (2019 LTIP Award)	EPS[1] (2020 LTIP Award)	RSU[2] (2019 Buyout Award)	2022 Single Figure
Paula Bell	Shares awarded		138,138	91,134	–	
	Achievement	per cent	100	100	–	
	Shares vesting		138,138	91,134	–	
	Value of vested shares[3]	£000	312.2	243.9	–	556.1
	Increase in value due to share price appreciation	£000	93.4	17.4	–	110.8
Eric Updyke	Shares awarded		266,336	181,239	219,044	
	Achievement	per cent	100	100	100	
	Shares vesting		266,336	181,239	219,044	
	Value of vested shares[3]	£000	601.9	485.0	522.4	1,609.3
	Increase in value due to share price appreciation	£000	180.0	34.7	205.6	420.3

Notes
1. The level of vesting for the EPS element of the 2020 award is based on the audited EPS figure published in this Annual Report 2022; the estimate value is based on the three-month average price of a Spirent Ordinary Share to 31 December 2022 of 267.62 pence.
2. On appointment to the Company in April 2019 Eric Updyke was granted an award of Restricted Stock to partially compensate him for remuneration at his previous employer. When determining this award, the Committee took into account the form and time horizon of the forfeited compensation. This award vests in three tranches, subject to continued employment and satisfactory performance in his role as CEO. The third and final tranche, which relates to 33 per cent of the total award, vested on 5 May 2022.
3. Value of vested shares is calculated at the share price on the date of vesting.

External appointments (audited)

From 1 September 2018, and with the approval of the Company's Board, Paula Bell was appointed to a non-executive director role with Keller Group plc; she became chairman of the audit committee of Keller Group plc on 1 January 2019. Fees in respect of this directorship are paid directly to and retained by Ms Bell.

On appointment in 2019 the Board agreed that it was acceptable for Eric Updyke to continue with his non-executive role with Symend, Inc. Fees in respect of this directorship are paid directly to and retained by Mr Updyke.

Payments to past Directors (audited)

No payments were made to past Directors during the year under review.

Payments for loss of office (audited)

There were no payments for loss of office during the year under review.

Payments of advances, credits or guarantees (audited)

There were no payments of advances, credits or guarantees to Directors during the year under review.

Outstanding share incentive awards (audited)[1]

The share incentive interests of Executive Directors who served during the period 1 January 2022 to the date of this report are set out below:

Paula Bell

Plan type	LTIP	DBP	LTIP	DBP	LTIP	DBP	LTIP
Award type	PS	RSU	PS	RSU	PS	RSU	PS
Award date	16 May 2019	5 March 2020	6 May 2020	11 March 2021	16 March 2021	10 March 2022	16 March 2022
At 1 January 2022 (or date of appointment)	276,276	59,227	182,268	51,695	259,181	–	–
Granted during the period	–	–	–	–	–	70,327	279,373
Vested during the period	241,603	–	–	–	–	–	–
Lapsed during the period	34,673	–	–	–	–	–	–
Any other adjustments during the period	–	–	–	–	–	–	–
At 31 December 2022 (or at date of cessation)	–	59,227	182,268	51,695	259,181	70,327	279,373
Market price at date of award (£)[2]	1.5840	2.1380	2.4850	2.3670	2.5200	2.2112	2.4080
Face value of award granted in period (£)	–	–	–	–	–	155,507.06	672,730.00
Exercise price (£)[3]	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Subject to performance conditions?	Yes	No	Yes	No	Yes	No	Yes
Performance condition	50% EPS, 50% TSR	–	50% EPS, 50% TSR	–	75% EPS, 25% TSR	–	100% EPS
Performance condition testing date[4]	16 May 2022	–	6 May 2023	–	16 March 2024	–	16 March 2025
Result of performance condition testing	EPS 74.9% vest, TSR 100% vest	–	–	–	–	–	–
Market price at vesting date (£)	2.260000	–	–	–	–	–	–
Exercise date	16 May 2022	–	–	–	–	–	–
Market price at exercise date (£)	2.260000	–	–	–	–	–	–
Gain on exercise (£)	546,022.78	–	–	–	–	–	–
Expiry date	16 May 2022	8 March 2023[5]	6 May 2023	11 March 2024	16 March 2024	10 March 2025	16 March 2025

Eric Updyke

Plan type	LTIP	LTIP	DBP	LTIP	DBP	LTIP	DBP	LTIP
Award type	RSU	PS	RSU	PS	RSU	PS	RSU	PS
Award date	1 April 2019	16 May 2019	5 March 2020	6 May 2020	11 March 2021	16 March 2021	10 March 2022	16 March 2022
At 1 January 2022 (or date of appointment)	219,044	532,672	83,783	362,477	93,793	436,353	–	–
Granted during the period	–	–	–	–	–	–	131,234	500,011
Vested during the period	219,044	465,821	–	–	–	–	–	–
Lapsed during the period	–	66,852	–	–	–	–	–	–
Any other adjustments during the period	–	–	–	–	–	–	–	–
At 31 December 2022 (or at date of cessation)	–	–	83,783	362,477	93,793	436,353	131,234	500,011
Market price at date of award (£)[2]	1.4460	1.5840	2.1380	2.4850	2.3670	2.5200	2.2112	2.4080
Face value of award granted in period (£)	–	843,752.80	179,128.84	900,755.34	222,008.03	1,099,609.56	290,185.00	1,204,026.00
Exercise price (£)[3]	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Subject to performance conditions?	Yes	Yes	No	Yes	No	Yes	No	Yes
Performance condition	Continuing employment and satisfactory performance	50% EPS, 50% TSR	–	50% EPS, 50% TSR	–	75% EPS, 25% TSR	–	100% EPS
Performance condition testing date[4]	5 May 2022	16 May 2022	–	6 May 2023	–	16 March 2024	–	16 March 2025
Result of performance condition testing	100% vest	EPS 74.9% vest, TSR 100% vest	–	–	–	–	–	–
Market price at vesting date (£)	2.384800	2.260000	–	–	–	–	–	–
Exercise date	5 May 2022	16 May 2022	–	–	–	–	–	–
Market price at exercise date (£)	2.384800	2.260000	–	–	–	–	–	–
Gain on exercise (£)	522,376.13	1,052,755.46	–	–	–	–	–	–
Expiry date	5 May 2022	16 May 2022	8 March 2023[5]	6 May 2023	11 March 2024	16 March 2024	10 March 2025	16 March 2025

Notes

An explanation of each share plan and its operation is given in note 30 to the audited consolidated financial statements of the Group.

1. Key to share plan and type of award:
   LTIP PS – 2016 Long-Term Incentive Plan Performance Shares awarded as conditional share awards.
   LTIP RSU – 2016 Long-Term Incentive Plan Restricted Stock Units awarded as conditional share awards.
   DBP RSU – Deferred Bonus Plan Restricted Stock Units awarded as conditional share awards.
2. The market price on date of grant is the price of an Ordinary Share at the close of business on the day before the date of grant.
3. There is no exercise price payable for a Performance Share upon vesting.
4. Awards which have passed the date first exercisable have vested and are unfettered, having passed the relevant performance conditions.
5. The award originally scheduled to vest on 5 March 2023 will now vest on 8 March 2023, as the Company will still be subject to a close dealing period under the Spirent Share Dealing Code on 5 March 2023.

Share incentive interests awarded during the year (audited)

In March 2022 the Committee approved an award of Restricted Stock Units to Ms Bell and Mr Updyke under the Deferred Bonus Plan representing one-third of the value of the Annual Incentive outcome based on performance during 2021. Using an average closing share price for the five days prior to the award date of 221.12 pence, Ms Bell and Mr Updyke received awards of 70,327 and 131,234 Restricted Stock units respectively; these awards will vest on 10 March 2025, with no further performance conditions to be completed.

In March 2022 the Committee approved an award of Performance Shares to Ms Bell and Mr Updyke under the Long-Term Incentive Plan equivalent to 175 per cent and 200 per cent of base salary respectively. Using an average closing share price for the five days prior to the award date of 240.80 pence, Ms Bell and Mr Updyke received awards of 279,373 and 500,011 Performance Shares respectively. This award was subject to a 100 per cent EPS performance condition, with a performance period starting at the beginning of the financial year in which the award is made, in this case on 1 January 2022, and ending after three years, in this case on 31 December 2024. The adjusted EPS figure reported for the financial period to 31 December 2021, which forms the baseline for this performance target, is 16.59 cents.

Target EPS (adjusted) at the conclusion of the performance period	Proportion of Performance Shares vesting (per cent)
Below 18.97 cents	0
18.97 cents	25
Above 18.97 cents and below 23.03 cents	On a straight-line basis between 25 and 100
23.03 cents or higher	100

Awards made to the Executive Directors under the Long-Term Incentive Plan have a two-year post-vesting holding period.

Dilution (audited)

Overall shareholder dilution resulting from the Company's discretionary share incentive plans (on a rolling ten-year basis) has increased by 0.8 per cent when comparing the positions at 31 December 2022 (1.3 per cent) and 31 December 2021 (0.5 per cent). The overall number of share incentives outstanding has increased to 8.4 million at 31 December 2022 (2021 7.5 million).

Table of CEO remuneration[1]

Year	CEO	CEO single figure of total remuneration £000	Annual bonus payout against maximum opportunity per cent	Long-Term Incentive vesting rates against maximum opportunity per cent
2022	Eric Updyke	2,878.1	61.0	100
2021	Eric Updyke	2,536.2	100.0	86
2020	Eric Updyke	1,867.6	83.2	100
2019	Eric Updyke[2]	968.8	85.1	–
2019	Eric Hutchinson[3]	1,548.6	85.1	89
2018	Eric Hutchinson	1,533.4	80.0	63
2017	Eric Hutchinson	1,292.6	86.8	–
2016	Eric Hutchinson	632.6	22.6	–
2015	Eric Hutchinson	497.1	–	–
2014	Eric Hutchinson	521.6	–	–
2013	Eric Hutchinson[4]	186.9	12.0	–
2013	Bill Burns[5]	401.3	–	–

Notes
1. Data for Mr Updyke's earnings are presented in Sterling based on an average exchange rate for 2022 of \$1.2360:£1. Prior year data in this table has been recalculated from US Dollars to be presented in Sterling at the following average exchange rates: 2021 \$1.3745:£1; 2020 \$1.284:£1; 2019 \$1.2779:£1; 2014 \$1.65:£1; 2013 \$1.56:£1. During the years 2018 to 2015 , Mr Hutchinson's salary was paid in Sterling, so no currency calculation is required.
2. Eric Updyke took up the position of CEO on 1 April 2019.
3. Earnings disclosed are to 30 June 2019, when Eric Hutchinson retired from the Spirent Group.
4. Eric Hutchinson took up the position of CEO on 3 September 2013.
5. Earnings disclosed are to 3 September 2013, when Bill Burns stepped down as CEO.

CEO pay ratio

For the purposes of this year's disclosure, the gender pay gap data from our 5 April 2022 snapshot has been used to identify the three appropriate employees for comparison with the CEO (Option B). Further detail on the methodology is set out below.

The table below compares the 2022 single figure of remuneration for the individual who fulfilled the role of CEO during the period with that of the Group employees who are paid at the 25th percentile (lower quartile), 50th percentile (median) and 75th percentile (upper quartile) of its UK employee population.

	Method	25th percentile pay ratio	Median pay ratio	75th percentile pay ratio
2022	Option B	65:1	44:1	28:1
2021	Option B	54:1	38:1	22:1
2020	Option B	50:1	32:1	18:1
2019[1]	Option B	72:0	53:1	24:1

Note

1. The data provided for 2019 is the aggregate 2019 single figure of remuneration for the two individuals who fulfilled the role of CEO during the period which includes a three-month period where both individuals were receiving remuneration and Annual Incentive payments to both individuals.

The remuneration figures for all employees were determined at 31 December 2022.

Under Option B, the latest available gender pay gap data is used to identify the best equivalent for three Group employees in the UK whose hourly rates of pay are at the 25th, 50th and 75th percentiles for the Group and their total pay and benefits figure for 2022 is then calculated. The identified employees are considered to be reasonably representative since the structure of their remuneration arrangements is in line with that of the majority of the UK workforce. The table below sets out the salary and total pay and benefits for the three identified quartile point employees:

	25th percentile (P25)	Median (P50)	75th percentile (P75)
Salary (£)	42,897	63,507	83,612
Total pay and benefits (£)	44,290	65,605	102,431

Each employee's pay and benefits were calculated using each employee's remuneration, consistent with the CEO remuneration, on a full-time equivalent basis. No adjustments were made and no components of pay have been omitted.

Base salaries of all employees, including our Executive Directors, are set with reference to a range of factors including market practice, experience and performance in role. In reviewing the ratios the Committee also noted that the CEO's remuneration package is weighted more heavily towards variable remuneration (including the Annual Incentive and Long-Term Incentive Plan) than the wider workforce due to the nature of the role. This means the ratio is likely to fluctuate depending on the performance of the business and associated outcomes of incentive plans in each year.

The Committee notes that the 2019 ratio data covered a period during which there were two individuals in the role of CEO, one of whom (Eric Hutchinson) received a significant vesting of an LTIP award during the period; although the 2020, 2021 and 2022 data includes the vesting of the tranches of Eric Updyke's buy-out award of restricted stock, this award was at a lower quantum.

The Committee also notes that the CEO pay ratio has increased over the prior year. This is as a result of the vesting of the third and final tranche of Mr Updyke's buy-out award of restricted stock falling during the same period as the vesting of his first annual LTIP award of performance shares.

The Committee continues to believe the median pay ratio is consistent with the pay, reward and progression policies for our UK employees. The salary and total pay and benefits levels for the CEO and median representative employee are competitively positioned within the relevant markets and reflect the operation of our remuneration structures. These are effective in appropriately incentivising staff, while having regard to the Company's risk framework and risk appetite and to rewarding the approach as well as the outcome of performance.

Percentage change in remuneration of the Directors and Average Employee

The table below shows the movement in salary, benefits and Annual Incentive for each of the Directors between the current and prior years compared to the remuneration of the Average Employee[1]:

		Executive Directors		Non-executive Directors[2]					
	Average Group Employee[1]	Eric Updyke[3]	Paula Bell	Sir Bill Thomas	Maggie Buggie[3]	Gary Bullard	Wendy Koh	Edgar Masri	Jonathan Silver
Base salary									
2021–2022	0.2	3.0	3.0	21.2	n/a	2.6	3.1	3.1	2.6
2020–2021	4.4	3.0	3.0	3.0	–	5.6	3.0	3.0	4.1
2019–2020	4.1	3.0	3.5	3.0	–	2.6	2.9	2.9	2.4
2018–2019	4.8	n/a	3.0	9.4	–	2.5	5.7	5.7	2.5
Benefits[4]									
2021–2022	(0.7)	4.2	2.7	–	–	–	–	–	–
2020–2021	10.3	46.7	2.4	–	–	–	–	–	–
2019–2020	7.1	38.2	2.9	–	–	–	–	–	–
2018–2019	(6.6)	n/a	2.7	–	–	–	–	–	–
Annual Incentive[5]									
2021–2022	(26.2)	(37.2)	(30.3)	–	–	–	–	–	–
2020–2021	14.8	25.8	27.1	–	–	–	–	–	–
2019–2020	6.2	0.7	(3.4)	–	–	–	–	–	–
2018–2019	12.3	n/a	36.3	–	–	–	–	–	–

Notes
1. Average Group employee data is based on the employee remuneration costs and average number of employees set out in note 8 to the consolidated financial statements with costs for the CEO, CFO and Non-executive Directors removed.
2. Non-executive Directors do not receive benefits or pension payments and are not eligible for variable remuneration.
3. Where the incumbent did not serve for the full year, the calculation has not been made as it is not representative. Eric Updyke joined the Board in April 2019; Maggie Buggie joined the Board in April 2021.
4. Benefits include employer retirement benefit contributions and Company match payments, car allowance, health insurance and life assurance.
5. Total Annual Incentive includes all Annual Incentive payments and commission.

Relative importance of the spend on pay

The following table shows the total expenditure on pay for all of the Company's employees compared to distributions to shareholders by way of dividend. In order to provide context for these figures, adjusted operating profit is also shown.

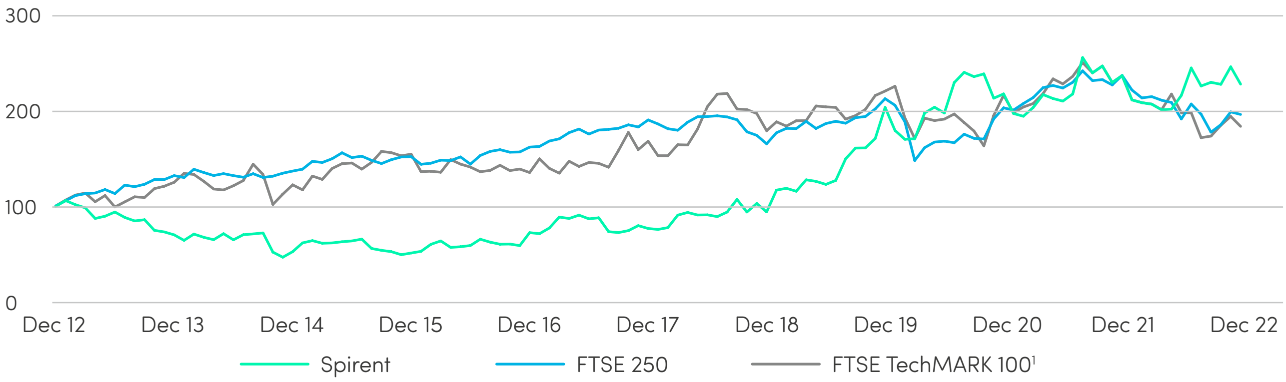
	2022 $ million	2021 $ million	Per cent change
Employee remuneration costs[1]	**267.7**	265.6	0.79
Distributions to shareholders[2]	**39.9**	84.1	(52.56)
Adjusted operating profit[3]	**129.5**	118.5	9.28

Notes
1. Remuneration, social security costs, pension and other related costs and expense of share-based payment (see note 8 to the consolidated financial statements).
2. Dividends declared and paid in the year (see note 12 to the consolidated financial statements).
3. Before acquired intangible assets, share-based payment and other adjusting items amounting to $16.8 million in total (2021 $14.3 million).

Total Shareholder Return performance

The graph below shows the TSR performance for the last ten financial years of Spirent Communications plc against the FTSE 250 Index and the FTSE TechMARK 100 Index, excluding those companies which were also constituents of the FTSE 100 Index at the commencement of the period. These indices have been selected as the most relevant comparators for Spirent across the time period reflected in the graph below due to Spirent's business operations in the technology space and the Company's market capitalisation and size.

Ten-year TSR performance – Spirent vs FTSE TechMARK100[1] and FTSE 250



Note
1. As of 1 January 2013, excluding FTSE 100 companies.

The middle market price of an Ordinary Share at the close of business on 4 January 2022 and 30 December 2022 (being the first and last days the London Stock Exchange was open for trading in 2022) was 272.6 pence and 260.2 pence respectively, and during that period ranged between a high of 286.2 pence and a low of 215.4 pence.

Non-executive Director fees (audited)

Details of individual appointments are as follows:

Director	First appointed as a Director	Current appointment due to expire
Maggie Buggie	29 April 2021	2025 AGM
Gary Bullard	1 December 2016	2023 AGM
Wendy Koh	11 January 2018	2024 AGM
Edgar Masri	11 January 2018	2024 AGM
Jonathan Silver	25 June 2015	2025 AGM
Sir Bill Thomas	1 December 2016	2023 AGM

Single figure of total Non-executive Directors' remuneration 2022 (audited)

	Maggie Buggie[1] £000		Gary Bullard £000		Wendy Koh £000		Edgar Masri £000		Jonathan Silver £000		Sir Bill Thomas £000	
	2022	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Salary/fees	**56.3**	31.9	**67.3**	65.6	**56.3**	54.6	**56.3**	54.6	**68.3**	66.6	**225.0**	185.7
Benefits[2]	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–
Retirement benefits[2]	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–
Total	**56.3**	31.9	**67.3**	65.6	**56.3**	54.6	**56.3**	54.6	**68.3**	66.6	**225.0**	185.7

Notes
1. Maggie Buggie joined the Board on 29 April 2021.
2. Non-executive Directors do not receive benefits or pension payments and are not eligible for variable remuneration.

Statement of Directors' shareholdings and share interests (audited)

The beneficial interests of the Directors and their connected persons in the shares of the Company are set out below:

	At 31 December 2021 or date of appointment Ordinary Shares[1]	At 31 December 2022 Ordinary Shares[1]	At 7 March 2023 Ordinary Shares[1]
Executive Directors			
Paula Bell[2]	383,544	**509,525**	**509,753**
Eric Updyke	224,274	**642,477**	**642,477**
Non-executive Directors			
Maggie Buggie	–	**–**	**–**
Gary Bullard	68,708	**78,393**	**78,393**
Wendy Koh	–	**–**	**–**
Edgar Masri	20,000	**20,000**	**20,000**
Jonathan Silver	70,000	**70,000**	**70,000**
Sir Bill Thomas	67,442	**67,442**	**67,442**

Notes
1. Directors' beneficial interests do not form part of the remuneration provided by the Company.
2. Events since 31 December 2022:
   On 24 January 2023 Paula Bell acquired 56 "Partnership" Ordinary Shares and received 56 "Matching" Shares under the UK Employee Share Purchase Plan at a price of 224.4 pence per share.
   On 24 February 2023 Paula Bell acquired 58 "Partnership" Ordinary Shares and received 58 "Matching" Shares under the UK Employee Share Purchase Plan at a price of 215.20 pence per share.

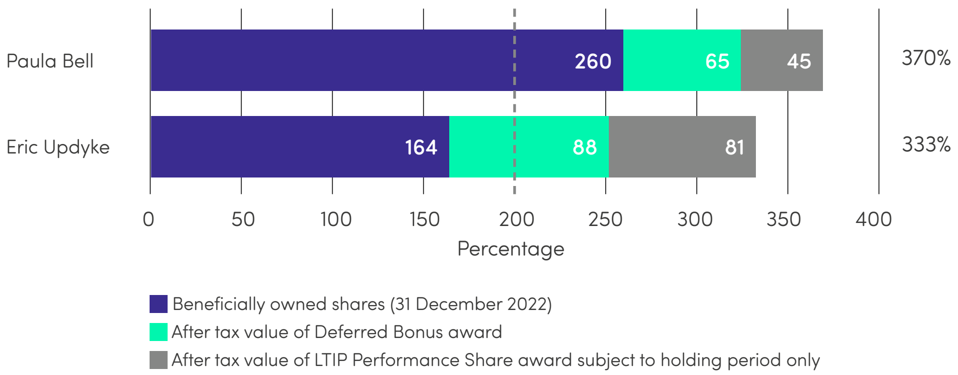
Shareholding guidelines for Executive Directors (audited)

The Committee believes that to further align their interests with those of shareholders, Executive Directors should have a significant shareholding in the Company. Under the 2021 Remuneration Policy, the Committee requires Executive Directors to build a holding of shares equivalent in value to 200 per cent of base salary.

Under the 2021 Remuneration Policy, the current Executive Directors will not be required to hold on to beneficially owned shares after the end of their employment with the Group. However, any new Executive Directors joining the Company would be required to retain the lower of the respective in-role shareholding guideline and the accrual shareholding immediately prior to departure for a period of two years.

The chart below sets out the minimum shareholding requirements and the actual shareholdings for the individuals. The percentages are a function of base salary, shareholdings and share incentives at 31 December 2022.

Executive Director shareholdings as a percentage of 2022 base salary[1]



Note
1. For the purpose of this table, the interests have been valued using the closing share price on 31 December 2022 of 260.2 pence per share. Details of outstanding share incentive awards are set out on pages 90 and 91.

Statement of implementation of Remuneration Policy in 2023 (unaudited)

Information on how the Company intends to implement the Executive Directors' Remuneration Policy in 2023 is set out below.

Base salary

	2023	2022	Per cent change
Paula Bell	**£403,639**	£384,418	5.0 per cent
Eric Updyke[1]	**£732,021**	£636,540	15.0 per cent

Note
1. The figures shown represent the annual base salaries for Eric Updyke at an exchange rate of $1.2360:£1.

Benefits

- Life insurance cover of four times annual base salary
- Permanent health insurance
- Private healthcare cover for executive and family
- Car allowance

Retirement benefits

Eric Updyke is eligible to participate in the Spirent Communications, Inc 401(k) programme with a 4 per cent Company match of his own contributions, subject to any applicable IRS cap. Mr Updyke is also eligible to participate in the US Deferred Compensation Plan, which has a 4 per cent Company match of the participant's contributions which are not made to the participant's 401(k) account due to restrictions imposed by the IRS.

Paula Bell will receive a taxable cash sum in lieu of pension at a rate of 14 per cent of base salary. The Committee notes that this payment is now in line with the UK workforce, as required under Provision 38 of the 2018 UK Corporate Governance Code.

Annual Incentive

The Committee has set targets for the year focused on adjusted operating profit, revenue and strategic and operational priorities.

Although the target detail is considered commercially sensitive, the weightings for the year ended 31 December 2023 are as follows:

Adjusted operating profit	50 per cent
Revenue	30 per cent
Strategic and operational priorities	20 per cent

On-target and maximum Annual Incentive payments are as follows:

	On-target performance per cent of base salary	Maximum performance per cent of base salary
Paula Bell	75	125
Eric Updyke	90	150

One-third of any incentive achieved through the Annual Incentive will be deferred into shares for an additional period of three years.

Details of these targets and their achievement will be disclosed in the Directors' Annual Remuneration Report 2023.

Statement of implementation of Remuneration Policy in 2023 (unaudited) continued

Award under Spirent Long-Term Incentive Plan

It is anticipated that the following award will be made under the LTIP in 2023 in the form of Performance Shares:

	Per cent of base salary	Anticipated value of award
Paula Bell	175	£706,368
Eric Updyke[1]	200	£1,464,042

Note
1. The figure shown represents the annual base salary for Eric Updyke at an exchange rate of $1.2360:£1.

In response to feedback from shareholders arising from the shareholder consultation process, the metrics and weightings for the 2023 LTIP award to Executive Directors have been changed from those used in previous years. The Committee will be taking a fuller look at all potential metrics as part of the preparation for a new remuneration policy, which will be brought to the Company's AGM in 2024.

50 per cent of the award:

Earnings per share

The EPS performance period starts at the beginning of the financial year in which the award is made, in this case on 1 January 2023, and ends after three years, in this case on 31 December 2025. The adjusted EPS figure reported for the financial period to 31 December 2022, which forms the baseline for this performance target is 18.86 cents.

Target EPS (adjusted)	Proportion of Performance Shares vesting (per cent)
Below 21.21 cents	0
21.21 cents	25
Above 21.21 cents and below 25.79 cents	On a straight-line basis between 25 and 100
25.79 cents and higher	100

40 per cent of the award:

Relative TSR against the FTSE 250 index (excluding financial services and investment trusts)

When determining Relative TSR growth for the Company, share prices will be averaged over 90-day periods immediately prior to, and at the end of, the performance period, which will commence 14 days prior to the date of award and will end three years later.

Relative TSR[1] – total growth	Proportion of Performance Shares vesting (%)
Below Median growth	0
Median growth	25
Above Median but below Upper Quartile growth	On a straight-line basis between 25 and 100
Upper Quartile growth or higher	100

Note
1 Growth includes re-invested dividends

10 per cent of the award:

ESG

In 2023 produce an optimisation plan of Spirent's facilities and lab footprint in order to achieve longer term carbon reduction goals. Implement that plan and achieve the identified carbon reduction targets, such reductions to be externally assured.

Awards made to Executive Directors under the Spirent Long-Term Incentive Plan in 2023 are subject to a post-vesting holding period of an additional two years.

Non-executive Director fees (audited)

During 2022 the Board reviewed the level of fees to be paid to Non-executive Directors from 1 January 2023. To avoid any conflict of interest, the matter was considered by the Chairman and Executive Directors in the absence of the Non-executive Directors affected.

Following consideration, an increase of 4.75 per cent (which is line with the range of salary in the UK and US workforce) was agreed. It was also agreed that the additional fees paid to Committee Chairmen and the Senior Independent Non-executive Director would not be increased in 2023.

	2023	2022	Per cent change
Non-executive Directors	**£58,948**	£56,275	4.75
Audit Committee Chairman	**£12,000**	£12,000	–
Remuneration Committee Chairman	**£11,000**	£11,000	–
Senior Independent Non-executive Director[1]	**£10,000**	£10,000	–

Note
1. The current Senior Independent Non-executive Director has chosen to continue to waive this additional fee during the period under review and for 2023.

During 2022 the Remuneration Committee reviewed the level of fees to be paid to the Non-executive Chairman from 1 January 2023. To avoid any conflict of interest, the matter was considered by the Committee in the absence of the individual affected.

Following consideration, an increase of 4.75 per cent (which is in line with the range of salary increases applied in the UK and US) was agreed for the Chairman.

	2023	2022	Per cent change
Non-executive Chairman	**£235,687**	£225,000	4.75

Share incentive interests vesting during 2023 (audited)

Deferred Bonus Plan: Restricted Stock (March 2023)

Both Ms Bell and Mr Updyke have awards of Restricted Stock under the DBP which are due to vest on 8 March 2023 (delayed from 5 March 2023 due to the close dealing period for the 2022 full year results).

These awards are the result of the deferral of one-third of the value of the Annual Incentive achieved based on performance in 2019. As such, no further performance conditions are applicable to the awards prior to vesting.

Long-Term Incentive Plan: Performance Shares (May 2023)

Both Ms Bell and Mr Updyke have awards of Performance Shares under the LTIP which are due to vest on 6 May 2023, subject to an EPS performance condition and an Absolute TSR performance condition.

The EPS condition has passed the growth threshold required and will vest in full.

The Absolute TSR condition will be tested after the conclusion of the performance period. Current estimates, based on the growth in market price of a Spirent Ordinary Share between the beginning of the performance period and the date of this report, suggest it is unlikely that this will achieve any vesting.

Full details of the vesting of these awards will be disclosed in the Directors' Annual remuneration report 2023.

No new shares were issued during the year, with all exercises of share incentives being satisfied by the transfer of shares held by the Company's Employee Share Ownership Trust (ESOT). At the date of this report, the ESOT holds 8.9 million Ordinary Shares for the purpose of satisfying the exercises of current and future awards by employees and former employees of the Group.

Illustrations of the application of Remuneration Policy in 2023

A significant proportion of remuneration is linked to performance, particularly at maximum performance levels. The charts below show how much the Executive Directors could earn under Spirent's Remuneration Policy under different performance scenarios in the 2023 financial year. The following assumptions have been made:

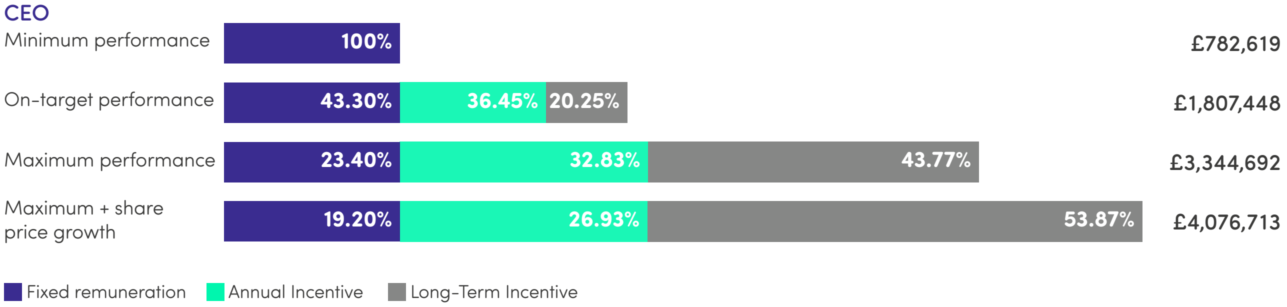
	Fixed remuneration	Variable remuneration	
		Annual Incentive	Long-Term Incentive
Minimum	Base salary[1], benefits[2], pension[3]	–	–
Target	Base salary[1], benefits[2], pension[3]	On target[4]	Threshold vest (25 per cent)[6]
Maximum	Base salary[1], benefits[2], pension[3]	Maximum[5]	Full vest (100 per cent)[6]
Maximum + 50 per cent share price growth	Base salary[1], benefits[2], pension[3]	Maximum[5]	Full vest (100 per cent)[6] + 50 per cent growth in share price from date of grant

Notes

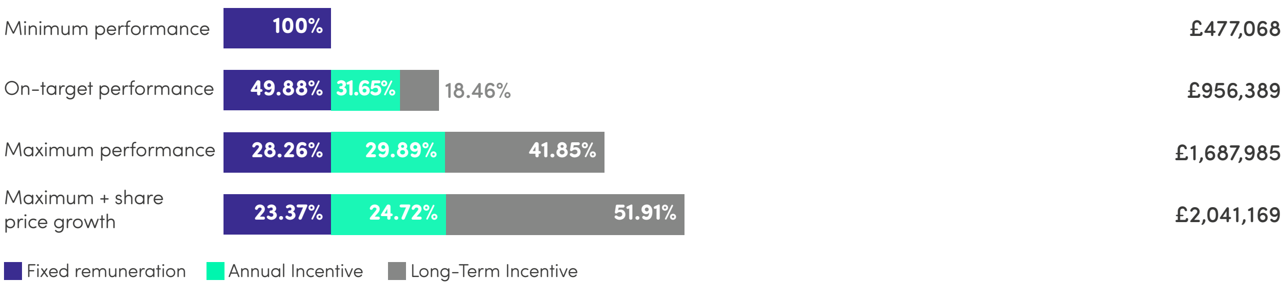
1. Base salary effective 1 January 2023.
2. Benefits as received during 2022 financial year.
3. Cash contributions to the Company's 401(k) plan and Deferred Compensation Plan during 2022 financial year for CEO and cash sum in lieu of pension equal to 20 per cent of base salary received during 2022 financial year for CFO.
4. Annual Incentive on-target payout of 90 per cent of base salary for CEO and 75 per cent of base salary for CFO.
5. Annual Incentive maximum payout of 150 per cent of base salary for CEO and 125 per cent of base salary for CFO.
6. Long-Term Incentive on-target payout of 25 per cent of award and maximum payout of 100 per cent of award.

Illustrations of the application of Remuneration Policy in 2023 continued

CEO



CFO



Remuneration Committee

Members

During the year and at the date of this report, Committee members were:

- Gary Bullard (Committee Chairman);
- Maggie Buggie;
- Wendy Koh;
- Edgar Masri; and
- Jonathan Silver.

Responsibilities

The Remuneration Committee is responsible to the Board for determining:

- Remuneration Policy for the Executive Directors and Chairman, taking into account remuneration trends across the Company;
- specific terms and conditions of employment of each individual Executive Director;
- overall policy for remuneration for the Executive Directors' direct reports;
- design and monitoring of the operation of any Company share incentive plans;
- setting stretching incentive targets to encourage enhanced performance;
- an approach that rewards fairly and responsibly contribution to the Company's long-term success; and
- other provisions of the Executive Directors' service agreements, ensuring that contractual terms on termination and payments made are fair to the individual and the Company and that failure is not rewarded and loss is mitigated.

The Committee's remit is set out in detail in its terms of reference, which are reviewed regularly and were approved by the Board in December 2022.

The Committee's terms of reference are available on the Company's website at corporate.spirent.com.

Composition of the Committee

At the date of this Report, the Remuneration Committee comprises five Independent Non-executive Directors, one of whom acts as Committee Chairman. The Company Secretary serves as Secretary to the Committee. All members are considered independent within the meaning of the 2018 UK Corporate Governance Code.

Advisers to the Committee

During the period under review the Committee consulted with the Company's Chairman, CEO, CFO and Company Secretary & General Counsel but not on matters relating to their own remuneration.

Following a formal tender Aon was appointed by the Committee in August 2018 to undertake a market review of executive remuneration practices and assist with the design and introduction of an updated Remuneration Policy that was put to shareholders at the 2019 Annual General Meeting. In July 2020, following a restructure at Aon, the lead adviser to the Committee transferred to work at PwC. The Committee has retained PwC in this role because it values the robust data and advice provided and the continuity of provision from the advisers involved. The Committee remains satisfied that PwC is independent, thoughtful and challenging. PwC is a member of the Remuneration Consultants Group and complies with its voluntary Code of Conduct in respect of the provision of remuneration consulting services, details of which can be found at www.remunerationconsultantsgroup.com.

