SPIRENT COMMUNICATIONS PLC
Full year results for the year ended 31 December 2021
Driving Momentum

$ million	**2021**	2020	Change (%)
Order intake[1]	**637.0**	539.4	+18
Orderbook[2]	**269.8**	207.0	+30
Revenue	**576.0**	522.4	+10
Gross margin (%)	**73.7**	73.4	+0.3pp
Adjusted operating profit[3]	**118.5**	103.5	+14
Adjusted operating margin[4] (%)	**20.6**	19.8	+0.8pp
Adjusted profit before tax[5]	**117.9**	103.6	+14
Adjusted basic earnings per share[6] (cents)	**16.59**	14.68	+13
Reported operating profit	**104.2**	95.7	+9
Reported profit before tax	**103.6**	95.8	+8
Basic earnings per share (cents)	**14.67**	13.84	+6
Closing cash	**174.8**	241.2	-28
Dividend per share[7] (cents)	**6.76**	6.04	+12
Special dividend per share[7] (cents)	**-**	7.50	-

Eric Updyke, Chief Executive Officer, commented:
"2021 was a year of increasing momentum at Spirent with the results showing that our strategy continues to be a winning one. Our business model is becoming increasingly resilient, supported by a strong financial and operational platform, and we are pleased to begin the new financial year with a growing orderbook, improved visibility and lower cyclicality. We are well placed to deliver further progress, with our key business drivers intact, and we continue to invest and innovate in our leading technology solutions across our portfolio. I am proud of our operational performance, continued operating margin progression, strong supply chain management, and effective working capital management."

"The promise of connectivity has never been more vital, and Spirent is strategically partnering with its customers to ensure they can in turn keep their promises to their customers for next-generation technology. We are leveraging our industry-leading position as the pre-eminent core network testing supplier to add value in many other adjacencies as our customers deploy and manage 5G. We will continue to lead in the lab while supporting an increasing number of our customers in the live network."

"These key drivers together with our strong portfolio and our deep relationships with our customers put us in a good position to deliver on our strategy. With our expert team and world-class customer base, I remain optimistic about our ability to seize opportunities and ensure we are well positioned for continued sustainable, profitable growth. Our strong financial platform affords us great flexibility to evolve and grow our business both organically and via M&A."

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Financial highlights

- Orders growth of 18 per cent, 14 per cent organic[8], driven by customers' need to support an increasing number of 5G roll outs.
- Book to bill[9] across the year was 111; the orderbook[2] increased $63 million to $270 million with growth in multi-year contracts, across the portfolio providing greater revenue visibility for outer years.
- Revenue up 10 per cent, 7 per cent organic[8], with strong demand for both lab, and especially live assurance solutions, as 5G networks continue to roll out globally.
- Continued R&D investment across the portfolio totalling $113.3 million, 20 per cent of revenue.
- Adjusted operating profit increased by 14.5 per cent to $118.5 million, with adjusted operating margin improving to 20.6 per cent, up from 19.8 per cent in 2020.
- Cash closed at $174.8 million after payment of special dividend of $46 million, and acquisition of octoScope.
- Full year dividend up 12 per cent (14 per cent in Pound Sterling). Final dividend of 4.37 cents per share to be paid in May 2022.

Operational highlights

- Secured over 800 5G-related wins across all geographies, and continue to be well positioned for sustainable 5G-driven growth across our portfolio of lab and live solutions and services.
- Minimised disruption to customer shipments through proactive and aggressive management of our global supply chain.
- Implemented numerous strategic initiatives:
  - Continued to shift our sales teams' focus to selling customer outcomes and value.
  - Grew our sales team in EMEA to accelerate growth, adding to our successful key account programme and opening an EMEA Customer Experience Centre.
  - Built a strong foundation for our growing services business, adding seasoned leadership, compelling new Anything-as-a-Service (XaaS) offers and an ecosystem of global service delivery partners. Total services revenue grew 14.5 per cent to $164.7 million.
  - Commenced our global R&D engineering facility plan which will consolidate sites and enhance flexibility to serve our global customers. This plan will conclude in 2023, with total estimated costs of $8 million.

Lifecycle Service Assurance

- Strong order growth with 5G remaining an enduring driver, and with a healthy orderbook entering 2022.
- Revenue grew 19 per cent (11 per cent organic[8]) to $262 million as demand increased for both lab testing and live assurance solutions.
- Increasing demand for our new Test (TaaS) and Lab (LaaS) as-a-Service offerings, driven mainly by cloud adoption opportunities, as well as our automated 5G certification services offerings.
- Increasing demand for our operational network active service assurance solutions, with expansion of our US customer base, as well several new logo adds outside the US.
- Our octoScope acquisition in March has positioned us as the global leader in Wi-Fi test and, following successful integration of the business into LSA during the year, we are also well placed to take advantage of growing market opportunities in 5G/Wi-Fi convergence.
- Customers are increasingly relying on Spirent to radically reduce the time, costs and risks associated with bringing new devices and technologies to market.

Networks & Security

- Revenue grew 4 per cent to $315 million and demand continues to grow for high-speed Ethernet test including increasing interest for early adoption of 800G. While many customers increased spend during the year to support their infrastructure developments, some continued to manage budgets carefully due to extended lab closures.
- Growth in our security and application test core markets and we saw Tier-1 Service providers leverage our security expertise across the entire Spirent portfolio.
- Increased demand for our Cloud resiliency and impairment solutions. These provide qualitative metrics to compare and manage multiple Cloud infrastructures, emulating realistic scenarios including 5G workloads.
- Growing demand for our Positioning solutions in the government and military markets, with increasing pipeline for US government projects.

Summary and outlook

Our strategy of leveraging our market-leading technology and expertise to address key customer business challenges is working. 5G remains an important enduring driver for Spirent and we continue to benefit across the portfolio from customers utilising our leading expertise and solutions.

In 2021, Spirent delivered another year of robust revenue growth and a material increase in earnings despite supply chain challenges ensuing from the pandemic which were very effectively managed.

We remain focused on increasing visibility and decreasing cyclicality risks in our portfolio by expanding our services and software offerings. Order intake grew 18 per cent, 14 per cent organic, to $637 million with a book to bill ratio of 111, building a strong orderbook for delivery in future years.

As a result, the Board is confident that the Group is well-set to deliver sustainable growth in 2022 and beyond.

Notes

1. Order intake represents commitments from customers to purchase goods and/or services that will ultimately result in recognised revenue.
2. Orderbook is an alternative performance measure as defined in the appendix on page 38.
3. Adjusted operating profit is before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $14.3 million in total (2020: $7.8 million).
4. Adjusted operating profit as a percentage of revenue in the period.
5. Before items set out in note 3.
6. Adjusted basic earnings per share is based on adjusted earnings as set out in note 6 of Notes to the full year consolidated financial statements.
7. 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 2021 of 4.37 cents per Ordinary Share is equivalent to 3.34 pence per Ordinary Share.
8. Excluding the impact of acquisitions in the period (orders $20.9 million, revenue $18.2 million).
9. Ratio of orders booked to revenue recognised in the period.

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Enquiries

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The Company will publish a recorded presentation today at 7.00am UK time on its website. The Company will also host a live, virtual results Q&A session for the analyst community today at 09.30am UK time. A recording of the presentation will be available in the Investors section of the Spirent Communications plc website https://corporate.spirent.com/.

About Spirent Communications plc

Spirent Communications plc (LSE: SPT) is the leading global provider of automated test and assurance solutions for networks, cybersecurity, and positioning. The Company provides innovative products, services and managed solutions that address the test, assurance and automation challenges of a new generation of technologies, including 5G, SD-WAN, Cloud, autonomous vehicles and beyond. From the lab to the real world, Spirent helps companies deliver on their promise to their customers of a new generation of connected devices and technologies. Further information about Spirent Communications plc can be found at https://corporate.spirent.com/.