The fees paid to PwC to carry out work for the Remuneration Committee during the period under review totalled £144,000 (2021 £60,000). Fees are based on a fixed retainer for certain services and time and materials otherwise. During the year, PwC provided other tax and advisory services to the Company. PwC did not have any other connection with the Directors of the Company.

Kepler Associates Limited, which was acquired in June 2015 by Mercer Limited, was appointed by the Committee some years ago to provide the results of TSR testing to determine the vesting of share incentives. The Committee has retained Mercer Limited in this role because it values the robust data provided and continuity of advice from the consultants involved. The Committee remains satisfied that Mercer Limited is independent, thoughtful and challenging. Mercer Limited is a member of the Remuneration Consultants Group and complies with its voluntary Code of Conduct in respect of the provision of remuneration consulting services, details of which can be found at www.remunerationconsultantsgroup.com, and has no other connection to the Company. During the year Mercer did not provide any other services to the Company and did not have any other connection with the Directors of the Company.

The fees paid to Mercer Limited to carry out work for the Remuneration Committee during the period under review totalled £4,800 (2021 £4,200) and were based on time and materials.

Statement of shareholder voting

At the 2022 AGM on 6 May 2022 the results of shareholder voting on remuneration matters were as follows:

Advisory vote regarding the Report on Directors' remuneration for the year to 31 December 2021:

Votes for[1]	Per cent	Votes against	Per cent	Votes cast	Votes withheld[2]
502,154,141	97.16	14,691,894	2.84	516,846,035	28,043

The most recent binding vote for the Company's Remuneration Policy was also approved by shareholders at the 2021 AGM and effective from 29 April 2021:

Votes for[1]	Per cent	Votes against	Per cent	Votes cast	Votes withheld[2]
480,377,721	96.40	17,920,170	3.60	498,297,891	58,844

Notes
1. The "For" vote includes those giving the Company Chairman discretion.
2. A vote withheld is not a vote in law and is not counted in the calculation of the votes "For" and "Against" the resolution.

Votes "For" and "Against" are expressed as a percentage of total votes cast.

By Order of the Board

Gary Bullard
Chairman, Remuneration Committee
7 March 2023

Report on Directors' remuneration continued

Directors' Remuneration Policy (unaudited)

The Committee's Policy is to set remuneration levels which ensure that the Executive Directors are fairly and responsibly rewarded in return for high levels of performance. The Remuneration Policy aims to promote value creation through transparent alignment with the agreed corporate strategy, supporting performance and encouraging the underlying sustainable financial health of the business while promoting sound risk management for the benefit of all stakeholders. The Committee believes that the aims of the Policy are achieved by ensuring that a significant proportion of executive remuneration is tied to the achievement of the agreed corporate strategy and long-term value creation.

The Company's previous Remuneration Policy was subject to a binding vote at the 2019 AGM on 1 May 2019 and received 95.89 per cent of all votes cast in favour. The current Policy was subject to a binding vote at the 2021 AGM, receiving 96.40 per cent of all votes cast in favour, and is broadly consistent with the previously approved Policy. However, certain changes were made to ensure that the new Policy remains fit for purpose for the next three years for the Company and its shareholders. A number of amendments to the language of the Policy have been made to improve its clarity. The principal changes from the previously approved Policy are:

- **Post-cessation share ownership requirement:** The implementation of a post-cessation share ownership requirement for newly appointed Executive Directors, who will be required to hold the lower of the respective in-role shareholding guideline and the accrual shareholding immediately prior to departure for a period of two years, in line with the Investment Association's best practice guidance.
- **Reduction in pension contributions:** The alignment of existing Executive Director pension contributions with those of the wider workforce from the end of 2022 in line with the UK Corporate Governance Code and Investment Association expectations.

Considerations of UK Corporate Governance Code principles

When determining the Remuneration Policy, the Committee was mindful of its obligations under Provision 40 of the Corporate Governance Code in order to ensure that the Policy and other remuneration practices were clear, simple, predictable, proportional and aligned to the culture of the Company and accounted for reputational and other risks linked to excessive reward. Set out below are examples of how the Committee addressed these factors:

Clarity Remuneration arrangements should be transparent and promote effective engagement with shareholders and the workforce.	The Committee consulted with its shareholders on the proposed changes within the Policy and received positive feedback. The Committee believes that the remuneration arrangements are transparent and align to market and best practice.
Simplicity Remuneration structures should avoid complexity and their rationale and operation should be easy to understand.	The Committee is not proposing any significant structural changes to the incentive plans. Spirent operates two incentive plans, which it believes are easy to communicate and for stakeholders to understand and the structure of which is aligned to market practice. The performance measures provide a clear link to business performance and business strategy.
Risk Remuneration arrangements should ensure reputational and other risks from excessive rewards, and behavioural risks that can arise from target-based incentive plans, are identified and mitigated.	The Committee is mindful of mitigating risks in relation to excessive reward through the application of discretion, as well as through malus and clawback provisions in respect of incentive awards.
Predictability The range of possible values of rewards to individual Directors and any other limits or discretions should be identified and explained at the time of approving the Policy.	The range of possible rewards for Executive Directors is considered on page 99. The Committee has the ability to apply discretion in relation to the variable pay elements of the awards, for new joiners and for leavers, which were revisited as part of the review of the Remuneration Policy.
Proportionality The link between individual awards, the delivery of strategy and the long-term performance of the Company should be clear. Outcomes should not reward poor performance.	The Committee strongly believes that the awards implemented ensure continued delivery of the short and long-term goals and the business strategy. The Committee also has discretion to adjust incentive outcomes to ensure that they reflect the Company's performance over the relevant period.
Alignment to culture Incentive schemes should drive behaviours consistent with Company purpose, values and strategy.	The Committee believes that the incentive schemes detailed in the Remuneration Policy are consistent with Company purpose, values and strategy.

Policy table

This section of the Report describes the key components of each element of the remuneration arrangements for the Executive Directors.

Component and link to strategy	Operation	Maximum opportunity	Framework to assess performance
Fixed remuneration			
Base salary			
To provide fixed remuneration for each role which reflects the size and scope of the Executive Directors' responsibilities and their individual skills and experience.	Base salaries are normally reviewed annually. Set at levels to recruit and retain the high-calibre talent needed to deliver the Group's strategy without paying more than is considered necessary. Salaries are typically set after considering various factors including the salary levels in companies of a similar size and complexity, the responsibilities of each individual role, internal relativities, progression within the role, individual performance and an individual's experience and with regard to market salary levels in the country in which the executive resides. Our overall policy, having had due regard to the factors noted, is normally to target salaries at the median market level.	While there is no defined maximum salary, any increase in salary will ordinarily be (in percentage terms) in line with those of the wider workforce, having regard to the increases in the country in which the individual resides. Increases beyond those granted to the wider workforce (in percentage terms) may be awarded in certain circumstances, for example where there is a change in responsibility, progression in the role, experience or a significant increase in the scale of the role and/or size, value and/or complexity of the Group. Details of current salary levels are set out in the Annual Remuneration Report.	Not applicable.
Benefits			
To provide market levels of benefits on a cost-effective basis.	May include private health cover for the Executive Director and their family, life insurance cover, permanent health insurance and a car allowance. Executive Directors may participate in any all-employee share plans which may be operated by the Company on the same terms as other employees. Relocation support and any associated costs or benefits may also be provided if considered by the Committee to be appropriate and reasonable to meet the requirements of the business. Other benefits may be offered from time to time broadly in line with local market practice in the country of residence of the Executive Director. Reasonable business-related expenses may be reimbursed (including tax thereon, if deemed to be a taxable benefit).	The overall value of benefits will depend on the individual's circumstances and therefore there is no formal maximum. Participation in all-employee share plans will be in line with relevant statutory limits. It is intended that the maximum value of benefits offered will remain broadly in line with market practice in the location in which the Executive Director operates.	Not applicable.

Policy table continued

Component and link to strategy	Operation	Maximum opportunity	Framework to assess performance
Retirement benefits			
To provide cost-effective and competitive post-retirement benefits.	Defined contribution scheme or cash allowance in lieu of Company pension contributions or a combination of both. Other post-retirement benefits may be offered from time to time broadly in line with local market practice in the country of residence of the Executive Director.	The maximum Company contribution is set at 20 per cent of base salary (combined cash supplement and/or defined contribution plan). For existing Executive Directors, the retirement benefits are set in line with the general rates applicable to the wider workforce in their country of residence from the end of 2022. Retirement benefit levels for newly appointed Executive Directors will be set in line with the general rates applicable to new employees in the country of residence of the new Executive Director. Pension arrangements for current Executive Directors are set out in the Annual Remuneration Report.	Not applicable.

Variable remuneration

Annual Incentive

Component and link to strategy	Operation	Maximum opportunity	Framework to assess performance
To reward and incentivise the achievement of annual financial and strategic goals which are selected to align the strategy of the business and support enhancement of shareholder value.	Two-thirds of any bonus earned is payable in cash with the remaining one-third deferred into shares. The deferred bonus shares ordinarily vest after three years. Dividend equivalents may be paid on vested shares in respect of dividends arising over the period between the grant date and the vesting date. Both the cash and deferred share elements of the annual bonus are subject to clawback and malus provisions.	Maximum opportunity is capped at 150 per cent of base salary. The Annual Incentive starts accruing from threshold levels of performance, which results in 20 per cent of the maximum payout. Current maximum potential for each Executive Director is set out in the Annual Remuneration Report.	Annual incentives may be based on a mix of financial, individual and business objectives with at least 50 per cent of the weighting being given to financial metrics. The payment of any bonus is at the absolute discretion of the Committee and the Committee may exercise its discretion to override the formulaic outcome.

Component and link to strategy	Operation	Maximum opportunity	Framework to assess performance
Long-Term Incentive			
To incentivise executives to achieve the Company's long-term strategy and enhance sustainable shareholder value.	Discretionary awards of conditional shares or nil-cost options may be granted to Executive Directors annually, calculated as a percentage of base salary. Awards will ordinarily vest, subject to performance, on the third anniversary of grant and will be subject to an additional two-year holding period post-vesting, during which time awarded shares may not ordinarily be sold (other than to settle tax liabilities incurred by the vesting of the award). Dividend equivalents may be paid on vested shares in respect of dividends arising over the period between the grant date and the vesting date (or, where an award is structured as a nil-cost option and subject to a holding period, to the expiry of the holding period or the date of exercise (if earlier)). Malus and clawback provisions will apply to all awards made under the Spirent Long-Term Incentive Plan.	Maximum plan limit for awards is 200 per cent of base salary in respect of any financial year. No more than 25 per cent of the relevant part of the award will vest for achieving threshold performance, increasing to full vesting for the achievement of maximum performance. Details of proposed award levels are set out in the Annual Remuneration Report.	Award levels and performance conditions are reviewed before each award cycle to ensure they remain appropriate. Awards are currently subject to challenging Earnings Per Share and Total Shareholder Return targets. However, different measures may be applied for future award cycles as appropriate to reflect the business strategy. A full description of the performance conditions applicable to Long-Term Incentive awards is set out in the Annual Remuneration Report. In respect of awards granted in 2019 and beyond, the Committee has the discretion to override the formulaic out-turn of the award if appropriate to do so to take into account the underlying financial and operational performance of the Company and, in exceptional circumstances, individual performance.

Notes to the Policy table

Performance conditions applicable to the Annual Incentive

The Annual Incentive is designed to drive and reward excellent short-term financial and operational performance. The Committee reviews the Annual Incentive plan measures each year in order to ensure that they are aligned with the Group's strategy. The Committee may alter the choice and weighting of the metrics for future Annual Incentive cycles to reflect the changing needs of the business. The Committee also retains the discretion to retrospectively amend the measures, weightings, targets and/or method of assessment for the in-year Annual Incentive to take into account changes in the business strategy, significant acquisitions or disposals, changes in accounting treatment or other exceptional events to ensure that the scheme is able to fulfil its original purpose. The payment of any Annual Incentive is at the sole discretion of the Committee.

Annual Incentives are currently based on:

- adjusted operating profit – a key driver of shareholder return and a key measure of business success;
- revenue – reflecting Spirent's strategic priority of delivering top-line growth; and
- other strategic and operational priorities – these account for a minority of the Annual Incentive and ensure a rounded assessment of performance.

Performance conditions applicable to awards under the Spirent Long-Term Incentive Plan (LTIP)

Long-Term Incentive awards will be granted in accordance with the rules of the LTIP and the discretions contained therein. The Committee reviews the appropriateness of performance parameters for each award under the LTIP and sets stretching performance conditions in light of the Company's current and expected performance over the performance cycle.

The performance conditions for awards to Executive Directors are (ordinarily) measured over a period of three years and are set using a sliding scale of targets and no more than 25 per cent of the award (under each measure) will vest for achieving the threshold performance hurdle. The choice of measures may change for future award cycles, but is currently based on:

- Absolute Total Shareholder Return – generates a strong alignment of interest between executives and shareholders; and
- Adjusted Earnings per Share – this provides an assessment of the profitability of the revenues delivered and aligns with the interests of shareholders. Challenging targets for earnings per share are set based on internal and external forecasts.

The Committee would consult with shareholders in advance of a significant change in the choice or weighting of the performance measures to be applied to future award cycles. Under the rules of the LTIP, the Committee has the discretion to amend or substitute the performance conditions for in-flight awards in exceptional circumstances, providing the new targets are no less challenging than originally envisaged.

Notes to the Policy table continued

Malus and clawback

The rules of the LTIP and the Company's Annual Incentive (including any element deferred into shares) include provisions for malus and clawback to apply if the Committee concludes that:

- the relevant individual has committed misconduct;
- there has been a restatement of any member of the Group's financial results, due to inaccurate or misleading data;
- the extent to which an award was granted or has vested was based on inaccuracy or error;
- the Group (or a business unit within the Group) suffered a material financial loss as a result of circumstances that could reasonably have been risk managed;
- the Company has suffered an instance of corporate failure resulting in the appointment of a liquidator or administrator;
- a material failure of risk management and/or regulatory non-compliance resulting in damage to the Company's business or reputation; or
- any other circumstances that the Board considers to have a similar nature or effect.

Clawback may be applied for up to two years following cash payment of an Annual Incentive and vesting under the LTIP, and malus up to three years following the granting of awards under the Company's deferred bonus arrangements.

Shareholding guidelines

The Executive Directors are required to build and maintain a shareholding in the Company equivalent to 200 per cent of salary and are expected to retain shares vesting under the deferred annual bonus and LTIP (net of tax) until such time as the guideline shareholding has been achieved.

New Executive Directors are required to maintain a post-cessation share ownership requirement to hold the lower of the respective in-role shareholding guideline and the actual shareholding immediately prior to departure for a period of two years.

The Company's policy in respect of vested and unvested share awards post-cessation of employment is set out below in the section on Exit Payment Policy.

Discretions retained by the Committee in operating the LTIP and other variable pay schemes

The Committee operates the Group's various incentive plans according to their respective rules and (where applicable) in accordance with relevant legislation and HMRC guidance. In order to ensure efficient administration of these plans, certain operational discretions are reserved to the Committee. These include:

- determining who may participate in the plans;
- determining the timing of grants of awards and/or payments under the plans;
- determining the quantum of any awards and/or payments (within the limits set out in the Policy table above);
- in exceptional circumstances, determining that a share-based award (or any dividend equivalent) shall be settled (in full or in part) in cash;
- determining the performance measures and targets applicable to an award (in accordance with the statements made in the Policy table above);
- where a participant ceases to be employed by the Company, determining whether "good leaver" status shall apply;
- determining the extent of vesting of an award based on assessment of the performance conditions, including discretion as to the basis on which performance is to be measured if an award vests in advance of normal timetable (on cessation of employment as a "good leaver" or on the occurrence of corporate events);
- whether, and to what extent, pro-ration shall apply in the event of cessation of employment as a "good leaver" or on the occurrence of corporate events;
- whether malus and/or clawback shall be applied to any award and, if so, the extent to which they shall apply; and
- making appropriate adjustments to awards on account of certain events, such as major changes in the Company's capital structure.

Approach to recruitment remuneration

In the event that the Company recruits a new Executive Director (either from within the organisation or externally), when determining the appropriate remuneration arrangements, the Committee will take into consideration all relevant factors, (including but not limited to quantum, the type of remuneration being offered and the jurisdiction which the candidate was recruited from) to ensure that arrangements are in the best interests of both shareholders and the Company without paying more than is necessary to recruit an executive of the required calibre.

Element	Recruitment Policy
Base salary	The Committee will take into consideration a number of factors, including internal relativities, external market forces, skills and current level of pay. Salary may (but need not necessarily) be set below the normal market rate, with a series of planned increases implemented over the following few years to bring it to the desired positioning, subject to individual performance.
Benefits	Benefits provision would be in line with normal Policy. The Committee may agree that the Company will meet appropriate relocation costs.
Retirement benefits	In line with normal Policy.
Annual Incentive	Eligible to take part in the Annual Incentive, with a maximum bonus of up to 150 per cent of salary in line with Policy. Depending on the timing of the appointment, the Committee may deem it appropriate to set Annual Incentive performance metrics that are different from those that apply to the current Executive Directors for the first performance year in which the appointment falls.
Long-Term Incentive	A normal award of up to 200 per cent of salary, in line with Policy.
Buyout awards	In exceptional circumstances, the Committee may offer additional cash or share incentive awards (using Listing Rule 9.4.2, if necessary) to compensate an individual for remuneration forfeited on leaving a previous employer. The awards would not exceed what is felt to be a fair estimate of the remuneration forfeited and would reflect (as far as possible) the nature and time horizons attached to that remuneration and the impact of any performance conditions. The Company would aim to replace any forfeited cash awards with shares wherever possible. Shareholders will be informed of any such payments at the time of appointment.

For an internal appointment, any remuneration terms awarded in respect of the previous role may either continue on its original terms or be adjusted to reflect the new appointment.

When recruiting Non-executive Directors, the remuneration arrangements offered would normally be in line with those paid to existing Non-executive Directors, details of which are set out in the Annual Remuneration Report.

Service contracts

Executive Directors

In normal circumstances, it is the Company's Policy that service contracts for Executive Directors have no fixed term and are capable of termination on no more than 12 months' notice from either the Company or the Executive Director. It is intended that this Policy would also apply to new appointments of Executive Directors.

Eric Updyke currently has a service agreement with Spirent Communications, Inc, and, being a US resident, his contract is in line with US employment practice and is governed by the laws of the state of New Jersey. Mr Updyke's service agreement, dated 1 April 2019, may be terminated on 12 months' notice from the Company and six months' notice from Mr Updyke.

Paula Bell currently has a service agreement with Spirent Communications plc, and, being a UK resident, her contract is in line with UK employment practice and is governed by the laws of England and Wales. Ms Bell's service agreement, dated 12 April 2016, may be terminated on 12 months' notice from the Company and six months' notice from Ms Bell.

The Company recognises that its Executive Directors may, from time to time, be invited to become non-executive directors of other companies and that such appointments can broaden their knowledge and experience, to the benefit of the Company. Details of any such appointments are set out in the Annual Remuneration Report.

The service agreements of Executive Directors are available for inspection at the Company's registered office on request and will be available for inspection at all General Meetings of the Company.

Service contracts continued

Exit Payment Policy

The Committee is committed to ensuring that it does not pay more than is necessary when Executive Directors leave Spirent and its Policy on exit payments is and will continue to be in line with market practice in the country in which the Executive Director resides. The current Exit Payment Policy is:

- service contracts contain provisions for the removal of the Executive Director without compensation for not performing their duties to the standard required by the Board or material misconduct;
- payment in lieu of notice may be paid under service contracts if the relevant notice period is not given to the Executive Director or if, having received notice from the Executive Director, the employer does not wish him/her to serve it. Any payment in lieu of notice shall ordinarily be paid in monthly instalments, in respect of annual base salary and pension contributions only;
- unless provided for in the service contract, the Company would seek to apply practical mitigation measures to any payment of compensation on termination, for example by reducing payments to reflect payments received in respect of alternative employment, taking into account all relevant circumstances;
- service contracts do not contain provision for additional compensation on termination following a change of control (as detailed in the Change of Control provisions set out in the Directors' Report);
- service contracts do not contain provision for liquidated damages of any kind; and
- service contracts contain appropriate provisions to protect the legitimate interests of the Company with respect to preventing any terminated Executive Director from working in a business which competes against the Company.

Element	Termination Policy
Salary, benefits and pension	Payment will be made up to the termination date in line with relevant contractual notice periods and will not exceed contractual entitlements.
Annual Incentive	Unless otherwise provided in the service contract to be consistent with market practice in the country in which the Executive Director resides, Executive Directors are not entitled to accrued cash incentives payable following termination unless the individual is determined by the Committee to be a good leaver (defined as an individual leaving employment due to redundancy, ill health, injury or disability, retirement, death, the individual's employing company ceasing to be under the control of the Group, or a transfer of the undertaking in which the individual works ("Good Leaver")).
Deferred Share Bonus Plan	Awards will ordinarily continue to vest on the normal vesting date, unless the Committee determines that early vesting should apply. The Committee reserves the discretion to scale the awards down (including to nil) in the event of misconduct by the individual or to reflect individual performance.
Spirent Long-Term Incentive Plan 2016	Unvested awards will generally lapse at the time of exit. For individuals determined by the Committee to be a Good Leaver (see below), the Committee will ordinarily assess the performance conditions at the end of the applicable vesting period and unvested awards will ordinarily vest on the normal timetable. Exceptionally, and always in the case of death, the Committee may assess performance conditions at the point of cessation by testing the performance conditions up to (or as close as reasonably practicable to) the date of cessation. Awards will then vest following such early assessment of performance. Except in the case of death, any shares which vest following the assessment of the performance conditions would normally be pro-rated to reflect the proportion of the vesting period actually served by the individual. For the purposes of the LTIP, a Good Leaver is any individual who leaves due to death, ill health, injury, disability, agreed retirement, redundancy, a transfer of the business for which the individual works out of the Group or for any other reason at the Committee's discretion (except where the individual is summarily dismissed). Any post-vesting holding period would normally continue to apply to a leaver's vested and unvested awards.
Legacy arrangements: Employee Incentive Plan (EIP)	Unvested awards generally lapse at the time of exit. For individuals determined by the Committee to be a Good Leaver, performance conditions are assessed by the Committee at the point of exit by testing the performance conditions up to the date of exit for TSR performance and to the end of the most recent financial period for EPS performance. Vesting is then pro-rated for the proportion of the performance period actually served and the individual has 12 months following the date of termination of employment in which to exercise them.

For all leavers, the Committee may also determine to make a payment in reimbursement of a reasonable level of outplacement and legal fees in connection with a settlement agreement. The Company may pay any statutory entitlements, to which an Executive Director is entitled, or settle or compromise any claims made in connection with the termination of employment or appointment of an Executive Director where the Committee considers such claims to have a reasonable prospect of success and that it is in the best interests of the Company to do so. Where appropriate, private health cover may continue for a suitable period post-cessation of employment.

The Committee has now introduced a formal Policy in respect of post-cessation shareholdings for new executive directors. Following the approval of this Policy and in respect of the incentive awards granted to newly appointed executive directors thereafter, the following will ordinarily apply:

- unvested shares under the Deferred Bonus Plan will continue to vest on the normal vesting date (i.e. up to four years post-cessation);
- unvested shares under the LTIP will, subject to the participant being a Good Leaver, continue to vest on the normal vesting date and be subject to a post-vesting holding period;
- be subject to a post-vesting holding period;
- vested shares under the LTIP will remain subject to the holding period; and
- other beneficially owned shares may be sold as long as the individual continues to maintain a shareholding at least equal to the minimum shareholding guidelines which applied during their employment.

Current Executive Directors will also be subject to this Policy, with the exception of its application to other beneficially owned shares, over which there will be no sale restrictions.

The above will ensure that the Executive Directors continue to have an interest in the Company after having left employment, promoting a culture of sustainable long-term performance. Furthermore, additional safeguards are in place through the malus and clawback provisions which can continue to be invoked irrespective of employment status.

In the event of change in control of the Company, in accordance with rules of the respective plans, any outstanding share awards will ordinarily vest on the date of such an event. For awards under the LTIP, vesting will be subject to an assessment of achievement against the applicable performance conditions and, unless the Board determines otherwise, a reduction to reflect the curtailed vesting period.

Non-executive Directors

All Non-executive Directors have a letter of appointment with the Company for a period of not more than three years, subject to the Company's Articles of Association. However, since 2011 and in accordance with the Code, all Directors who are not stepping down from the Board will stand for re-election at each AGM.

The letters of appointment of Non-executive Directors are available for inspection on request and will be available for inspection at all General Meetings of the Company. An example of a letter of appointment for a Non-executive Director is available on the Company's website at corporate.spirent.com. Details of the remuneration for Non-executive Directors are set out in the Annual report on remuneration.

Consideration of employee remuneration arrangements elsewhere in the Group
When setting the Policy for Directors' remuneration, the Committee has regard to the pay and employment conditions elsewhere within the Group, particularly in the jurisdictions in which the Executive Directors are based. The Committee is kept informed on a regular basis of salary increases for the general employee population and takes these into account when determining salary increases for Executive Directors and the executive management team.

Where relevant, the Committee seeks to align the Remuneration Policy for Executive Directors with that for other senior managers. Selected employees are able to share in the success of the Group through participation in the Management Incentive Plan. Executive Directors, other members of the executive management team and key employees are also eligible for participation in the Long-Term Incentive Plan.

The Committee is aware of the 2018 UK Corporate Governance Code and its requirements for increasing engagement with stakeholders including employees and details of the workforce engagement programme can be found in the Stakeholder Engagement section of this Annual Report.

Consideration of the views of shareholders in setting Remuneration Policy
The Committee is mindful of the views of shareholders in determining appropriate levels of remuneration and in ensuring that shareholder and Director interests are aligned. The Committee is committed to an ongoing dialogue with shareholders and seeks shareholder views when any significant changes are proposed to remuneration arrangements. Over the past few years, the Committee consulted with major shareholders and shareholder representatives as follows:

- January 2016: consultation related to the introduction of the new LTIP;
- December 2017: consultation related to the Committee's approach to base salary, cash incentives and LTIP awards in 2018;
- December 2018: consultation regarding the revised Remuneration Policy for which the Committee sought shareholder approval at the 2019 Annual General Meeting; and
- December 2020: consultation regarding the revised Remuneration Policy for which the Committee sought shareholder approval at the 2021 Annual General Meeting.

Legacy matters
For the avoidance of doubt, in approving this Remuneration Policy, authority is given to the Company to make payments and honour any commitments entered into with current or former Directors (such as the payment of pension or the unwinding of legacy share schemes) where the terms were agreed either prior to 24 April 2014 (the effective date of the first Directors' Remuneration Policy) or at a time when a previous Remuneration Policy was in force, or at a time when the relevant individual was not a Director of the Company and, in the opinion of the Committee, the payment was not in consideration for the individual becoming a Director. Details of any payments will be set out in the Annual Remuneration Report as they arise.

Dilution
The Committee is strongly committed to continuing to manage shareholder dilution in a responsible manner. Details of the Company's dilution are set out in the Annual Remuneration Report.

Directors' report

The Directors' Report for the year ended 31 December 2022 comprises pages 111 to 114 of this Annual Report, together with the sections of the Annual Report incorporated by reference. The Corporate Governance Report set out on pages 62 to 115 is incorporated by reference into this Directors' Report and, accordingly, should be read as part of this Directors' Report. As permitted by legislation, some of the matters required to be included in the Directors' Report have instead been included in the Strategic Report on pages 1 to 61, as the Board considers them to be of strategic importance.

Specifically, these are:

- the Strategic Report on pages 1 to 61, which provides detailed information relating to the Group, its business model and strategy, operation of its businesses, future developments and the results and financial position for the year ended 31 December 2022;
- future business developments (throughout the Strategic Report);
- details of the Group's policy on addressing the principal risks and uncertainties facing the Group, which are set out in the Strategic Report on pages 55 to 60;
- information on the Group's greenhouse gas (GHG) emissions for the year ended 31 December 2022, along with our report on the Task Force on Climate-related Financial Disclosures (TCFD) on pages 32 to 39;
- how we have engaged with our workforce and stakeholders on pages 26 to 29;
- business relationships (throughout the Strategic Report); and
- the Section 172 Statement on pages 26 to 29.

The Strategic Report and the Directors' Report together form the Management Report for the purposes of the Disclosure Guidance and Transparency Rules (DTR) 4.1.8R.

Disclosures required under Listing Rule 9.8.4R

The information required to be disclosed in accordance with Listing Rule 9.8.4R of the Financial Conduct Authority's Listing Rules can be located in the following pages of this Annual Report:

Listing Rule	Detail	Page reference
9.8.4R(1-3)(5-14)(A)(B)	Not applicable	n/a
9.8.4R(4)	Long-Term Incentive Plans	83 to 110

Research and development

The Company has chosen, in accordance with the Companies Act 2006 Section 414C(II), to include the disclosure of research and development in the Strategic Report on pages 1 to 61.

Results and dividends

An interim dividend of 2.63 cents was paid on 16 September 2022. The Directors recommend a final dividend of 4.94 cents per Ordinary Share to be paid on 10 May 2023 to shareholders on the Register of Members at close of business on 17 March 2023. This would bring the total dividend for the year ended 31 December 2022 to 7.57 cents per Ordinary Share (2021 6.76 cents). This payment of the final dividend is subject to shareholder approval at the 2023 Annual General Meeting.

Directors

Biographies of the Directors currently serving on the Board are set out on pages 64 and 65.

As set out in the Notice of Meeting, all Directors will retire at the 2023 AGM and submit themselves for election or re-election by shareholders. All Directors have been subject to a formal and rigorous performance evaluation during the period under review, further details of which can be found on pages 70 and 71.

The powers of Directors are described in the Company's Articles of Association, which can be found on the Company's website at corporate.spirent.com.

Details of Executive Directors' service contracts and Non-executive Directors' letters of appointment are set out in the Report on Directors' remuneration on page 95. The interests of the Directors in the shares of the Company are also shown on page 96 of that report.

The Board has a documented process in place in response to conflicts, details of which are set out on page 69.

Insurance and indemnities

In accordance with its Articles of Association, the Company has granted a qualifying third party indemnity, to the extent permitted by law, to each Director. The Company also maintains Directors' and officers' liability insurance.

These provisions are qualifying third party indemnity provisions as defined in Section 234 of the Companies Act 2006. Neither the Company's indemnity nor the insurance provides cover in the event that a Director is proven to have acted dishonestly or fraudulently.

Stakeholder engagement

Information on how the Directors have had regard to the need to foster the Company's business relationships with suppliers, customers and other stakeholders, and the effect of that regard, is contained in the Stakeholder engagement section on pages 26 to 29.

Employees

The average number of employees within the Group is shown in note 8 to the Group's consolidated financial statements. At Spirent, we know that having a diverse and inclusive workforce is essential if we are going to deliver on our mission to be the global leader and trusted partner for innovative technology test and assurance solutions. 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 embrace a culture where difference is valued and openness, mutual respect, collaboration and fairness are 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 provide an environment where everyone feels empowered to bring their full, authentic self to work.

We strive to enable:

- workforce representation that reflects the talent market;
- equitable reward and advancement; and
- a culture of trust, fairness and respect.

We all need to do more and are committed to doing so. We have completed a detailed review of our diversity and inclusion practices to inform and set clear priorities and objectives. You will find more information on the actions we are taking in our Sustainability Report 2022, available at corporate.spirent.com.

Change of control provisions

The Company does not have agreements with any Director or employee that would provide compensation for loss of office or employment resulting from a takeover except that provisions of the Company's share incentive plans may cause outstanding unvested options and awards granted to employees under such plans to vest on a takeover as follows:

Share incentive plan	Change of control	Effect on vesting provisions in the rules	Performance condition
2005 Employee Incentive Plan[1]	Yes	n/a	n/a
Spirent Long-Term Incentive Plan	Yes	Pro-rated	Still applies
Spirent Deferred Bonus Plan	Yes	Full vesting	n/a

Note
1. All outstanding awards granted under the 2005 Employee Incentive Plan have now completed their performance condition performance periods and have either lapsed or have fully or partially vested.

The Company is not aware of any significant agreements to which it is party that take effect, alter or terminate upon a change of control of the Company following a takeover.

Share capital

The Company has a single class of share which is divided into Ordinary Shares of 3 & 1/3 pence each. Each Ordinary Share carries one vote and all of the Ordinary Shares rank pari passu. There are no special control rights relating to any of the Ordinary Shares. At the date of this Report, 611.7 million Ordinary Shares of 3 & 1/3 pence each had been issued which are fully paid up and are listed on the London Stock Exchange. The Company also operates a Level 1 American Depositary Receipt (ADR) programme with each ADR representing four Ordinary Shares. The ADRs trade on the US over-the-counter market and BNY Mellon is the authorised depositary bank for the programme. Further details on share capital are set out in note 29 to the consolidated financial statements and note 17 to the parent Company financial statements. The rights, including those relating to voting, obligations and any restrictions on transfer relating to the Company's Ordinary Shares, as well as the powers of the Company's Directors, are set out in the Company's Articles of Association, a copy of which can be found on our website at corporate.spirent.com or can be obtained from Companies House or by writing to the Company Secretary.

The Company's Articles of Association may only be amended by a special resolution at a general meeting of shareholders. The most recent changes to the Articles of Association were approved at the 2021 AGM and became effective at the close of that meeting on 28 April 2021.

The Company has established two employee benefit trusts in connection with the operation of the Company's share incentive plans: the Spirent Employee Share Ownership Trust (ESOT) and the Spirent Sharesave Trust (SST). The trustees of both trusts have waived their right to receive dividends on any Ordinary Shares held by them except for a nominal amount of 1 pence other than for those Ordinary Shares held in the ESOT which are the beneficial property of an employee/shareholder.

For further details on the employee benefit trusts see "Investment in own Ordinary Shares" in note 29 to the consolidated financial statements and note 17 to the parent Company financial statements. The Trustees of both trusts do not vote their Ordinary Shares, except for those Ordinary Shares held in the ESOT that are the beneficial property of an employee/shareholder, which the trustees will vote in accordance with the instructions received from the beneficial owner.

Restrictions on share transfers

There are no restrictions on the transfer of Ordinary Shares in the capital of the Company other than certain restrictions which may from time to time be imposed by law, for example insider trading law or as required under the Company's Remuneration Policy for Executive Directors. In accordance with the Market Abuse Regulation, certain employees are required to seek the approval of the Company prior to dealing in its securities.

The Company is not aware of any agreements between shareholders that may result in restrictions on the transfer of securities or on voting rights. The Company is also not aware of any contract of significance between itself or any subsidiary undertaking and a controlling shareholder.

Powers for issue of new shares

During the year to 31 December 2022 and to the date of this Report, no new Ordinary Shares have been allotted as a result of the exercise of options and rights pursuant to the Company's share incentive plans.

At each AGM the Directors seek authority to allot shares for cash and to disapply pre-emption rights within prescribed limits. At the 2023 AGM authority will be sought to allot new Ordinary Shares up to a nominal value of £6,797,132, which is equal to approximately 33.3 per cent of the Company's issued share capital as at 7 March 2023.

Return of capital

The Company was first authorised to repurchase up to 14.99 per cent of its own issued Ordinary Shares, within certain limits and as permitted by the Company's Articles of Association, at the 2006 AGM. This authority has been renewed at each subsequent AGM, reducing to 9.99 per cent at the 2010 AGM and subsequent AGMs. The authority from the 2022 AGM remains valid until the earlier of the 2023 AGM or 30 June 2023. Since the Company began returning capital to shareholders in May 2006, a total of £270.2 million has been returned through the repurchase of 397.6 million Ordinary Shares. No shares were repurchased during 2022 or to the date of this Report.

The Company will seek authority to repurchase up to 9.99 per cent of its own Ordinary Shares at the 2023 AGM to facilitate any further return of capital, if the Board concludes that it is in the best interests of shareholders to do so.

Substantial shareholdings

In accordance with Listing Rule 9.8.6(2), the Company has been notified of the following significant interests in its Ordinary Shares pursuant to Disclosure Guidance and Transparency Rule 5.

	Total holding	Per cent of Company's total voting rights
Ameriprise Financial, Inc	77,919,681	12.74
Aviva plc	61,165,831	10.00
BlackRock, Inc	34,351,674	5.62
Standard Life Investments Ltd	32,370,026	5.29
Brandes Investment Partners LP	30,537,440	4.99
AXA Investment Managers SA	30,515,747	4.99
Prudential plc	30,472,411	4.98
Martin Currie Investment Management Limited	30,442,279	4.98
Aberforth Partners	30,368,910	4.96
Neptune Investment Management Limited	29,775,214	4.87
Artemis Investment Management Limited	29,195,146	4.77
Schroders plc	26,986,598	4.41
PrimeStone Capital LLP	26,434,581	4.32
Teleios Capital Partners LLC	24,639,977	4.03
Sun Life Assurance Company of Canada (UK) Limited	23,382,347	3.82
Kames Capital	18,507,514	3.03

At 7 March 2023, the Company has been notified of the following holdings of voting rights in the Ordinary Share capital of the Company:

	Total holding	Per cent of Company's total voting rights
Aviva plc	61,880,259	10.12

The percentage of voting rights details above were calculated at the time of the relevant disclosures being made in accordance with Rule 5 of the Disclosure Guidance and Transparency Rules.

Directors' report continued

Political donations

In accordance with the Group's Business Ethics Policy, no political donations were made during the year (2021 nil).

Going concern

After making appropriate enquiries and taking into account the matters set out in the Principal risks and uncertainties section on pages 55 to 60 of this Annual Report, the Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis when preparing the financial statements.

Viability Statement

In accordance with provision 31 of the 2018 UK Corporate Governance Code, the Directors have assessed the viability of the Group and concluded whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of assessment.

The Board has concluded that the most appropriate period for this assessment should be three years, which is consistent with the period used in other forward-looking areas of the financial statements.

This period was selected for the following reasons:

- the Group's strategic planning cycle covers a three-year period;
- the Board reviews a three-year financial corporate plan;
- it reflects the period over which the principal risks would be realised; and
- when considering a major investment in product development, three years is considered by the Board to be a reasonable time horizon in which the product should achieve meaningful sales.

The Board's assessment has been made with reference to the Group's current financial position and prospects, the budget for 2023, the Group's long-term strategy, the Board's risk appetite and the Group's principal risks and uncertainties as set out on pages 55 to 60 of this Annual Report.

The plans and cash flow projections used as the basis for the assessment were the three-year strategic plan. They were drawn up on the basis that the Group ends 2022 with a cash balance of $209.6 million and maintains a cash balance sufficient to fund normal operations, and that there will be no material changes to the business structure throughout the review period.

The Board has reviewed plausible and severe stress tests based on the occurrence of a combination of the principal risks to which the Group is exposed, considering the potential impact of these risks on the business model, future performance, solvency and liquidity over the period. The analysis also included a reverse stress test scenario to illustrate the revenue reduction in the 12 months following approval of the financial statements that would lead to the Group ceasing to be a going concern. Further detail on the scenarios modelled and the principal risks considered is disclosed on page 56.

In each of the scenarios the Group was able to continue operating and generating free cash flow. The reverse stress test required such an extreme reduction in revenue that the likelihood of occurrence is considered to be remote and therefore does not represent a realistic threat to the viability of the Group. In reaching this conclusion the Directors considered the 2023 budget, the uncertainties arising from the macroeconomic backdrop and inflationary pressures, the magnitude of the revenue reduction and the ability of the Group to take realistic and successful mitigating actions, which are not factored into the reverse stress test scenario.

Based on this assessment and the expected successful impact of mitigating actions, the Directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the three-year period.

Disclosure of information to auditor

Each of the Directors of the Company at the date of this Report confirms that:

- so far as the Director is aware, there is no information needed by the Company's auditor in connection with preparing its report of which the Company's auditor is unaware; and
- he/she has taken all the steps that he/she ought to have taken as a Director in order to make himself/herself aware of any information needed by the Company's auditor in connection with preparing its report and to establish that the Company's auditor is aware of that information.

Independent External Auditor

As described in more detail on page 82 of the Audit Committee report, an audit tender process was completed during 2020, and at the 2021 AGM, the Board gained approval from shareholders to appoint Deloitte as auditor in April 2021.

Having carried out a review of its effectiveness, the Audit Committee has recommended to the Board the re-appointment of Deloitte LLP. The re-appointment and a resolution to that effect will be on the agenda at the 2023 AGM. Deloitte LLP has indicated its willingness to continue as auditor. The Audit Committee will also be responsible for determining the audit fee on behalf of the Board.

Annual General Meeting

The Company's 2023 Annual General Meeting (2023 AGM) will be held at 12.30pm on Thursday 4 May 2023 at the offices of UBS at 5 Broadgate, London EC2M 2QS.

By Order of the Board

Angus Iveson
Company Secretary
7 March 2023

Spirent Communications plc
Company number 470893

Directors' responsibilities statement

The Directors are responsible for preparing the Annual Report, the Report on Directors' remuneration, the consolidated financial statements of the Group and the financial statements of the parent Company in accordance with applicable United Kingdom law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law they have elected to prepare the consolidated financial statements of the Group in accordance with the United Kingdom adopted International Accounting Standards. The Directors have elected to prepare the parent Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law) including FRS 101 "Reduced Disclosure Framework". Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that period.

The consolidated financial statements of the Group are required by law and International Accounting Standards to present fairly for each financial period the financial position and performance of the Group; the Companies Act 2006 provides, in relation to such financial statements, that references in the relevant part of that Act to financial statements giving a true and fair view are references to their achieving a fair presentation.

Under the Financial Conduct Authority's Disclosure Guidance and Transparency Rules, consolidated financial statements are required to be prepared in accordance with UK adopted International Accounting Standards.

In preparing each of the consolidated financial statements of the Group and parent Company financial statements, the Directors are required to:

- select suitable accounting policies in accordance with IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors and apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- in respect of the consolidated financial statements of the Group, state whether international accounting standards in conformity with the requirements of the Companies Act 2006 and UK adopted International Accounting Standards have been followed, subject to any material departures disclosed and explained in the consolidated financial statements;
- in respect of the parent Company financial statements, state whether applicable UK Accounting Standards, including FRS 101, have been followed, subject to any material departures disclosed and explained in the parent Company financial statements;
- prepare the financial statements on a going concern basis unless it is inappropriate to presume the Group and the parent Company will continue in operational business for the foreseeable future;
- properly select and apply accounting policies;
- present information including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in International Accounting Standards, and in respect of the parent Company financial statements, FRS101, is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the Group and parent Company financial position and financial performance; and
- make an assessment of the Company's ability to continue as a going concern.

The Directors confirm that they have complied with the above requirements in preparing the financial statements.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's and Group's transactions and disclose with reasonable accuracy at any time the financial position of the Group and the parent Company and enable them to ensure that parent Company and Group financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Under applicable law and regulations, the Directors are also responsible for preparing a Strategic report, a Directors' report, a Directors' remuneration report and a Statement on corporate governance that comply with the law and those regulations. They are also responsible for the maintenance and integrity of the corporate and financial information included on the Company's website at corporate.spirent.com.

Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

This Annual Report complies with the Disclosure Guidance and Transparency Rules (DTR) of the Financial Conduct Authority in respect of the requirement to produce an annual financial report.

The Annual Report and consolidated financial statements are the responsibility of, and have been approved by, the Directors.

Each of the Directors confirms that, to the best of their knowledge:

- the consolidated financial statements of the Group and parent Company financial statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole;
- the Annual Report, including the Strategic Report, includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face; and
- the Annual Report and financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the Company's position and performance, business model and strategy.

By Order of the Board

Paula Bell
Chief Financial & Operations Officer
7 March 2023

Independent auditor's report to the members of Spirent Communications plc

Report on the audit of the financial statements

1. Opinion

In our opinion:

- the financial statements of Spirent Communications plc (the "parent Company") and its subsidiaries (the "Group") give a true and fair view of the state of the Group's and of the parent Company's affairs as at 31 December 2022 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with United Kingdom adopted international accounting standards;
- the parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 101 "Reduced Disclosure Framework"; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements which comprise:

- the consolidated income statement;
- the consolidated statement of comprehensive income;
- the consolidated and parent Company balance sheets;
- the consolidated and parent Company statements of changes in equity;
- the consolidated cash flow statement; and
- the related notes 1 to 34 and 1 to 17.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and United Kingdom adopted international accounting standards. The financial reporting framework that has been applied in the preparation of the parent Company financial statements is applicable law and United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

2. Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the Group and the parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We confirm that we have not provided any non-audit services prohibited by the FRC's Ethical Standard to the Group or the parent Company. The non-audit services provided to the Group and parent Company for the year are disclosed in note 4 to the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

3. Summary of our audit approach

Key audit matters	The key audit matter that we identified in the current year was appropriateness of revenue recognition.
Materiality	The materiality that we used for the Group financial statements was $5.9 million which was determined based on 5 per cent of Group profit before tax.
Scoping	The following components were full scope: Spirent Communications plc, Spirent Communications Inc, Spirent Federal Systems Inc, Spirent Communications (Asia) Limited. In addition, the components not in full scope were subject to either analytical procedures (carried out by the Group audit team) or specified audit procedures (performed by our either the Group audit team or component auditors). The components, which were either full or specified account balances scope in the current year, contribute 94 per cent of revenue, 86 per cent of profit before tax and 94 per cent of net assets.
Significant changes in our approach	Following our first-year audit in the prior year we have continued to extend our testing of internal controls.

4. Conclusions relating to going concern

In auditing the financial statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Our evaluation of the Directors' assessment of the Group's and parent Company's ability to continue to adopt the going concern basis of accounting included:

- understanding management's process in performing the going concern assessment;
- considering the cash flow forecasts and the scenario analysis prepared by management and evaluating the Group's ability to support itself without accessing external funding, noting that the Group is not exposed to interest rate volatility as there is no external debt financing;
- applying of sensitivities to cash flows including the potential impact of US-China trade relations or slower than expected growth in the 5G market;
- performing inquiries of Management regarding the assumptions used in the going concern models;
- assessing the mathematical accuracy of the forecasts produced and the historical accuracy of managements forecasts;
- reading analyst reports, industry data and other external financial information to determine if it provided corroborative or contradictory evidence in relation to Management's assumptions; and
- evaluating the Group's disclosures on going concern against the requirements of IAS 1.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and parent Company's ability to continue as a going concern for a period of at least 12 months from when the financial statements are authorised for issue.

In relation to the reporting on how the Group has applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the Directors' statement in the financial statements about whether the Directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

Independent auditor's report to the members of Spirent Communications plc continued

5. Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

5.1. Appropriateness of revenue recognition

Appropriateness of revenue recognition	Refer to page 79 (Audit Committee Report) and Notes 2 (Accounting Policies) and 3 (Operating Segments). Revenue: \$607.5 million (2021 \$576.0 million) The Group's principal activity is the sale of hardware, software, support and services for the testing and assurance of networks. In general, the performance obligations align with the types of products sold with hardware and software recognised immediately, support recognised over the life of the support contract and services recognised over the period in which the sale is performed or on a milestone basis. The Group also experiences significant seasonality, predominantly due to the timing of the budgetary cycles of the Group's principal customers and markets. Given the nature of the Group's products and services there is judgement involved in the allocation of revenue between the different performance obligations which impacts the timing of revenue recognition and specifically there is a risk associated with cut-off given the significant seasonality, with sales peaking at each quarter end, most notably in December. The timing of revenue recognition can also be complicated by management's use of distributors or intermediary selling agents in jurisdictions where they have no physical presence or are otherwise required to use an intermediary third party. This extends the cut-off risk due to the necessity of assessing whether the fulfilment of the Company's performance obligations are determinant on delivery by the intermediary to the end customer. The transaction price in the contract is allocated across these performance obligations based on the standalone selling prices identified by management. This identification of standalone selling prices involves judgement, involves multiple inputs and calculations, and has a direct impact on the timing and amount of revenue recognised. Where sales are only partially delivered, management judgement is required to be exercised in the application of IFRS 15 as to whether the delivered elements qualify for recognition prior to all contractual deliverables being shipped. We assessed revenue recognition as a potential risk of fraud as revenue is one of the KPIs for both external communications and management incentives.

5. Key audit matters continued

5.1. Appropriateness of revenue recognition continued

How the scope of our audit responded to the key audit matter	**Testing of relevant controls** We obtained an understanding of and tested relevant controls within management's revenue recognition process. We obtained an understanding of and tested relevant controls including those over key IT systems and tools used in the revenue recognition process and financial reporting. This included both the applications and infrastructure supporting these systems. **Evaluating key judgements in the revenue recognition process** In order to test the timing of revenue recognition, including for partial shipments, we performed testing of all material orders placed around the period end and a sample of the other orders to corroborate that the activity required for revenue recognition had occurred within the period under audit. This included: • obtaining shipping records for physical items and evaluating that the dates of shipment and receipt supported the Group's revenue recognition; • reviewing customer acceptance correspondence for completed activities; • considering the nature of the items delivered on partially completed orders and assessing whether the performance obligations were sufficiently distinct to have independent value without the full order having been delivered; • assessing contract terms where revenue is milestone based and assessing whether where a milestone had been achieved this was supportable based upon agreement with the customer; and • direct testing of the price-list used by management to determine the stand-alone selling price of their products. We performed additional procedures where management were selling through a distributor or sales channel partner, including direct confirmation, to understand the nature of the agreement between the parties and evaluate management's judgement that the revenue recognition timing was appropriate, based upon the transferring of risks and rewards to the customer.
Key observations	Based on the work performed we concluded that the revenue recognition is appropriate.

Independent auditor's report to the members of Spirent Communications plc continued

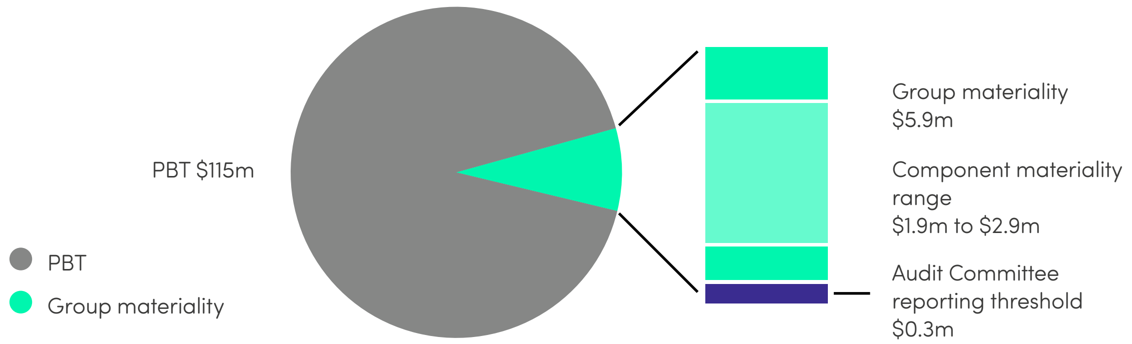
6. Our application of materiality

6.1. Materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent Company financial statements
Materiality	$5.9 million (2021 $5.4 million)	$2.6 million (2021 $2.4 million)
Basis for determining materiality	5.0 per cent of pre-tax profit	0.5 per cent of net assets
Rationale for the benchmark applied	Pre-tax profit is considered the most appropriate benchmark as the principal indicator of the Group's overall profitability. At year end we re-considered the materiality based upon actual profit and confirmed that the determined level remained appropriate.	The level of parent Company materiality was capped at 45 per cent of the Group performance materiality. The parent Company includes both the UK trading entities of the Group and the head office. In practice the value of the standalone parent Company financial statement to users is in relation to the assets and equity of the business and as such net assets has been used as the principal benchmark. However, as the parent Company is also a trading entity it was also considered that this was an appropriate level relative to the revenue generation, assets and profitability of the entity.



6.2. Performance materiality

We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the financial statements as a whole.

	Group financial statements	Parent Company financial statements
Performance materiality	70 per cent of Group materiality (2021 70 per cent)	70 per cent of parent Company materiality (2021 70 per cent)
Basis and rationale for determining performance materiality	In determining performance materiality, we considered the following factors: a. the quality of the control environment; b. corrected and uncorrected misstatements identified in previous audits; and c. the relative stability of the Group in terms of its trading and operations.	

6.3. Error reporting threshold

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of $295,000 (2021 $267,500), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

7. An overview of the scope of our audit

7.1. Identification and scoping of components

We performed our scoping of the Group audit on the basis of our understanding of the Group and its environment, including Group-wide controls, and assessing the audit risks. This exercise has considered the relative size of each reporting unit's contribution to revenue, profit before tax and adjusted profit before tax as well as other components we consider to be significant in relation to their potential risk.

The Group has three major accounting hubs located in the UK, USA and Hong Kong where the local finance teams are responsible for the recording and reporting of the Group's financial performance. The UK based finance team are responsible for the Europe, Middle East and Africa region and the Hong Kong team are responsible for the Asia Pacific region. The relative size of these geographies is set out in note 3 (Operating Segments).

This resulted in full-scope audits being performed for the principal trading entities in the UK, Asia Pacific and the USA as well as for the Group's Federal business, also based in the US.

Additionally, our audit planning identified 3 components, located in the UK, USA and China where we consider there to be a reasonable possibility of material misstatement in specific balances within the financial statements. The relevant component teams have performed audit work over these specific balances.

The Group engagement team performed all audit work in respect of the consolidation, share-based payments, goodwill impairment, UK defined benefit pension schemes and all audit work over the parent Company entity including the Group's UK trading activities. In addition, the Group engagement team reviewed the performance of all components not identified as in full scope or specified account balance scope to ensure that there were no indications of additional risks of material misstatement within the residual balances.

As each of the components maintains separate financial records, we have engaged component auditors from the Deloitte member firms in the USA and Hong Kong to perform procedures under our direction and supervision.

	Revenue	Profit before tax	Net assets
Full audit scope	94%	77%	57%
Specified audit procedures	0%	10%	37%
Review at Group level	6%	13%	6%

7.2. Our consideration of the control environment

We obtained an understanding of and tested general IT controls over IT systems that were key to the Group's revenue recognition process. These included principally the global instances of the Group's ERP, the system that contains the Group's general ledger, but also extended to certain tools the Company uses as complementary to those systems. We also obtained an understanding of and tested relevant controls over the supporting infrastructure of those systems including databases and operating systems.

We performed detailed walkthroughs of all relevant processes and obtained an understanding of relevant controls over revenue and those that addressed a significant risk of material misstatement. We have performed testing of relevant controls over revenue globally and relied on controls while testing the revenue balance. We have also obtained an understanding of controls for further relevant account balances, including inventory.

In particular in the US, the Group's key trading region, we obtained an understanding of and tested relevant controls over all material processes and the component team relied on these relevant controls in the performance of their testing. During the course of our audit, we placed reliance on a number of relevant revenue controls.

Management continued to focus on formalising and enhancing the controls in place over revenue, in anticipation of changes to the UK corporate governance framework as explained further in the Audit Committee Report on page 79.

Independent auditor's report to the members of Spirent Communications plc continued

7. An overview of the scope of our audit continued

7.3. Our consideration of climate-related risks

In planning our audit, we have considered the potential impact of climate change on the Group's business and its financial statements. Our risk assessment procedures included an understanding of management's process for identifying and considering climate-related risks and assessing whether the risks were consistent with our understanding of the entity.

The Group continues to focus on its assessment of the potential impacts of environmental, social and governance (ESG) related risks, including climate change, as outlined on pages 32 to 39. The risks identified by management include the potential for energy costs increases in the short term and in the medium term, the potential for physical site damage, increased insurance costs and capital expenditure and the potential for supplier disruption.

As a part of our audit, we have:

- obtained an understanding management's climate-related risk assessment and challenged the key assumptions;
- held discussions with management to understand their governance process, the process of identifying climate-related risks, the determination of mitigating actions and the impact on the Group's financial statements; and
- read the disclosures in the strategic report to whether they are materially consistent with the financial statements and our knowledge obtained in the audit.

Management has developed two climate change scenarios and determined that there is no material impact arising from climate change on the judgements and estimates made in the financial statements, as disclosed on page 35.

7.4 Working with other auditors

In order to direct and supervise the component auditors we held regular formal video calls with all teams to ensure that we gained a common understanding of the entity. We issued detailed referral instructions to the component auditors, reviewed and supervised their work through visits to the component auditors during the planning and performance stages of our audit, alongside frequent remote communication. Where site visits were not possible, we reviewed audit files remotely. We also attended key client briefings on both regional and segment performance.

8. Other information

The other information comprises the information included in the Annual Report, other than the financial statements and our Auditor's Report thereon. The Directors are responsible for the other information contained within the Annual Report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements, or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

9. Responsibilities of Directors

As explained more fully in the Directors' responsibilities statement, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the parent Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

10. Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

11. Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

11.1. Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the Group's remuneration policies, key drivers for Directors' remuneration, bonus levels and performance targets;
- results of our enquiries of management, internal audit and the audit committee about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the Group's documentation of their policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
  - the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations; and
- the matters discussed among the audit engagement team, including significant component audit teams, and relevant internal specialists, including tax, valuations, pensions and IT regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

As a result of these procedures, we considered the opportunities and incentives that may exist within the organisation for fraud and identified the greatest potential for fraud in the area of appropriateness of revenue recognition. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory framework that the Group operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the Companies Act 2006, the relevant tax compliance regulations in the jurisdictions in which the Group operates, Listing Rules and pensions legislation.

In addition, we considered provisions of other laws and regulations that do not have a direct effect on the financial statements but compliance with which may be fundamental to the Group's ability to operate or to avoid a material penalty. These included, in particular, considering the effect of the USA's restrictions on trading with China and the necessity of licenses for various of the Group's products.

11.2. Audit response to risks identified

As a result of performing the above, we identified the appropriateness of revenue recognition as a key audit matter related to the potential risk of fraud. The key audit matters section of our report explains the matter in more detail and also describes the specific procedures we performed in response to that key audit matter.

In addition to the above, our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- enquiring of management, the audit committee and in-house and external legal counsel concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with HMRC; and
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members including internal specialists and significant component audit teams and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Independent auditor's report to the members of Spirent Communications plc continued

Report on other legal and regulatory requirements

12. Opinions on other matters prescribed by the Companies Act 2006

In our opinion the part of the Directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic report and the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic report and the Directors' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Group and the parent Company and their environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic report or the Directors' report.

13. Corporate Governance Statement

The Listing Rules require us to review the Directors' statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the Group's compliance with the provisions of the UK Corporate Governance Code specified for our review.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements and our knowledge obtained during the audit:

- the Directors' statement with regards to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified set out on page 115;
- the Directors' explanation as to its assessment of the Group's prospects, the period this assessment covers and why the period is appropriate set out on page 115;
- the Directors' statement on fair, balanced and understandable set out on page 77;
- the Board's confirmation that it has carried out a robust assessment of the emerging and principal risks set out on page 80;
- the section of the Annual Report that describes the review of effectiveness of risk management and internal control systems set out on page 80; and
- the section describing the work of the Audit Committee set out on page 78.

14. Matters on which we are required to report by exception

14.1. Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent Company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

14.2. Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of Directors' remuneration have not been made or the part of the Directors' remuneration report to be audited is not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

15. Other matters which we are required to address

15.1. Auditor tenure

Following the recommendation of the Audit Committee, we were appointed by the Company at the Annual General Meeting on 28 April 2021 to audit the financial statements for the year ending 31 December 2021 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and re-appointments of the firm is two years, covering 31 December 2021 to 31 December 2022.

15.2. Consistency of the audit report with the additional report to the Audit Committee

Our audit opinion is consistent with the additional report to the Audit Committee we are required to provide in accordance with ISAs (UK).

16. Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

As required by the Financial Conduct Authority (FCA) Disclosure Guidance and Transparency Rule (DTR) 4.1.14R, these financial statements form part of the European Single Electronic Format (ESEF) prepared Annual Financial Report filed on the National Storage Mechanism of the UK FCA in accordance with the ESEF Regulatory Technical Standard (ESEF RTS). This auditor's report provides no assurance over whether the annual financial report has been prepared using the single electronic format specified in the ESEF RTS.

Robert Knight FCA
For and on behalf of Deloitte LLP
Statutory Auditor
London
7 March 2023

Consolidated income statement

Year to 31 December 2022

	Notes	Year ended 31 December 2022 Adjusted $ million	Year ended 31 December 2022 Adjusting items[1] $ million	Year ended 31 December 2022 Reported $ million	Year ended 31 December 2021 Adjusted $ million	Year ended 31 December 2021 Adjusting items[1] $ million	Year ended 31 December 2021 Reported $ million
Revenue	3	**607.5**	**–**	**607.5**	576.0	–	576.0
Cost of sales		**(170.4)**	**–**	**(170.4)**	(151.3)	–	(151.3)
Gross profit		**437.1**	**–**	**437.1**	424.7	–	424.7
Product development	3	**(111.3)**	**–**	**(111.3)**	(113.3)	–	(113.3)
Selling and marketing		**(138.9)**	**–**	**(138.9)**	(140.7)	–	(140.7)
Administration		**(57.4)**	**(16.8)**	**(74.2)**	(52.2)	(14.3)	(66.5)
Operating profit		**129.5**	**(16.8)**	**112.7**	118.5	(14.3)	104.2
Adjusting items:							
Acquired intangible asset amortisation		**–**	**(4.7)**	**(4.7)**	–	(4.2)	(4.2)
Share-based payment	31	**–**	**(8.5)**	**(8.5)**	–	(5.6)	(5.6)
Other adjusting items	5	**–**	**(3.6)**	**(3.6)**	–	(4.5)	(4.5)
Adjusting items		**–**	**(16.8)**	**(16.8)**	–	(14.3)	(14.3)
Finance income	6	**2.9**	**–**	**2.9**	0.6	–	0.6
Finance costs	7	**(1.0)**	**–**	**(1.0)**	(1.2)	–	(1.2)
Profit before tax	4	**131.4**	**(16.8)**	**114.6**	117.9	(14.3)	103.6
Tax	10	**(16.9)**	**2.2**	**(14.7)**	(17.0)	2.6	(14.4)
Profit for the year attributable to owners of the parent Company		**114.5**	**(14.6)**	**99.9**	100.9	(11.7)	89.2
Earnings per share (cents)	11						
Basic		**18.86**		**16.46**	16.59		14.67
Diluted		**18.75**		**16.36**	16.45		14.54

Note

1. Adjusting items comprise amortisation of acquired intangible assets, share-based payment, other adjusting items, tax on adjusting items and any over/under provision in respect of prior year tax.

The performance of the Group is assessed using a variety of non-GAAP alternative performance measures which are presented to provide additional financial information that is regularly reviewed by management. Adjusting items are identified and excluded by virtue of their size, nature or incidence as they do not reflect management's evaluation of the underlying trading performance of the Group. The alternative performance measures are presented on pages 196 and 197. The reported GAAP measures give the complete measure of financial performance.

The notes on pages 131 to 171 and pages 192 and 193 form part of these financial statements.

Consolidated statement of comprehensive income

Year to 31 December 2022

	Notes	2022 $ million	2021 $ million
Profit for the year attributable to owners of the parent Company		**99.9**	89.2
Other comprehensive (loss)/income			
Items that may subsequently be reclassified to profit or loss:			
– Exchange differences on retranslation of foreign operations		**(8.2)**	(0.3)
Items that will not subsequently be reclassified to profit or loss:			
– Re-measurement of the net defined benefit pension asset	9	**(29.0)**	13.5
– Income tax effect of re-measurement of the net defined benefit pension asset	10	**9.4**	(4.8)
– Re-measurement of the deferred compensation liability	9	**–**	(0.2)
		(19.6)	8.5
Other comprehensive (loss)/income		**(27.8)**	8.2
Total comprehensive income for the year attributable to owners of the parent Company		**72.1**	97.4

The notes on pages 131 to 171 and pages 192 and 193 form part of these financial statements.

FINANCIAL STATEMENTS

Consolidated balance sheet

At 31 December 2022

	Notes	**2022 $ million**	2021 $ million
Assets			
Non-current assets			
Intangible assets	13	**202.0**	208.2
Property, plant and equipment	14	**20.6**	23.7
Right-of-use assets	15	**19.5**	26.0
Trade and other receivables	19	**6.7**	7.6
Assets recognised from costs to obtain a contract	20	**0.5**	0.8
Defined benefit pension plan surplus	9	**9.7**	37.8
Deferred tax asset	26	**32.8**	18.6
		291.8	322.7
Current assets			
Inventories	18	**39.8**	26.0
Trade and other receivables	19	**160.8**	164.1
Assets recognised from costs to obtain a contract	20	**0.9**	1.1
Other financial assets	19	**–**	0.1
Current tax asset		**2.4**	2.5
Cash and cash equivalents	21	**209.6**	174.8
		413.5	368.6
Total assets		**705.3**	691.3
Liabilities			
Current liabilities			
Trade and other payables	22	**(94.8)**	(87.6)
Contract liabilities	24	**(75.5)**	(72.1)
Lease liabilities	25	**(7.1)**	(8.4)
Other financial liabilities	22	**(0.1)**	–
Current tax liability		**(7.2)**	(3.2)
Provisions	27	**(5.7)**	(5.4)
		(190.4)	(176.7)
Non-current liabilities			
Trade and other payables	22	**(0.2)**	(0.4)
Contract liabilities	24	**(22.7)**	(27.5)
Lease liabilities	25	**(15.0)**	(21.4)
Deferred tax liability	26	**–**	(8.0)
Defined benefit pension plan deficit	9	**(9.1)**	(7.3)
Provisions	27	**(2.7)**	(2.5)
		(49.7)	(67.1)
Total liabilities		**(240.1)**	(243.8)
Net assets		**465.2**	447.5
Capital and reserves	29		
Share capital		**24.7**	27.5
Share premium account		**24.4**	27.2
Capital redemption reserve		**16.0**	17.8
Other reserves		**20.9**	13.5
Translation reserve		**2.6**	10.8
Retained earnings		**376.6**	350.7
Total equity attributable to owners of the parent Company		**465.2**	447.5

The notes on pages 131 to 171 and pages 192 and 193 form part of these financial statements.

Signed on behalf of the Board

Paula Bell
Director
7 March 2023

Consolidated statement of changes in equity

		Attributable to the equity holders of the parent Company						$ million
	Notes	Share capital	Share premium account	Capital redemption reserve	Other reserves	Translation reserve	Retained earnings	Total equity
At 1 January 2021		27.9	27.6	18.0	12.5	11.1	345.7	442.8
Profit for the year		–	–	–	–	–	89.2	89.2
Other comprehensive income/(loss)[1]		–	–	–	–	(0.3)	8.5	8.2
Total comprehensive income/(loss)		–	–	–	–	(0.3)	97.7	97.4
Share-based payment	31	–	–	–	–	–	5.9	5.9
Tax credit on share incentives	10	–	–	–	–	–	0.6	0.6
Equity dividends	12	–	–	–	–	–	(84.1)	(84.1)
Employee Share Ownership Trust	29	–	–	–	–	–	(15.1)	(15.1)
Exchange adjustment		(0.4)	(0.4)	(0.2)	1.0	–	–	–
At 1 January 2022		**27.5**	**27.2**	**17.8**	**13.5**	**10.8**	**350.7**	**447.5**
Profit for the year		**–**	**–**	**–**	**–**	**–**	**99.9**	**99.9**
Other comprehensive income/(loss)[2]		**–**	**–**	**–**	**–**	**(8.2)**	**(19.6)**	**(27.8)**
Total comprehensive income/(loss)		**–**	**–**	**–**	**–**	**(8.2)**	**80.3**	**72.1**
Share-based payment	31	**–**	**–**	**–**	**–**	**–**	**8.5**	**8.5**
Tax charge on share incentives	10	**–**	**–**	**–**	**–**	**–**	**(0.1)**	**(0.1)**
Equity dividends	12	**–**	**–**	**–**	**–**	**–**	**(39.9)**	**(39.9)**
Employee Share Ownership Trust	29	**–**	**–**	**–**	**–**	**–**	**(22.9)**	**(22.9)**
Exchange adjustment		**(2.8)**	**(2.8)**	**(1.8)**	**7.4**	**–**	**–**	**–**
At 31 December 2022		**24.7**	**24.4**	**16.0**	**20.9**	**2.6**	**376.6**	**465.2**

Notes
1. The amount included in other comprehensive income/(loss) for 2021 of $8.5 million represents re-measurement gains on the net defined benefit pension asset of $13.5 million, net of a tax charge of $4.8 million, and re-measurement losses on the deferred compensation liability of $0.2 million. The amount included in the translation reserve of $0.3 million represents other comprehensive losses related to the translation of foreign operations.
2. The amount included in other comprehensive income/(loss) for 2022 of $19.6 million represents re-measurement losses on the net defined benefit pension asset of $29.0 million, net of a tax credit of $9.4 million. The amount included in the translation reserve of $8.2 million represents other comprehensive losses related to the translation of foreign operations.

The notes on pages 131 to 171 and pages 192 and 193 form part of these financial statements.

Consolidated cash flow statement

Year to 31 December 2022

	Notes	2022 $ million	2021 $ million
Cash flows from operating activities			
Cash flow from operations	32	**140.6**	112.9
Tax paid		**(22.8)**	(10.0)
Net cash inflow from operating activities		**117.8**	102.9
Cash flows from investing activities			
Interest received		**1.5**	0.4
Purchase of property, plant and equipment	14	**(8.4)**	(10.2)
Proceeds from the sale of property, plant and equipment		**0.2**	0.4
Lease payments received from finance leases	15	**0.6**	0.5
Acquisition of subsidiary, net of cash acquired	33	**–**	(51.3)
Net cash used in investing activities		**(6.1)**	(60.2)
Cash flows from financing activities			
Lease liability principal repayments	25	**(8.6)**	(8.9)
Lease liability interest paid	25	**(1.0)**	(1.1)
Dividend paid	12	**(39.9)**	(83.6)
Hedge contracts relating to dividend payments	12	**–**	(0.5)
Share purchase into Employee Share Ownership Trust	29	**(22.9)**	(15.1)
Net cash used in financing activities		**(72.4)**	(109.2)
Net increase/(decrease) in cash and cash equivalents		**39.3**	(66.5)
Cash and cash equivalents at the beginning of the year		**174.8**	241.2
Effect of foreign exchange rate changes		**(4.5)**	0.1
Cash and cash equivalents at the end of the year	21	**209.6**	174.8

The notes on pages 131 to 171 and pages 192 and 193 form part of these financial statements.

Notes to the consolidated financial statements

1. Corporate information

The Group's consolidated financial statements for the year ended 31 December 2022 were authorised for issue by the Board of Directors on 7 March 2023. Spirent Communications plc is a public limited company incorporated and domiciled in England and Wales (registration number 470893). The registered address of the Company is Origin One, 108 High Street, Crawley, West Sussex RH10 1BD, United Kingdom.

The Company's Ordinary Shares are traded on the London Stock Exchange.

The Group financial statements have been prepared in accordance with International Accounting Standards in conformity with the requirements of the Companies Act 2006 and United Kingdom adopted International Accounting Standards.

The Company has elected to prepare the Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice including Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101) and the Companies Act 2006. These are presented on pages 172 and 173 and the accounting policies in respect of the Company are set out on pages 174 to 191.

2. Significant accounting policies

Accounting convention

The consolidated financial statements are prepared on a historical cost basis apart from certain financial instruments that have been measured at fair value and the United Kingdom defined benefit pension plan obligations which have been measured using the projected unit credit method.

Going concern basis of accounting

In adopting the going concern basis for preparing the consolidated financial statements, the Directors have considered the Group's principal risks and uncertainties as set out on pages 55 to 60.

The Directors have also considered sensitivities in respect of potential downside scenarios, including stress testing the latest cash flow projections that cover a period of 12 months from the date of approval of these consolidated financial statements. In these scenarios, the Group has more than sufficient headroom in its available resources.

At 31 December 2022, the Group had cash balances of $209.6 million and external debt only in relation to its lease liabilities.

The Directors have reviewed the detailed financial projections for the period ending 31 December 2023, as well as the business plan and cash flows for the three months ending 31 March 2024. The Directors have also considered the period to the end of 2025 which forms part of the Group's longer-term viability assessment. In addition, they have considered the principal risks faced by the Group, the sensitivity analysis and the Group's significant financial headroom and are satisfied that the Group has adequate financial resources to continue in operational existence for the foreseeable future, a period of at least 12 months from the date of approval of this report. Accordingly, the going concern basis of accounting continues to be used in the preparation of the consolidated financial statements.