Spirent Communications plc Ordinary Shares are traded on the London Stock Exchange (ticker: SPT; LEI: 213800HKCUNWP1916L38). The Company operates a Level 1 American Depositary Receipt (ADR) programme with each ADR representing four Spirent Communications plc Ordinary Shares. The ADRs trade in the US over-the-counter (OTC) market under the symbol SPMYY and the CUSIP number is 84856M209. Spirent ADRs are quoted on the Pink OTC Markets electronic quotation service which can be found at https://www.otcmarkets.com/marketplaces/otc-pink.

Cautionary statement regarding forward-looking statements

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

Chief Executive Officer's review

2021 has been a year of strategic growth and increasing momentum here at Spirent. Despite the continued disruptions caused by COVID-19, we continued to adapt, innovate, and win. The team at Spirent has been beyond inspiring - never losing focus on our unwavering support to our customers.

Market overview

Spirent is the partner helping our customers deliver on their promises for the next generation of technology. By leveraging Spirent's expertise, our customers can accelerate time to market, reduce complexity and cost, optimise user experience, and bolster cybersecurity defences.

Our key market drivers remain strong – with 5G being the dominant, enduring force. In 2021, Spirent maintained our 5G leadership, working across the lifecycle to test, assure and automate networks. We are leveraging our industry-leading position as the pre-eminent core network testing supplier to add value in many other adjacencies as our customers continue to deploy and manage 5G.

Strategy

In order 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: Customer Centricity, Innovation for Growth and Operational Excellence.

1) **Customer Centricity** – increasing our share with existing customers, driving solutions-selling and expanding our footprint into new areas.
2) **Innovation for Growth** – innovating to extend our thought leadership in key growth trends, growing recurring revenue streams and commencing target M&A.
3) **Operational Excellence** – providing the foundation for profitable growth, the right team in place to support our ambition and actively committing to sustainability.

Customer Centricity

Our focus on solutions-based selling to solve bigger problems for our customers proved successful in 2021. A continued shift from selling features and functions to selling outcomes and value resulted in larger deal sizes. Our deep relationships and trusted partnerships with our customers propelled us forward – we successfully grew further into our existing customers while expanding into new segments and markets. We supported over 1,200 customers across more than 50 countries in 2021, including over 300 new customers. Spirent has a diversified customer base, with no single customer accounting for more than 10 per cent of total revenue in 2021.

Spirent continued to work in a mostly remote environment while staying closely connected with customers. Our marketing team enhanced our digital presence and brand recognition, including doubling our press coverage this year. We were even trending on Twitter for the first time!

Our key account programme continues to deliver great success. These accounts enable us to move from transactional buying centres into ones with broader business impact. We continued to invest in and expand this programme, adding new strategic accounts to the model. Hyperscalers were a key focus for us this year and the team dedicated to selling in those accounts delivered great results with much potential remaining.

With our solutions-based selling and continued push to increasing software and services, Spirent is successfully decreasing cyclicality. Our growing orderbook is concrete evidence that this strategy is working, and we are building visibility into our future. We are winning and delivering large-scale services, including Test-as-a-Service and Lab-as-a-Service. These landmark solutions are increasing the size of our deals and enabling us to strategically partner with customers to automate, validate and optimise their networks. In 2021 we also secured a material increase in the number of multi-year support contracts. The closing orderbook at the end of 2021 was $269.8 million which was a 30 per cent growth on the prior year, of which 20 per cent of this orderbook is for delivery beyond 2022, thereby increasing forward visibility.

Innovation for Growth

As a global leader in test and assurance, it is vital that we invest to stay ahead on key emerging technologies. To maintain our leadership in key areas, we again invested 20 per cent of revenue in research and development in 2021.

We continue to invest for the future, extending our thought leadership in key growth areas. With 5G still accelerating, Spirent successfully secured over 800 5G-related wins and continues to be well positioned for sustainable 5G-driven growth. Other key growth markets include O-RAN and SD-WAN.

We are innovating our products to expand our addressable markets and make our solutions even easier to use. Leveraging our broad portfolio and leadership in 5G core networks, we are addressing the test and assurance needs of complex, multi-vendor 5G networks with a powerful, simple-to-use active assurance solution that provides end-to-end visibility, automated troubleshooting and proactive analytics. This enables us to take a leadership role in addressing the full lifecycle of 5G technology, networks and services, from the lab through pre-production to live production networks.

In recognition of our continued leadership, we were given many awards this year, including the Fierce Telecom Innovation Award and the BIG Innovation Award for 5G.

Operational Excellence

Our dedication to Operational Excellence was a key differentiator during this pandemic.

Despite a recent difficult environment, our supply chain team continued to deliver for our customers. They expertly navigated material shortages and extended lead times to successfully source and ship products, expanding our critical component supplier base where appropriate. The geopolitical landscape remained turbulent with US/China challenges. We also navigated regulatory changes and continued to work closely with our customers to ensure seamless continuity. These conditions all look set to continue through 2022 so we will continue to manage these risks as carefully as we did throughout 2021.

We continue to maintain a strong balance sheet with $174.8 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. In early 2021, we made some organisational changes to build an even stronger foundation for scale – breaking down barriers, better enabling solution selling and focusing on leading-edge technology. To accelerate the momentum built in 2020, as previously announced, we combined our Connected Devices business unit into our Lifecycle Service Assurance business.

In addition, we created an office of the CTO (Chief Technology Officer) to drive effective investment across our technical portfolio and guide us in developing solutions for our customers in existing and emerging markets.

In addition to investing in innovation, we remain invested in our people. We worked with an external party to help develop our diversity, equity and inclusion strategy. The new strategy sets out clear, meaningful ambitions for us to focus on over the next few years. In 2021, we established partnerships in the US with two Historically Black Universities and with the Society of Women Engineers to expand our hiring pools. A new internal communications programme, Spirent Celebrates, was launched to highlight the different cultures, holidays, events and charitable causes we celebrate around Spirent.

Sustainability and corporate responsibility are essential to the success of our business. Our FuturePositive programme tracks our progress in the areas of Products, People, Procurement and Property. I am proud of the significant strides we have made in reducing our carbon footprint and helping our customers do the same. We were pleased to see our improved A-score from the Carbon Disclosure Programme in 2021 and are delighted that we were able to exceed our energy reduction and our Scope 1 & 2 carbon emissions targets in 2021. We also made important strides in seeking to build a more diverse workforce.

We will continue evaluating and rationalising our portfolio to meet the needs of our customers. We will look to grow our portfolio both organically and inorganically to keep pace with those objectives and the markets that we serve.

Capital allocation

Our continued effective financial management has delivered another year of strong free cash flow and despite COVID-19 our balance sheet remains robust and working capital remains very efficient. Our ability to deliver strong cash conversion allows us to implement our capital allocation policy as we have previously stated, which is to continue to invest in R&D to maintain our leading market positions, and to support our growth agenda with inorganic investments where we see opportunities that support our strategic growth plans, whilst still maintaining a sensible level of cash.

In March 2021, we acquired octoScope, a US-based technology company that provides market-leading Wi-Fi test solutions to the wireless industry, as the need for reliable and secure Wi-Fi became so critical in today’s remote working environment. This acquisition supported our strategy of sustainable, profitable growth by establishing Spirent as the market leader in the expanding Wi-Fi space and adding to our 5G solution portfolio. The teams have integrated well together and are working to bring combined solutions to market in 2022.

Business review

In 2021, Spirent operated in two strategic business segments: **Lifecycle Service Assurance** and **Networks & Security**. The Group meets the needs and expectations of our customers and capitalises on the business opportunities created as they:

- develop and validate innovative devices, applications, network equipment and networks; and
- deploy and operate those networks and services.

We improve network performance and end user experience in our connected world and help create our smarter future.