New accounting standards

There have been no applicable new standards, amendments to standards and interpretations effective from 1 January 2022 that have been applied by the Group which have resulted in a significant impact on its consolidated results or financial position.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and its subsidiaries made up to 31 December each year. The financial statements of subsidiaries are prepared for the same reporting year as the parent Company, using consistent accounting policies. A full list of subsidiary undertakings is provided on pages 192 and 193.

Subsidiary undertakings are entities that are directly or indirectly controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Results of subsidiaries are consolidated from the date on which control is transferred to the Group and cease to be consolidated from the date on which control is transferred out of the Group.

The separable net assets, including intangible assets of newly acquired subsidiaries, are incorporated into the consolidated financial statements based on their fair values at the effective date of control.

2. Significant accounting policies continued

Basis of consolidation continued

The Group includes a subsidiary that is operated under the management of a Proxy Board. Details of the Proxy Board arrangements and the powers of the proxy holders and Spirent's management are set out in the Corporate Governance section of this Annual Report on page 72. The Directors consider that the Group meets the requirements of IFRS 10 "Consolidated Financial Statements" in respect of control over the entity in question as Spirent maintains the following:

- rights to appoint, reassign or remove members of key management and the ability to appoint proxy holders and change Directors every five years;
- rights to direct the investee to enter into, or veto any changes to, transactions; and
- decision making rights and rights to direct activities including the ability to change products, territories and customers and the ability to terminate product selling (with notice).

All intra-Group transactions, balances, income and expenses are eliminated on consolidation.

Business combinations and goodwill

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Business combinations are accounted for using the acquisition method.

At acquisition date, the identifiable assets acquired and liabilities assumed, including intangible assets, are measured at their fair values. The cost of an acquisition is measured as the aggregate of the consideration transferred and the amount of any non-controlling interest in the acquiree. Non-controlling interests are measured at the proportionate share of the acquiree's identifiable net assets.

Contingent consideration resulting from business combinations is valued at fair value at the acquisition date as part of the business combination. When the contingent consideration meets the definition of a financial liability, it is subsequently re-measured to fair value at each reporting date, with changes in fair value recognised in profit or loss. The determination of fair value is based on discounted cash flows. The key assumptions take into consideration the probability of meeting each performance target and the discount rate.

Acquisition related costs are expensed and included in other adjusting items.

Goodwill arising on the acquisition of subsidiaries, representing the excess of cost over the net fair value of the net assets acquired, is capitalised as an intangible asset. Goodwill is carried at cost less any accumulated impairment losses.

Goodwill is subject to an annual review for impairment. For the purpose of impairment testing, goodwill is allocated to the related cash-generating units being the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Cash-generating units are grouped and assessed in combination where this is consistent with how the chief operating decision maker reviews business performance and at a level no larger than an operating segment. Where the recoverable amount of the cash-generating unit is less than its carrying amount, including goodwill, an impairment loss is recognised in the income statement.

Intangible assets

Intangible assets are carried at cost less accumulated amortisation and accumulated impairment losses. Separately identifiable intangible assets such as patent fees, licence fees, trademarks and customer lists and relationships are capitalised on the balance sheet only when the value can be measured reliably, or the intangible asset is purchased as part of the acquisition of a business. Such intangible assets are amortised over their useful economic lives on a straight-line basis. The carrying value of intangible assets is reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable.

Acquired intangible assets, being customer lists, current technology, databases, brand names and a non-compete covenant, are amortised on a straight-line basis over their estimated useful lives and the charge is included within adjusting items in the income statement. Licences are amortised over their useful lives or term, and are expensed within cost of sales or selling costs.

The estimated useful lives of intangible assets and the amortisation expiry dates are as follows:

	Useful life	Expiry date
Customer lists	2 to 7 years	2027
Current technology	5 to 7 years	2027
Brand names	3 years	2024
Licences	3 to 5 years	2023

2. Significant accounting policies continued

Product development

Research expenditure is charged to product development in the income statement in the year in which it is incurred. Intangible assets arising on the Group's various product development projects are recognised only if the recognition criteria of IAS 38 "Intangible Assets" are met.

Product development costs are expensed as incurred until the technological feasibility of the product under development has been established. Technological feasibility in Spirent's circumstances occurs when a working model is completed. For software development, technological feasibility is not established until the process of developing the software is complete. After technological feasibility is established, additional costs are capitalised and amortised on a straight-line basis over the estimated useful life.

At 31 December 2022 and 31 December 2021, no amounts have met the recognition criteria.

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment. Depreciation is not provided on freehold land. Depreciation is provided to write-off the cost, less estimated residual value, of all other assets over their estimated useful lives on a straight-line basis at rates which take into account commercial conditions at their location. Usual asset lives are as follows:

Freehold buildings	50 years
Plant and machinery	3 to 8 years
Fixtures, fittings and equipment:	
– Building installations	20 years or lease period if lower
– Fittings and equipment	3 to 8 years
– Motor vehicles	3 to 5 years
– Business systems software	4 years

Business systems software is capitalised as property, plant and equipment as the software is an integral part of the related hardware.

The carrying values of property, plant and equipment are reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable.

Impairment of assets

Intangible assets with finite useful lives, property, plant and equipment and right-of-use assets are tested for impairment at each reporting date where there is an indication that an asset may be impaired. Goodwill and intangible assets with an indefinite useful life are assessed at least annually. When an impairment test is performed, the recoverable amount is assessed by reference to the higher of the net present value of the expected cash flows (value in use) of the relevant cash-generating unit or asset and the fair value less cost of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. Impairment losses are recognised in the income statement in those expense categories consistent with the function of the impaired asset.

Where an impairment loss has been recognised against an asset, it may be reversed in future periods where there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised, but only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, had no impairment loss been recognised in prior years. Such a reversal is recognised in the income statement. This does not apply for goodwill, for which an impairment loss must not be reversed in any circumstances.

Leases

The Group as a lessee

The Group assesses whether a contract is or contains a lease, at inception of a contract. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease agreements in which it is the lessee at the commencement date of the lease (i.e. the date the underlying asset is available for use), except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets. For these leases, the Group recognises the lease payments as an operating expense within the income statement on a straight-line basis over the period of the lease.

At the commencement date of the lease, the lease liability is initially measured at the present value of lease payments to be made over the lease term, discounted using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate. Under the modified retrospective transition method, which is the method that the Group adopted on transition to IFRS 16 "Leases" on 1 January 2019, lease liabilities are required to be discounted using the incremental borrowing rate at date of transition. The Group has set the discount rate based upon the local base rate with an additional premium to reflect various factors such as credit risk. This approach enables an appropriate rate to be set for each lease depending on geographic location and lease classification.

2. Significant accounting policies continued

Leases continued

The Group as a lessee continued

The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognised as an expense in the period in which the event or condition that triggers the payment occurs.

The lease liability is presented as a separate line in the consolidated balance sheet.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method), and by reducing the carrying amount to reflect the lease payments made. It is re-measured when there is a change in future lease payments arising from a change in an index or rate, if the Group changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a modification. Interest on the lease liability is presented within finance costs in the income statement.

When the lease liability is re-measured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the corresponding lease liability, adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain re-measurements of the lease liability.

The right-of-use assets are presented as a separate line in the consolidated balance sheet.

Lease payments for short-term leases, lease payments for low-value assets and variable lease payments not included in the measurement of the lease liability are classified as cash flows from operating activities within the consolidated cash flow statement. The Group has classified the principal and interest portions of lease payments within financing activities.

The Group as a lessor

When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or operating lease.

To classify each lease, the Group makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease.

The Group subleases certain of its buildings where the subleases are classified as finance leases. In these instances, the Group derecognises the right-of-use asset on the head lease at the sublease commencement date and continues to account for the original lease liability in accordance with the lessee accounting model. The Group, as a sublessor, recognises a net investment in the sublease within trade and other receivables in the balance sheet and evaluates it for impairment. The net investment in the sublease is subsequently measured by increasing the carrying amount to reflect interest (using the effective interest method), and by reducing the carrying amount to reflect sublease income received. Interest on the net investment in the sublease is presented within finance income in the income statement.

Cash flows from the principal and interest of the finance lease receivables received are classified as investing activities within the consolidated cash flow statement.

Inventories

Inventories are stated at the lower of cost and estimated net realisable value, after provisions for obsolescence. Cost includes all costs incurred in bringing each product to its present location and condition, being the full manufacturing cost on a first-in, first-out basis, including all attributable overheads based on a normal level of activity.

Provisions

Provisions are recorded when the Group has a present, legal or constructive obligation as a result of a past event, for which it is probable that the Group will be required to settle by an outflow of resources and for which a reliable estimate of the amount of the obligation can be made. Provisions are reviewed at each balance sheet date and adjusted to reflect the current best estimate.

Where the effect of the time value of money is material, the amount of the provision shall be the present value of the expenditures expected to be required to settle the obligation.

2. Significant accounting policies continued

Contingent liabilities

Contingent liabilities are possible obligations whose existence will be confirmed only on the occurrence or non-occurrence of uncertain future events outside the Group's control, or present obligations that are not recognised because it is not probable that a settlement will be required or the value of such a payment cannot be reliably measured. The Group does not recognise contingent liabilities but discloses them.

Foreign currencies

The consolidated financial statements are presented in US Dollars, which is the Group's presentation currency.

Transactions in foreign currencies are initially recorded at the rates ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rates ruling at the balance sheet date. All exchange differences are taken to the consolidated income statement. Non-monetary assets and liabilities denominated in foreign currencies are measured in terms of historical costs using the exchange rate at the date of the initial transaction.

The functional currencies of the Group's operations are principally US Dollar, Pound Sterling or Euro. On consolidation, the assets and liabilities of the Group's foreign operations are translated into the Group's presentation currency at exchange rates ruling at the balance sheet date. The results of foreign operations are translated into US Dollars using average rates for the period. The exchange differences arising on retranslation are classified as a separate component of equity, the translation reserve. Such translation differences are recognised as part of the profit or loss on disposal should an operation be disposed of.

Financial instruments

Financial assets and liabilities are recognised on the Group's balance sheet when it becomes a party to the contractual provisions of the instrument.

Trade receivables

Trade receivables are non-interest bearing and are stated at original invoiced amount less an appropriate allowance for expected credit losses. At each reporting date, the Group measures the loss allowance at an amount equal to the lifetime expected credit losses.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime expected credit losses at each reporting date. To measure the expected credit losses, the Group has established a provision matrix that is based on shared credit risk characteristics and the days past due based on the expected loss rates.

The provision matrix is initially based on payment profiles of trade receivables over a period of 12 months before 31 December of the prior year and the corresponding historical credit losses experienced within this period. At every reporting date the historical observed default rates are updated. The Group also considers the impact of regional macroeconomic factors on the likelihood of future losses.

Trade receivables are written off when there is no reasonable expectation of recovery.

A default on a trade receivable occurs when the debtor fails to make contractual payments when they fall due.

Cash and cash equivalents

Cash and cash equivalents in the balance sheet comprise cash at bank and in hand and short-term deposits which have an original maturity of three months or less. For the purposes of the consolidated cash flow statement, cash and cash equivalents consist of cash and cash equivalents as defined above. There are no bank overdrafts.

Trade payables

Trade payables are non-interest bearing and are stated at the original invoiced amount.

Equity instruments

Equity instruments are recorded at the proceeds received, net of direct issue costs. Spirent Communications plc Ordinary Shares held by the Group are classified in equity as treasury shares and are recognised at cost and included as a deduction from retained earnings. Consideration received for the sale of such treasury shares is also recognised in equity.

Derivative financial instruments

The Group uses forward foreign currency exchange contracts to manage exposures arising on receipts and payments in foreign currencies relating to firm commitments.

Forward foreign currency exchange contracts are initially recognised at fair value on the date on which the contract is entered into and are subsequently re-measured to fair value at each reported balance sheet date. The fair value of forward foreign currency exchange contracts is calculated by reference to current forward exchange rates for contracts with similar maturity profiles. The Group has not adopted the hedge accounting rules. Consequently all gains and losses arising from changes in fair value are taken to the income statement.

2. Significant accounting policies continued

Retirement benefits

The Group operates two funded defined benefit pension plans which are in the United Kingdom; all other pension plans are defined contribution in nature. For the defined contribution plans, the amount charged to the income statement is the employer's contributions paid or payable during the year.

For defined benefit pension plans, full actuarial valuations are carried out every three years using the projected unit credit method and updates are performed at each balance sheet date. Re-measurement, comprising actuarial gains and losses, the effect of changes to the asset ceiling (if relevant) and the return on plan assets (excluding interest), is reflected immediately in the balance sheet surplus with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income will not be reclassified to profit or loss. Past service cost is recognised in profit or loss in the period of plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit pension asset, taking account of any changes in the net defined benefit pension asset during the period as a result of contribution and benefit payments. Where a refund of a surplus is expected, any applicable taxes that are not income in nature are netted off. Defined benefit pension costs are categorised as:

- service cost (including current service cost, past service cost and gains and losses on curtailments or settlements);
- net interest expense or income; and
- re-measurement.

The Group presents the first two components of defined benefit pension costs in profit or loss.

The Group also operates a deferred compensation plan in the United States. The plan has elements of a defined benefit pension retirement obligation and therefore is required to be valued in accordance with IAS 19 "Employee Benefits". For the deferred compensation plan, the gains or losses on the deemed investments that are attributed to the deferral account over time are charged or credited to the income statement whereas the re-measurement, comprising actuarial gains or losses, is reflected immediately in the balance sheet liability with a charge or credit in other comprehensive income in the period in which it occurs. Re-measurement recognised in other comprehensive income will not be reclassified to profit or loss.

Revenue

Revenue represents the transfer of promised products or services to customers in an amount that reflects the consideration to which the Group expects to be entitled in exchange for those products or services.

Revenue from product sales of hardware and perpetual software licences is recognised at the point in time when the customer has obtained control of the products sold. This is usually when the products have been delivered in accordance with the contractual terms. In some instances it is not until acceptance has occurred that control of the asset is transferred to the customer. Terms of acceptance are dependent upon the specific contractual arrangement agreed with the customer. If it can be objectively determined that control has been transferred to the customer in accordance with the agreed contract specifications, customer acceptance is a formality that would not affect the determination of when the customer has obtained control of the products. However, if it cannot be objectively determined that the products delivered are in accordance with the agreed-upon contract specifications, revenue would not be recognised until customer acceptance has been granted.

For sales of software licences, the Group determines whether the licence is capable of being distinct and is separately identifiable from other promises in the context of the contract. Revenue from software subscription licences that provide the customer with a right to access the Group's intellectual property throughout the subscription period is recognised over time, throughout the subscription period. Revenue from perpetual software licences that provide the customer with a right to use the Group's intellectual property for an indefinite period of time is recognised at the point in time when the customer can first use and benefit from the software.

For the sale of services, revenue is generally recognised over time with reference to when or as the performance obligations are satisfied by transferring the service to the customer. Revenue from support and maintenance service contracts and software subscription sales is recognised over the period of performance on a straight-line basis.

Revenue from professional services is generally recognised as work progresses in accordance with agreed-upon contractual terms, based on a measure of progress towards complete satisfaction of the performance obligation. Progress is measured using either an output method (e.g. completion of a day, or for fixed price contracts revenue is recognised based on performance completed or contractual milestones reached) or an input method (e.g. actual cost of services provided as a proportion of total cost of services expected to be provided under the contract). Where applicable, the Group elects to use the practical expedient where revenue can be recognised in the amount to which the Group has a right to invoice, only if the Group has a right to consideration from a customer in an amount that corresponds directly with the value to the customer of the Group's performance completed to date. Where the Group's professional services contracts contain terms of acceptance, revenue would not be recognised until customer acceptance had been obtained. Where the professional service has a pre-determined or fixed output deliverable, revenue is recognised at a point in time once the performance obligation has been satisfied and the customer has received the agreed deliverable.

2. Significant accounting policies continued

Revenue continued

The Group accounts for multi-component orders as multiple performance obligations if the following criteria are met:

a) the good or service is capable of being distinct, that is, they are individually readily available and regularly sold separately to customers; and

b) the promise to transfer the good or service is distinct in the context of the contract, that is, they do not require significant integration, customisation or modification with other goods or services in the contract and are not highly interrelated or interdependent of other goods or services in the contract.

For multi-component orders where the elements are accounted for as multiple performance obligations, the transaction price and discount, if any, are allocated proportionally to all performance obligations in the contract. If either of the two criteria above are not met, and where various components in the contract are combined, bundled or pre-assembled into one or more product or equipment units to form a distinct good or service, they will be accounted for as a single performance obligation.

Virtually all of the Group's revenue is derived from the sale of its own products and services. In the instances where the Group is a reseller of third party products and services, it accounts for these transactions as a principal as it controls the product or service before it is transferred to the customer and therefore recognises revenue on a gross basis.

Cost of sales

The Group's cost of sales related to the sale of its products includes materials, payments to third party contract manufacturers, royalties and salaries and other expenses related to its manufacturing and supply operations personnel. Cost of sales related to the provision of services includes salaries and other expenses associated with technical support services and the cost of extended maintenance services.

Costs to obtain a contract

The incremental costs of obtaining a contract with a customer are capitalised as an asset if the Group expects to recover them. The Group incurs costs such as sales commissions when it enters into a new contract. Such costs are presented in the consolidated balance sheet as assets recognised from costs to obtain a contract where the related revenue is recognised over time, usually in relation to support and subscription agreements. These assets are amortised on a systematic basis consistent with how the related revenue is recognised. The amortisation is recognised in selling and marketing costs within the income statement.

The Group applies the practical expedient in paragraph 94 of IFRS 15 and recognises incremental costs of obtaining a contract as an expense when incurred if the amortisation period of the asset that the Group would otherwise have recognised is one year or less.

Management is required to determine the recoverability of assets recognised from costs to obtain a contract. At each reporting date, the Group determines whether or not the assets are impaired by comparing the carrying amount of the asset to the remaining amount of consideration that the Group expects to receive less the costs that relate to providing services under the relevant contract. No assets were impaired as at 31 December 2022 or 31 December 2021.

Deferred income

Deferred income is only recognised on non-cancellable contracts that provide unconditional rights to payment from the customer for products and services that the Group has not yet completed providing or that it will provide in the near future.

Revenue from product sales of hardware and perpetual software licences is recognised at the point in time when the customer has obtained control of the products sold. In the instances where the customer has been invoiced and revenue from hardware or perpetual software licences is unable to be recognised, revenue would not be recognised until control has passed, resulting in deferred income.

Support services and software subscription agreements are generally billed at commencement of the support or subscription contract, while revenue is recognised over the period of the support or subscription agreement, resulting in deferred income.

The Group occasionally receives advance payments from customers on account, before products or services are delivered and revenue is recognised, resulting in liabilities.

Deferred income and payments received on account are reported on the consolidated balance sheet within contract liabilities on a contract-by-contract basis at the end of each reporting period.

Government grants

A government grant is recognised in the balance sheet initially within trade and other payables when there is reasonable assurance that it will be received and that the Group will comply with the conditions attached to it. Grants that compensate the Group for expenses incurred are recognised as other operating income on a systematic basis in the same periods in which expenses are incurred.

2. Significant accounting policies continued

Employee benefits

When an employee has rendered services to the Group during an accounting period, short-term benefits expected to be paid in exchange for those services are recognised in the same accounting period.

Share-based payment

The Group operates various equity-settled and cash-settled share-based compensation plans and accounts for these awards in accordance with IFRS 2 "Share-based Payment"

For equity-settled awards, the fair value is recognised in the income statement on a straight-line basis over the vesting period together with a corresponding change in equity. The fair value is measured using the Black-Scholes model by reference to the share price, and taking into account the terms and conditions of the award, excluding non-market vesting conditions, at the date the awards were granted. The charge is reassessed at each balance sheet date to reflect the expected and actual levels of vesting, due to achievement or otherwise of non-market conditions. Awards where vesting is conditional upon satisfying a market condition or non-vesting condition are treated as vesting irrespective of whether the market or non-vesting condition has been satisfied.

Cash-settled awards are measured at fair value at the balance sheet date. The Group recognises a liability within trade and other payables at the balance sheet date based on these fair values, taking into account the estimated number of options that will actually vest and the relative completion of the vesting period. Changes in the value of this liability are recognised in the income statement for the year.

With effect from 1 January 2019, one-third of the Annual Incentives of the Executive Directors was deferred into shares for a period of three years. This amount is an equity-settled share-based payment transaction within the scope of IFRS 2 and the related expense is charged to the income statement in the same year as the measurement period. This amount has been charged to administration expenses in the income statement and forms part of adjusted operating profit as it reflects part of the underlying trading performance of the Group.

The Group has an employee share trust for the granting of certain share incentives to employees. Shares in the Group held by the employee share trust are treated as treasury shares and presented in the balance sheet as a deduction from equity.

Tax

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the income statement except to the extent that it relates to items in other comprehensive income or equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustments to tax payable for previous years.

Deferred tax is recognised on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements, with the following exceptions:

- where the temporary difference arises from the initial recognition of goodwill (taxable temporary differences only) or of an asset or liability in a transaction that is not a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

A deferred tax asset is recognised only to the extent that it is probable that taxable profits will be available against which the deductible temporary differences, carried forward tax credits or tax losses can be utilised.

Deferred tax assets and liabilities are measured on an undiscounted basis at the tax rates that are expected to apply when the related asset is realised or the liability is settled, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Dividends paid

The interim dividend is included in the financial statements in the period in which it is paid, and the final dividend and the special dividend are included in the period in which they are approved by the shareholders at an Annual General Meeting.

2. Significant accounting policies continued

Adjusting items

Adjusting items are disclosed separately in the income statement where it is necessary to do so due to their nature or amount and to provide further understanding of the Group's financial performance. Adjusting items comprise amortisation of acquired intangible assets, share-based payment and other adjusting items, the tax effect of these items and any over/under provision of tax in the prior year.

The Group excludes share-based payment from adjusted operating profit (except for share-based payment relating to the Executive Directors' deferred bonus plan, see share-based payment policy), as the expense can fluctuate based on the size, nature and timing of awards granted, the Group's share price and the subjective assumptions used in the calculation. Management consider the financial results of the business before the deduction of share-based payment for their operational decision making. Additionally, management believes the exclusion of share-based payment also allows for more meaningful comparisons of operating results with peer companies, many of which also exclude the expense from underlying results.

Certain items are classified as other adjusting items due to their nature, amount or infrequency. Such presentation is relevant to further understanding of the Group's financial statements. These items are not part of the Group's normal ongoing operations. Costs directly associated with the integration of a business acquisition are included within other adjusting items to the extent they are in accordance with the above definition.

Direct transaction costs and fees of potential or actual acquisitions are charged to the income statement in the period in which they are incurred. Such items are presented separately as other adjusting items and, due to their nature and infrequency, are excluded from the underlying trading performance of the Group.

Adjusting items are disclosed within administration expenses in the consolidated income statement as they are reviewed, managed and controlled centrally by the Group. The Group considers these costs to be functionally aligned to, and have therefore been presented alongside, corporate costs within administration expenses. This presentation is relevant to an understanding of the Group's financial performance.

Critical accounting judgements and key sources of estimation uncertainty

The preparation of financial statements requires the Group to make estimates and assumptions that affect items reported. Such estimates and assumptions are based on management's best knowledge of current facts, circumstances and future events. Actual results may differ, possibly significantly, from those estimates. The areas requiring a high degree of judgement or where assumptions and estimates are significant to the consolidated financial statements are discussed below.

Estimates

Recognition of deferred tax assets

The recognition of deferred tax assets is based upon whether it is more likely than not that there will be sufficient and suitable taxable profits in the relevant legal entity or tax group against which to utilise the assets in the future. The extent to which deferred tax assets can be recognised is based on current forecasts and estimates prepared by management. A change to these forecasts and estimates could result in a different recognition outcome. Judgement is required when determining probable future taxable profits, which are estimated using the latest available profit forecasts. Unrecognised deferred tax assets are disclosed in note 26.

2. Significant accounting policies continued

Critical accounting judgements and key sources of estimation uncertainty continued

Judgements

Revenue recognition

The transaction price is allocated to each performance obligation on a relative standalone selling price basis. Where there are no observable prices, the Group generally determines the standalone selling prices of individual elements based on standalone internal list prices which are then subject to discount.

To determine the appropriate revenue recognition for contracts containing multiple elements or complex solutions that include both products and services, we evaluate whether the contract should be accounted for as a single or multiple performance obligation. This evaluation requires significant judgement and impacts the amount of revenue allocated to each performance obligation, which can affect the amount of revenue recognised and deferred income on the balance sheet.

The factors the Group considers when making this judgement are as follows:

- whether the elements of a multi-component order have a unique part number as evidenced in our product lifecycle management process;
- whether the elements of a multi-component order have a standalone selling price as evidenced in our internal price list;
- whether the elements of a multi-component order are regularly sold separately to a range of customers, based on historical information;
- whether the customer can benefit from the elements of a multi-component order on their own or with resources that are readily available to the customer, based on technical input from our product managers;
- whether the elements of a multi-component order require significant integration, modification or customisation with other elements of the multi-component contract, based on historical information and technical input from our product managers; and
- whether the elements of a multi-component order are significantly affected by one or more of the other elements of the multi-component contract and whether there is a significant two-way dependency, based on technical input from our product managers.

For professional services revenue recognised over time, a single method of measuring progress is selected and used for each performance obligation. The selection of the method to measure progress towards completion requires judgement and is based on the nature of the services to be provided. The selected method is applied consistently to similar contracts in similar circumstances. This judgement impacts revenue recognised over time and the amount of deferred income on the balance sheet.

Leases

The Group exercises judgement in determining whether it is reasonably certain that a building lease extension or termination option will be exercised. This will take into account the length of time remaining before the option or extension is exercisable, current trading, future trading forecasts and the level and type of future capital investment expected to be made. The Group assesses at lease commencement whether it is reasonably certain to exercise the extension options. The Group reassesses whether it is reasonably certain to exercise the options if there is a significant event or significant change in circumstances within its control. This judgement impacts the carrying amounts of right-of-use assets and lease liabilities.

Defined benefit pension plans

For the Staff Plan defined benefit pension scheme, the Group recognises a net pension scheme surplus as it is expected the liabilities will be settled over time until the last beneficiary dies and the residual surplus in the scheme can be refunded to the Group as sponsor.

The scheme Trustees only have the ability to augment benefits when the scheme is in a wind up, and it is expected they would seek the support of the Company in any case. As the scheme cannot enter wind up without the support of the Company and the intention today is not to enter into wind up until the death of the final beneficiary, this is not seen as a condition to the Group receiving a refund. As the refund would attract withholding tax of 35 per cent the surplus has been reduced by this amount.

These assumptions require judgement and affect the amount of scheme surplus recognised and whether to recognise a surplus at all.

Applicable new standards and interpretations not applied

The IASB and IFRIC have issued the following standards and interpretations with an effective date for the Group after the date of these financial statements:

International Accounting Standards (IAS/IFRS)		Effective for annual periods beginning on or after
Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)		1 January 2023
IAS 8	Definition of Accounting Estimates (Amendments to IAS 8)	1 January 2023
IAS 1	Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)	1 January 2024

The Directors do not anticipate that the adoption of these standards and interpretations will have a material impact on the Group's financial statements in the period of initial application.

3. Operating segments

The Group's organisational structure is based on differences in the products and services offered by each segment and information regularly reviewed by the Group's Chief Executive Officer, its chief operating decision maker, is presented on this basis. The Group's operating segments follow this structure.

The Group's reportable operating segments are Lifecycle Service Assurance and Networks & Security. The Group evaluates adjusted operating profit before acquired intangible asset amortisation, share-based payment and other adjusting items. Finance income and finance costs are not allocated to the reportable segments. Corporate is not an operating segment and costs are separately reported and not allocated to the reportable segments. Information on segment assets and segment liabilities is not regularly provided to the Group's Chief Executive Officer and is therefore not disclosed below. There is no aggregation of operating segments.

The Group disaggregates revenue from contracts with customers by nature of products and services and primary geographical markets as this best depicts how the nature, amount, timing and uncertainty of the Group's revenue and cash flows are affected by economic factors.

					2022 $ million
	Notes	Lifecycle Service Assurance	Networks & Security	Corporate	Total
Revenue					
Nature of products and services					
Sale of hardware and software		146.0	276.1	–	422.1
Maintenance and support services		118.5	66.9	–	185.4
		264.5	343.0	–	607.5
Primary geographical markets					
Americas		179.7	156.6	–	336.3
Asia Pacific		61.8	144.0	–	205.8
Europe, Middle East and Africa		23.0	42.4	–	65.4
		264.5	343.0	–	607.5
Inter-segment revenue is eliminated.					
Profit before tax					
Adjusted operating profit		51.0	86.8	(8.3)	129.5
Other adjusting items	5	(0.9)	(2.1)	(0.6)	(3.6)
Total reportable segment profit		50.1	84.7	(8.9)	125.9
Unallocated amounts:					
– Acquired intangible asset amortisation					(4.7)
– Share-based payment	31				(8.5)
Operating profit					112.7
Finance income	6				2.9
Finance costs	7				(1.0)
Profit before tax					114.6
Other information					
Product development		56.6	54.7	–	111.3
Intangible asset amortisation – other		0.6	–	–	0.6
Depreciation of property, plant and equipment	14	4.7	6.2	0.1	11.0
Depreciation of right-of-use assets	15	3.4	3.6	0.3	7.3

3. Operating segments continued

	Notes	Lifecycle Service Assurance	Networks & Security	Corporate	2021 $ million Total
Revenue					
Nature of products and services					
Sale of hardware and software		157.9	253.4	–	411.3
Maintenance and support services		103.7	61.0	–	164.7
		261.6	314.4	–	576.0
Primary geographical markets					
Americas		179.0	145.6	–	324.6
Asia Pacific		58.7	126.4	–	185.1
Europe, Middle East and Africa		23.9	42.4	–	66.3
		261.6	314.4	–	576.0
Inter-segment revenue is eliminated.					
Profit before tax					
Adjusted operating profit		63.1	63.5	(8.1)	118.5
Other adjusting items	5	(0.6)	(1.4)	(2.5)	(4.5)
Total reportable segment profit		62.5	62.1	(10.6)	114.0
Unallocated amounts:					
– Acquired intangible asset amortisation					(4.2)
– Share-based payment	31				(5.6)
Operating profit					104.2
Finance income	6				0.6
Finance costs	7				(1.2)
Profit before tax					103.6
Other information					
Product development		54.3	59.0	–	113.3
Intangible asset amortisation – other		0.8	–	–	0.8
Depreciation of property, plant and equipment	14	4.8	7.5	0.1	12.4
Depreciation of right-of-use assets	15	3.4	4.2	0.3	7.9

All of the Group's revenue arose from contracts with customers. Generally, revenue from the sale of hardware and software is recognised at a point in time and revenue from maintenance and support services is recognised over time.

Europe, Middle East and Africa includes United Kingdom revenue of $14.1 million (2021 $12.3 million).

Americas includes United States revenue of $317.3 million (2021 $305.6 million).

Asia Pacific includes China revenue of $110.9 million (2021 $102.8 million).

Revenues are attributed to regions and countries based on customer location.

No one customer accounted for 10 per cent or more of total Group revenue in 2022. One customer accounted for 10 per cent of total Group revenue in 2021, amounting to $57.8 million. Approximately 92 per cent of this revenue was in the Lifecycle Service Assurance operating segment.

3. Operating segments continued

	2022 $ million	2021 $ million
Non-current assets[1]		
Americas	**229.2**	240.1
Asia Pacific	**5.0**	8.1
Europe, Middle East and Africa	**7.9**	9.7
	242.1	257.9

Note
1. Non-current assets excludes trade and other receivables, assets recognised from costs to obtain a contract, defined benefit pension plan surplus and deferred tax asset.

Europe, Middle East and Africa includes United Kingdom non-current assets of $4.6 million (2021 $5.8 million).

Americas includes United States non-current assets of $215.7 million (2021 $225.7 million).

4. Profit before tax

The following items have been charged/(credited) in arriving at profit before tax:

	Notes	2022 $ million	2021 $ million
Employee benefit costs	8	**267.7**	265.6
Costs of inventories recognised as an expense		**102.0**	87.8
Write-(up)/down of inventories to net realisable value	18	**(0.2)**	0.8
Amortisation of intangible assets	13	**5.3**	5.0
Depreciation of property, plant and equipment	14	**11.0**	12.4
Depreciation of right-of-use assets	15	**7.3**	7.9
Amortisation of assets recognised from costs to obtain a contract	20	**1.1**	0.6
Expenses relating to short-term leases and leases of low-value assets	25	**0.7**	0.7
Product development costs		**111.3**	113.3
Net foreign exchange (gain)/loss		**(0.2)**	0.8

Services provided to all of the operations of the Group by the auditor, Deloitte LLP, and its associates are analysed below.

	2022 $ million	2021 $ million
Audit services		
Parent Company	**0.8**	0.7
Subsidiaries	**0.6**	0.5
	1.4	1.2
Non-audit fees		
Interim review	**0.1**	0.1
Total fees	**1.5**	1.3

A description of the work of the Audit Committee is set out in the Audit Committee Report on pages 77 to 82 and includes an explanation of how auditor objectivity and independence is safeguarded when non-audit services are provided by the auditor.

5. Other adjusting items

	2022 $ million	2021 $ million
R&D engineering plan	**1.5**	1.2
Direct acquisition transaction costs	**0.6**	1.9
Acquisition related performance payments	**(0.1)**	0.6
Acquisition integration costs	**0.3**	0.8
Strategic evaluation	**1.3**	–
	3.6	4.5

In 2021, the Group commenced implementation of a global R&D engineering plan which will rationalise the number of sites and extend our flexibility to serve our global customers, incurring $1.2 million of costs comprising employee severance and set up costs. This plan continued into 2022 where $1.5 million was incurred in relation to retention payments and facility and team set up costs. The plan will conclude in 2023.

5. Other adjusting items continued

On 4 March 2021, the Group completed the acquisition of octoScope, Inc. Acquisition related performance payments of $0.6 million and $0.8 million in relation to post acquisition integration were incurred during 2021. During 2022, $0.1 million was credited to other adjusting items in relation to post acquisition performance payments and $0.3 million was incurred in relation to post-acquisition integration. The acquisition related performance payments to key employees of the former octoScope business are contingent on meeting revenue growth targets for 2021 and 2022 and/or a continuing employment requirement and comprise $0.4 million (2021 $0.9 million) in respect of retention bonuses offset by $0.5 million (2021 $0.3 million) relating to a remeasurement of the contingent consideration liability recognised on acquisition. In addition, direct transaction related costs of $0.6 million (2021 $1.9 million) were incurred comprising adviser fees. See note 33 for further details.

The Group commenced a strategic evaluation in 2022 incurring employee separation costs of $1.3 million. This programme includes a number of initiatives designed to reshape the business to maximise market opportunities by focusing on larger bundled solutions sales and service-led engagements that address our customers' most pressing business challenges. These include enhancement of the leadership team to include some important new roles such as a Chief Information Officer, a Chief Marketing Officer and development of our sales and marketing organisation. This programme will continue into 2023 with total anticipated costs of $3-4 million.

The tax effect of other adjusting items is a credit of $0.9 million (2021 $1.1 million). There will be a total net cash outflow of $3.6 million in respect of other adjusting items charged in 2022, $1.7 million of which was in 2022 (2021 $4.4 million outflow with $3.5 million paid in 2021). The cash outflow in 2022 in respect of other adjusting items charged in 2021 was $0.9 million (2021 $0.5 million).

The total cash outflow in respect of other adjusting items is reported within cash flows from operating activities in the consolidated cash flow statement.

6. Finance income

	Note	2022 $ million	2021 $ million
Bank interest receivable		2.1	0.3
Net defined benefit pension plan interest	9	0.8	0.3
		2.9	0.6

7. Finance costs

	Notes	2022 $ million	2021 $ million
Lease liability interest	25	1.0	1.1
Unwind of discount on contingent consideration	33	–	0.1
		1.0	1.2

8. Employees

The average number of people employed by the Group during the year was:

	2022 Number	2021 Number
Assembly	393	371
Product development	499	491
Selling and marketing	536	505
Administration	220	215
	1,648	1,582

Employee benefit costs were:

	Note	2022 $ million	2021 $ million
Remuneration		230.4	231.0
Social security costs		19.0	19.4
Pension and other related costs		9.4	9.0
Expense of share-based payment	31	8.9	6.2
		267.7	265.6

Please refer to the Report on Directors' Remuneration on pages 83 to 110 and note 34 for disclosures relating to the emoluments, share incentives and pensions of the Directors.

9. Pensions

Defined benefit plans

i) Characteristics and risks associated with the Plans

The Group sponsors two funded defined benefit pension plans in the United Kingdom: the Spirent Communications plc Staff Pension & Life Assurance Plan ("Staff Plan") and the Spirent Communications plc Retirement Cash & Life Assurance Plan ("Cash Plan"). These plans are funded and have full UK HM Revenue & Customs ("HMRC") tax-exempt approval. Both schemes are administered by a Trustee board which is comprised of representatives from the employer, member nominated Trustees and an independent Trustee. The Trustee board operates in accordance with the Trust Deed and Rules of each Plan and acts in the interests of all of its members.

- The Staff Plan is the Group's most significant plan, and it provides its members with retirement benefits based on their final salary and length of service. The Staff Plan is closed to new entrants.
- The Cash Plan is complicated with multiple cohorts that allows members to benefit from a lump sum on retirement, a defined benefit contribution with a defined benefit underpin or pension. The Cash Plan is closed to new entrants.

There is also a UK unfunded plan, which consists of a contractual obligation for the Group to top up certain former employees' benefits whose salaries exceeded the statutory earnings cap.

As with the vast majority of similar arrangements in the United Kingdom, the Group ultimately underwrites the risks relating to the defined benefit plans. These risks include investment risks and demographic risks, such as the chance of members living longer than expected.

The Cash Plan holds a significant proportion of its assets in equity. Strong future equity returns would be expected to reduce the Group's future cash contributions (and vice versa).

The latest triennial actuarial valuations dated 31 March 2021 indicated a combined funding deficit of £11.5 million, calculated on a technical provisions basis using more prudent assumptions than the accounting valuation, particularly in relation to the discount rate inflation and demographic. A deficit reduction plan was agreed with the trustees which required the Company to pay monthly contributions of £449,609, whilst a funding deficit remains, increasing in line with CPI each year. In September 2022, this deficit funding plan was suspended whilst the Group and trustees worked together to consider the feasibility of purchasing a bulk annuity insurance policy.

In October 2022, the Trustees with the Company's support, purchased a bulk annuity insurance policy from specialist UK insurer Pension Insurance Corporation (PIC), in respect of the largest plan, the Staff Plan. The premium was met from the plan's assets and sufficient assets remain to meet the plan's ongoing costs. This pension buy-in secures an insurance asset from PIC that matches the remaining pension liabilities of the Staff Plan, such that the Company no longer bears any investment, inflation, longevity or other demographic risks. An asset remeasurement loss of $7.4 million has been recorded in other comprehensive income as the premium paid was greater than the IAS 19 accounting value of the corresponding liabilities. Following the purchase of the bulk annuity insurance policy, the Group does not expect to make any further cash contributions to this plan. Cash contributions to the plan in 2022 amounted to $1.1 million (£0.9 million) (2021 $7.3 million (£5.4 million)).

At 31 December 2022, a reserve of $3.6 million (£3.0 million) is included within the accounting position in respect of equalising historic GMP benefits. The ultimate cost to equalise benefits could be higher or lower than reserved (but not materially so), reflecting the considerable uncertainty in the way in which benefits will ultimately be equalised. The bulk annuity insurance policy purchased by the trustees does not currently include provision for equalising GMPs but there is a mechanism for them to do so once finalised. As updates are made the reserve the difference will be charged to other comprehensive income as an experience gain/loss.

The Group also operates an unfunded deferred compensation plan for employees in the United States. The plan enables participating employees to defer a portion of their salary and invest it in deemed investments, which are used to measure the gains or losses that are attributed to the deferral account over time. The plan has elements of a defined benefit pension retirement obligation and therefore is required to be valued in accordance with IAS 19.

9. Pensions continued

Defined benefit plans continued

ii) Amounts in the financial statements

The assets and liabilities on the balance sheet are as follows:

	2022 $ million	2021 $ million
Schemes in net asset position		
UK defined benefit pension plan – Staff Plan	**14.9**	35.8
UK defined benefit pension plan – Cash Plan	**–**	2.0
	14.9	37.8
Withholding tax payable	**(5.2)**	–
	9.7	37.8
Schemes in net liability position		
UK defined benefit pension plan - Cash Plan	**(1.7)**	–
UK unfunded plan	**(0.5)**	(0.7)
US deferred compensation plan	**(6.9)**	(6.6)
	(9.1)	(7.3)
Net pension plan surplus on the balance sheet	**0.6**	30.5

a) The assets and liabilities in each plan

	2022 $ million	2021 $ million
Staff Plan		
Quoted:		
- Equities	**–**	78.9
- Government bonds	**–**	5.0
- Corporate bonds	**–**	8.4
Unquoted:		
- LDI funds	**–**	55.4
- Cash benchmarked bonds	**–**	125.6
- Insured annuities	**1.6**	2.2
- Property	**–**	1.9
- Cash and other	**17.7**	40.4
Insurance policy with PIC	**162.0**	–
Fair value of plan assets	**181.3**	317.8
Present value of defined benefit pension plan obligations	**(166.4)**	(282.0)
Surplus in the plan	**14.9**	35.8
Withholding tax payable	**(5.2)**	–
Surplus in the plan on the balance sheet	**9.7**	35.8
Cash Plan		
Quoted:		
- Equities	**5.0**	6.5
- Government bonds	**2.0**	3.9
Unquoted:		
- Insured annuities	**–**	0.1
- Cash and other	**1.7**	2.0
Fair value of plan assets	**8.7**	12.5
Present value of defined benefit pension plan obligations	**(10.4)**	(10.5)
(Deficit)/surplus in the plan	**(1.7)**	2.0
Total net surplus recognised	**8.0**	37.8
Unfunded plan		
Present value of unfunded obligations	**(0.5)**	(0.7)
Deferred compensation plan		
Present value of US deferred compensation obligations	**(6.9)**	(6.6)
Net pension plan surplus on the balance sheet	**0.6**	30.5

9. Pensions continued

Defined benefit plans continued

ii) Amounts in the financial statements continued

a) The assets and liabilities in each plan continued

In 2021, approximately 60 per cent of the Staff Plan's assets were held in a combination of LDI funds and cash benchmarked bonds. The objective of this allocation was to hedge against the plan's liabilities, provide protection against inflation risk and provide a level of investment returns in all market scenarios.

These funds have a wide investment remit and as such the investments of the funds may or may not be listed on recognised exchanges and markets and will be without restriction as to geographical, industrial or sectoral exposure. These funds may take both long and short positions and may utilise a broad range of derivatives. The funds' investments may include sub-investment grade securities, corporate debt securities, gilts, sale and repurchase agreements, loans, and emerging markets debt and currencies.

The plans are prohibited from investing in Spirent's own financial instruments.

The fair values of the quoted equity and debt instruments are determined based on quoted market prices in active markets whereas the fair values of the other assets are not. Unquoted investments are included at values provided by the fund managers and are generally valued using recent market data and external sources, with a hierarchy that follows the principles of IFRS 13 "Fair Value Measurement".

The Group has determined that it has an unconditional right to refund of surplus assets if the schemes are run off until the last member dies, on which basis IFRIC 14 does not cause any change in the balance sheet disclosures before tax.

For the purposes of the following disclosures the Staff Plan and Cash Plan have been combined as the Cash Plan is immaterial to these financial statements.

b) Analysis of the amounts charged/(credited) to the income statement

	2022 $ million	2021 $ million
Current service cost	**0.1**	0.1
Amount charged to operating costs	**0.1**	0.1
Net interest on the net defined benefit pension surplus	**(0.8)**	(0.3)
Net credit to the income statement	**(0.7)**	(0.2)

c) Analysis of amount recognised directly in the statement of comprehensive income

	2022 $ million	2021 $ million
Re-measurement (loss)/gain on plans' assets	**(104.8)**	3.3
Costs of managing plan assets paid by Company	**(0.9)**	–
Actuarial loss arising from experience	**(5.5)**	(2.7)
Actuarial gain/(loss) arising from the demographic assumptions	**1.1**	(1.0)
Actuarial gain arising from changes in financial assumptions	**86.3**	13.9
Withholding tax payable	**(5.2)**	–
Re-measurement of the net defined benefit pension surplus	**(29.0)**	13.5

d) Movements in the present value of funded defined benefit obligations

	2022 $ million	2021 $ million
At 1 January	**292.5**	315.1
Current service cost	**0.1**	0.1
Interest cost	**4.5**	3.9
Benefit payments	**(10.5)**	(12.6)
Actuarial loss arising from experience	**5.5**	2.7
Actuarial (gain)/loss arising from the demographic assumptions	**(1.1)**	1.0
Actuarial gain arising from changes in financial assumptions	**(86.3)**	(13.9)
Exchange adjustment	**(27.9)**	(3.8)
Present value of funded defined benefit pension plans' obligations	**176.8**	292.5

9. Pensions continued

Defined benefit plans continued

ii) Amounts in the financial statements continued

e) Movements in the fair value of plans' assets

	2022 $ million	2021 $ million
At 1 January	330.3	328.1
Interest income on plans' assets	5.3	4.2
Employer contributions	1.1	11.7
Benefit payments	(10.5)	(12.6)
Re-measurement (loss)/gain on plans' assets	(104.8)	3.3
Exchange adjustment	(31.4)	(4.4)
Fair value of plans' assets	190.0	330.3
Withholding tax payable	(5.2)	–
Fair value of plans' assets less irrecoverable element of pension plan surplus	184.8	330.3

The $104.8 million loss on remeasurement of plan assets represents a $95.9 million reduction in asset values prior to the buy-in (the assets were invested to match the liability risk profile which also reduced significantly as interest rates rose), a $7.4 million loss due to the premium on buy-in exceeding the IAS 19 liability measure, a $2.5 million loss as the asset returns on the Cash Plan were lower than assumed under IAS 19 offset by a $1.0 million gain as the Staff Plan asset returns exceeded those assumed under IAS 19.

f) The key financial assumptions

The assumptions used for both plans using a weighted average were as follows:

	2022 %	2021 %
Inflation – RPI	3.3	3.5
Inflation – CPI (pre-2030)	RPI less 1.0% pa	RPI less 1.0% pa
Inflation – CPI (post-2030)	RPI less 0.1% pa	RPI less 0.1% pa
Rate of increase in pensionable salaries	CPI	CPI
Rate of increase for pensions in payment pre-2001 service	3.7	3.8
Rate of increase for pensions in payment 2001 to 5 April 2005 service	3.1	3.3
Rate of increase for pensions post-5 April 2005 service	2.1	2.2
Rate of increase in deferred pensions	CPI	CPI
Rate used to discount plan liabilities	4.8	1.8

The mortality assumptions are based on standard mortality tables which allow for future mortality improvements. The assumptions are such that a member currently aged 65 (2021 aged 65) will live on average for a further 22.0 years (2021 22.2 years) if they are male and for a further 24.5 years (2021 24.6 years) if they are female. For a member who retires in 2042 (2021 in 2041) at age 65 (2021 age 65), the assumptions are that they will live on average for a further 23.6 years (2021 23.8 years) after retirement if they are male and for a further 26.2 years (2021 26.3 years) after retirement if they are female.

iii) Amount, timing and uncertainty of future cash flows

The approximate impact to past service liabilities of these changes to the main assumptions, which are considered reasonably possible, is as follows:

- Reducing the discount rate by 0.1 per cent per annum would increase past service liabilities by $2.0 million (2021 $4.3 million). The impact is broadly linear.
- Increasing RPI inflation by 0.1 per cent would increase the plans' liabilities by $0.7 million (2021 $1.6 million). The impact is broadly linear.
- Increasing the life expectancy of a member by one year (by modifying the standard mortality tables using an appropriate scaling factor) would increase past service liabilities by $8.5 million (2021 $16.4 million).

The accounting valuation of the funded UK defined benefit pension plans as at 31 December 2022 gave rise to a net surplus of $13.2 million. Future changes to the valuation assumptions noted above may cause material impacts to the pension liability calculations, for example, the discount rate experienced a change of 3.0 per cent between 2021 and 2022.

There will also be an impact on the future service cost but given the small active population in these plans this is likely to be insignificant. The sensitivity analysis may not be representative of the actual change as the changes in assumptions may not occur in isolation.

9. Pensions continued

Defined benefit plans continued

iii) Amount, timing and uncertainty of future cash flows

The liability has the following duration and maturity:

	2022	2021
Weighted average duration of the defined benefit obligation (years)	**11**	15
Maturity analysis of benefit payments (non-discounted amounts) ($ million)		
Maturity ≤ 1 year	**10.3**	11.6
Maturity > 1 ≤ 5 years	**43.3**	47.9
Maturity > 5 ≤ 10 years	**55.7**	58.9
Maturity > 10 ≤ 20 years	**98.5**	113.2
Maturity > 20 ≤ 30 years	**67.8**	83.5
Maturity > 30 years	**45.3**	60.3

Deferred compensation plan

At 31 December 2022, the deferred compensation plan deficit amounted to $6.9 million (2021 $6.6 million).

During the year, $0.3 million was credited to the income statement (2021 $0.2 million charged) and there was no re-measurement recognisable directly in the statement of other comprehensive income (2021 a re-measurement loss of $0.2 million). The key financial assumptions include a discount rate used to discount plan liabilities of 5.2 per cent (2021 2.6 per cent) and an expected investment yield of 9.5 per cent (2021 6.4 per cent). There is no material impact in 2022 or 2021 of changing each of the key assumptions by 0.1 per cent, in isolation.

Defined contribution plans

United Kingdom

The Group contributes towards defined contribution pension plans for employees in the United Kingdom. Employer contributions into these plans for 2022 were $1.4 million (2021 $1.4 million).

United States

The Group maintains a defined contribution pension plan for employees of its United States subsidiaries. This plan, also known as a 401(k) Plan, allows employees to defer a percentage of their salary for retirement. In aggregate, the Group's contributions to the US plan totalled $5.2 million for 2022 (2021 $4.7 million). There were no defined benefit plans in the United States in 2022 or 2021.

Other jurisdictions

Outside the United Kingdom and the United States, employees are provided with pension arrangements determined in accordance with approved local practice and regulations. These arrangements are defined contribution plans. Total employer contributions for 2022 in respect of these plans amounted to $1.7 million (2021 $1.7 million).

Total employer contributions to defined contribution plans were $8.3 million (2021 $7.8 million).

Directors' pension arrangements

The pension arrangements of the Executive Directors are described in detail in the Report on Directors' Remuneration on pages 83 to 110.

10. Tax

	2022 $ million	2021 $ million
Tax charge in the income statement		
Current income tax		
UK tax	**2.5**	0.4
Foreign tax	**23.9**	10.1
Amounts underprovided in prior years	**1.7**	–
Total current income tax charge	**28.1**	10.5
Deferred tax		
Recognition of deferred tax assets	**(1.0)**	(1.9)
Reversal of temporary differences	**(12.4)**	5.1
Adjustments in respect of prior years	**–**	0.7
Total deferred tax (credit)/charge	**(13.4)**	3.9
Tax charge in the income statement	**14.7**	14.4

10. Tax continued

The current tax charge is impacted by the US R&D capitalisation rules which came into effect in 2022. The impact is an increase to our current tax charge with an offsetting deferred tax credit for the future tax benefit of the amortisation deduction.

The tax charge for the year ended 31 December 2022 was $14.7 million (2021 $14.4 million). This was after a prior year tax charge of $1.7 million and a tax credit on adjusting items of $3.9 million (2021 prior year charge of $0.7 million and tax credit on adjusting items of $3.3 million). Excluding the prior year charge and tax credit on adjusting items, the effective tax rate was 12.9 per cent (2021 14.4 per cent).

Tax relating to items (credited)/charged to other comprehensive income or equity:

	2022 $ million	2021 $ million
Deferred tax on share incentives	**0.7**	0.2
Current tax on share incentives	**(0.6)**	(0.8)
Tax charge/(credit) on share incentives	**0.1**	(0.6)
Deferred tax (credit)/charge on defined benefit pension plan	**(9.4)**	4.8

Reconciliation of the total tax charge

The tax charge in the income statement for the year is lower than the standard rate of corporation tax in the UK of 19.0 per cent (2021 19.0 per cent). The differences are reconciled below:

	Year ended 31 December 2022		
	Adjusted $ million	**Adjusting $ million**	**Reported $ million**
Accounting profit before tax	**131.4**	**(16.8)**	**114.6**
Accounting profit multiplied by the UK standard rate of corporation tax of 19.0 per cent	**25.0**	**(3.2)**	**21.8**
Differences in overseas rates	**3.5**	**(0.4)**	**3.1**
Non-taxable income	**(0.8)**	**–**	**(0.8)**
Recognition of temporary differences previously not recognised for deferred tax	**(1.8)**	**–**	**(1.8)**
Utilisation of temporary differences not previously recognised	**(1.0)**	**–**	**(1.0)**
UK and US Research and Experimental tax credit	**(2.9)**	**–**	**(2.9)**
Withholding tax	**0.8**	**–**	**0.8**
Hong Kong income tax credit	**(0.7)**	**–**	**(0.7)**
Permanent differences	**(5.2)**	**(0.3)**	**(5.5)**
Tax underprovided in prior years	**–**	**1.7**	**1.7**
Total tax charge reported in the income statement	**16.9**	**(2.2)**	**14.7**

	Year ended 31 December 2021		
	Adjusted $ million	Adjusting $ million	Reported $ million
Accounting profit before tax	117.9	(14.3)	103.6
Accounting profit multiplied by the UK standard rate of corporation tax of 19.0 per cent	22.4	(2.7)	19.7
Differences in overseas rates	3.7	(0.3)	3.4
Non-taxable income	(0.8)	–	(0.8)
Recognition of temporary differences previously not recognised for deferred tax	(1.9)	–	(1.9)
Utilisation of temporary differences not previously recognised	(1.2)	–	(1.2)
UK and US Research and Experimental tax credit	(2.4)	–	(2.4)
Withholding tax	1.2	–	1.2
Hong Kong income tax credit	(0.1)	–	(0.1)
Permanent differences	(3.9)	(0.3)	(4.2)
Tax underprovided in prior years	–	0.7	0.7
Total tax charge reported in the income statement	17.0	(2.6)	14.4

The Group's tax rate is sensitive to the geographic mix of profits and reflects a combination of higher statutory tax rates in certain jurisdictions, and other regions with significantly lower statutory tax rates. Regional statutory tax rates range from a high of 35 per cent to a low of 15 per cent. The UK Patent Box deduction benefit of $2.4 million (2021 $2.1 million), US foreign-derived intangible income deduction of $3.6 million (2021 $1.6 million), Research and Experimental credits of $2.9 million (2021 $2.4 million) and other tax credits of $0.2 million (2021 $0.1 million) realised in Hong Kong bring down the rate but items such as state taxes and withholding tax increase the tax rate.

11. Earnings per share

Basic

Earnings per share is calculated by dividing the profit for the year attributable to owners of the parent Company by the weighted average number of Ordinary Shares outstanding during the year.

Diluted

Diluted earnings per share is calculated by dividing the profit for the year attributable to owners of the parent Company by the weighted average number of Ordinary Shares outstanding during the year plus the weighted average number of Ordinary Shares that would be issued on the conversion of all dilutive potential Ordinary Shares into Ordinary Shares.

	2022 $ million	2021 $ million
Profit for the year attributable to owners of the parent Company	**99.9**	89.2

	Number million	Number million
Weighted average number of Ordinary Shares in issue – basic	**607.0**	608.2
Dilutive potential of employee share incentives	**3.7**	5.3
Weighted average number of Ordinary Shares in issue – diluted	**610.7**	613.5

	Cents	Cents
Earnings per share		
Basic	**16.46**	14.67
Diluted	**16.36**	14.54

Adjusted

The Group is disclosing adjusted earnings per share attributable to owners of the parent Company in order to provide a measure to enable period-on-period comparisons to be made of its performance. The following items are excluded from adjusted earnings:

- acquired intangible asset amortisation;
- share-based payment;
- other adjusting items;
- tax effect on the above items; and
- prior year tax (adjustments made to provisions in respect of prior years).

A reconciliation is provided below:

		2022		2021	
	Notes	$ million	EPS (cents)	$ million	EPS (cents)
Profit for the year attributable to owners of the parent Company		**99.9**	**16.46**	89.2	14.67
Acquired intangible asset amortisation		**4.7**		4.2	
Share-based payment	31	**8.5**		5.6	
Other adjusting items	5	**3.6**		4.5	
Tax effect on the above items	10	**(3.9)**		(3.3)	
Prior year tax charge	10	**1.7**		0.7	
Adjusted basic		**114.5**	**18.86**	100.9	16.59
Adjusted diluted			**18.75**		16.45

There were no Ordinary Share transactions that occurred after 31 December that would have significantly changed the number of Ordinary Shares or potential Ordinary Shares outstanding at the period end if those transactions had occurred before the end of the reporting period in either year.

12. Dividends paid and proposed

	2022 $ million	2021 $ million
Declared and paid in the year		
Equity dividend on Ordinary Shares		
Final dividend 2021 of 4.37 cents (3.34 pence) per Ordinary Share (2020 3.87 cents (2.78 pence))	**25.0**	23.7
Special dividend 2020 of 7.50 cents (5.40 pence) per Ordinary Share	**–**	45.9
Interim dividend 2022 of 2.63 cents (2.16 pence) per Ordinary Share (2021 2.39 cents (1.72 pence))	**14.9**	14.5
	39.9	84.1
Proposed for approval at AGM (not recognised as a liability at 31 December)		
Equity dividend on Ordinary Shares		
Final dividend 2022 of 4.94 cents (4.12 pence) per Ordinary Share (2021 4.37 cents (3.34 pence))	**29.8**	25.0

The Directors are proposing a final dividend in respect of the financial year ended 31 December 2022 of 4.94 cents per Ordinary Share (4.12 pence) (2021 4.37 cents (3.34 pence)), which will absorb an estimated $29.8 million of shareholders' funds (2021 $25.0 million). The final dividend will be paid on 10 May 2023 to Ordinary shareholders who are on the Register of Members at close of business on 17 March 2023. Payment will be made to ADR holders on 17 May 2023. No liability is recorded in the financial statements in respect of these dividends.

Dividends are determined in US Dollars and paid in Pound Sterling. The exchange rate for determining the amount of the final dividend to be paid for 2022 was $1.20: £1 (2021 $1.31: £1).

Reconciliation of dividends charged to equity to cash flow statement:

	2022 $ million	2021 $ million
Reconciliation of dividends charged to equity to cash flow statement		
Dividends charged to equity	**39.9**	84.1
Hedge contracts relating to payment of dividends (cash flow statement)	**–**	(0.5)
Dividends paid (cash flow statement)	**39.9**	83.6

13. Intangible assets

	Note	Goodwill	Customer lists	Current technology	Brand names	Other	Licences	Total
								$ million
Cost, net of accumulated amortisation and impairment losses								
At 1 January 2021		157.5	–	0.9	–	–	1.5	159.9
Acquisitions	33	26.6	6.7	19.8	0.3	–	–	53.4
Amortisation for the year		–	(0.9)	(3.2)	(0.1)	–	(0.8)	(5.0)
Exchange adjustment		(0.1)	–	–	–	–	–	(0.1)
At 1 January 2022		**184.0**	**5.8**	**17.5**	**0.2**	**–**	**0.7**	**208.2**
Amortisation for the year		**–**	**(1.1)**	**(3.5)**	**(0.1)**	**–**	**(0.6)**	**(5.3)**
Exchange adjustment		**(0.9)**	**–**	**–**	**–**	**–**	**–**	**(0.9)**
At 31 December 2022		**183.1**	**4.7**	**14.0**	**0.1**	**–**	**0.1**	**202.0**
At 31 December 2021								
Cost (gross carrying amount)		622.5	23.7	57.0	2.6	3.6	14.4	723.8
Amortisation and accumulated impairment losses		(438.5)	(17.9)	(39.5)	(2.4)	(3.6)	(13.7)	(515.6)
Net carrying amount		184.0	5.8	17.5	0.2	–	0.7	208.2
At 31 December 2022								
Cost (gross carrying amount)		**620.3**	**23.7**	**56.9**	**2.6**	**3.6**	**9.1**	**716.2**
Amortisation and accumulated impairment losses		**(437.2)**	**(19.0)**	**(42.9)**	**(2.5)**	**(3.6)**	**(9.0)**	**(514.2)**
Net carrying amount		**183.1**	**4.7**	**14.0**	**0.1**	**–**	**0.1**	**202.0**

Goodwill is allocated at acquisition to the cash-generating units (CGUs) that are expected to benefit from that business combination.

The Group identifies CGUs at the lowest level at which cash flows are largely independent of other cash flows.

Goodwill has been allocated to two CGUs, which align with the reportable operating segments, as follows:

	2022 $ million	2021 $ million
Lifecycle Service Assurance	**110.3**	110.3
Networks & Security	**72.8**	73.7
	183.1	184.0

Annual impairment test

The Group has an annual impairment testing date of 30 November. The key assumptions used in the value in use calculations were:

- revenue growth rates;
- gross margin;
- operating expenses;
- discount rate; and
- growth rate used to extrapolate cash flows beyond the five-year period covered by management's projections.

The cash flows are derived from the most recent financial budgets for the next financial year, as approved by management, and the Group's three-year strategic plan. Cash flows in years four and five are extrapolated based on long range plans. Cash flows in subsequent years have been extrapolated using a steady 2.5 per cent for all CGUs (2021 2.5 per cent for all CGUs), which management estimates to be the approximate average long-term growth rate for the industries in which these units operate. Fundamentally, this long-term growth is based on a proxy for global long-term inflation taking into consideration more developed and developing markets. The growth rates used in the value in use calculations are set at the same level for each CGU as both CGUs operate within similar markets which share the same growth drivers and characteristics. The discount rates incorporate the specific risks relating to each CGU.

13. Intangible assets continued

Annual impairment test continued

The discount rate applied to the cash flows is based on the weighted average cost of capital of comparable companies by taking the risk free rate for 30-year government bonds and making an adjustment to reflect the increased risk of investing in equities. In making this adjustment, the inputs required are the equity market risk premium, beta, and the risk adjustment applied to reflect the systematic risk of Spirent and the specific CGUs, taking into account factors such as size and the territories in which each CGU operates.

The cash flows have been discounted using the following pre-tax discount rates:

	2022 %	2021 %
Lifecycle Service Assurance	**13.5**	11.3
Networks & Security	**12.6**	10.6

For Spirent the key factor in relation to the cash flow forecasts is the ability to forecast revenue. All CGUs operate in the data technology market and generate a high gross profit (gross margin); consequently changes in revenue can have a significant impact on the operating profit and cash flows. Revenue growth rates used in the projections are based on management's estimate of growth in the markets served and take into account historical levels of growth, expected future developments in products and technology, industry forecasts and macroeconomic conditions in the territories in which the CGUs operate. Gross margin and operating expenses are based on historical values adjusted for the effect of revenue growth, changes in product mix, expectations of investment and cost reduction actions committed prior to the impairment testing date.

Management expects revenue growth in the forecast period at Lifecycle Service Assurance from the delivery of a leading active assurance platform for 5G and next-generation service assurance, as well as the automation of critical test activities and leverage of existing product offerings. The Lumos legacy business is continuing to drop in the near term and is being replaced by growth in new Ethernet products supported by investment in product development, particularly in virtualisation, automation and 5G. Revenue is expected to grow at the Connected Devices business, driven by device lab test 5G expansion, network emulator partnerships and managed solutions live network test growth. Management expects gross margin to remain broadly constant as increased software content is offset by a growth in services. The individual business units in Lifecycle Service Assurance are expected to work together to deliver the three-year plan to meet changes in customer needs and the competitive landscape.

Within Networks & Security, Cloud and IP is expected to maintain its leadership position in high-speed Ethernet, and this together with optimised 400G volumes (and introduction of 800G), growth in network virtualisation and emerging technologies, is expected to drive earnings. Further growth in Networks & Security is expected at Positioning driven by the emergence of other sensors. Management expects that the security business will benefit in the longer term from the move to a subscription-based model together with expansion in the cloud-native security market. Cybersecurity is expected to benefit from synergies with Positioning and continued expansion in complementary solutions with Cloud and IP.

The recoverable amount of each CGU was calculated on a value in use basis and was in excess of its carrying value. Consequently, no impairment has been recognised.

Sensitivity to changes in key assumptions

The Directors believe that no reasonable possible change in any of the key assumptions used, in isolation, would cause the value in use of the Lifecycle Service Assurance or Networks & Security CGUs to fall below the carrying value.

Other intangible assets

There was no impairment charge in respect of the other intangible assets in either 2022 or 2021.

14. Property, plant and equipment

$ million

	Note	Land and buildings	Plant and machinery	Fixtures, fittings and equipment	Total
Cost, net of accumulated depreciation and accumulated impairment					
At 1 January 2021		7.3	13.1	5.4	25.8
Acquisitions	33	–	0.6	0.2	0.8
Additions – owned assets		0.8	7.7	1.7	10.2
Disposals		(0.1)	(0.5)	–	(0.6)
Inter-class transfers		0.2	(0.3)	0.1	–
Depreciation charge for the year		(2.4)	(7.5)	(2.5)	(12.4)
Exchange adjustment		(0.1)	(0.1)	0.1	(0.1)
At 1 January 2022		**5.7**	**13.0**	**5.0**	**23.7**
Additions – owned assets		**0.1**	**6.6**	**1.7**	**8.4**
Disposals		**–**	**(0.2)**	**–**	**(0.2)**
Depreciation charge for the year		**(1.9)**	**(6.9)**	**(2.2)**	**(11.0)**
Exchange adjustment		**(0.1)**	**(0.1)**	**(0.1)**	**(0.3)**
At 31 December 2022		**3.8**	**12.4**	**4.4**	**20.6**
At 31 December 2021					
Cost		23.0	86.6	45.4	155.0
Accumulated depreciation and accumulated impairment		(17.3)	(73.6)	(40.4)	(131.3)
Net carrying amount		5.7	13.0	5.0	23.7
At 31 December 2022					
Cost		**22.8**	**85.6**	**39.6**	**148.0**
Accumulated depreciation and accumulated impairment		**(19.0)**	**(73.2)**	**(35.2)**	**(127.4)**
Net carrying amount		**3.8**	**12.4**	**4.4**	**20.6**

15. Leases

Right-of-use assets (Group as a lessee)

	Note	Land and buildings	Motor vehicles	Total
				$ million
Cost, net of accumulated depreciation and accumulated impairment				
At 1 January 2021		23.0	0.3	23.3
Acquisitions	33	1.2	–	1.2
Additions		3.2	0.1	3.3
Re-measurement		6.3	–	6.3
Depreciation charge for the year		(7.7)	(0.2)	(7.9)
Exchange adjustment		(0.2)	–	(0.2)
At 1 January 2022		**25.8**	**0.2**	**26.0**
Additions		**0.3**	**0.1**	**0.4**
Re-measurement		**1.0**	**–**	**1.0**
Depreciation charge for the year		**(7.2)**	**(0.1)**	**(7.3)**
Exchange adjustment		**(0.6)**	**–**	**(0.6)**
At 31 December 2022		**19.3**	**0.2**	**19.5**
At 31 December 2021				
Cost		65.3	0.5	65.8
Accumulated depreciation and accumulated impairment		(39.5)	(0.3)	(39.8)
Net carrying amount		25.8	0.2	26.0
At 31 December 2022				
Cost		**65.6**	**0.6**	**66.2**
Accumulated depreciation and accumulated impairment		**(46.3)**	**(0.4)**	**(46.7)**
Net carrying amount		**19.3**	**0.2**	**19.5**

The related lease liabilities are disclosed in note 25.

Finance lease receivables (Group as a lessor)

The Group subleases an office building that it leased in 2015. The Group has classified the sublease as a finance lease, because the sublease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset to the sub lessee.

The following table sets out a maturity analysis of lease receivables, showing the undiscounted lease payments to be received after the reporting date.

	2022 $ million	2021 $ million
Maturity analysis – contractual undiscounted cash flows		
Less than one year	**0.6**	0.6
One to two years	**0.2**	0.6
Two to three years	**–**	0.2
Total undiscounted lease payments receivable	**0.8**	1.4
Unearned finance income	**–**	–
Net investment in the lease	**0.8**	1.4

During the year, $0.6 million (2021 $0.5 million) was received in respect of finance leases.

The net investment in the lease has been included within trade and other receivables (note 19), as follows:

	2022 $ million	2021 $ million
Current	**0.6**	0.6
Non-current	**0.2**	0.8
	0.8	1.4

16. Capital commitments

The Group had capital commitments in relation to additions of property, plant and equipment of $0.4 million at 31 December 2022 (31 December 2021 $0.3 million).

17. Subsidiaries

A list of subsidiaries, including the name, country of incorporation and proportion of ownership interest, is given on pages 192 and 193 of these financial statements.

18. Inventories

	2022 $ million	2021 $ million
Raw materials	**24.9**	8.2
Work in progress	**2.2**	0.5
Finished goods	**12.7**	17.3
	39.8	26.0

A release of $0.2 million (2021 $0.8 million expense) has been credited (2021 charged) to the income statement in the year for inventory write-downs. There were no reversals of prior period inventory write-downs (2021 nil).

No inventories are carried at fair value less costs to sell (2021 nil).

19. Trade and other receivables

	2022 $ million	2021 $ million
Non-current		
Other receivables	**4.3**	5.8
Prepayments	**2.4**	1.8
	6.7	7.6
Current		
Trade receivables	**142.4**	149.2
Other receivables	**5.4**	3.8
Prepayments	**13.0**	11.1
	160.8	164.1
	167.5	171.7

The trade receivables are stated net of an allowance for expected credit losses. The movement in the allowance was as follows:

	2022 $ million	2021 $ million
At 1 January	**0.7**	2.7
Charge for the year	**1.1**	0.6
Released in the year	**(0.4)**	(2.6)
At 31 December	**1.4**	0.7

The Directors consider that the carrying amount of trade and other receivables approximates their fair value.

$0.2 million (2021 $0.8 million) of the non-current other receivables balance relates to the net investment in the lease (note 15). The majority of the remaining balance relates to corporate-owned life insurance.

The Group has no significant concentration of credit risk attributable to its trade receivables as the exposure is spread over a large number of customers.

Other financial assets – current

	2022 $ million	2021 $ million
Other financial assets	**–**	0.1

Other financial assets comprise forward foreign currency exchange contracts.

20. Assets recognised from costs to obtain a contract

	2022 $ million	2021 $ million
Non-current	**0.5**	0.8
Current	**0.9**	1.1
	1.4	1.9

These assets relate to capitalised incremental costs to obtain a contract, being sales commissions, arising on contracts with customers of over one year in length.

During the year, amortisation of $1.1 million was charged to the income statement (2021 $0.6 million).

No assets were impaired or derecognised during the current year or prior year.

21. Cash and cash equivalents

	2022 $ million	2021 $ million
Cash at bank and in hand	**103.8**	93.7
Short-term bank deposits	**105.8**	81.1
	209.6	174.8

Cash at bank and in hand earns interest at floating interest rates. Of the total cash and cash equivalents balance, $105.8 million (2021 $81.1 million) is callable at notice of three months or less at the date of investment.

Short-term bank deposits are made for varying periods of between one day and three months depending on the cash requirements of the Group and earn interest at the short-term deposit rates appropriate for the term of the deposit and currency.

At the end of 2022, the currency split of cash and cash equivalents was US Dollar 83 per cent (2021 80 per cent), Pound Sterling 7 per cent (2021 9 per cent) and other currencies 10 per cent (2021 11 per cent).

For the purposes of the cash flow statement, cash and cash equivalents comprise the above amounts.

22. Trade and other payables

	Note	2022 $ million	2021 $ million
Current			
Trade payables		**33.6**	12.9
Other taxes and social security costs		**5.3**	7.1
Other payables		**0.3**	0.4
Accruals		**54.4**	65.8
Government grants	23	**1.2**	1.4
		94.8	87.6
Non-current			
Other payables		**0.2**	0.4
		95.0	88.0

Trade payables are non-interest bearing and are normally settled on 30 to 60-day terms. Other payables are non-interest bearing.