Our former Connected Devices segment was merged with Lifecycle Service Assurance from 1 January 2021 to exploit technical leverage and accelerate our 5G growth.

Lifecycle Service Assurance

The 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-deployment to live production networks, our solutions radically reduce the time, costs and risks associated with bringing new devices and technologies to market.

$ million	**2021**	2020[1]	Change (%)
Revenue	**261.6**	219.3	19.3
Adjusted operating profit[2]	**63.1**	50.7	24.5
Adjusted operating margin[3]	**24.1%**	23.1%	1.0pp

Notes
1. Restated for changes to the Group's operating segments effective 1 January 2021 as set out in note 3 of Notes to the full year consolidated financial statements.
2. Before other adjusting items of $0.6 million charged in 2021 (2020: $0.9 million).
3. Operating profit before other adjusting items as a percentage of revenue.

Lifecycle Service Assurance revenue increased to $261.6 million (2020: $219.3 million), driven by strong demand for next-generation live network assurance and by lab test portfolio growth, including the former Connected Devices segment portfolio, in combination with success for our new outcome-driven service offerings. Our growth also benefited from our focus on Hyperscale and Cloud customers.

Lifecycle Service Assurance operating profit before other adjusting items increased to $63.1 million (2020: $50.7 million) as a result of the increased revenue, favourable product mix and rigorous cost management.

Operating margin before other adjusting items improved to 24.1 per cent, from 23.1 per cent in 2020.

Performance highlights

- Strong orders growth throughout the year, with 5G remaining an enduring driver and with a healthy backlog entering 2022.
- Strong revenue growth of 19 per cent (11 per cent organic) driven by increasing demand for both lab testing and live assurance portfolios.
- Increasing demand for our new Test (TaaS) and Lab (LaaS) as-a-Service offerings, driven mainly by Cloud adoption opportunities, as well as our automated 5G certification services offerings.
- Increasing demand for our operational network active service assurance solutions, with expansion of our US customer base, as well as several net-new logo adds outside the US.

Accomplishments

Customer growth and market expansion

- Our lab test portfolio experienced significant growth, focused primarily on our wireless device test business, as well as our 5G core test business centred around net-new Hyperscale and Cloud customers.
- Our live assurance portfolio continued to see very good growth in support of 5G infrastructure as it moves from lab certification in live operations.
- Our automation platform experienced significant year-on-year growth, paving the way for broader penetration of the Hyperscale and Cloud market segments, while accelerating our outcome-driven services portfolio.
- We made public announcements of Spirent’s automated 5G core network test engagements with Amazon AWS, Jio Platforms, and DISH Network, amongst many others, during 2021.

Positive key business indicators

- Good pipeline growth in new market segments; most notably Hyperscale and Cloud providers.
- Strong increase in multi-year support contracts across incumbent customers.
- Solid growth in newly established outcome-driven service offerings (TaaS and LaaS).
- We experienced record growth across our ‘live’ portfolio in 2021.

Recognition

- Spirent’s 5G Network Digital Twin offering was awarded the 2021 BIG Innovation Award presented by the Business Intelligence Group. This award is designed to recognise innovation and reward companies whose achievements stand above those of their peers.
- For the second consecutive year Spirent was awarded the 2021 Fierce Innovation Award from Fierce Telecom in the Artificial Intelligence/Analytics/Automation category for our industry-leading 5G core automation platform, and its ability to scale to customer development environments while dramatically reducing costs.

Networks & Security

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 Cloud. We provide consulting services, test tools, methodologies and proactive security validation solutions. Our world leadership in global navigation satellite system (GNSS) simulation solutions and services is expanding into the broader positioning, navigation and timing (PNT) market.

$ million	**2021**	2020[1]	Change (%)
Revenue	**314.4**	303.1	3.7
Adjusted operating profit[2]	**63.5**	62.0	2.4
Adjusted operating margin[3]	**20.2%**	20.5%	(0.3pp)

Notes
1. Restated for changes to the Group's operating segments effective 1 January 2021 as set out in note 3 of Notes to the full year consolidated financial statements.
2. Before other adjusting items of $1.4 million charged in 2021 (2020: $0.8 million).
3. Operating profit before other adjusting items as a percentage of revenue.

2021 saw progress across all parts of the Networks & Security segment, despite budget caution at some customers resulting from their ongoing lab restrictions during the pandemic.

Networks & Security revenue increased by 3.7 per cent to $314.4 million (2020: $303.1 million) and operating profit before other adjusting items increased by $1.5 million to $63.5 million (2020: $62.0 million).

Operating margin before other adjusting items decreased to 20.2 per cent, from 20.5 per cent in 2020, reflecting additional investment in product development to increase our potential for addressing market expansion and growth opportunities.

Performance highlights

- Revenue grew 4 per cent as demand for 100G and 400G high-speed Ethernet test continued to grow, along with early adoption of 800G, which we anticipate will gain additional momentum in 2022. While many customers increased spend during the year to support their infrastructure developments, some continued to manage budgets carefully due to extended lab closures.
- Growth in our security and application test core markets and we saw Tier-one service providers leverage our security expertise across the entire Spirent portfolio.
- Increased traction with our Cloud resiliency and impairment solutions that provide qualitative metrics to compare and manage multiple Cloud infrastructures, emulating realistic scenarios including 5G workloads.
- Strong growth resulted in our Positioning business seeing a record year of bookings, on the back of continued leadership in the government and military market, new commercial market penetration, and a record level of new customer business.

Accomplishments

High-speed Ethernet/IP, Cloud and virtualisation

- We had multiple 800G Ethernet test wins and public demonstrations showcasing Spirent's first-to-market solutions, enabling innovation within leading network device providers, including public announcements of 800G engagements with Intel Silicon Photonics, InnoLight and MultiLane.
- We introduced and secured wins for solutions that help validate virtualised design effectiveness in delivering Cloud-native benefits for 5G, such as autoscaling in support of green operation that minimises environmental impact, as well as resiliency to ensure reliable 5G operation, even when faults occur in the underlying Cloud infrastructure.
- We continued to play a leading role in the MEF global industry forum in upgrading the SD-WAN Certification programme, which has been adopted by leading managed service providers and vendors. Our contributions have enabled strategic engagements with market leaders.

Applications performance and cybersecurity

- We saw growth in our security and application testing core markets, and expanded our market reach by leveraging our security expertise for Cloud and 5G pre-deployment testing and validation.
- We expanded our strategic engagement with the MEF, helping to establish its first security certification, while driving a standard for enhancing the deployment of SD-WAN.
- We grew our involvement with the NetSecOPEN initiative through enablement of global testing labs that are adopting its open and transparent security performance testing standards and community-driven initiatives.

Positioning, navigation and timing

- Development of a wider commercial customer base outside of US government is resulting in good pipeline growth.
- We sustained our leadership across military and defence markets, delivering multiple multi-million-dollar resilient PNT solutions to key GNSS programmes.
- We built upon our deep satellite expertise to innovate solutions for the growing Low Earth Orbit (LEO) satellite segment, where large-scale Hyperscalers are pursuing space-based delivery of high-capacity, low-latency broadband service, enabling our customers to assess performance of these new systems.

Financial review

Group overview

2021 progress represented another key milestone on the delivery of our strategy with another year of strong financial performance, despite global supply chain challenges which we managed extremely effectively. Our customers continue to invest in 5G related infrastructure, devices and services, a trend we expect to continue. Our operational execution model remains robust and we continue to invest in our leading technology portfolio and our people.

Order intake grew strongly up 18.1 per cent to $637.0 million, compared to $539.4 million in 2020, resulting in a book to bill ratio of 111. We increased the orderbook by $62.8 million (30.3 per cent) with growth in multi-year contracts across the portfolio providing greater revenue visibility of outer years. In particular, Lifecycle Service Assurance delivered strong growth driven by increased demand for both lab and live assurance solutions as the 5G network continues to roll out.

Revenue grew by 10.3 per cent (6.8 per cent organic[1]) to $576.0 million and was driven by strong demand for our assurance solutions in both the lab and live environments as the 5G networks continue to roll out, combined with strong demand for our new 5G device testing, field testing and channel emulator sales. We delivered year-on-year growth in our Networks & Security operating segment where our security business benefited from closer alignment with our high-speed Ethernet products and go-to-market approach. Revenue for our Positioning business was largely consistent with the prior year being impacted by the timing of orders from our US government customers, offset by improvements elsewhere.

Whilst continuing to manage the cost base effectively, we increased investment in product development targeting high-growth, high-margin areas. We also made further investment to expand our key account management programme, and continued investment in our cross-portfolio services offerings to underpin future growth plans.

Gross margin remains strong at 73.7 per cent and adjusted operating profit grew 14.5 per cent (9.5 per cent organic[1]) to $118.5 million, from $103.5 million in 2020. Adjusted operating margin has increased by 0.8 percentage points to 20.6 per cent, from 19.8 per cent last year.

Other adjusting items were $4.5 million (2020: $3.1 million) mainly driven by the costs of the octoScope acquisition.

Reported profit before tax was up by $7.8 million to $103.6 million (2020 $95.8 million).

The Group’s effective tax rate of 14.4 per cent is slightly up on 2020 (13.6 per cent). Adjusted basic earnings per share has increased by 13 per cent, up from 14.68 cents last year to 16.59 cents for 2021.

We retain a strong balance sheet, and cash at bank closed at $174.8 million (2020: $241.2 million) following payment of a special dividend of $45.6 million, and the acquisition of octoScope for an initial net cash outflow of $51.3 million. Free cash flow was $91.9 million resulting from good working capital management.

As a result of the strong financial performance, we propose a 12 per cent increase to the full year dividend per share, from 6.04 cents to 6.76 cents, and looking forward we maintain our progressive dividend policy ensuring that we sustain dividend cover of 2 to 2.5 times adjusted earnings.

Note
1. Where stated, 'organic' excludes the impact of acquisitions throughout the Financial Review.

The following table shows summary financial performance for the Group:

$ million	**2021**	2020	Change (%)
Order intake[1]	**637.0**	539.4	18.1
Orderbook[2]	**269.8**	207.0	30.3
Revenue	**576.0**	522.4	10.3
Gross profit	**424.7**	383.4	10.8
Gross margin (%)	**73.7**	73.4	0.3pp
Adjusted operating costs[3]	**306.2**	279.9	9.4
Adjusted operating profit[3]	**118.5**	103.5	14.5
Adjusted operating margin[4] (%)	**20.6**	19.8	0.8pp
Reported operating profit	**104.2**	95.7	8.9
Reported profit before tax	**103.6**	95.8	8.1
Effective tax rate[5] (%)	**14.4**	13.6	0.8pp
Adjusted basic earnings per share[6] (cents)	**16.59**	14.68	13.0
Basic earnings per share (cents)	**14.67**	13.84	6.0
Free cash flow[7]	**91.9**	102.6	(10.4)
Closing cash	**174.8**	241.2	(27.5)
Final dividend per share[8] (cents)	**4.37**	3.87	12.9
Special dividend per share[8] (cents)	**-**	7.50	-

Notes
1. Order intake represents commitments from customers to purchase goods and/or services that will ultimately result in recognised revenue.
2. Orderbook is an alternative performance measure as defined in the appendix on page 38.
3. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $14.3 million in total (2020: $7.8 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 6 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, payment 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 2021 of 4.37 cents per Ordinary Share is equivalent to 3.34 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 in the appendix. 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.

Revenue

$ million	2021	% of total	2020[1]	% of total
Revenue by segment				
Lifecycle Service Assurance	**261.6**	**45.4**	219.3	42.0
Networks & Security	**314.4**	**54.6**	303.1	58.0
	576.0	**100.0**	522.4	100.0
Revenue by geography				
Americas	**324.6**	**56.4**	276.2	52.9
Asia Pacific	**185.1**	**32.1**	189.2	36.2
Europe, Middle East and Africa	**66.3**	**11.5**	57.0	10.9
	576.0	**100.0**	522.4	100.0

Note
1. Restated for changes to the Group's operating segments effective 1 January 2021 as set out in note 3 of Notes to the full year consolidated financial statements.

Total Group revenue grew by $53.6 million to $576.0 million in 2021, an increase of 10.3 per cent over the prior year.

Revenue at Lifecycle Service Assurance increased 19.3 per cent year-on-year (11.0 per cent on an organic basis) driven by demand for both our Landslide lab solution and VisionWorks live network solution, as customers invested to verify and assure 5G. In addition, we saw strong revenue growth from our new 5G device test solutions and services. We also experienced robust growth in order intake year-on-year, growing the orderbook as the value of multi-year deals increased over 2020.

The Networks & Security operating segment saw growth in revenue of 3.7 per cent as demand for high-speed Ethernet test continued and we saw success in our security business with good year-on-year growth following our steps to align our application and security test offerings more closely with our high-speed Ethernet products and go-to-market approach. Lab-based activities at US government customers for our Positioning solutions picked up during the year offsetting timing uncertainty with US government orders.

Overall, maintenance and support services revenue increased 14.5 per cent to $164.7 million (2020: $143.9 million).

Geographically, we saw growth in revenue in the Americas and Europe, Middle East and Africa and closed the year with a solid orderbook. The Asia Pacific region makes up 32 per cent of our portfolio.

Gross margin

$ million	2021	%	2020[1]	%
Lifecycle Service Assurance	**199.0**	**76.1**	163.7	74.6
Networks & Security	**225.7**	**71.8**	219.7	72.5
	424.7	**73.7**	383.4	73.4

Note
1. Restated for changes to the Group's operating segments effective 1 January 2021 as set out in note 3 of Notes to the full year consolidated financial statements.

Gross margin for 2021 remains strong at 73.7 per cent (2020: 73.4 per cent). The Lifecycle Service Assurance operating segment achieved an improvement in gross margin, benefiting from a higher proportion of software revenue. Networks & Security declined slightly driven by increased services content.

Adjusted operating costs

$ million	2021	2020[1]
Product development	**113.3**	103.1
Selling and marketing	**140.7**	123.4
Administration[2]	**52.2**	53.4
Adjusted operating costs[2]	**306.2**	279.9
Lifecycle Service Assurance	**135.9**	113.0
Networks & Security	**162.2**	157.7
Corporate	**8.1**	9.2
Adjusted operating costs[2]	**306.2**	279.9

Notes
1. Restated for changes to the Group's operating segments effective 1 January 2021 as set out in note 3 of Notes to the full year consolidated financial statements.
2. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $14.3 million in total (2020: $7.8 million).

Total Group adjusted operating costs were up $26.3 million or 9.4 per cent in 2021 compared to last year, $8.4 million of which related to the octoScope acquisition. The emphasis remained on effective resource allocation and careful cost management.

The overall investment in product development increased year-on-year from $103.1 million to $113.3 million, which again represents 20 per cent of revenue, to maximise our mid-term growth potential. Investment in the sales and marketing organisation was targeted on expanding our key account management programme to drive incremental business with our most valuable customers and developing routes to market for our new technologies to a broadening customer base. Selling and marketing costs increased by $17.3 million, from $123.4 million to $140.7 million, reflecting the investment in the sales organisation to support growth and the resulting increased sales commissions due to superior order growth outperformance.

We have reduced our corporate costs year-on-year following the conclusion of the review of our go-to-market strategy and pricing approach; however, plans to support our growth agenda by further investing in our infrastructure are being developed.