The Directors consider that the carrying amount of trade payables and other payables approximates their fair value.

Other financial liabilities – current

	2022 $ million	2021 $ million
Other financial liabilities	**0.1**	–

Other financial liabilities comprises forward foreign currency exchange contracts.

23. Government grants

The following government grants are included within trade and other payables:

	2022 $ million	2021 $ million
At 1 January	**1.4**	1.8
Received during the year	**0.1**	0.2
Released to the income statement	**(0.2)**	(0.6)
Exchange adjustment	**(0.1)**	–
At 31 December	**1.2**	1.4

All governments grants are expected to be recognised in the next 12 months.

Government grants have been received to accelerate and support research and development in the vulnerability of global navigation satellite systems and other high technology projects.

24. Contract balances

The following table provides information about receivables and contract liabilities from contracts with customers. The Group does not have any contract assets.

	Note	2022 $ million	2021 $ million	2020 $ million
Trade receivables	19	**142.4**	149.2	118.4
Contract liabilities				
Current				
Payments received on account		**6.2**	4.5	2.4
Deferred income		**69.3**	67.6	62.7
		75.5	72.1	65.1
Non-current				
Deferred income		**22.7**	27.5	18.8
Total contract liabilities		**98.2**	99.6	83.9
Revenue recognised in the period from amounts included in contract liabilities at the beginning of the period		**72.1**	65.1	55.5

There was no revenue recognised in 2022, 2021 or 2020 from performance obligations satisfied in previous periods.

The timing of revenue recognition, invoicing and cash collections results in trade receivables, deferred income and advance customer payments received on account on the balance sheet.

The increase in deferred income in 2021 is due to the year-on-year increase in support contracts which are typically invoiced in advance.

The Group receives payments from customers based on a billing schedule, as established in the contract. Trade receivables are recognised when the right to consideration becomes unconditional. Contract liabilities are recognised as revenue as (or when) the Group performs under the contract.

The Group also recognises incremental costs incurred to obtain a contract as an asset if it expects to recover those costs. Such costs are presented in the balance sheet as assets recognised from costs to obtain a contract and disclosed in note 20.

Expected realisation of remaining performance obligations at year end

The Group applies the practical expedient in paragraph 121 of IFRS 15 and does not disclose information about remaining performance obligations that have original expected durations of one year or less.

24. Contract balances continued

Expected realisation of remaining performance obligations at year end continued

For contracts that exceed one year, deferred income that relates to unsatisfied or partially satisfied performance obligations at year end is expected to be recognised as revenue in the future as follows:

	2022 $ million	2021 $ million
Within one year	28.6	22.2
Greater than one year	22.7	27.5
	51.3	49.7

The above information represents the revenue the Group will recognise when it satisfies the remaining performance obligations in the contracts. The amounts presented do not include orders for which neither party has performed.

Revenue from the sale of hardware and software generally arises from contracts less than one year in length. Consequently, the above amounts predominantly relate to the sale of maintenance and support services.

Virtually all of the revenue will be recognised within three years.

The Group provides standard warranties on its products and services. The nature of these warranties is considered to provide customers with assurance that the related product or service will function as intended in accordance with the agreed specification, and does not contain or imply any additional service obligation to the customer. Warranty obligations are estimated and recognised as liabilities based on the probable outflow of resources.

25. Lease liabilities

Total lease liabilities included in the balance sheet at 31 December:

		$ million		
	Note	Land and buildings	Motor vehicles	Total
At 1 January 2021		27.9	0.3	28.2
Acquisitions	33	1.2	–	1.2
Additions		3.1	0.1	3.2
Re-measurement		6.3	–	6.3
Repayments		(9.8)	(0.2)	(10.0)
Interest		1.1	–	1.1
Exchange adjustment		(0.2)	–	(0.2)
At 1 January 2022		29.6	0.2	29.8
Additions		0.3	0.1	0.4
Re-measurement		1.0	–	1.0
Repayments		(9.5)	(0.1)	(9.6)
Interest		1.0	–	1.0
Exchange adjustment		(0.5)	–	(0.5)
At 31 December 2022		21.9	0.2	22.1

	2022 $ million	2021 $ million
Current	7.1	8.4
Non-current	15.0	21.4
	22.1	29.8

$0.8 million (2021 $1.4 million) of the lease liability included in the balance sheet relates to a building the Group subleases; see note 15 for further details.

	2022 $ million	2021 $ million
Maturity analysis – contractual undiscounted cash flows		
Less than one year	7.7	9.4
One to five years	12.6	19.8
More than five years	3.5	3.3
Total undiscounted lease liabilities at 31 December	23.8	32.5

25. Lease liabilities continued

	Note	2022 $ million	2021 $ million
Amounts recognised in the income statement			
Interest on lease liabilities	7	**1.0**	1.1
Expenses relating to short-term leases		**0.3**	0.3
Expenses relating to leases of low-value assets, excluding leases of short-term low-value assets		**0.4**	0.4
Amounts recognised in the cash flow statement			
Lease liability principal repayment		**8.6**	8.9
Lease liability interest paid		**1.0**	1.1

Cash payments of $0.7 million (2021 $0.7 million) relating to short-term leases and leases of low-value assets are classified within cash flows from operating activities in the consolidated cash flow statement.

Extension options

Some leases of buildings contain extension options exercisable by the Group before the end of the non-cancellable contract period. Where practicable, the Group seeks to include extension options in new leases to provide operational flexibility. The extension options held are exercisable only by the Group and not the lessors. The Group assesses at lease commencement whether it is reasonably certain to exercise the extension options. The Group reassesses whether it is reasonably certain to exercise the options if there is a significant event or significant change in circumstances within its control.

	2022 $ million		2021 $ million	
	Lease liabilities recognised (discounted)	**Potential future lease payments not included in lease liabilities (discounted)**	Lease liabilities recognised (discounted)	Potential future lease payments not included in lease liabilities (discounted)
Buildings	**4.6**	**23.3**	4.6	22.4

26. Deferred tax

The movements in the deferred tax assets/(liabilities) are as follows:

$ million

	Notes	Temporary differences	Tax losses	Tax credits	UK pension plans	Total
At 1 January 2021		17.3	3.3	3.5	(2.4)	21.7
Acquisitions	33	(2.4)	–	–	–	(2.4)
Charged/(credited) in the year	10	(2.6)	0.2	0.7	(2.2)	(3.9)
Deferred tax on defined benefit pension plan	10	–	–	–	(4.8)	(4.8)
Deferred tax on share incentives recognised in equity	10	(0.2)	–	–	–	(0.2)
Exchange adjustment		0.1	0.1	–	–	0.2
At 1 January 2022		**12.2**	**3.6**	**4.2**	**(9.4)**	**10.6**
Charged/(credited) in the year	10	**13.1**	**(0.8)**	**1.5**	**(0.4)**	**13.4**
Deferred tax on defined benefit pension plan	10	**–**	**–**	**–**	**9.4**	**9.4**
Deferred tax on share incentives recognised in equity	10	**(0.7)**	**–**	**–**	**–**	**(0.7)**
Exchange adjustment		**(0.8)**	**–**	**–**	**0.9**	**0.1**
At 31 December 2022		**23.8**	**2.8**	**5.7**	**0.5**	**32.8**
Amounts on the balance sheet:						
At 31 December 2021						
Deferred tax asset		10.8	3.6	4.2	–	18.6
Deferred tax liability		1.4	–	–	(9.4)	(8.0)
		12.2	3.6	4.2	(9.4)	10.6
At 31 December 2022						
Deferred tax asset		**23.8**	**2.8**	**5.7**	**0.5**	**32.8**
Deferred tax liability		**–**	**–**	**–**	**–**	**–**
		23.8	**2.8**	**5.7**	**0.5**	**32.8**

26. Deferred tax continued

A net deferred tax asset of $32.8 million has been recognised at 31 December 2022 (2021 $10.6 million). $27.6 million is in the United States (2021 $15.0 million), $1.7 million is in France (2021 $1.4 million), $2.4 million is in the rest of the world (2021 $2.2 million), and $1.1 million is in the United Kingdom (2021 $8.0 million net liability).

The deferred tax asset includes $3.3 million (2021 $3.3 million) in respect of the tax deduction which may be available on the future exercise of share incentives, $5.4 million (2021 $5.8 million) in respect of the future tax deduction on provisions and $7.5 million (2021 $7.8 million) in respect of the future tax deduction on the deferral of compensation. These amounts are presented within temporary differences.

The Group has non-trading tax losses arising in the United Kingdom of $27.7 million (2021 $32.0 million), which are available for offset against suitable future non-trading taxable profits. Additionally, there are short-term timing differences in the United Kingdom of $2.5 million (2021 $2.7 million), and the rest of the world of $7.1 million (2021 $7.6 million), Scientific Research and Experimental qualifying expenditure in Canada of $5.2 million (2021 $6.0 million) and tax credits in the rest of the world of $1.4 million (2021 $1.4 million). A deferred tax asset has not been recognised in respect of these items as their future recovery is not probable. The previously unrecognised deferred tax asset of $1.9 million, related to US state tax credits and losses, has now been fully recognised as the probability of utilisation of these is likely.

The Group has capital losses carried forward of $996.4 million (2021 $1,109.9 million) for which no deferred tax asset has been recognised on the balance sheet. This change is due to foreign exchange movements. These capital losses have no expiry date.

The temporary difference associated with investments in the Group's subsidiaries for which a deferred tax liability has not been recognised in the periods presented are $251.6 million in aggregate (2021 $239.0 million). The Group does not expect a significant amount of the undistributed profits to be distributed in the foreseeable future but has recognised a deferred tax liability of $0.4 million (2021 $0.1 million) on the expected distribution of $3.9 million (2021 $2.3 million) of earnings from its China subsidiary, $1.6 million (2021 nil) of earnings from its India subsidiary, $0.1 million (2021 nil) from its Taiwan subsidiary and $0.2 million (2021 $0.2 million) from its Korea subsidiary.

Changes in tax rates

The Group's future tax charge, and the effective tax rate, could be affected by several factors including tax reform in countries around the world and the geographical mix of profits.

Following the enactment of the United Kingdom Finance Bill 2021, the main corporation tax rate is set to increase to 25 per cent from 1 April 2023. As such, the United Kingdom temporary differences have been recognised at the rate at which the temporary differences are expected to unwind.

27. Provisions

$ million

	Lease provisions	Restructuring provisions	Other provisions	Total
At 1 January 2021	3.7	0.8	5.3	9.8
Charged in the year	–	0.5	0.6	1.1
Asset retirement obligation	0.1	–	–	0.1
Released in the year	(0.2)	(0.2)	(1.4)	(1.8)
Utilised in the year	(0.1)	(1.0)	(0.1)	(1.2)
Exchange difference	–	0.1	(0.2)	(0.1)
At 1 January 2022	**3.5**	**0.2**	**4.2**	**7.9**
Charged in the year	**–**	**1.4**	**0.1**	**1.5**
Released in the year	**–**	**–**	**(0.2)**	**(0.2)**
Utilised in the year	**–**	**(0.3)**	**(0.3)**	**(0.6)**
Exchange difference	**(0.1)**	**–**	**(0.1)**	**(0.2)**
At 31 December 2022	**3.4**	**1.3**	**3.7**	**8.4**

27. Provisions continued

	2022 $ million	2021 $ million
Current	**5.7**	5.4
Non-current	**2.7**	2.5
	8.4	7.9

The lease provisions are for the continuing obligations under leases in respect of property dilapidation and reinstatement provisions. Where material, lease obligations are discounted. The Group expects these provisions to be utilised over one to eight years.

The restructuring provisions are largely for employee separation costs in relation to the strategic evaluation which commenced in 2022 (note 5).

Other provisions comprise environmental provisions related to property disposed of, provisions relating to legal claims and a provision relating to a Notice of Recovery received from French Customs, discussed below. The Group expects these provisions to be utilised in less than one year.

In 2018, the Group made a provision for $8.9 million following the receipt of a Notice of Recovery from the Direction Générale des Douanes et Droits Indirects (French Customs) in relation to the valuation and classification of duty on certain imports into France. This dispute commenced with enquiries in 2011. During the period in question, Spirent adopted a duty tariff based on World Customs Organization guidelines which conflicted with European Union regulation. In 2019, the Group paid $6.5 million in relation to this claim, of which $2.3 million was later recovered. The import regulations changed on 1 January 2017 and no liability exists after that date. Spirent has provided for the liability up until the date of the change, which encompasses the period covered by the Notice of Recovery.

28. Financial instruments and financial risk management

The main purpose of the Group's financial instruments, other than trade and receivables, trade and other payables, contractual provisions and lease liabilities, is to fund the Group's liquidity requirements.

The Group's financial assets and liabilities are as follows:

	Measurement category under IFRS 9	Notes	2022 $ million	2021 $ million
Non-current trade and other receivables[1]	Financial assets at amortised cost	19	**4.3**	5.8
Cash and cash equivalents	Financial assets at amortised cost	21	**209.6**	174.8
Current trade and other receivables	Financial assets at amortised cost	19	**147.8**	153.0
Current other financial assets[2]	Derivatives designated at FVTPL	19	**–**	0.1
Financial assets			**361.7**	333.7
Non-current other payables	Financial liabilities at amortised cost	22	**0.2**	0.4
Current trade payables, other payables and accruals	Financial liabilities at amortised cost	22	**88.3**	79.1
Current other financial liabilities[2]	Derivatives designated at FVTPL	22	**0.1**	–
Lease liabilities, current and non-current	Financial liabilities at amortised cost	25	**22.1**	29.8
Contractual provisions	Financial liabilities at amortised cost	27	**3.4**	3.5
Financial liabilities			**114.1**	112.8

Notes
1. Includes $3.4 million (2021 $4.0 million) in relation to corporate owned life insurance that is designated as financial assets at fair value through profit or loss.
2. Relates to forward foreign currency exchange contracts.

The Group enters into derivative transactions, forward foreign currency exchange contracts, for the management of the Group's foreign currency exposures when deemed appropriate.

The key objective of the Group's treasury department is to manage the financial risks of the business and to ensure that sufficient liquidity is available to the Group. All treasury activity operates within a formal control framework. The Board has approved treasury policies and guidelines and periodically reviews treasury activities. Additionally, it is the Group's policy that speculative treasury transactions are expressly forbidden.

28. Financial instruments and financial risk management continued

a) Market risk

The main types of market risk that affect the Group are interest rate risk and exchange rate risk.

Interest rate risk

The Group has external debt in relation to its lease liabilities (note 25) but has limited exposure to interest rate risk as the incremental borrowing rate used to discount these lease liabilities is fixed at the lease commencement date. The Group's excess funds are principally held in the United Kingdom and the United States and invested in on-demand or short-term bank deposits. It therefore has some exposure to interest rate risk arising on changes in Pound Sterling and US Dollar interest rates.

Cash and cash equivalents and forward foreign currency exchange contracts are the Group's financial instruments which are exposed to interest rate risk.

Short-term bank deposits and forward foreign currency exchange contracts mature within three months. The financial instruments bear the following interest rates:

		2022		2021	
	Note	**Effective interest rate %**	**$ million**	Effective interest rate %	$ million
Floating rate					
Cash at bank	21		**103.8**		93.7
Fixed rate					
Fixed deposits	21	**4.23**	**105.8**	0.29	81.1

Interest rates on financial instruments classified as fixed rate are fixed until the maturity of the instrument. All fixed rate deposits mature within three months after which date they will be exposed to floating rates of interest.

Interest receivable for the year (note 6) was $2.1 million (2021 $0.3 million) and is under the effective interest method.

The other financial instruments of the Group that are not included in the above table are non-interest bearing and are therefore not subject to interest rate risk.

A movement of 25 basis points in interest rates based on levels of investment at 31 December 2022 would increase or reduce interest income and equity by $0.4 million (2021 $0.3 million).

Exchange rate risk

Currency exposures arise from trading transactions undertaken by the Group in foreign currencies and on the translation of the operating results and net assets of overseas subsidiaries.

The Group has the majority of its operations in the United States and presents its consolidated financial statements in US Dollars. The parent Company's functional currency is Pound Sterling and its share capital is denominated in Pound Sterling; the Group also has operations in Europe and Asia and therefore its results and assets and liabilities are affected on translation by movements in exchange rates in relation to the US Dollar. The Group does not enter into instruments to hedge the translation exposure of the operating results or net assets of its overseas subsidiaries since these are considered accounting and not cash exposures.

The Group undertakes transactions denominated in foreign currencies; consequently exposures to exchange rate fluctuations arise. Exchange rate exposures are managed within approved policy parameters using forward foreign currency exchange contracts.

The main exposures arise in relation to the retranslation of foreign operations to US Dollar, on non-local currency denominated transactions and on non-local currency denominated cash balances. These exposures predominantly arise on Sterling, Euro and Chinese Yuan transactions and balances. A 10 per cent appreciation or depreciation of these currencies against the US Dollar would decrease or increase profit before tax based on the activity in the period and balances at the reporting date as follows: Sterling $0.6 million, Euro $0.1 million and Chinese Yuan $1.0 million (2021 Sterling $6.7 million, Euro $0.1 million and Chinese Yuan $2.7 million). A 10 per cent currency fluctuation represents management's assessment of the reasonably possible change in foreign exchange rates.

b) Credit risk

Investment counterparties are subject to pre-approval by the Board with pre-approved limits set for each bank to avoid any concentrations of credit risk.

The maximum credit exposure at the balance sheet date under financial instruments in relation to cash and bank deposits is equal to the carrying value of $209.6 million (2021 $174.8 million).

Trade receivables, which generally have 30 to 90-day terms, are carried at original invoice amount less an allowance for expected credit losses. Trade receivable exposures are managed in the business units where they arise.

28. Financial instruments and financial risk management continued

b) Credit risk continued

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime expected credit loss at each reporting date. To measure the expected credit losses, the Group has established a provision matrix that is based on shared credit risk characteristics and the days past due based on the expected loss rates.

The provision matrix is initially based on payment profiles of trade receivables over a period of 12 months before 31 December 2021 and the corresponding historical credit losses experienced within this period. At every reporting date the historical observed default rates are updated. The Group also considers the impact of regional macroeconomic factors on the likelihood of future losses.

The Group has no significant concentration of credit risk attributable to its trade receivables as the exposure is spread over a large number of customers with no one customer accounting for more than 9 per cent of total Group revenue. The maximum credit exposure at the balance sheet date in relation to trade receivables is equal to the carrying value of $142.4 million (2021 $149.2 million).

The composition of trade receivables at 31 December is as follows:

	2022 $ million	2021 $ million
Neither impaired nor past due	**125.2**	134.9
Past due but not impaired:		
– Less than 30 days overdue	**13.7**	11.1
– 30 to 60 days	**1.9**	2.1
– Over 60 days	**1.6**	1.1
Trade receivables	**142.4**	149.2

The Group closely monitors amounts due from customers and performs activities such as credit checks and reviews of payment history and has put in place appropriate credit approval limits. Based on these procedures, management assessed the quality of those receivables that are past due but not impaired as low risk.

The receivables' provision is based on expected credit losses. The movement on the provision during the year is given in note 19. The value of impaired trade receivables is $1.4 million (2021 $0.7 million). For all other financial assets, the maximum exposure to credit risk is represented by the carrying amount.

c) Liquidity risk

The Group's objective is to ensure that there are sufficient sources of funding to meet projected requirements. Its operations are financed through cash and cash equivalents held centrally and cash generated from operations.

At 31 December 2022, the Group had cash and cash equivalents of $209.6 million (2021 $174.8 million), of which $103.8 million (2021 $93.7 million) is available on demand and $105.8 million matures within three months (2021 $81.1 million matures within three months).

During 2022, the Group generated $117.8 million of cash from operating activities (2021 $102.9 million) and considers that, with current cash resources, debt only in relation to its lease liabilities and positive cash flow from its operating activities, it has adequate resources available to it to remain in operational existence for the foreseeable future.

The Group has entered into forward foreign currency exchange contracts at 31 December, all of which mature within three months. The gross settlement amounts of these contracts are as follows:

	2022 $ million	2021 $ million
Sale of US Dollars against Pound Sterling	**4.7**	5.5

The Group has external debt in relation to its lease liabilities (note 25) but is otherwise debt free and does not have loans payable. Financial liabilities are trade and other payables, the majority of which are due to be settled within one year, and contractual provisions (note 27).

The Group does not have any other material financial contractual commitments.

28. Financial instruments and financial risk management continued

d) Fair value of financial instruments

The carrying value of all financial assets and liabilities is a reasonable approximation of fair value.

Derivative financial instruments are stated at fair value although the amounts at 31 December 2022 and 2021 were immaterial.

Corporate owned life insurance is stated at fair value and is at Level 1 in the fair value hierarchy as the valuation of the linked investments is based on quoted prices in active markets.

e) Capital management

The primary objective of the Group's capital management is to support its business and maximise shareholder value. The Group's capital is its total shareholders' funds.

The Group manages its capital structure and intends to maintain a cash positive balance sheet over the medium to long term. This should allow the Group to maintain a strong capital position in the face of business risks, trading fluctuations and working capital demands.

Spirent's policy on the payment of dividends to shareholders is to maintain a progressive dividend policy. To the extent the Group has excess cash, it will consider returning such cash to shareholders.

29. Equity

a) Issued share capital

Issued and fully paid Ordinary Shares of 3⅓ pence each:

	Number of Ordinary Shares[1] million	$ million
At 1 January 2021	611.7	27.9
Exchange adjustment		(0.4)
At 1 January 2022	**611.7**	**27.5**
Exchange adjustment		**(2.8)**
At 31 December 2022	**611.7**	**24.7**

Note
1. Includes shares held in the Employee Share Ownership Trust and Spirent Sharesave Trust.

b) Equity and reserves

The nature and purpose of each reserve within equity is as follows:

- Share premium account: this reserve records the consideration premium for shares issued at a value that exceeds their nominal value.
- Capital redemption reserve: this reserve arises in relation to share capital cancellation.
- Other reserves: share capital, share premium account and capital redemption reserve are translated into US Dollars at the rates of exchange at the balance sheet date and the resulting exchange differences are included in other reserves.
- Translation reserve: this reserve is used to record exchange differences arising from the translation of the financial statements of foreign subsidiaries.

Investment in own Ordinary Shares

During the year, 7.1 million shares were purchased and placed into the Employee Share Ownership Trust at a cost of $22.9 million, and 2.7 million shares were transferred from the Employee Share Ownership Trust to satisfy options exercised under the Spirent employee share plans (2021 3.9 million shares purchased and placed at cost of $15.1 million, and 2.3 million shares transferred).

At 31 December 2022, the Employee Share Ownership Trust held 8.9 million Ordinary Shares (2021 4.5 million Ordinary Shares) to satisfy awards under various share incentive plans. At 31 December 2022, the Spirent Sharesave Trust held 0.5 million Ordinary Shares (2021 0.5 million Ordinary Shares) to satisfy awards made to United Kingdom based employees under an all-employee share scheme. The market value of own Ordinary Shares held in trust, being in total 9.4 million Ordinary Shares (2021 5.0 million Ordinary Shares), at 31 December 2022 was $29.6 million (2021 $18.6 million).

Both the Employee Share Ownership Trust and the Spirent Sharesave Trust are an extension of the parent Company.

30. Employee share plans

Movements in share incentives over a two-year period ending on 31 December 2022 are shown below:

	2005 Employee Incentive Plan[1]		Spirent Long-Term Incentive Plan[2]	
	Number of share incentives million	Weighted average exercise price pence	Number of share incentives million	Weighted average exercise price pence
Incentives outstanding at 1 January 2021	0.3	89	7.8	–
Exercised	–	89	(2.3)	–
Granted	–	–	2.7	–
Forfeited	–	–	(1.0)	–
Incentives outstanding at 31 December 2021	**0.3**	**89**	**7.2**	**–**
Exercised	**–**	**89**	**(2.6)**	**–**
Granted	**–**	**–**	**4.0**	**–**
Forfeited	**–**	**–**	**(0.4)**	**–**
Incentives outstanding at 31 December 2022	**0.3**	**89**	**8.2**	**–**
Incentives exercisable				
At 31 December 2021	0.3	89	–	–
At 31 December 2022	**0.3**	**89**	**–**	**–**

Notes
1. Figures for the 2005 Employee Incentive Plan include share options, stock appreciation rights and Performance Shares in aggregate. No exercise price is payable on the vesting of a Performance Share.
2. Figures for the Spirent Long-Term Incentive Plan include restricted stock and Performance Shares in aggregate. No exercise price is payable on the vesting of a Performance Share.

The weighted average share price at exercise date was 233 pence (2021 254 pence).

The following information relates to outstanding share incentives at 31 December 2022:

			2022			2021		
Share plan	Exercise period (as at 31 December)	Exercise price pence	**Weighted average exercise price pence**	**Number of share incentives outstanding million**	**Weighted average remaining contractual life years**	Weighted average exercise price pence	Number of share incentives outstanding million	Weighted average remaining contractual life years
2005 Employee Incentive Plan	23.03.18–23.03.25	89	**89**	**0.3**	**2.2**	89	0.3	3.2
Spirent Long-Term Incentive Plan	05.03.23–15.09.25	–	**–**	**8.2**	**1.1**	–	7.2	1.3
				8.5			7.5	

Discretionary plans

Spirent Long-Term Incentive Plan (LTIP)

Under the LTIP, awards of shares are granted to Executive Directors and certain employees. The release of these shares is conditional upon continued employment and for some awards achievement of certain performance targets measured over a three-year period.

Further information on the performance conditions for LTIP share incentives is set out in the Report on Directors' Remuneration.

2005 Employee Incentive Plan (EIP)

The EIP closed for new awards following the 2016 AGM and was replaced by the Spirent Long-Term Incentive Plan. Awards granted under the EIP expire on the tenth anniversary of their grant unless they have previously lapsed or been exercised.

30. Employee share plans continued

All-employee plans

UK Employee Share Purchase Plan (UK ESPP)

The UK ESPP is an all-employee HMRC approved share plan open to employees based in the UK. Employees can elect to invest up to £125 each month (£1,500 per year), deducted from their gross salary, which is used to purchase shares at market value as "partnership" shares. The Company offers participants "matching" shares, which are subject to forfeiture for three years, on the basis of one free matching share for each partnership share purchased.

UK Sharesave Plan (Sharesave)

The Sharesave is an all-employee HMRC approved share plan open to employees based in the UK. Employees can elect to invest up to £250 each month, deducted from their post-tax salary, which is then held in a savings account for three years. At the conclusion of the savings period, the employee can opt to receive the accumulated funds as cash or use them to buy Spirent shares at a discounted option price that is 15 per cent below the three-day average of Spirent's mid-market share price immediately before the invitation date. The first Sharesave invitation was made to UK employees in August 2022.

US Employee Stock Purchase Plan (US ESPP)

The US ESPP is available to all employees based in the US. Employees can elect to save up to $8,000 per year, deducted from their post-tax salary, for a 12-month period. The savings are then used to purchase shares at an effective 15 per cent discount to the prevailing market share price at the end of the savings period (the discount being funded by the Company).

Global All-Employee Share Purchase Plan (GAESPP)

The GAESPP is available to employees in countries other than the UK and US, on a share-settled or cash-settled basis, depending on local regulations. Employees can elect to save funds, deducted from their post-tax salary, for a 12-month period. In the share-settled model, these savings are then used to purchase shares at an effective 15 per cent discount to the prevailing market share price at the end of the savings period (the discount being funded by the Company); in the cash-settled model, these savings are then returned to the participant, along with an additional cash enhancement equal to a 15 per cent discount to the prevailing market share price at the end of the savings period, had the funds been used to purchase Spirent shares (the enhancement being funded by the Company).

Employees participating in the GAESPP during the period under review included those based in Canada, France, Germany, China, Hong Kong, India, Spain, Japan and South Korea.

31. Share-based payment

	2022 $ million	2021 $ million
Charged to adjusting items		
Spirent Long-Term Incentive Plan[1]	**8.2**	5.3
Spirent All-Employee Share Purchase Plans (ESPP)[2]	**0.3**	0.3
	8.5	5.6
Charged to administration expenses		
Executive deferred bonus plan	**0.4**	0.6
	8.9	6.2

Notes
1. 2022 includes $0.3 million (2021 $0.3 million) relating to cash-settled schemes.
2. 2022 includes $0.1 million (2021 nil) relating to cash-settled schemes.

All schemes are primarily equity-settled with elements cash settled pursuant to local legislation.

In 2022, $0.4 million (2021 $0.6 million) being one-third of the Executive Directors' Annual Incentive has been deferred into shares for an additional period of three years. This amount has been charged to administration expenses in the income statement and is included within adjusted operating profit as it reflects part of the underlying trading performance of the Group.

4 million share incentives were granted during 2022 (2021 2.7 million). The fair value of share incentives has been estimated as at the date of grant using the Black-Scholes binomial model. The following table gives the assumptions made in arriving at the share-based payment charge and the fair value:

	2022	2021
Weighted average share price (pence)	**241.0**	252.0
Weighted average exercise price (pence)	**0.0**	0.0
Weighted average fair value (pence)	**229.0**	237.6
Expected volatility (%)	**30.7-37.7**	45.0–45.6
Option life (years):		
– Performance Shares	**1.0-3.0**	3.0
– Options and SARs	**10.0**	10.0
Risk free rate (%)	**1.33-3.11**	0.18–0.54
Dividend yield (%)	**2.5**	1.9

31. Share-based payment continued

The expected volatility was determined by calculating the historical volatility of the Company's share price over the previous two years which management considers to be the period which is likely to be most representative of future volatility. The risk free rate is calculated by reference to UK government bonds.

32. Reconciliation of profit before tax to cash generated from operations

	2022 $ million	2021 $ million
Profit before tax	**114.6**	103.6
Adjustments for:		
Finance income	**(2.9)**	(0.6)
Finance costs	**1.0**	1.2
Intangible asset amortisation	**5.3**	5.0
Depreciation of property, plant and equipment	**11.0**	12.4
Depreciation of right-of-use assets	**7.3**	7.9
Loss on the disposal of property, plant and equipment	**–**	0.2
Share-based payment	**8.9**	6.2
Changes in working capital:		
Increase in inventories	**(14.4)**	(2.2)
Decrease/(increase) in receivables	**3.2**	(31.7)
Increase in payables	**8.1**	9.7
Increase in contract liabilities	**0.2**	14.1
Increase/(decrease) in provisions	**0.7**	(1.9)
Defined benefit pension plan employer contributions net of plan administration expenses paid by the plan	**(2.0)**	(11.7)
Deferred compensation plan	**0.2**	0.7
Non-cash movements	**(0.6)**	–
Cash flow from operations	**140.6**	112.9

33. Business combinations

There were no business combinations in 2022.

On 4 March 2021, Spirent acquired 100 per cent of the issued share capital of octoScope, Inc (octoScope), a company based in the United States for an initial cash consideration of $57.9 million. Additionally, there are acquisition related performance payments of up to $17.8 million, payable based on revenue growth targets for 2021 and 2022 and/or retention of key staff. The transaction was funded by surplus cash in the Group.

octoScope provides market-leading accurate, repeatable and automated wireless test solutions and methodologies to the wireless industry. Its test solutions leverage patented technology to provide automated Wi-Fi and 5G testing in emulated real-world environments, including the Wi-Fi 6 and 6E technologies. The acquisition has enabled the Group to consolidate its leadership in Wi-Fi test. octoScope has been incorporated into our Lifecycle Service Assurance operating segment.

Of the acquisition related performance payments, amounts of up to $16.2 million are linked to post-acquisition service and therefore will be charged to the income statement in the relevant post-acquisition period, and amounts up to $1.6 million, which are not linked to post-acquisition service and only to revenue growth targets, have been included as contingent consideration on acquisition and a liability recorded. The remaining acquisition related performance payments are retention bonuses.

In 2022, $0.1 million (2021 $0.6 million) of acquisition related performance payments have been credited (2021 charged) to other adjusting items in the income statement (note 5). On acquisition date, the fair value of the contingent consideration was estimated at $0.7 million and a liability recorded for this amount. During the year, the liability was remeasured down by $0.5 million (2021 $0.3 million), through other adjusting items in the income statement (note 5). During 2021, there was also $0.1 million incurred in relation to the unwind of discounting. At 31 December 2022, the liability had a fair value of nil (31 December 2021 $0.5 million).

33. Business combinations continued

The fair values of the identifiable net assets acquired are set out below:

	2021 $ million		
	Book value	Fair value adjustment	Fair value
Intangible assets	–	26.8	26.8
Property, plant and equipment	0.8	–	0.8
Right-of-use assets	1.2	–	1.2
Inventories	1.7	–	1.7
Trade and other receivables	3.1	0.9	4.0
Current tax asset	0.4	–	0.4
Cash and cash equivalents	6.6	–	6.6
Trade and other payables	(3.7)	–	(3.7)
Contract liabilities	(2.2)	–	(2.2)
Lease liabilities	(1.2)	–	(1.2)
Deferred tax asset/(liability)	3.0	(5.4)	(2.4)
Total identifiable net assets	9.7	22.3	32.0
Goodwill on acquisition			26.6
Total consideration			58.6
Satisfied by			
Initial cash consideration			57.9
Contingent consideration accrued			0.7
			58.6
Cash flows			
Initial cash consideration			57.9
Cash acquired			(6.6)

The fair value adjustments arose in relation to the recognition of acquired intangible assets net of the associated deferred tax liability, and on the recognition of a receivable in relation to an indemnification asset in respect of a loan that existed on acquisition date. The trade and other receivables acquired were mainly trade receivables due from customers and the book value on acquisition date approximated the fair value. All of the receivables acquired were expected to be collected.

The intangible assets acquired represent current technology, customer relationships and brand. These intangible assets have been assigned a useful life of between three and six years.

The goodwill arising of $26.6 million consists largely of the synergies and economies of scale expected from the combination together with intangible assets not qualifying for separate recognition, such as workforce in place. The goodwill recognised is not expected to be deductible for income tax purposes.

Direct acquisition related costs of $0.6 million (2021 $1.9 million) have been expensed to other adjusting items within the income statement in 2022 (note 5).

From the date of acquisition to 31 December 2021, octoScope contributed $18.2 million of revenue and $5.2 million of profit before tax to the results of the Group before charging $1.9 million of direct acquisition related costs and $3.8 million of acquired intangible asset amortisation. If the combination had occurred at the beginning of the financial year, revenue of $20.2 million and a profit before tax of $3.9 million would have been included in the Group result before charging $1.9 million of direct acquisition related costs and $4.6 million of acquired intangible asset amortisation.

34. Related party transactions

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

Remuneration of key management personnel

The remuneration of the Directors, who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24 "Related Party Disclosures":

	2022 $000	2021 $000
Short-term employee benefits	**3,346.8**	4,127.1
Share-based payment	**2,545.2**	2,177.4
	5,892.0	6,304.5

No Director received compensation for loss of office (2021 $nil).

There were gains of $2,621,747 (2021 $1,778,347) on the exercise of options by key management personnel in 2022.

For further details refer to the Report on Directors' Remuneration on pages 83 to 110.

Parent Company balance sheet

At 31 December 2022

	Notes	2022 £ million	2021 £ million
Fixed assets			
Intangible assets	4	**3.3**	3.5
Tangible assets	5	**1.3**	1.4
Right-of-use assets	6	**1.6**	1.8
Investments	7	**451.5**	432.0
		457.7	438.7
Current assets			
Stocks	8	**8.4**	5.8
Debtors: amounts falling due within one year	9	**28.3**	21.9
Debtors: amounts falling due after more than one year	9	**8.8**	28.0
Cash at bank and in hand		**13.4**	13.0
		58.9	68.7
Creditors: amounts falling due within one year	10	**(127.6)**	(125.4)
Net current liabilities		**(68.7)**	(56.7)
Total assets less current liabilities		**389.0**	382.0
Creditors: amounts falling due after more than one year	11	**(3.0)**	(2.9)
Defined benefit pension plan deficit	3	**(1.8)**	(0.5)
Deferred tax liability	15	**–**	(6.3)
Net assets		**384.2**	372.3
Capital and reserves	17		
Called up share capital		**20.4**	20.4
Share premium account		**20.2**	20.2
Capital redemption reserve		**13.1**	13.1
Profit and loss account		**330.5**	318.6
Shareholders' funds – equity		**384.2**	372.3

The Company has taken advantage of the exemption under Section 408 of the Companies Act 2006 from presenting its own profit and loss account. In 2022, the profit for the year amounted to £73.4 million (2021 £87.1 million).

The notes on pages 174 to 191 form part of these financial statements.

Signed on behalf of the Board

Paula Bell
Director
7 March 2023

Parent Company statement of changes in equity

		Attributable to the equity holders of the parent Company				£ million
	Notes	Called up share capital	Share premium account	Capital redemption reserve	Profit and loss account	Total equity
At 1 January 2021		20.4	20.2	13.1	291.6	345.3
Profit for the year		–	–	–	87.1	87.1
Other comprehensive income[1]		–	–	–	6.3	6.3
Total comprehensive income		–	–	–	93.4	93.4
Share-based payment		–	–	–	4.5	4.5
Tax credit on share incentives		–	–	–	0.3	0.3
Employee Share Ownership Trust	17	–	–	–	(11.0)	(11.0)
Equity dividends	16	–	–	–	(60.2)	(60.2)
At 1 January 2022		**20.4**	**20.2**	**13.1**	**318.6**	**372.3**
Profit for the year		**–**	**–**	**–**	**73.4**	**73.4**
Other comprehensive losses[2]		**–**	**–**	**–**	**(15.9)**	**(15.9)**
Total comprehensive income		**–**	**–**	**–**	**57.5**	**57.5**
Share-based payment		**–**	**–**	**–**	**7.2**	**7.2**
Tax charge on share incentives		**–**	**–**	**–**	**(0.1)**	**(0.1)**
Employee Share Ownership Trust	17	**–**	**–**	**–**	**(19.3)**	**(19.3)**
Equity dividends	16	**–**	**–**	**–**	**(33.4)**	**(33.4)**
At 31 December 2022		**20.4**	**20.2**	**13.1**	**330.5**	**384.2**

Notes
1. The amount included in other comprehensive income for 2021 of £6.3 million represents re-measurement gains on the net defined benefit pension asset of £9.8 million, net of a tax charge of £3.5 million.
2. The amount included in other comprehensive losses for 2022 of £15.9 million represents re-measurement losses on the net defined benefit pension asset of £23.5 million, net of a tax credit of £7.6 million.

The notes on pages 174 to 191 form part of these financial statements.

Notes to the parent Company financial statements

1. Significant accounting policies

Corporate information

Spirent Communications plc (the "Company") is a public limited company incorporated and domiciled in England and Wales (registration number 470893). The registered address of the Company is Origin One, 108 High Street, Crawley, West Sussex RH10 1BD, United Kingdom.

Basis of accounting

The financial statements have been prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101) and the Companies Act 2006.

In preparing these financial statements, the Company has set out below the FRS 101 disclosure exemptions that have been taken in respect of the following disclosures:

- a cash flow statement and related notes;
- comparative period reconciliations for share capital, tangible assets and intangible assets;
- disclosures in respect of transactions with wholly owned subsidiaries;
- disclosures in respect of capital management;
- the effects of new but not yet effective IFRS; and
- disclosures in respect of the compensation of key management personnel.

As the consolidated financial statements include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of the following disclosures:

- IFRS 2 "Share-based Payment" in respect of Group-settled share-based payments;
- certain disclosures required by IAS 36 "Impairment of Assets" in respect of the impairment of goodwill and indefinite life intangible assets; and
- the disclosures required by IFRS 7 "Financial Instruments Disclosures" and IFRS 13 "Fair Value Measurement" regarding financial instrument disclosures have not been provided apart from those which are relevant for the financial instruments which are held at fair value.

As the Company is included in the consolidated financial statements, made up to 31 December each year, it is not required to present a separate profit and loss account as provided by Section 408 of the Companies Act 2006. Information on fees for non-audit services in respect of the parent Company accounts have not been disclosed as the Company prepares Group accounts which disclose information on fees for non-audit services on a consolidated basis.

Accounting convention

The financial statements are prepared on a historical cost basis apart from certain financial instruments that have been measured at fair value, and the defined benefit pension asset/liability which has been measured using the projected unit credit method.

Going concern basis of accounting

In adopting the going concern basis for preparing the financial statements, the Directors have considered the Company's principal risks and uncertainties as set out on pages 55 to 60.

The Directors have also considered sensitivities in respect of potential downside scenarios, including stress testing the latest cash flow projections that cover a period of 12 months from the date of approval of these financial statements. In these scenarios, the Company has more than sufficient headroom in its available resources.

The Directors have reviewed the detailed financial projections for the period ending 31 December 2023, as well as the business plan and cash flows for the three months ending 31 March 2024. The Directors have also considered the period to the end of 2025 which forms part of the Company's longer-term viability assessment. In addition, they have considered the principal risks faced by the Company, the sensitivity analysis and the Company's significant financial headroom and are satisfied that the Company has adequate financial resources to continue in operational existence for the foreseeable future, a period of at least 12 months from the date of approval of this report. Accordingly, the going concern basis of accounting continues to be used in the preparation of the financial statements.

New accounting standards

There have been no applicable new standards, amendments to standards and interpretations effective from 1 January 2022 that have been applied by the Company which have resulted in a significant impact on its results or financial position.

1. Significant accounting policies continued

Business combinations and goodwill

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Business combinations are accounted for using the acquisition method.

At acquisition date, the identifiable assets acquired and liabilities assumed, including intangible assets, are measured at their fair values. The cost of an acquisition is measured as the aggregate of the consideration transferred and the amount of any non-controlling interest in the acquiree.

Goodwill arising on the acquisition of a business, representing the excess of cost over the net fair value of the net assets acquired, is capitalised as an intangible asset. Goodwill is carried at cost less any accumulated impairment losses.

For the purpose of impairment testing, goodwill is allocated to the related cash-generating units monitored by management. Where the recoverable amount of the cash-generating unit is less than its carrying amount, including goodwill, an impairment loss is recognised in the profit and loss account.

The UK Companies Act requires goodwill to be reduced by provisions for amortisation on a systematic basis over a period chosen by the Directors, its useful economic life. However, under IFRS 3 "Business Combinations" goodwill is not amortised. Consequently the Company does not amortise goodwill, but reviews it for impairment on an annual basis or whenever there are indicators of impairment. The Company is therefore invoking a 'true and fair view override' to overcome the prohibition on the non-amortisation of goodwill in the Companies Act.

Had the Company amortised goodwill a period of 20 years would have been chosen as the useful life for goodwill. There would have been an impact of £0.1 million (2021 no impact) to profit in the year had goodwill been amortised.

Intangible assets

Intangible assets are carried at cost less accumulated amortisation and accumulated impairment losses. Separately identifiable intangible assets such as current technology are capitalised on the balance sheet only when the value can be measured reliably, or the intangible asset is purchased as part of the acquisition of a business. Such intangible assets are amortised over their useful economic lives on a straight-line basis. The carrying value of intangible assets is reviewed for impairment if events or changes in circumstances indicate the carrying value may not be recoverable. Acquired intangible assets, being current technology, are amortised on a straight-line basis over their estimated useful lives and the charge is included within the profit and loss account.

The estimated useful life of the current technology intangible asset is five years and the expiry date is 2024.

Product development

Research expenditure is recorded as a product development cost in the year in which it is incurred. Intangible assets arising on the Company's various product development projects are recognised only if the recognition criteria of IAS 38 "Intangible Assets" are met.

Product development costs are expensed as incurred until the technological feasibility of the product under development has been established. Technological feasibility in Spirent's circumstances occurs when a working model is completed. For software development, technological feasibility is not established until the process of developing the software is complete. After technological feasibility is established, additional costs are capitalised and amortised on a straight-line basis over the estimated useful life.

At 31 December 2022 and 31 December 2021, no amounts have met the recognition criteria.

Tangible assets

Tangible assets are stated at cost less accumulated depreciation and accumulated impairment. Depreciation is not provided on freehold land. Depreciation is provided to write-off the cost less estimated residual value of all other assets, over their estimated useful lives, on a straight-line basis at rates which take into account commercial conditions at their location. Usual asset lives are as follows:

Freehold buildings	50 years
Plant and machinery	3 to 8 years
Fixtures, fittings and equipment:	
– Building installations	20 years or lease period if lower
– Fittings and equipment	3 to 8 years
– Motor vehicles	3 to 5 years
– Business systems software	4 years

Business systems software is capitalised as tangible assets as the software is an integral part of the related hardware.

The carrying values of tangible assets are reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable.

1. Significant accounting policies continued

Impairment of assets

Intangible assets with finite useful lives and tangible assets and right-of-use assets are tested for impairment at each reporting date where there is an indication that an asset may be impaired. Goodwill with an indefinite useful life is assessed at least annually. When an impairment test is performed, the recoverable amount is assessed by reference to the higher of the net present value of the expected cash flows (value in use) of the relevant cash-generating unit or asset and the fair value less cost of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. Impairment losses are recognised in the profit and loss account in those expense categories consistent with the function of the impaired asset.

Where an impairment loss has been recognised against an asset, it may be reversed in future periods where there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised, but only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, had no impairment loss been recognised in prior years. Such a reversal is recognised in the profit and loss account. This does not apply for goodwill, for which an impairment loss must not be reversed in any circumstances.

Investments

Investments in subsidiaries are stated at cost and reviewed for impairment if there are indications that the carrying value may not be recoverable.

Leases

The Company assesses whether a contract is or contains a lease, at inception of a contract. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company recognises a right-of-use asset and a corresponding lease liability with respect to all lease agreements in which it is the lessee at the commencement date of the lease (i.e. the date the underlying asset is available for use), except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets. For these leases, the Company recognises the lease payments within the profit and loss account on a straight-line basis over the period of the lease.

At the commencement date of the lease, the lease liability is initially measured at the present value of lease payments to be made over the lease term, discounted using the rate implicit in the lease. If this rate cannot be readily determined, the Company uses its incremental borrowing rate. Under the modified retrospective transition method, which is the method the Company adopted on transition to IFRS 16 "Leases" on 1 January 2019, lease liabilities are required to be discounted using the incremental borrowing rate at date of transition. The Company has set the discount rate based upon the local base rate with an additional premium to reflect various factors such as credit risk.

The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Company and payments of penalties for terminating a lease, if the lease term reflects the Company exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognised as an expense in the period on which the event or condition that triggers the payment occurs.

The lease liability is presented within creditors in the balance sheet.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method), and by reducing the carrying amount to reflect the lease payments made. It is re-measured when there is a change in future lease payments arising from a change in an index or rate, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is re-measured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the corresponding lease liability, adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The right-of-use assets are presented as a separate line in the balance sheet.

Stocks

Stocks are valued at the lower of cost and estimated net realisable value, after provisions for obsolescence. Cost includes all costs in bringing each product to its present location and condition, being the full manufacturing cost on a first-in, first-out basis, including all attributable overheads based on a normal level of activity.

1. Significant accounting policies continued

Provisions

Provisions are recorded when the Company has a present legal or constructive obligation as a result of a past event, for which it is probable that it will be required to settle by an outflow of resources and for which a reliable estimate of the amount of the obligation can be made. Provisions are reviewed at each balance sheet date and adjusted to reflect the current best estimate.

Where the effect of the time value of money is material, the amount of the provision shall be the present value of the expenditures expected to be required to settle the obligation.

Foreign currencies

The financial statements are presented in Pound Sterling, which is the Company's functional and presentation currency.

Transactions in foreign currencies are initially recorded at the rates ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rates ruling at the balance sheet date. All exchange gains and losses are taken to the profit and loss account.

Financial instruments

Financial assets and liabilities are recognised on the Company's balance sheet when it becomes a party to the contractual provisions of the instrument.

Trade debtors

Trade debtors are non-interest bearing and are stated at original invoiced amount less an appropriate allowance for expected credit losses. At each reporting date, the Company measures the loss allowance at an amount equal to the lifetime expected credit losses.

The Company applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade debtors. Therefore, the Company does not track changes in credit risk, but instead recognises a loss allowance based on lifetime expected credit losses at each reporting date. To measure the expected credit losses, the Company has established a provision matrix that is based on shared credit risk characteristics and the days past due based on the expected loss rates.

The provision matrix is initially based on payment profiles of trade debtors over a period of 12 months before 31 December of the prior year and the corresponding historical credit losses experienced within this period. At every reporting date the historical observed default rates are updated. The Company also considers the impact of regional macroeconomic factors on the likelihood of future losses.

Trade debtors are written off when there is no reasonable expectation of recovery.

A default on a trade debtor occurs when the debtor fails to make contractual payments when they fall due.

Cash at bank and in hand

Cash at bank and in hand in the balance sheet comprise cash at bank and in hand and short-term deposits which have an original maturity of three months or less. There are no bank overdrafts.

Trade creditors

Trade creditors are non-interest bearing and are stated at the original invoiced amount.

Loans and borrowings

Loans and borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition, loans and borrowings are stated at amortised cost using the effective interest method, and in respect of financial assets, less any impairment losses.

Impairment losses are based on lifetime expected credit losses.

Equity instruments

Equity instruments are recorded at the proceeds received, net of direct issue costs. Spirent Communications plc Ordinary Shares held by the Company are classified in equity as treasury shares and are recognised at cost and included as a deduction from the profit and loss account reserve. Consideration received for the sale of such treasury shares is also recognised in equity.

Derivative financial instruments

The Company uses forward foreign currency exchange contracts to manage exposures arising on receipts and payments in foreign currencies relating to firm commitments.

Forward foreign currency exchange contracts are initially recognised at fair value on the date on which the contract is entered into, and are subsequently re-measured to fair value at each reported balance sheet date. The fair value of forward foreign currency exchange contracts is calculated by reference to current forward exchange rates for contracts with similar maturity profiles. The Company has not adopted the hedge accounting rules. Consequently all gains and losses arising from changes in fair value are taken to the profit and loss account.

1. Significant accounting policies continued

Pensions

The Company operates two funded defined benefit pension plans. All other pension plans are defined contribution in nature where the amount charged to the profit and loss account is the employer's contributions paid or payable during the year.

For defined benefit pension plans, full actuarial valuations are carried out every three years using the projected unit credit method, and updates are performed at each balance sheet date. Re-measurement, comprising actuarial gains and losses, the effect of changes to the asset ceiling (if relevant) and the return on plan assets (excluding interest), is reflected immediately in the balance sheet surplus with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income will not be reclassified to profit or loss. Past service cost is recognised in profit or loss in the period of plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit pension asset, taking account of any changes in the net defined benefit pension asset during the period as a result of contribution and benefit payments. Where a refund of a surplus is expected, any applicable taxes that are not income in nature are netted off. Defined benefit pension costs are categorised as:

- service cost (including current service cost, past service cost and gains and losses on curtailments or settlements);
- net interest expense or income; and
- re-measurement.

The Company presents the first two components of defined benefit pension costs in profit or loss.

Revenue

Revenue represents the transfer of promised products or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those products or services.

Revenue from product sales of hardware and perpetual software licences is recognised at the point in time when the customer has obtained control of the products sold. This is usually when the products have been delivered in accordance with the contractual terms. In some instances it is not until acceptance has occurred that control of the asset is transferred to the customer. Terms of acceptance are dependent upon the specific contractual arrangement agreed with the customer. If it can be objectively determined that control has been transferred to the customer in accordance with the agreed contract specifications, customer acceptance is a formality that would not affect the determination of when the customer has obtained control of the products. However, if it cannot be objectively determined that the products delivered are in accordance with the agreed-upon contract specifications, revenue would not be recognised until customer acceptance has been granted.

For sales of software licences, the Company determines whether the licence is capable of being distinct and is separately identifiable from other promises in the context of the contract. Revenue from software subscription licences that provide the customer with a right to access the Company's intellectual property throughout the subscription period is recognised over time, throughout the subscription period. Revenue from perpetual software licences that provide the customer with a right to use the Company's intellectual property for an indefinite period of time is recognised at the point in time when the customer can first use and benefit from the software.

For the sale of services, revenue is generally recognised over time with reference to when or as the performance obligations are satisfied by transferring the service to the customer. Revenue from support and maintenance service contracts and software subscription sales is recognised over the period of performance on a straight-line basis.

Revenue from professional services is generally recognised as work progresses in accordance with agreed-upon contractual terms, based on a measure of progress towards complete satisfaction of the performance obligation. Progress is measured using either an output method (e.g. completion of a day, or for fixed price contracts revenue is recognised based on performance completed or contractual milestones reached) or an input method (e.g. actual cost of services provided as a proportion of total cost of services expected to be provided under the contract). Where applicable, the Company elects to use the practical expedient where revenue can be recognised in the amount to which the Company has a right to invoice, only if the Company has a right to consideration from a customer in an amount that corresponds directly with the value to the customer of the Company's performance completed to date. Where the Company's professional services contracts contain terms of acceptance, revenue would not be recognised until customer acceptance had been obtained. Where the professional service has a pre-determined or fixed output deliverable, revenue is recognised at a point in time once the performance obligation has been satisfied and the customer has received the agreed deliverable.

The Company accounts for multi-component orders as multiple performance obligations if the following criteria are met:

a) the good or service is capable of being distinct, that is, they are individually readily available and regularly sold separately to customers; and

b) the promise to transfer the good or service is distinct in the context of the contract, that is, they do not require significant integration, customisation or modification with other goods or services in the contract and are not highly interrelated or interdependent of other goods or services in the contract.

For multi-component orders where the elements are accounted for as multiple performance obligations, the transaction price and discount, if any, are allocated proportionally to all performance obligations in the contract. If either of the two criteria above are not met, and where various components in the contract are combined, bundled or pre-assembled into one or more product or equipment units to form a distinct good or service, they will be accounted for as a single performance obligation.

1. Significant accounting policies continued

Cost of sales

The Company's cost of sales related to the sale of its products includes materials, payments to third party contract manufacturers, royalties and salaries and other expenses related to its manufacturing and supply operations personnel. Cost of sales related to the provision of services includes salaries and other expenses associated with technical support services and the cost of extended maintenance services.

Costs to obtain a contract

The incremental costs of obtaining a contract with a customer are capitalised as an asset if the Company expects to recover them. The Company incurs costs such as sales commissions when it enters into a new contract. Such costs are presented within debtors in the balance sheet as assets recognised from costs to obtain a contract where the related revenue is recognised over time, usually in relation to support and subscription agreements. These assets are amortised on a systematic basis consistent with how the related revenue is recognised.

The Company applies the practical expedient in paragraph 94 of IFRS 15 and recognises incremental costs of obtaining a contract as an expense when incurred if the amortisation period of the asset that the Company would otherwise have recognised is one year or less.

Management is required to determine the recoverability of assets recognised from costs to obtain a contract. At each reporting date, the Company determines whether or not the assets are impaired by comparing the carrying amount of the asset to the remaining amount of consideration that the Company expects to receive less the costs that relate to providing services under the relevant contract. No assets were impaired as at 31 December 2022 or 31 December 2021.

Deferred income

Deferred income is only recognised on non-cancellable contracts that provide unconditional rights to payment from the customer for products and services that the Company has not yet completed providing or that it will provide in the near future.

Revenue from product sales of hardware and perpetual software licences is recognised at the point in time when the customer has obtained control of the products sold. In the instances where the customer has been invoiced and revenue from hardware or perpetual software licences is unable to be recognised, revenue would not be recognised until control has passed, resulting in deferred income.

Support services and software subscription agreements are generally billed at commencement of the support or subscription contract, while revenue is recognised over the period of the support or subscription agreement, resulting in deferred income.

The Company occasionally receives advance payments from customers on account, before products or services are delivered and revenue is recognised, resulting in liabilities. Deferred income and payments received on account are reported as contract liabilities within creditors on the balance sheet on a contract-by-contract basis at the end of each reporting period.

Government grants

A government grant is recognised in the balance sheet initially within creditors when there is reasonable assurance that it will be received and that the Company will comply with the conditions attached to it. Grants that compensate the Company for expenses incurred are recognised as other operating income on a systematic basis in the same periods in which expenses are incurred.

Employee benefits

When an employee has rendered service to the Company during an accounting period, short-term benefits expected to be paid in exchange for that service are recognised in the same accounting period.

Share-based payment

The Company operates various equity-settled share-based compensation plans and accounts for these awards in accordance with IFRS 2 "Share-based Payment".

The fair value of these awards is recognised in the profit and loss account (or as an addition to the cost of investment in the subsidiary in which the relevant employees work) on a straight-line basis over the vesting period together with a corresponding change in equity. The fair value is measured using the Black-Scholes model by reference to the share price, and taking into account the terms and conditions of the award, excluding non-market vesting conditions, at the date the awards were granted. The charge is reassessed at each balance sheet date to reflect the expected and actual levels of vesting, due to achievement or otherwise of non-market conditions. Awards where vesting is conditional upon satisfying a market condition or non-vesting condition are treated as vesting irrespective of whether the market or non-vesting condition has been satisfied.

The Company has an employee share trust for the granting of certain share incentives to employees. Shares in the Company held by the employee share trust are treated as treasury shares and presented in the balance sheet as a deduction from equity.

Notes to the parent Company financial statements continued

1. Significant accounting policies continued

Tax

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the profit and loss account except to the extent that it relates to items in other comprehensive income or equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustments to tax payable for previous years.

Deferred tax is recognised on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements, with the following exceptions:

- where the temporary difference arises from the initial recognition of goodwill (taxable temporary differences only) or of an asset or liability in a transaction that is not a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

A deferred tax asset is recognised only to the extent that it is probable that taxable profits will be available against which the deductible temporary differences, carried forward tax credits or tax losses can be utilised.

Deferred tax assets and liabilities are measured on an undiscounted basis at the tax rates that are expected to apply when the related asset is realised or the liability is settled, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Dividends paid

The interim dividend is included in the financial statements in the period in which it is paid, and the final dividend and special dividend in the period in which it is approved by the shareholders at an Annual General Meeting.

Critical accounting judgements and key sources of estimation uncertainty

The preparation of financial statements requires the Company to make estimates and assumptions that affect items reported. Such estimates and assumptions are based on management's best knowledge of current facts, circumstances and future events. Actual results may differ, possibly significantly, from those estimates. The areas requiring a high degree of judgement are revenue recognition, leases (note 14) and defined benefit pension plans (note 3). The area of estimation uncertainty are recognition of deferred tax assets (note 15). Please refer to note 2 of Notes to the consolidated financial statements on pages 131 to 140 for detailed disclosures.

2. Employees

Please refer to the Report on Directors' Remuneration on pages 83 to 110 and note 34 of Notes to the consolidated financial statements on page 171 for disclosures relating to the emoluments, share incentives and Long-Term Incentive interests and pensions of the Directors.

The average number of people employed by the Company during the year was:

	2022 Number	2021 Number
Assembly	**50**	48
Product development	**72**	68
Selling and marketing	**71**	59
Administration	**38**	36
	231	211

Employee benefit costs were:

	2022 £ million	2021 £ million
Remuneration	**21.0**	19.4
Social security costs	**2.7**	2.5
Pension and other related costs	**2.0**	2.1
Expense of share-based payment	**1.5**	1.1
	27.2	25.1

3. Pensions

Defined benefit plans

i) Characteristics and risks associated with the Plans

The Company sponsors two funded defined benefit pension plans in the United Kingdom: the Spirent Communications plc Staff Pension & Life Assurance Plan ("Staff Plan") and the Spirent Communications plc Retirement Cash & Life Assurance Plan ("Cash Plan"). These plans are funded and have full UK HM Revenue & Customs ("HMRC") tax-exempt approval. Both schemes are administered by a Trustee board which is comprised of representatives from the employer, member nominated Trustees and an independent Trustee. The Trustee board operates in accordance with the Trust Deed and Rules of each Plan and acts in the interests of all of its members.

- The Staff Plan is the Company's most significant plan, and it provides its members with retirement benefits based on their final salary and length of service. The Staff Plan is closed to new entrants.
- The Cash Plan is complicated with multiple cohorts that allows members to benefit from a lump sum on retirement, a defined benefit contribution with a defined benefit underpin or pension. The Cash Plan is closed to new entrants.

There is also a UK unfunded plan, which consists of a contractual obligation for the Company to top up certain former employees' benefits whose salaries exceeded the statutory earnings cap.

As with the vast majority of similar arrangements in the United Kingdom, the Company ultimately underwrites the risks relating to the defined benefit plans. These risks include investment risks and demographic risks, such as the chance of members living longer than expected.

The Cash Plan holds a significant proportion of its assets in equity. Strong future equity returns would be expected to reduce the Company's future cash contributions (and vice versa).

The latest triennial actuarial valuations dated 31 March 2021 indicated a combined funding deficit of £11.5 million, calculated on a technical provisions basis using more prudent assumptions than the accounting valuation, particularly in relation to the discount rate inflation and demographic. A deficit reduction plan was agreed with the trustees which required the Company to pay monthly contributions of £449,609, whilst a funding deficit remains, increasing in line with CPI each year. In September 2022, this deficit funding plan was suspended whilst the Company and trustees worked together to consider the feasibility of purchasing a bulk annuity insurance policy.

In October 2022, the Trustees with the Company's support, purchased a bulk annuity insurance policy from specialist UK insurer Pension Insurance Corporation (PIC), in respect of the largest plan, the Staff Plan. The premium was met from the plan's assets and sufficient assets remain to meet the plan's ongoing costs. This pension buy-in secures an insurance asset from PIC that matches the remaining pension liabilities of the Staff Plan, such that the Company no longer bears any investment, inflation, longevity or other demographic risks. An asset remeasurement loss of £6.0 million has been recorded in other comprehensive income as the premium paid was greater than the IAS 19 accounting value of the corresponding liabilities. Following the purchase of the bulk annuity insurance policy, the Company does not expect to make any further cash contributions to this plan. Cash contributions to the plan in 2022 amounted to £0.9 million (2021 £5.4 million).

At 31 December 2022, a reserve of £3.0 million is included within the accounting position in respect of equalising historic GMP benefits. The ultimate cost to equalise benefits could be higher or lower than reserved (but not materially so), reflecting the considerable uncertainty in the way in which benefits will ultimately be equalised. The bulk annuity insurance policy purchased by the trustees does not currently include provision for equalising GMPs but there is a mechanism for them to do so once finalised. As updates are made the reserve the difference will be charged to other comprehensive income as an experience gain/loss.

ii) Amounts in the financial statements

The assets and liabilities on the balance sheet are as follows:

	2022 £ million	2021 £ million
Schemes in net asset position		
UK defined benefit pension plan – Staff Plan	**12.3**	26.5
UK defined benefit pension plan – Cash Plan	**–**	1.5
	12.3	28.0
Withholding tax payable	**(4.3)**	–
	8.0	28.0
Schemes in net liability position		
UK defined benefit plan - Cash Plan	**(1.4)**	–
UK unfunded plan	**(0.4)**	(0.5)
	(1.8)	(0.5)
Net pension plan surplus on the balance sheet	**6.2**	27.5

FINANCIAL STATEMENTS

3. Pensions continued

Defined benefit plans continued

ii) Amounts in the financial statements continued

a) The assets and liabilities in each plan

	2022 £ million	2021 £ million
Staff Plan		
Quoted:		
– Equities	–	58.5
– Government bonds	–	3.7
– Corporate bonds	–	6.2
Unquoted:		
– LDI funds	–	41.1
– Cash benchmarked bonds	–	93.2
– Insured annuities	1.3	1.6
– Property	–	1.4
– Cash and other	14.6	30.0
Insurance policy with PIC	133.9	–
Fair value of plan assets	149.8	235.7
Present value of defined benefit pension plan obligations	(137.5)	(209.2)
Surplus in the plan	12.3	26.5
Withholding tax payable	(4.3)	–
Surplus in the plan on the balance sheet	8.0	26.5
Cash Plan		
Quoted:		
– Equities	4.1	4.8
– Government bonds	1.7	2.9
Unquoted:		
– Insured annuities	–	0.1
– Cash and other	1.4	1.5
Fair value of plan assets	7.2	9.3
Present value of defined benefit pension plan obligations	(8.6)	(7.8)
(Deficit)/surplus in the plan	(1.4)	1.5
Total net surplus recognised	6.6	28.0
Unfunded plan		
Present value of unfunded obligations	(0.4)	(0.5)
Net pension plan surplus on the balance sheet	6.2	27.5

3. Pensions continued

Defined benefit plans continued

ii) Amounts in the financial statements continued

a) The assets and liabilities in each plan continued

In 2021, approximately 60 per cent of the Staff Plan's assets were held in a combination of LDI funds and cash benchmarked bonds. The objective of this allocation is to hedge against the plan's liabilities, provide protection against inflation risk and provide a level of investment returns in all market scenarios.

These funds have a wide investment remit and as such the investments of the funds may or may not be listed on recognised exchanges and markets and will be without restriction as to geographical, industrial or sectoral exposure. These funds may take both long and short positions and may utilise a broad range of derivatives. The funds' investments may include sub-investment grade securities, corporate debt securities, gilts, sale and repurchase agreements, loans, and emerging markets debt and currencies.

The plans are prohibited from investing in Spirent's own financial instruments.

The fair values of the quoted equity and debt instruments are determined based on quoted market prices in active markets whereas the fair values of the other assets are not. Unquoted investments are included at values provided by the fund managers and are generally valued using recent market data and external sources, with a hierarchy that follows the principles of IFRS 13 "Fair Value Measurement".

The Company has determined that it has an unconditional right to refund of surplus assets if the schemes are run off until the last member dies, on which basis IFRIC 14 does not cause any change in the balance sheet disclosures before tax.

For the purposes of the following disclosures, the Staff Plan and Cash Plan have been combined as the Cash Plan is immaterial to these financial statements.

b) Analysis of the amounts charged/(credited) to the profit and loss account

	2022 £ million	2021 £ million
Current service cost	0.1	0.1
Amount charged to operating costs	0.1	0.1
Net interest on the net defined benefit pension surplus	(0.6)	(0.2)
Net credit to the profit and loss account	(0.5)	(0.1)

c) Analysis of the amount recognised directly in the statement of comprehensive income

	2022 £ million	2021 £ million
Re-measurement (loss)/gain on plans' assets	(84.7)	2.4
Costs of managing plan assets paid by Company	(0.7)	–
Actuarial loss arising from experience	(4.4)	(2.0)
Actuarial gain/(loss) arising from the demographic assumptions	1.0	(0.7)
Actuarial gain arising from changes in financial assumptions	69.6	10.1
Withholding tax payable	(4.3)	–
Re-measurement of the net defined benefit pension surplus	(23.5)	9.8

d) Movements in the present value of funded defined benefit obligations

	2022 £ million	2021 £ million
At 1 January	217.0	230.6
Current service cost	0.1	0.1
Interest cost	3.7	2.9
Benefit payments	(8.5)	(9.2)
Actuarial loss arising from experience	4.4	2.0
Actuarial (gain)/loss arising from the demographic assumptions	(1.0)	0.7
Actuarial gain arising from changes in financial assumptions	(69.6)	(10.1)
Present value of funded defined benefit pension plans' obligations	146.1	217.0

3. Pensions continued

Defined benefit plans continued

ii) Amounts in the financial statements continued

e) Movements in the fair value of plans' assets

	2022 £ million	2021 £ million
At 1 January	245.0	240.1
Interest income on plans' assets	4.3	3.1
Employer contributions	0.9	8.6
Benefit payments	(8.5)	(9.2)
Re-measurement (loss)/gain on plans' assets	(84.7)	2.4
Fair value of plans' assets	157.0	245.0
Withholding tax payable	(4.3)	–
Fair value of plans' assets less irrecoverable element of pension plan surplus	152.7	245.0

The £84.7 million loss on remeasurement of plan assets represents a £77.5 million reduction in asset values prior to the buy-in (the assets were invested to match the liability risk profile which also reduced significantly as interest rates rose), a £6.0 million loss due to the premium on buy-in exceeding the IAS 19 liability measure, a £2.0 million loss as the asset returns on the Cash Plan were lower than assumed under IAS 19 offset by a £0.8 million gain as the Staff Plan asset returns exceeded those assumed under IAS 19.

f) The key financial assumptions

The assumptions used for both plans using a weighted average were as follows:

	2022 %	2021 %
Inflation – RPI	3.3	3.5
Inflation – CPI (pre-2030)	RPI less 1.0% pa	RPI less 1.0% pa
Inflation – CPI (post-2030)	RPI less 0.1% pa	RPI less 0.1% pa
Rate of increase in pensionable salaries	CPI	CPI
Rate of increase for pensions in payment pre-2001 service	3.7	3.8
Rate of increase for pensions in payment 2001 to 5 April 2005 service	3.1	3.3
Rate of increase for pensions post-5 April 2005 service	2.1	2.2
Rate of increase in deferred pensions	CPI	CPI
Rate used to discount plan liabilities	4.8	1.8

The mortality assumptions are based on standard mortality tables which allow for future mortality improvements. The assumptions are such that a member currently aged 65 (2021 aged 65) will live on average for a further 22.0 years (2021 22.2 years) if they are a male and for a further 24.5 years (2021 24.6 years) if they are female. For a member who retires in 2042 (2021 in 2041) at age 65 (2021 aged 65) the assumptions are that they will live on average for a further 23.6 years (2021 23.8 years) after retirement if they are male and for a further 26.2 years (2021 26.3 years) after retirement if they are female.

iii) Amount, timing and uncertainty of future cash flows

The approximate impact to past service liabilities of these changes to the main assumptions, which are considered reasonably possible, is as follows:

- Reducing the discount rate by 0.1 per cent per annum would increase past service liabilities by £1.6 million (2021 £3.2 million).
- Increasing RPI inflation by 0.1 per cent would increase the plans' liabilities by £0.6 million (2021 £1.2 million).
- Increasing the life expectancy of a member by one year (by modifying the standard mortality tables using an appropriate scaling factor) would increase past service liabilities by £6.9 million (2021 £12.2 million).

The accounting valuation of the funded UK defined benefit pension plans as at 31 December 2022 gave rise to a net surplus of £10.9 million. Future changes to the valuation assumptions noted above may cause material impacts to the pension liability calculations, for example, the discount rate experienced a change of 3.0 per cent between 2021 and 2022.

3. Pensions continued

Defined benefit plans continued

iii) Amount, timing and uncertainty of future cash flows continued

There will also be an impact on the future service cost but given the small active population in these plans this is likely to be insignificant. The sensitivity analysis may not be representative of the actual change as the changes in assumptions may not occur in isolation.

The liability has the following duration and maturity.

	2022	2021
Weighted average duration of the defined benefit obligation (years)	11	15
Maturity analysis of benefit payments (non-discounted amounts) (£ million)		
Maturity ≤ 1 year	8.5	8.6
Maturity > 1 ≤ 5 years	35.7	35.6
Maturity > 5 ≤ 10 years	46.0	43.7
Maturity > 10 ≤ 20 years	81.4	83.9
Maturity > 20 ≤ 30 years	56.0	62.0
Maturity > 30 years	37.5	44.7

Defined contribution plans

The Company contributes to defined contribution pension plans for employees. Employer contributions for 2022 were £1.2 million (2021 £1.0 million).

4. Intangible assets

£ million

	Goodwill	Current technology	Total
Cost			
1 January and 31 December 2022	7.5	0.8	8.3
Accumulated amortisation and impairment losses			
At 1 January 2022	4.4	0.4	4.8
Amortisation for the year	–	0.2	0.2
At 31 December 2022	4.4	0.6	5.0
Net book value at 31 December 2021	3.1	0.4	3.5
Net book value at 31 December 2022	3.1	0.2	3.3

The carrying value of goodwill has been tested by reference to the value in use of the Networks & Security CGU as identified in the consolidated financial statements; please refer to note 13 of Notes to the consolidated financial statements on pages 153 and 154 for detailed disclosures. No impairment of goodwill was required.

The goodwill arose on the acquisition of the Positioning business and on the acquisition of Integrated Navigation Systems Limited in 2019, both within the Networks & Security CGU.

5. Tangible assets

£ million

	Freehold land and buildings	Plant and machinery	Fixtures, fittings and equipment	Total
Cost				
At 1 January 2022	0.7	4.8	1.4	6.9
Additions	–	0.2	–	0.2
Disposals	–	(0.1)	–	(0.1)
At 31 December 2022	0.7	4.9	1.4	7.0
Accumulated depreciation and impairment				
At 1 January 2022	0.3	3.8	1.4	5.5
Depreciation charge for the year	–	0.3	–	0.3
Disposals	–	(0.1)	–	(0.1)
At 31 December 2022	0.3	4.0	1.4	5.7
Net book value at 31 December 2021	0.4	1.0	–	1.4
Net book value at 31 December 2022	0.4	0.9	–	1.3

6. Right-of-use assets

The Company leases office buildings.