Operating profit

$ million	**2021**	**Adjusted operating margin[2, 3] %**	2020[1]	Adjusted operating margin[2, 3] %
Lifecycle Service Assurance	**63.1**	**24.1**	50.7	23.1
Networks & Security	**63.5**	**20.2**	62.0	20.5
Corporate	**(8.1)**		(9.2)	
Adjusted operating profit[2]	**118.5**	**20.6**	103.5	19.8
Adjusting items charged in arriving at operating profit:				
Acquired intangible asset amortisation	**(4.2)**		(0.5)	
Share-based payment	**(5.6)**		(4.2)	
Other adjusting items	**(4.5)**		(3.1)	
Reported operating profit	**104.2**		95.7	

Notes
1. Restated for changes to the Group's operating segments effective 1 January 2021 as set out in note 3 of Notes to the full year consolidated financial statements.
2. Before acquired intangible asset amortisation, share-based payment and other adjusting items amounting to $14.3 million in total (2020: $7.8 million).
3. Adjusted operating profit as a percentage of revenue in the period.

Adjusted operating profit increased by $15.0 million or 14.5 per cent ($9.8 million or 9.5 per cent organic) to $118.5 million in 2021, compared with $103.5 million in 2020. Adjusted operating margin increased by 0.8 percentage points to 20.6 per cent (20.3 per cent organic), from 19.8 per cent in 2020.

Reported operating profit was up by $8.5 million or 8.9 per cent to $104.2 million (2020: $95.7 million). Total adjusting items were $14.3 million in 2021, compared to $7.8 million in 2020, mainly due to acquisition related items of $3.3 million and acquired intangible asset amortisation of $3.8 million incurred as a direct result of the octoScope acquisition completed in March 2021 (see below).

Acquired intangible asset amortisation and share-based payment

The acquired intangible asset amortisation charge has increased significantly over the prior year due to the intangible assets recognised on the acquisition of octoScope, with a charge of $4.2 million incurred in 2021 (2020: $0.5 million).

Share-based payment has increased to $6.2 million in 2021 (2020: $4.7 million), of which $5.6 million (2020: $4.2 million) has been treated as an adjusting item. This increase reflects the incremental cost associated with new awards.

Other adjusting items
Costs of $4.5 million have been charged to other adjusting items in 2021, mainly as a direct result of the octoScope acquisition, and include adviser fees, integration costs and employee retention schemes. Also included were $1.2 million of costs associated with the commencement of our global R&D engineering facility plan which will consolidate sites and enhance flexibility to serve our global customers. This plan will conclude in 2023, with total estimated costs of $8 million.

In 2020, the Group recognised $3.1 million of other adjusting items in relation to a strategic review instigated by Spirent's CEO, involving a number of initiatives designed to evolve the strategic direction of Spirent to maximise market opportunities by creating a more agile, customer-focused organisation. These include a strategic focus on recurring revenue streams over time, a strengthened leadership team and development of our sales and marketing structure to drive improved effectiveness to exploit our leading technologies

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 loss, included in administration costs, of $0.8 million (2020: $0.6 million) 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 US Dollars in the United Kingdom.

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 $0.3 million was earned from cash on deposit (2020: $1.4 million) and $0.3 million (2020: $0.2 million) of interest income was recognised in relation to the UK defined benefit pension plans. The bank interest received remained largely consistent year-on-year reflecting continued low global interest rates. Surplus funds are held principally in the United Kingdom and United States on short-term or overnight deposit and earn market rates of interest.

Finance costs in 2021 were $1.2 million (2020: $1.5 million), $1.1 million (2020: $1.4 million) of which related to interest on lease liabilities.

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 14.4 per cent in 2021, slightly up from 13.6 per cent in 2020.

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

Going forward it is anticipated that Spirent's effective tax rate will slightly rise over time, due to geographical mix of profit trading, and 2022 will likely be around 15-17 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 Budget announcements on 3 March 2021 included an increase to the UK corporation tax rate to 25 per cent, which is due to be 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 per cent to 16.59 cents (2020: 14.68 cents). Basic earnings per share was 14.67 cents (2020: 13.84 cents). There were 608.2 million (2020: 609.7 million) weighted average Ordinary Shares in issue. See note 6 of Notes to the full year consolidated financial statements on page 31 for the calculation of earnings per share.

Acquisitions
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 a net cash outflow of $51.3 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.

octoScope has been incorporated into our Lifecycle Service Assurance operating segment along with our emerging Wi-Fi revenue stream previously residing in our high-speed Ethernet business within the Networks & Security operating segment.

Details on the net assets acquired and performance of octoScope are detailed separately in note 10 of Notes to the full year consolidated financial statements on page 36.

Financing and cash flow

Free cash flow for 2021 decreased year-on-year coming in at $91.9 million, compared to $102.6 million in 2020, resulting in a free cash flow conversion which represented 91 per cent of adjusted earnings (2020: 115 per cent). Higher adjusted operating profit was offset by a working capital outflow of $10.1 million excluding the impact of movement in provisions; this compares to a working capital inflow of $13.9 million in the prior year. In 2021, working capital was impacted by the year-on-year increase in revenue and the timing of that revenue within the year, resulting in an increase to closing trade receivables of $30.8 million. Despite this, closing days sales outstanding of 60 remained broadly consistent with the prior year of 57, reflecting continued robust management of working capital.

Free cash flow is set out below:

$ million	**2021**	2020
Cash flow from operations	**112.9**	132.0
Tax paid	**(10.0)**	(10.8)
Net cash inflow from operating activities	**102.9**	121.2
Interest received	**0.4**	1.5
Net capital expenditure	**(9.8)**	(9.0)
Payment of lease liabilities, principal and interest	**(10.0)**	(11.6)
Lease payments received from finance leases	**0.5**	0.5
Acquisition related other adjusting items (*note 4)*:		
– Direct acquisition transaction costs	**1.9**	-
– Acquisition related performance payments	**0.6**	-
– Acquisition integration costs	**0.8**	-
One-off employer contribution to UK pension scheme	**4.6**	-
Free cash flow	**91.9**	102.6

Free cash flow includes a net cash outflow in respect of other adjusting items charged in 2020 and 2021 of $4.0 million (2020: $3.1 million in respect of other adjusting items charged in 2019 and 2020).

Tax payments made in the year decreased year-on-year to $10.0 million (2020: $10.8 million), impacted by the timing of when payments were made. $3.1 million of tax paid in 2021 related to the prior year (2020: $3.8 million) and approximately $3.6 million of taxes related to 2021 will be paid in 2022. Net capital expenditure of $9.8 million was slightly up on the prior year (2020: $9.0 million). Capital expenditure in the period was predominantly incurred on demonstration and test equipment.

In 2021, the final and special dividend for 2020 and an interim dividend for 2021, totalling $84.1 million, were paid. This compared to total dividends of $33.6 million paid in 2020. In addition, 3.9 million shares were purchased and placed into the Employee Share Ownership Trust at a cost of $15.1 million (2020: 4.1 million shares at a cost of $11.9 million).

Following these payments, cash and cash equivalents closed at $174.8 million at 31 December 2021, compared with $241.2 million at 31 December 2020. There continues to be no bank debt.

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.

The accounting valuation of the funded defined benefit pension plans at 31 December 2021 gave rise to a net surplus of $37.8 million, compared with a net surplus of $13.0 million at 31 December 2020. The 31 December 2021 position has benefited from contributions paid to the plans in the year of $11.7 million (2020: $6.7 million) as well as a net actuarial gain of $13.5 million (2020: loss of $5.3 million), arising due to an increase in the discount rate.

The latest triennial actuarial valuation dated 31 March 2018 indicated a deficit of £22.5 million, calculated on a technical provisions basis using more prudent assumptions than the accounting valuation, particularly in relation to discount rate, inflation and demographic. A deficit reduction plan has been agreed with the trustees which requires the Company to pay an annual contribution of £5.0 million, increasing in line with CPI, through to June 2023 (or earlier if self-sufficiency is reached). In addition, the Company will fund the plan by an amount equal to 10 per cent of any special dividend paid during that period amounting to $30 million or over. Negotiations to conclude the updated triennial review for March 2021 are tracking to plan and an updated cash funding plan will be concluded in the near term.