	£ million Land and buildings
Cost, net of accumulated depreciation and accumulated impairment	
At 1 January 2021	2.1
Depreciation charge for the year	(0.3)
At 1 January 2022	**1.8**
Additions	**0.1**
Depreciation charge for the year	**(0.3)**
At 31 December 2022	**1.6**
At 31 December 2021	
Cost	2.5
Accumulated depreciation and accumulated impairment	(0.7)
Net carrying amount	1.8
At 31 December 2022	
Cost	**2.6**
Accumulated depreciation and accumulated impairment	**(1.0)**
Net carrying amount	**1.6**

The related lease liabilities are disclosed in note 14.

7. Investments

	Shares in subsidiaries	Loans to subsidiaries	£ million Total
Cost			
At 1 January 2022	**1,175.7**	**2.9**	**1,178.6**
Additions	**13.8**	**–**	**13.8**
Share-based payment	**5.7**	**–**	**5.7**
At 31 December 2022	**1,195.2**	**2.9**	**1,198.1**
Amounts provided			
At 1 January 2022 and 31 December 2022	**743.7**	**2.9**	**746.6**
Net book value at 31 December 2021	432.0	–	432.0
Net book value at 31 December 2022	**451.5**	**–**	**451.5**

The recoverability of the carrying value of investments in subsidiaries has been assessed by reference to value in use.

During the year, capital contributions of £13.8 million were paid to subsidiaries (2021 £15.3 million). Additionally, capital contributions were made to subsidiaries in relation to share-based payment of £5.7 million (2021 £3.5 million).

8. Stocks

	2022 £ million	2021 £ million
Work in progress	**1.6**	0.2
Finished goods	**6.8**	5.6
	8.4	5.8

There were no stock write-downs recognised in the period (2021 nil) and there were no reversals of prior period stock write-downs (2021 nil).

No stock is carried at fair value less costs to sell (2021 nil).

9. Debtors

	Note	2022 £ million	2021 £ million
Due within one year			
Trade debtors		**12.1**	8.7
Owed by subsidiaries		**12.8**	10.7
Other debtors		**0.4**	0.4
Prepayments		**1.4**	0.7
Current tax asset		**1.5**	1.2
Assets recognised from costs to obtain a contract		**0.1**	0.2
		28.3	21.9
Due after one year			
Defined benefit pension plan surplus	3	**8.0**	28.0
Deferred tax asset	15	**0.8**	–
		8.8	28.0

The Directors consider that the carrying amount of trade debtors, amounts owed by subsidiaries and other debtors approximates their fair value.

The Company has no significant concentration of credit risk attributable to its trade debtors as the exposure is spread over a large number of customers.

Assets recognised from costs to obtain a contract relate to capitalised incremental costs to obtain a contract, being sales commissions arising on contracts with customers of more than one year in length. No assets were impaired or derecognised during the current year or prior year.

10. Creditors: amounts falling due within one year

	Notes	2022 £ million	2021 £ million
Trade creditors		**3.2**	2.4
Owed to subsidiaries		**113.7**	112.7
Accruals		**4.6**	5.4
Contract liabilities	12	**5.6**	3.9
Government grants	13	**0.2**	0.3
Lease liabilities	14	**0.2**	0.2
Other taxes and social security costs		**0.1**	0.5
		127.6	125.4

Trade creditors are non-interest bearing and are normally settled on 30 to 60-day terms. Other creditors are non-interest bearing.

The Directors consider that the carrying amount of trade creditors and amounts owed to subsidiaries approximates their fair value.

11. Creditors: amounts falling due after more than one year

	Notes	2022 £ million	2021 £ million
Contract liabilities	12	**1.6**	1.4
Lease liabilities	14	**1.4**	1.5
		3.0	2.9

12. Contract balances

The following table provides information about trade debtors and contract liabilities from contracts with customers. The Company does not have any contract assets.

	Notes	2022 £ million	2021 £ million	2020 £ million
Trade debtors	9	**12.1**	8.7	5.9
Contract liabilities				
Current				
Payments received on account		**0.7**	–	0.2
Deferred income		**4.9**	3.9	4.2
	10	**5.6**	3.9	4.4
Non-current				
Deferred income	11	**1.6**	1.4	1.1
Total contract liabilities		**7.2**	5.3	5.5
Revenue recognised in the period from amounts included in contract liabilities at the beginning of the period		**3.9**	4.4	3.6

There was no revenue recognised in 2022, 2021 or 2020 from performance obligations satisfied in previous periods.

The timing of revenue recognition, invoicing and cash collections results in trade debtors, payments received on account and deferred income on the balance sheet.

The Company receives payments from customers based on a billing schedule, as established in the contract. Trade debtors are recognised when the right to consideration becomes unconditional. Contract liabilities are recognised as revenue as (or when) the Company performs under the contract.

The Company also recognises incremental costs incurred to obtain a contract as an asset if it expects to recover those costs. Such costs are presented within debtors in the balance sheet as assets recognised from costs to obtain a contract and disclosed in note 9.

Expected realisation of remaining performance obligations at year end

The Company applies the practical expedient in paragraph 121 of IFRS 15 and does not disclose information about remaining performance obligations that have original expected durations of one year or less.

For contracts that exceed one year, deferred income that relates to unsatisfied or partially satisfied performance obligations at year end is expected to be recognised as revenue in the future as follows:

	2022 £ million	2021 £ million
Within 1 year	**1.6**	1.4
Greater than 1 year	**1.6**	1.4
	3.2	2.8

The above information represents the revenue the Company will recognise when it satisfies the remaining performance obligations in the contracts. The amounts presented do not include orders for which neither party has performed.

Revenue from the sale of hardware and software generally arises from contracts less than one year in length. Consequently, the above amounts predominantly relate to the sale of maintenance and support services.

Virtually all of the revenue will be recognised within three years.

The Company provides standard warranties on its products and services. The nature of these warranties is considered to provide customers with assurance that the related product or service will function as intended in accordance with the agreed specification, and does not contain or imply any additional service obligation to the customer. Warranty obligations are estimated and recognised as liabilities based on the probable outflow of resources.

13. Government grants

The following government grants are included within creditors:

	2022 £ million	2021 £ million
At 1 January	**0.3**	0.6
Received during the year	**–**	–
Released to the profit and loss account	**(0.1)**	(0.3)
At 31 December	**0.2**	0.3

All government grants are expected to be recognised in the next 12 months.

Government grants have been received to accelerate and support research and development in the vulnerability of global navigation satellite systems and other high technology projects.

14. Lease liabilities

Total lease liabilities included in the balance sheet at 31 December:

	Buildings £ million
At 1 January 2021	2.0
Repayments	(0.3)
Interest	–
At 1 January 2022	**1.7**
Additions	**0.1**
Repayments	**(0.3)**
Interest	**0.1**
At 31 December 2022	**1.6**

	Notes	2022 £ million	2021 £ million
Current	10	**0.2**	0.2
Non-current	11	**1.4**	1.5
		1.6	1.7

	2022 £ million	2021 £ million
Maturity analysis – contractual undiscounted cash flows		
Less than one year	**0.3**	0.2
One to five years	**1.0**	1.0
More than five years	**0.5**	0.7
Total undiscounted lease liabilities at 31 December	**1.8**	1.9

In 2022, the total cash outflow for leases was £0.3 million (2021 £0.3 million).

Extension options

Some leases of buildings contain extension options exercisable by the Group before the end of the non-cancellable contract period. Where practicable, the Group seeks to include extension options in new leases to provide operational flexibility. The extension options held are exercisable only by the Group and not the lessors. The Group assesses at lease commencement whether it is reasonably certain to exercise the extension options. The Group reassesses whether it is reasonably certain to exercise the options if there is a significant event or significant change in circumstances within its control.

	2022	2021
	Lease liabilities recognised (discounted) £ million	Lease liabilities recognised (discounted) £ million
Buildings	**1.0**	1.0

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15. Deferred tax

The movements in the deferred tax asset/(liabilities) are as follows:

	Temporary differences	Tax losses	UK pension plans	Total
				£ million
At 1 January 2021	–	0.3	(1.7)	(1.4)
Charged in the year	0.2	0.1	–	0.3
Deferred tax on defined benefit pension plan	–	–	(5.2)	(5.2)
At 1 January 2022	**0.2**	**0.4**	**(6.9)**	**(6.3)**
Charged/(credited) in the year	**0.1**	**(0.3)**	**(0.3)**	**(0.5)**
Deferred tax on defined benefit pension plan	**–**	**–**	**7.6**	**7.6**
At 31 December 2022	**0.3**	**0.1**	**0.4**	**0.8**

In 2022 and 2021, the deferred tax liability and asset have been offset on the balance sheet as they related to income taxes raised by the same authority on the same taxable entity.

The Company has tax losses of £22.9 million (2021 £23.9 million) and short-term timing differences of £0.3 million (2021 £0.2 million) that are available for offset against suitable future taxable profits.

A deferred tax asset has not been recognised in respect of these losses as their future recovery is uncertain. These losses can be carried forward indefinitely.

The Company also has capital losses carried forward of £823.3 million (2021 £823.3 million) for which no deferred tax asset has been recognised on the balance sheet. These capital losses have no expiry date.

16. Dividends

	2022 £ million	2021 £ million
Declared and paid in the year		
Equity dividend on Ordinary Shares		
Final dividend 2021 of 3.34 pence per Ordinary Share (2020 2.78 pence)	**20.3**	16.9
Special dividend 2020 of 5.40 pence per Ordinary share	**–**	32.9
Interim dividend 2022 of 2.16 pence per Ordinary Share (2021 1.72 pence)	**13.1**	10.4
	33.4	60.2
Proposed for approval at AGM (not recognised as a liability at 31 December)		
Equity dividend on Ordinary Shares		
Final dividend 2022 of 4.12 pence per Ordinary Share (2021 3.34 pence)	**24.8**	20.3

The Directors are proposing a final dividend in respect of the financial year ended 31 December 2022 of 4.12 pence per Ordinary Share (2021 3.34 pence), which will absorb an estimated £24.8 million of shareholders' funds (2021 £20.3 million). The final dividend will be paid on 10 May 2023 to Ordinary shareholders who are on the Register of Members at close of business on 17 March 2023. Payment will be made to ADR holders on 17 May 2023. No liability is recorded in the financial statements in respect of these dividends.

Dividends are determined in US Dollars and paid in Pound Sterling. The exchange rate for determining the amount of the final dividend to be paid for 2022 was $1.20: £1 (2021 $1.31: £1).

17. Capital and reserves

Changes during the year in the issued Ordinary Share capital were as follows:

	Number of Ordinary Shares[1] million	£ million
Issued and fully paid Ordinary Shares of 3 1/3 pence each at 1 January 2022 and 31 December 2022	**611.7**	**20.4**

Note
1. Includes shares held in the Employee Share Ownership Trust and Spirent Sharesave Trust.

Please refer to note 29 of the Notes to the consolidated financial statements on page 166 for disclosures relating to the nature and purpose of each reserve within equity.

Investment in own Ordinary Shares

During the year, 7.1 million shares were purchased and placed into the Employee Share Ownership Trust at a cost of £19.3 million and 2.7 million shares were also transferred from the Employee Share Ownership Trust to satisfy options exercised under the Spirent employee share plans (2021 3.9 million shares purchased and placed at cost of £11.0 million, and 2.3 million shares transferred).

At 31 December 2022, the Employee Share Ownership Trust held 8.9 million Ordinary Shares (2021 4.5 million Ordinary Shares) to satisfy awards under various share incentive plans. At 31 December 2022, the Spirent Sharesave Trust held 0.5 million Ordinary Shares (2021 0.5 million Ordinary Shares) to satisfy awards made to United Kingdom-based employees under an all-employee share scheme. The market value of own Ordinary Shares held in trust, being in total 9.4 million Ordinary Shares (2021 5.0 million Ordinary Shares), at 31 December 2022 was £24.5 million (2021 £13.8 million).

Both the Employee Share Ownership Trust and the Spirent Sharesave Trust are an extension of the Company.

Employee share plans

The Company operates a number of employee share incentive plans which are described in note 30 of Notes to the consolidated financial statements.

The share incentives over Ordinary Shares under these plans that have been granted and remain outstanding at 31 December 2022, held by employees of the Company, are as follows:

			2022			2021		
Share plan	Exercise period (as at 31 December)	Exercise price pence	**Weighted average exercise price pence**	**Number of share incentives outstanding million**	**Weighted average remaining contractual life years**	Weighted average exercise price pence	Number of share incentives outstanding million	Weighted average remaining contractual life years
Spirent Long-Term Incentive Plan[1]	05.03.23–15.09.25	–	**–**	**1.7**	**1.7**	–	1.6	2.7
				1.7			1.6	

Note
1. Figures for the Spirent Long-Term Incentive Plan include restricted stock and Performance Shares in aggregate. No exercise price is payable on the vesting of a Performance Share.

The weighted average share price at exercise date was 227 pence (2021 250 pence).

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Full list of subsidiary undertakings

A full list of subsidiaries of Spirent Communications plc at 31 December 2022 is set out below. The country of incorporation and the effective percentage of equity owned (if less than 100 per cent) is also detailed below. Unless otherwise noted, the share capital comprises Ordinary Shares which are indirectly held by Spirent Communications plc.

Company name	Registered in	Registered office address	Notes
Spirent Communications of Ottawa Limited	Canada	100 King Street West, 41st Floor, 1 First Canadian Place, Toronto, Ontario M5X 1B2	
Spirent Communications Technology (Beijing) Limited	China	Suite 1302, Shining Tower, No 35 Xue Yuan Road, Haidian District, Beijing 100083	Held directly
Bowthorpe Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Cambridge Analytical Group Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Earlynow Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	
Inclex No 3 Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Inclex No 5 Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Inclex No 6 Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Inclex No 7 Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
PG International Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Shipbrick Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	54.55 per cent held directly, 45.45 per cent held indirectly
Spirent Capital Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Spirent Financial Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Spirent Holdings Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Spirent Investment Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Spirent Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Spirent Sharesave Trust Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	Held directly
Spirent Systems Limited	England	Origin One, 108 High Street, Crawley, West Sussex RH10 1BD	100 per cent 'A' shares held indirectly, 100 per cent 'B' shares held directly
Spirent Communications SAS	France	Gaia, 9 Parc Ariane, Boulevard des Chenes, 78280 Guyancourt	Held directly
Spirent Communications GmbH	Germany	Konrad-Zuse Platz 10, House H, 3rd Floor, 81829 Munich	
Spirent Technologies GmbH	Germany	Michaelkirchstr 17/18, 10179 Berlin	
Spirent (Overseas) Limited	Guernsey	Suite 6, Provident House, Havilland Street, St Peter Port GY1 2QE	
Spirent Communications (Asia) Limited	Hong Kong	Suites 1603-05, 16th Floor, 625 King's Road, North Point	

Company name	Registered in	Registered office address	Notes
Spirent Communications (India) Pvt Limited	India	2nd Flr Umiya Business Bay Tower, 1 Cessna Business Park, Marathahalli-Sarjapur Ring Road, Kadubeesanahalli, Bangalore 560103 Karnataka	
Spirent Communications Japan KK	Japan	4th Floor Kyodotsushin Kaikan, 2-2-5, Toranomon, Minato-ku, Tokyo 105-0001	
Spirent Communications Singapore Pte Limited	Singapore	101 Thomson Road, #30-01 United Square, Singapore 307591	
Spirent Communications Korea Inc	South Korea	(Seocho-dong, Boutique Monaco) R/M 1609, 397 Seochodaero, Seocho-gu, Seoul 06616	
Spirent Communications Taiwan Limited	Taiwan	10F, No 66, Sec 1, Neihu Road, NeiHu District, Taipei City 11493	
Netcom Systems Holdings Corporation	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Communications Inc	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Federal Systems Inc	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Holdings Corporation	US (Delaware)	1209 Orange Street, Wilmington, Delaware 19801	
Spirent Communications Hawaii LLC	US (Hawaii)	1209 Orange Street, Wilmington, Delaware 19801	

Financial history

					$ million
	2022	2021	2020	2019	2018
Summary income statement					
Revenue	**607.5**	576.0	522.4	503.6	476.9
Cost of sales	**(170.4)**	(151.3)	(139.0)	(135.0)	(132.4)
Gross profit	**437.1**	424.7	383.4	368.6	344.5
Product development	**(111.3)**	(113.3)	(103.1)	(96.5)	(96.9)
Selling and marketing	**(138.9)**	(140.7)	(123.4)	(129.2)	(123.9)
Administration	**(57.4)**	(52.2)	(53.4)	(50.0)	(46.6)
Adjusting items	**(16.8)**	(14.3)	(7.8)	(4.3)	(19.6)
Operating profit	**112.7**	104.2	95.7	88.6	57.5
Net finance income/(costs)	**1.9**	(0.6)	0.1	1.0	1.3
Gain on divestment	**–**	–	–	–	2.4
Profit before tax	**114.6**	103.6	95.8	89.6	61.2
Tax	**(14.7)**	(14.4)	(11.4)	(11.6)	(5.4)
Profit for the year	**99.9**	89.2	84.4	78.0	55.8
Summary balance sheet					
Intangible assets	**202.0**	208.2	159.9	160.3	158.0
Property, plant and equipment	**20.6**	23.7	25.8	29.5	36.1
Right-of-use assets	**19.5**	26.0	23.3	26.0	–
Working capital (excluding cash and deferred tax)	**10.6**	11.4	2.3	16.0	33.2
Operating assets	**252.7**	269.3	211.3	231.8	227.3
Net funds including long-term cash	**209.6**	174.8	241.2	183.2	121.6
Lease liabilities	**(22.1)**	(29.8)	(28.2)	(33.0)	–
Provisions	**(8.4)**	(7.9)	(9.8)	(8.2)	(14.0)
Deferred tax	**32.8**	10.6	21.7	22.4	22.0
Defined benefit pension plan surplus/(deficit)	**0.6**	30.5	6.6	6.1	(1.6)
Net assets	**465.2**	447.5	442.8	402.3	355.3
Total equity	**465.2**	447.5	442.8	402.3	355.3
Summary cash flows					
Cash flow from operating activities	**117.8**	102.9	121.2	119.3	60.2
Interest received	**1.5**	0.4	1.5	2.6	1.3
Net capital expenditure	**(8.2)**	(9.8)	(9.0)	(11.9)	(10.6)
Net lease payments	**(9.0)**	(9.5)	(11.1)	(9.9)	–
Acquisition related other adjusting items and one-off contributions to UK pension scheme	**1.7**	7.9	–	–	–
Free cash flow	**103.8**	91.9	102.6	100.1	50.9
Acquisitions, disposals and investment in associate	**–**	(51.3)	–	(1.9)	1.8
Share purchase into Employee Share Ownership Trust	**(22.9)**	(15.1)	(11.9)	(8.6)	(2.5)
Dividend paid	**(39.9)**	(84.1)	(33.6)	(28.6)	(54.8)
Acquisition related other adjusting items and one-off contributions to UK pension scheme	**(1.7)**	(7.9)	–	–	–
Net increase/(decrease) in cash and cash equivalents	**39.3**	(66.5)	57.1	61.0	(4.6)

	2022	2021	2020	2019	2018
					$ million
Other information					
Expenditure on property, plant and equipment	**8.4**	10.2	9.5	10.9	12.0
Depreciation of property, plant and equipment	**11.0**	12.4	12.2	14.7	16.5
Depreciation of right-of-use assets	**7.3**	7.9	8.4	7.5	–
Product development	**111.3**	113.3	103.1	96.5	96.9
Share information					
Earnings per share (cents)					
Basic	**16.46**	14.67	13.84	12.79	9.14
Diluted	**16.36**	14.54	13.71	12.63	9.05
Adjusted basic[1,2]	**18.86**	16.59	14.68	13.40	10.86
Dividend per Ordinary Share (cents)	**7.57**	6.76	6.04	5.39	4.49
Special dividend per Ordinary Share (cents)	**–**	–	7.50	–	–
Fully paid Ordinary Shares in issue at year end (number, million)	**611.7**	611.7	611.7	611.7	611.7
Segmental analysis					
Revenue					
Lifecycle Service Assurance	**264.5**	261.6	219.3	190.6	191.8
Networks & Security	**343.0**	314.4	303.1	313.0	285.1
	607.5	576.0	522.4	503.6	476.9
Adjusted operating profit[1]					
Lifecycle Service Assurance	**51.0**	63.1	50.7	28.7	27.9
Networks & Security	**86.8**	63.5	62.0	72.8	56.4
Corporate – non-segmental	**(8.3)**	(8.1)	(9.2)	(8.6)	(7.2)
Adjusted operating profit[1]	**129.5**	118.5	103.5	92.9	77.1
Acquired intangible asset amortisation	**(4.7)**	(4.2)	(0.5)	(1.2)	(3.7)
Share-based payment	**(8.5)**	(5.6)	(4.2)	(3.5)	(2.8)
Other adjusting items	**(3.6)**	(4.5)	(3.1)	0.4	(13.1)
Operating profit	**112.7**	104.2	95.7	88.6	57.5
Geographical information					
Revenue by geographical market					
Americas	**336.3**	324.6	276.2	266.1	265.4
Asia Pacific	**205.8**	185.1	189.2	187.8	159.1
Europe, Middle East and Africa	**65.4**	66.3	57.0	49.7	52.4
	607.5	576.0	522.4	503.6	476.9

Notes
1. Before acquired intangible asset amortisation, share-based payment and other adjusting items.
2. Before gain on divestment, items in note 1, tax effect of items in note 1 and over/under provisions in respect of prior year tax.

Alternative performance measures

The performance of the Group is assessed using a variety of alternative performance measures (APMs) which are presented to provide users with additional financial information that is regularly reviewed by management. The APMs presented are not defined under IFRS and therefore may not be directly comparable with similarly identified measures used by other companies.

In management's view, the APMs reflect the underlying performance of the Group and provide an alternative basis for evaluating how the Group is managed and measured on a day-to-day basis. Such APMs are non-GAAP measures and should not be viewed in isolation or as an alternative to the equivalent GAAP measure.

The APMs and key performance indicators are aligned to the Group's strategy and collectively are used to measure the performance of the Group and form the basis of the metrics for Director and management remuneration. The Group's key performance indicators are presented within the Strategic Report of its 2022 Annual Report.

Order intake

Order intake represents commitments from customers to purchase goods and/or services from Spirent that will ultimately result in recognised revenue. Where there can reasonably be changes to the scope or duration of an order, the Group exercises judgement on the amount of the order that is booked.

Order intake is a measure of operating performance used by management to assess whether future activity levels are increasing or slowing and therefore how effective we have been in the execution of our strategy. Order intake is a key performance indicator used to measure Group, operating segment and regional performance for internal reporting purposes.

Orderbook

Orderbook comprises the value of all unsatisfied orders from customers and provides an indication of the amount of revenue that has been secured and will be recognised in future periods. Orderbook represents the transaction price allocated to wholly and partially unsatisfied performance obligations, including amounts held in contract liabilities at the period end. There is no comparable IFRS measure.

Book to bill

Book to bill is the ratio of orders booked to revenue recognised in the year and is a measure of the visibility of future revenues at current levels of activity. Book to bill is a key performance indicator used to measure Group and operating segment performance for internal reporting purposes.

Adjusted operating profit

Adjusted operating profit is reported operating profit excluding amortisation of acquired intangible assets, share-based payment and other adjusting items. Management uses adjusted operating profit, in conjunction with other GAAP and non-GAAP financial measures, to evaluate the overall operating performance of the Group as well as each of the operating segments and believes that this measure is relevant to understanding the Group's financial performance, as specific items (adjusting items) are identified and excluded by virtue of their size, nature or incidence, as they are not considered part of the Group's normal ongoing operations and therefore can lead to period-on-period fluctuations that can make it difficult to assess financial performance.

Specifically, items are excluded from adjusted operating profit if they are acquisition related in nature, including acquired intangible asset amortisation which is dependent on being able to identify intangible assets and assessing their useful economic lives, or if their exclusion allows for more meaningful comparisons with peer companies such as share-based payment which can fluctuate from period to period. The exclusion of adjusting items from adjusted operating profit is consistent from period to period.

Adjusted operating profit is also used in setting Director and management remuneration targets and in discussions with the investment analyst community.

Adjusted operating margin

Adjusted operating margin is adjusted operating profit as a percentage of revenue. It is a measure of the Group's overall profitability and how successful we are in executing on our overall strategy, and demonstrates our ability to improve margin through efficient operations and cost management, whilst being mindful of the need to invest for the future.

Effective tax rate

Effective tax rate is the adjusted tax charge, before tax on adjusting items, expressed as a percentage of adjusted profit before tax. The adjusted tax charge is the reported tax charge excluding the tax effect on adjusting items and adjustments made to provisions in respect of prior year tax.

Adjusted basic earnings per share

Adjusted basic earnings per share (EPS) is adjusted earnings attributable to owners of the parent Company divided by the weighted average number of Ordinary Shares outstanding during the year. Adjusted earnings is reported profit before tax excluding amortisation of acquired intangible assets, share-based payment, other adjusting items, tax on adjusting items and over/under provisions in respect of prior year tax.

Adjusted basic EPS is a measure of how successful we are in executing on our strategy and ultimately delivering increased value for shareholders. Adjusted basic EPS is also used in setting Director and management remuneration targets and in discussions with the investment analyst community. The Group sets out the calculation of adjusted basic EPS in note 11 of Notes to the consolidated financial statements.

Product development spend as a percentage of revenue

Product development as a percentage of revenue in the year. It is a measure of how much the Group is investing to support further organic growth initiatives in line with the strategic objectives, whilst driving improved productivity and effectiveness.

Free cash flow

Free cash flow is cash flow generated from operations, less tax and net capital expenditure, lease liability principal repayments and lease liability interest paid, add interest received and lease payments received from finance leases, excluding acquisition related other adjusting items and one-off employer contributions to the UK pension scheme.

Free cash flow is a measure of the quality of the Group's earnings and reflects the ability to convert profits into cash and ultimately to generate funds for future investment. It gives us financial strength and flexibility and the ability to pay sustainable dividends to our shareholders. Free cash flow is an important indicator of overall operating performance as it reflects the cash generated from operations after capital expenditure, financing and tax which are significant ongoing cash flows associated with investing in the business and financing operations.

Free cash flow excludes corporate level cash flows that are independent of ongoing trading operations such as dividends, acquisitions and disposals and share repurchases and therefore is not a measure of the funds that are available for distribution to shareholders.

A reconciliation of cash generated from operations, the closest equivalent GAAP measure, to free cash flow is provided within the Financial Review on page 53.

Free cash flow conversion

Free cash flow conversion is the ratio of free cash flow to adjusted earnings, presented as a percentage.

Free cash flow conversion is a measure used in conjunction with free cash flow to assess the Group's ability to convert profit into cash and ultimately to generate funds for future investment.

Shareholder information

Financial calendar 2023

7 March 2023	Full year results and final dividend announcement
16 March	Final dividend – ex-dividend date
17 March	Final dividend – record date
4 May	Annual General Meeting
10 May	Final dividend – payment date (Ordinary shareholders)
17 May	Final dividend – payment date (ADR holders)
30 June	Half year end
August	Half year results and interim dividend announcement
August	Interim dividend – ex-dividend date
August	Interim dividend – record date
September	Interim dividend – payment date (Ordinary shareholders)
September	Interim dividend – payment date (ADR holders)
31 December 2023	Financial year end
February/March 2024	2023 full year results and final dividend announcement

Ordinary Shares and American Depositary Receipts

The Company's Ordinary Shares are traded on the London Stock Exchange (ticker: SPT). The Company operates a Level 1 American Depositary Receipt (ADR) programme with each ADR representing four Ordinary Shares. The ADRs trade on the US over-the-counter market (symbol: SPMYY; CUSIP: 84856M209). BNY Mellon is the authorised depositary bank for the Company's ADR programme.

The ADRs are quoted on the OTC Pink electronic quotation service which can be found at www.otcmarkets.com/corporate-services.

Annual General Meeting

The Company's 2023 Annual General Meeting (2023 AGM) will be held at 12.30pm on Thursday 4 May 2023 at the offices of UBS, 5 Broadgate, London EC2M 2QS.

Company's registrar

Enquiries concerning shareholdings, change of address or other particulars should be directed in the first instance to the Company's registrar, Equiniti, on 0371 384 2126 from the UK or, if calling from overseas, +44 (0)121 415 7047. Equiniti also provides a range of online shareholder information services at www.shareview.co.uk, where shareholders can check their holdings and find practical help on transferring shares or updating their details.

Dividends

Shareholders are able to choose to receive their dividends direct to their bank account, reinvested in Ordinary Shares through the Company's Dividend Reinvestment Plan (see below), paid by cheque or paid in foreign currencies. To change how you receive your dividends please contact the Company's registrar, Equiniti, on 0371 384 2268 or log on to www.shareview.co.uk.

Dividend Reinvestment Plan

The Company has a Dividend Reinvestment Plan (DRIP) delivered by Equiniti Financial Services Limited. The DRIP allows eligible shareholders to use their cash dividend to buy additional shares in the Company, so increasing their shareholding. If you would like additional information, please contact the Company's registrar, Equiniti, on 0371 384 2268 or log on to www.shareview.co.uk.

Shareholder security

Shareholders are advised to be wary of any unsolicited advice, offers to buy shares at a discount or offers of free reports about the Company.

Details of any share dealing facilities that the Company endorses will be included in the Company's mailings or on our website. More detailed information can be found at www.fca.org.uk/consumers.

Glossary

4G (Fourth Generation)	Fourth generation of mobile communications that delivers data rates of tens to hundreds of megabits per second.
5G Core/5G Core Network	The heart of a standalone 5G network, providing data and control plane operations. The 5G core aggregates data traffic, communicates with devices, delivers essential network services and provides extra layers of security, among many other functions.
5G (Fifth Generation)	Fifth generation of cellular technology, engineered to greatly increase the speed and responsiveness of wireless networks, capable of multiple gigabit per second data rates and very low latency.
6G (Sixth Generation)	The future standard for wireless communications technologies supporting cellular data networks. As the planned successor to 5G, it is expected to be capable of much higher data speeds and to support new business models.
Automotive Ethernet	A form of Ethernet network with a physical layer adapted to automotive use cases, capable of meeting automotive electromagnetic compatibility and immunity requirements.
Cloud	A variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the internet. Often used in reference to network-based services served up by virtual hardware, simulated by software running on one or more physical machines.
Communications Service Provider (CSP)	An umbrella term for a company that offers communications and information-related services. This can include telephone companies, internet providers, or satellite cable companies, as well as media entities.
Continuous Integration/Continuous Delivery (CI/CD)	A culture, operating principles, and set of practices that application development teams use to deliver software code changes more frequently and reliably.
Data Centre	A centralised location where computing resources critical to an organisation are maintained in a highly controlled environment.
Edge/Edge Computing	A network architecture concept that enables cloud computing capabilities and an IT service environment at the edge of the cellular network and, more generally, at the edge of any network.
Ethernet	A family of networking technologies originally developed for local area networks, which migrated to metro area networks and eventually became the dominant standard in wireline networks worldwide.
Fixed Wireless Access (FWA)	A method of providing wireless connectivity through radio links between two fixed points that enables 'last mile' wireless broadband access to homes or businesses without the need to lay fibre or cable.
Global Navigation Satellite System (GNSS)	The standard generic term for satellite navigation systems that provide autonomous geospatial positioning with global coverage. GNSS allows users' receivers to determine their location to within a few metres by employing a triangulation technique that uses information from multiple satellites.
Hyperscaler	The operator of data centres that offer scalable cloud computing services. Examples include Amazon Web Services (AWS), Microsoft Azure and Google Cloud Platform.
Industry 4.0	The Fourth Industrial Revolution, which conceptualises rapid change to technology, industries, and societal patterns and processes in the 21st century due to increasing interconnectivity and smart automation.
Internet of Things (IoT)	A network of physical objects or "things" embedded with electronics, software, sensors and connectivity to enable data exchange with the manufacturer, the operator and/or other connected devices. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within existing internet infrastructure.
Internet Protocol (IP)	The primary network protocol used on the internet and on other network devices to facilitate and control the flow of data.
Lab-as-a-Service (LaaS)	A cloud-based build and deploy environment to manage lab resources required by developers, testers, pre- and post-sales support teams and others on an on-demand basis. LaaS is proven to reduce CapEx and increase lab user efficiency.
Low Earth Orbit (LEO)	An orbit that is relatively close to Earth's surface, generally at an altitude of less than 2,000 kilometres (1,200 miles).

Glossary continued

Multiple-System Operators (MSO)	A designation often used for cable companies that offer services beyond television broadcast. Many MSOs offer a "triple play" of internet and telephone service alongside their traditional cable television offerings.
Network Equipment Manufacturers (NEMs)	Developers and suppliers of products and services to communication service providers such as fixed or mobile operators, as well as to enterprise customers.
Non-Standalone (NSA) 5G	An architecture used in initial 5G network roll-outs to provide customers with higher data transfer speeds by pairing a 5G Radio Access Network (RAN) with an existing 4G Evolved Packet Core (EPC).
Non-Terrestrial Networks (NTN)	Networks that provide connectivity through spaceborne vehicles (satellite), airborne platforms, including airships and balloons, or UAS (unmanned aircraft system) platforms, including drones.
Open Radio Access Network (Open RAN/O-RAN)	The concept of interoperability of open hardware, software and interfaces for cellular wireless access networks.
Open RAN Radio Unit (RU) and Distributed Unit (DU)	Two of the main building blocks of a disaggregated Open RAN environment. The RU is where the radio frequency signals are transmitted, received, amplified, and digitised. The DU sends the digitalised radio signal into the network.
Positioning, Navigation and Timing (PNT)	"Positioning" is the ability to determine the geographic location of a person, object or signal. "Navigation" is the ability to calculate a route to a desired position from a current position. "Timing" is essential to synchronisation of modern networks, providing the only frame of reference between all devices.
Secure Access Service Edge (SASE)	A security framework for enabling secure and rapid cloud adoption, and for helping to ensure that both users and devices have secure cloud access to applications, data and services anywhere, any time.
Smart City	A city which uses information and communication technology (ICT) to improve operational efficiency, share information with the public and provide a better quality of government service and citizen welfare.
Software-Defined Networking (SDN)	An approach to networking that uses software-based controllers or application programming interfaces (APIs) to communicate with underlying infrastructure and direct traffic on a network.
Software-Defined Wide Area Networking (SD-WAN)	Simplifies the management and operation of a wide area network (WAN) by decoupling the networking hardware from its control mechanism. This concept is similar to how software-defined networking implements virtualisation technology to improve data centre management and operation.
Standalone (SA) 5G	Use of 5G cells for both signalling and information transfer. It includes new 5G packet core architecture instead of relying on the 4G evolved packet core. SA deployment is expected to have lower cost and better efficiency, and to assist development of new use cases.
Test-as-a-Service (TaaS)	The outsourcing of testing activities to a third party that focuses on simulating real-world testing environments as specified in the client requirements.
Time-Sensitive Networking (TSN)	A set of networking capabilities, defined in an open standard, that transmit time-sensitive data across standard Ethernet networks, often deployed in industries where deterministic communication is important, such as automotive and aerospace.
Virtualisation	Technologies designed to provide a layer of abstraction from the physical characteristics of computing resources to simplify the way in which other systems, applications or end-users interact with those resources.
Wide Area Network (WAN)	A wide area network is a telecommunications network that extends over a large geographical area for the primary purpose of computer networking. Wide area networks are often established with leased telecommunication circuits.
Wi-Fi 6/Wi-Fi 6E/Wi-Fi 7	Wi-Fi 6 is the latest generation and standard for wireless internet, providing lower latency and more efficient data transfer compared with earlier generations. Wi-Fi 6E extends the capabilities of Wi-Fi 6 into the 6 GHz band in certain countries. Wi-Fi 7 is the next generation of Wi-Fi standards, currently in development.
Zero Trust (ZT)/Zero Trust Framework (ZTF)	An architectural approach and goal for network security that assumes that every transaction, entity, and identity is untrusted until trust is established and maintained over time, in contrast with the legacy view that a network is secure unless security systems identify a breach.

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