Additionally, there is a liability for an unfunded plan of $0.7 million (31 December 2020: $0.7 million).

The Group also operates a deferred compensation plan for employees in the United States. As at 31 December 2021, the deferred compensation plan deficit amounted to $6.6 million (2020: $5.7 million). The key financial assumptions include a discount rate used to discount plan liabilities of 2.6 per cent (2020: 2.1 per cent) and an expected investment yield of 6.4 per cent (2020: 6.4 per cent).

Balance sheet

The consolidated balance sheet is set out on page 24.

Overall, net assets have increased by $4.7 million to $447.5 million at 31 December 2021, from $442.8 million at 31 December 2020.

In terms of non-current assets, these have increased by $69.9 million. Intangible assets amounting to $53.4 million were recognised as a result of the acquisition of octoScope and the UK defined benefit pension plan surplus has increased by $24.8 million due to contributions during the year and actuarial gains.

Current assets have declined by $28.4 million year-on-year, primarily reflecting the reduction in cash following the acquisition of octoScope ($51.3 million) and the payment of the 2020 special dividend ($45.9 million). The growth in receivables of $31.8 million reflects the year-on-year increase in revenue and the timing of revenue within the year, with closing days sales outstanding of 60 broadly consistent with 57 days at 31 December 2020.

Overall, liabilities have increased by $36.8 million to $243.8 million at 31 December 2021, from $207.0 million at 31 December 2020. Contract liabilities have increased by $15.7 million year-on-year, following a similar rise in 2020, due to an uptick in support contracts which are typically invoiced in advance. The majority of the remaining increase is in payables where the strong performance in the year has resulted in higher sales commissions and accruals.

Liquidity and dividend policy

The Board's intention continues to be maintaining 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 deemed 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 2021 of 4.37 cents (3.34 pence) per share which, together with the interim dividend of 2.39 cents (1.72 pence) per share paid in September 2021, brings the full year dividend to 6.76 cents (5.06 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 2020. In Sterling terms this represents an increase of 14 per cent. This follows a special dividend in 2020 of 7.50 cents (5.40 pence) per share.

Consolidated income statement

$ million	Notes	**Year ended 31 December 2021** Adjusted	Adjusting items[1]	Reported	Year ended 31 December 2020 Adjusted	Adjusting items[1]	Reported
Revenue	3	**576.0**	**-**	**576.0**	522.4	-	522.4
Cost of sales		**(151.3)**	**-**	**(151.3)**	(139.0)	-	(139.0)
Gross profit		**424.7**	**-**	**424.7**	383.4	-	383.4
Product development	3	**(113.3)**	**-**	**(113.3)**	(103.1)	-	(103.1)
Selling and marketing		**(140.7)**	**-**	**(140.7)**	(123.4)	-	(123.4)
Administration		**(52.2)**	**(14.3)**	**(66.5)**	(53.4)	(7.8)	(61.2)
Operating profit		**118.5**	**(14.3)**	**104.2**	103.5	(7.8)	95.7
Adjusting items:							
Acquired intangible asset amortisation		**-**	**(4.2)**	**(4.2)**	-	(0.5)	(0.5)
Share-based payment		**-**	**(5.6)**	**(5.6)**	-	(4.2)	(4.2)
Other adjusting items	4	**-**	**(4.5)**	**(4.5)**	-	(3.1)	(3.1)
Adjusting items		**-**	**(14.3)**	**(14.3)**	-	(7.8)	(7.8)
Finance income		**0.6**	**-**	**0.6**	1.6	-	1.6
Finance costs		**(1.2)**	**-**	**(1.2)**	(1.5)	-	(1.5)
Profit before tax		**117.9**	**(14.3)**	**103.6**	103.6	(7.8)	95.8
Tax	5	**(17.0)**	**2.6**	**(14.4)**	(14.1)	2.7	(11.4)
Profit for the year attributable to owners of the parent Company		**100.9**	**(11.7)**	**89.2**	89.5	(5.1)	84.4
Earnings per share (cents)	6						
Basic		**16.59**		**14.67**	14.68		13.84
Diluted		**16.45**		**14.54**	14.53		13.71

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 in the appendix. The reported GAAP measures give the complete measure of financial performance.

Consolidated statement of comprehensive income

		Year ended 31 December	
$ million	Note	**2021**	2020
Profit for the year attributable to owners of the parent Company		**89.2**	84.4
Other comprehensive income/(loss)			
Items that may subsequently be reclassified to profit or loss:			
– Exchange differences on retranslation on foreign operations		**(0.3)**	1.0
Items that will not subsequently be reclassified to profit or loss:			
– Re-measurement of the net defined benefit pension asset	8	**13.5**	(5.3)
– Income tax effect of re-measurement of the net defined benefit pension asset		**(4.8)**	1.0
– Re-measurement of the deferred compensation liability	8	**(0.2)**	(0.3)
– Income tax effect of re-measurement of the deferred compensation liability		**-**	0.1
		8.5	(4.5)
Other comprehensive income/(loss)		**8.2**	(3.5)
Total comprehensive income for the year attributable to owners of the parent Company		**97.4**	80.9

Consolidated balance sheet

$ million	Notes	At 31 December 2021	2020
Assets			
Non-current assets			
Intangible assets		**208.2**	159.9
Property, plant and equipment		**23.7**	25.8
Right-of-use assets		**26.0**	23.3
Trade and other receivables		**7.6**	6.8
Assets recognised from costs to obtain a contract		**0.8**	0.3
Defined benefit pension plan surplus	8	**37.8**	13.0
Deferred tax asset		**18.6**	23.7
		322.7	252.8
Current assets			
Inventories		**26.0**	22.3
Trade and other receivables		**164.1**	132.3
Assets recognised from costs to obtain a contract		**1.1**	0.6
Other financial assets		**0.1**	0.2
Current tax asset		**2.5**	0.4
Cash and cash equivalents		**174.8**	241.2
		368.6	397.0
Total assets		**691.3**	649.8
Liabilities			
Current liabilities			
Trade and other payables		**(87.6)**	(73.6)
Contract liabilities		**(72.1)**	(65.1)
Lease liabilities		**(8.4)**	(8.2)
Current tax liability		**(3.2)**	(2.1)
Provisions		**(5.4)**	(6.2)
		(176.7)	(155.2)
Non-current liabilities			
Trade and other payables		**(0.4)**	(1.0)
Contract liabilities		**(27.5)**	(18.8)
Lease liabilities		**(21.4)**	(20.0)
Deferred tax liability		**(8.0)**	(2.0)
Defined benefit pension plan deficit	8	**(7.3)**	(6.4)
Provisions		**(2.5)**	(3.6)
		(67.1)	(51.8)
Total liabilities		**(243.8)**	(207.0)
Net assets		**447.5**	442.8
Capital and reserves			
Share capital		**27.5**	27.9
Share premium account		**27.2**	27.6
Capital redemption reserve		**17.8**	18.0
Other reserves		**13.5**	12.5
Translation reserve		**10.8**	11.1
Retained earnings		**350.7**	345.7
Total equity attributable to owners of the parent Company		**447.5**	442.8

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 2020		26.8	26.6	17.4	15.2	10.1	306.2	402.3
Profit for the year		-	-	-	-	-	84.4	84.4
Other comprehensive income/(loss)[1]		-	-	-	-	1.0	(4.5)	(3.5)
Total comprehensive income		-	-	-	-	1.0	79.9	80.9
Share-based payment		-	-	-	-	-	4.7	4.7
Tax credit on share incentives		-	-	-	-	-	0.4	0.4
Equity dividends	7	-	-	-	-	-	(33.6)	(33.6)
Employee Share Ownership Trust	12	-	-	-	-	-	(11.9)	(11.9)
Exchange adjustment		1.1	1.0	0.6	(2.7)	-	-	-
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)[2]		**-**	**-**	**-**	**-**	**(0.3)**	**8.5**	**8.2**
Total comprehensive income/(loss)		**-**	**-**	**-**	**-**	**(0.3)**	**97.7**	**97.4**
Share-based payment		**-**	**-**	**-**	**-**	**-**	**5.9**	**5.9**
Tax credit on share incentives		**-**	**-**	**-**	**-**	**-**	**0.6**	**0.6**
Equity dividends	7	**-**	**-**	**-**	**-**	**-**	**(84.1)**	**(84.1)**
Employee Share Ownership Trust	12	**-**	**-**	**-**	**-**	**-**	**(15.1)**	**(15.1)**
Exchange adjustment		**(0.4)**	**(0.4)**	**(0.2)**	**1.0**	**-**	**-**	**-**
At 31 December 2021		**27.5**	**27.2**	**17.8**	**13.5**	**10.8**	**350.7**	**447.5**

Notes

1. The amount included in other comprehensive income/(loss) for 2020 of $4.5 million represents re-measurement losses on the net defined benefit pension asset of $5.3 million, net of a tax credit of $1.0 million, and re-measurement losses on the deferred compensation liability of $0.3 million, net of a tax credit of $0.1 million. The amount included in the translation reserve of $1.0 million represents other comprehensive income related to the translation of foreign operations.
2. 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.

Consolidated cash flow statement

$ million	Notes	Year ended 31 December 2021	2020
Cash flows from operating activities			
Cash flow from operations	9	**112.9**	132.0
Tax paid		**(10.0)**	(10.8)
Net cash inflow from operating activities		**102.9**	121.2
Cash flows from investing activities			
Interest received		**0.4**	1.5
Purchase of intangible assets		**-**	(0.5)
Purchase of property, plant and equipment		**(10.2)**	(9.5)
Proceeds from the sale of property, plant and equipment		**0.4**	1.0
Lease payments received from finance leases		**0.5**	0.5
Acquisition of subsidiary, net of cash acquired	10	**(51.3)**	-
Net cash used in investing activities		**(60.2)**	(7.0)
Cash flows from financing activities			
Lease liability principal repayments		**(8.9)**	(10.2)
Lease liability interest paid		**(1.1)**	(1.4)
Dividend paid	7	**(83.6)**	(33.6)
Hedge contracts relating to dividend payments		**(0.5)**	-
Share purchase into Employee Share Ownership Trust	12	**(15.1)**	(11.9)
Net cash used in financing activities		**(109.2)**	(57.1)
Net (decrease)/increase in cash and cash equivalents		**(66.5)**	57.1
Cash and cash equivalents at the beginning of the year		**241.2**	183.2
Effect of foreign exchange rate changes		**0.1**	0.9
Cash and cash equivalents at the end of the year		**174.8**	241.2

Notes to the full year consolidated financial statements

1 Financial information presented

The financial information contained in this document does not constitute the Group's statutory accounts for the year ended 31 December 2021.

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 Financial Reporting Standards (IFRS). The comparative financial information is based on the statutory accounts for the year ended 31 December 2020 which have been delivered to the Registrar of Companies. The report of the auditors on the 2020 and 2021 accounts was unqualified, did not draw attention to any matters by way of emphasis and did not contain a statement made under Section 498 of the Companies Act 2006.

The full year announcement was approved by the Board of Directors on 10 March 2022.

2 Accounting policies

The accounting policies adopted and methods of computation used are consistent with those applied in the consolidated financial statements for the year ended 31 December 2020.

New accounting standards
There have been no applicable new standards, amendments to standards and interpretations effective from 1 January 2021 that have been applied by the Group which have resulted in a significant impact on its consolidated results or financial position.

Going concern
In adopting the going concern basis for preparing the consolidated financial statements, the Directors have considered the Group's principal risks and uncertainties, including the potential impact of the COVID-19 pandemic on the Group and any longer-term impact to the global economy. In 2021, the COVID-19 pandemic has not had a significant impact on the Group's trading performance and the Group has continued to operate effectively.

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 2021, the Group had cash of $174.8 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 2022, as well as the business plan and cash flows for the three months ending 31 March 2023. The Directors have also considered the period to the end of 2024 which forms part of the Group's longer term viability assessment. In addition, they have considered the principal risks faced by the Group, the potential impact of COVID-19, 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.

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.

$ million	Lifecycle Service Assurance	Networks & Security	Corporate	Total
2021				
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**
Profit before tax				
Adjusted operating profit	**63.1**	**63.5**	**(8.1)**	**118.5**
Other adjusting items *note 4*	**(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				**(5.6)**
Operating profit				**104.2**
Finance income				**0.6**
Finance costs				**(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	**4.8**	**7.5**	**0.1**	**12.4**
Depreciation of right-of-use assets	**3.4**	**4.2**	**0.3**	**7.9**

3 Operating segments *continued*

2020 operating segment information has been restated for the following changes to the Group's operating segments which came into effect on 1 January 2021:

- In early 2021, some organisational changes were made to build an even stronger foundation for scale – breaking down barriers, better enabling solution selling and focusing on leading edge technology. To accelerate the momentum built in 2020, the Group has combined the Connected Devices operating segment into the Lifecycle Service Assurance operating segment effective 1 January 2021. This change has enabled a more integrated set of user experience assurance solutions. Going forward, Lifecycle Service Assurance and Connected Devices will be reviewed and managed as one segment. The Group's revised reported operating segments are Lifecycle Service Assurance and Networks & Security.
- The emerging Wi-Fi revenue stream has been reclassified from Networks & Security to Lifecycle Service Assurance to present this revenue stream together with the recently acquired octoScope business which has been incorporated into the Lifecycle Service Assurance operating segment.

$ million	Lifecycle Service Assurance	Networks & Security	Corporate	Total
2020				
Revenue				
Nature of products and services				
Sale of hardware and software	128.5	250.0	-	378.5
Maintenance and support services	90.8	53.1	-	143.9
	219.3	303.1	-	522.4
Primary geographical markets				
Americas	134.9	141.3	-	276.2
Asia Pacific	65.8	123.4	-	189.2
Europe, Middle East and Africa	18.6	38.4	-	57.0
	219.3	303.1	-	522.4
Profit before tax				
Adjusted operating profit	50.7	62.0	(9.2)	103.5
Other adjusting items *note 4*	(0.9)	(0.8)	(1.4)	(3.1)
Total reportable segment profit	49.8	61.2	(10.6)	100.4
Unallocated amounts:				
– Acquired intangible asset amortisation				(0.5)
– Share-based payment				(4.2)
Operating profit				95.7
Finance income				1.6
Finance costs				(1.5)
Profit before tax				95.8
Other information				
Product development	46.5	56.6	-	103.1
Intangible asset amortisation – other	0.9	-	-	0.9
Depreciation of property, plant and equipment	4.3	7.7	0.2	12.2
Depreciation of right-of-use assets	3.0	5.1	0.3	8.4

3 Operating segments *continued*

Inter-segment revenue is eliminated in the above periods. 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 $12.3 million (2020: $8.7 million).

Americas includes United States revenue of $305.6 million (2020: $262.6 million).

Asia Pacific includes China revenue of $102.8 million (2020: $106.1 million).

Revenues are attributed to regions and countries based on customer location.

One customer accounted for 10 per cent of total Group revenue in 2021, amounting to $57.8 million. Approximately 92 per cent of these revenues were in the Lifecycle Service Assurance operating segment. No one customer accounted for 10 per cent or more of total Group revenue in 2020.

4 Other adjusting items

$ million	**2021**	2020
R&D engineering plan	**1.2**	-
Direct acquisition transaction costs	**1.9**	-
Acquisition related performance payments	**0.6**	-
Acquisition integration costs	**0.8**	-
CEO strategic review	**-**	3.1
Total charge in the income statement	**4.5**	3.1

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. This cost comprised employee severance and retention bonuses of $1.1 million and equipment purchases of $0.1 million. This plan will continue into 2022 and 2023.

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. The acquisition related performance payments to key employees of the former octoScope business are contingent on meeting revenue growth targets for 2021 and/or a continuing employment requirement and comprise $0.9 million in respect of retention bonuses partially offset by $0.3 million relating to a remeasurement of the contingent consideration liability. In addition, direct transaction related costs of $1.9 million were incurred comprising advisor fees. See note 10 for further details.

In 2020, the Group incurred $3.1 million of costs associated with a strategic review, instigated by Spirent's new CEO, involving a number of initiatives designed to evolve the strategic direction of Spirent to maximise market opportunities by creating a more agile, customer-focused organisation. The programme concluded in 2020.

The tax effect of other adjusting items is a credit of $1.1 million (2020: $0.6 million). There will be a total net cash outflow of $4.4 million in respect of other adjusting items charged in 2021, $3.5 million of which was in 2021 (2020: $3.1 million outflow with $2.6 million paid in 2020). The cash outflow in 2021 in respect of other adjusting items charged in 2020 was $0.5 million (2020: $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.

5 Tax

$ million	2021	2020
Current income tax		
UK tax	**0.4**	1.7
Foreign tax	**10.1**	10.2
Amounts overprovided in prior years	**-**	(0.6)
Total current income tax charge	**10.5**	11.3
Deferred tax		
Recognition of deferred tax assets	**(1.9)**	(0.2)
Reversal of temporary differences	**5.1**	0.9
Adjustments in respect of prior years	**0.7**	(0.6)
Total deferred tax charge	**3.9**	0.1
Tax charge in the income statement	**14.4**	11.4

The tax charge for the year ended 31 December 2021 was $14.4 million (2020: $11.4 million). This was after a prior year tax charge of $0.7 million and a tax credit on the adjusting items of $3.3 million (2020: prior year credit of $1.2 million and tax credit on adjusting items of $1.5 million). Excluding the prior year and tax credit on adjusting items, the effective tax rate was 14.4 per cent (2020: 13.6 per cent).

6 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.

$ million	2021	2020
Profit for the year attributable to owners of the parent Company	**89.2**	84.4

Number million		
Weighted average number of Ordinary Shares in issue – basic	**608.2**	609.7
Dilutive potential of employee share incentives	**5.3**	6.1
Weighted average number of Ordinary Shares in issue – diluted	**613.5**	615.8

Cents		
Earnings per share		
Basic	**14.67**	13.84
Diluted	**14.54**	13.71

6 Earnings per share *continued*

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:

		2021		2020
	$ million	**EPS cents**	$ million	EPS cents
Profit for the year attributable to owners of the parent Company	**89.2**	**14.67**	84.4	13.84
Acquired intangible asset amortisation	**4.2**		0.5	
Share-based payment	**5.6**		4.2	
Other adjusting items costs *note 4*	**4.5**		3.1	
Tax effect on the above items	**(3.3)**		(1.5)	
Prior year tax charge/(credit)	**0.7**		(1.2)	
Adjusted basic	**100.9**	**16.59**	89.5	14.68
Adjusted diluted		**16.45**		14.53

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.

7 Dividends paid and proposed

$ million	**2021**	2020
Declared and paid in the year		
Equity dividend on Ordinary Shares		
Final dividend 2020 of 3.87 cents (2.78 pence) per Ordinary Share (2019: 3.45 cents (2.70 pence))	**23.7**	20.6
Special dividend 2020 of 7.50 cents (5.40 pence) per Ordinary Share (2019: nil)	**45.9**	-
Interim dividend 2021 of 2.39 cents (1.72 pence) per Ordinary Share (2020: 2.17 cents (1.67 pence))	**14.5**	13.0
	84.1	33.6
Proposed for approval at AGM (not recognised as a liability at 31 December)		
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))	**26.5**	23.7
Special dividend 2020 of 7.50 cents (5.40 pence) per Ordinary Share (2019: nil)	**-**	45.9
	26.5	69.6

The Directors are proposing a final dividend in respect of the financial year ended 31 December 2021 of 4.37 cents per Ordinary Share (3.34 pence) (2020: 3.87 cents (2.78 pence)), which will absorb an estimated $26.5 million of shareholders' funds (2020: $23.7 million). The final dividend will be paid on 10 May 2022 to Ordinary shareholders who are on the Register of Members at close of business on 18 March 2022. Payment will be made to ADR holders on 17 May 2022. 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 2021 was $1.31: £1 (2020: $1.39: £1).

Reconciliation of dividends charged to equity to cash flow statement:

$ million	**2021**	2020
Dividends charged to equity	**84.1**	33.6
Hedge contracts relating to payment of dividends (cash flow statement)	**(0.5)**	-
	83.6	33.6

8 Defined benefit pension plans

The Group has ongoing obligations in relation to two funded defined benefit pension plans in the United Kingdom. In addition, there is a United Kingdom unfunded plan and a deferred compensation plan in the United States.

The most recent actuarial valuations, at 31 March 2018, of the funded defined benefit pension plans' assets and the present value of the plans' obligations, using the projected unit credit method, have been used and updated at 31 December 2021 as the basis for the accounting valuation. The triennial actuarial valuation for March 2021 is yet to be finalised.

The assets and liabilities on the balance sheet are as follows:

$ million	2021	2020
Schemes in net asset position		
UK defined benefit pension plan – Staff Plan	**35.8**	11.2
UK defined benefit pension plan – Cash Plan	**2.0**	1.8
	37.8	13.0
Schemes in net liability position		
UK unfunded plan	**(0.7)**	(0.7)
US deferred compensation plan	**(6.6)**	(5.7)
	(7.3)	(6.4)
Net pension plan surplus on the balance sheet	**30.5**	6.6

The assets and liabilities in the funded defined benefit pension plans were as follows:

$ million	2021	2020
Fair value of defined benefit pension plans' assets	**330.3**	328.1
Present value of defined benefit pension plans' obligations	**(292.5)**	(315.1)
Net UK funded defined benefit pension plan surplus on the balance sheet	**37.8**	13.0

The key financial assumptions are as follows:

%	2021	2020
Inflation – RPI	**3.5**	3.0
Inflation – CPI (pre-2030)	**RPI less 1.0% pa**	RPI less 0.8% pa
Inflation – CPI (post-2030)	**RPI less 1.0% pa**	RPI less 0.8% pa
Rate of increase in pensionable salaries	**CPI**	CPI
Rate of increase for pensions in payment:		
– Pre-2001 service	**3.8**	3.5
– 2001 to 5 April 2005 service	**3.3**	2.9
– Post-5 April 2005 service	**2.2**	2.1
Rate of increase in deferred pensions	**CPI**	CPI
Rate used to discount plan liabilities	**1.8**	1.3

An operating charge of $0.1 million (2020: $0.8 million) and finance income of $0.3 million (2020: $0.2 million) have been recognised in the income statement.

8 Defined benefit pension plans *continued*

The Group also operates a deferred compensation plan for employees 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'. At 31 December 2021, the deferred compensation deficit amounted to $6.6 million (31 December 2020: $5.7 million). A re-measurement loss of $0.2 million (31 December 2020: $0.3 million) was recognised directly in the statement of comprehensive income.

9 Reconciliation of profit before tax to cash generated from operations

$ million	2021	2020
Profit before tax	**103.6**	95.8
Adjustments for:		
Finance income	**(0.6)**	(1.6)
Finance costs	**1.2**	1.5
Intangible asset amortisation	**5.0**	1.4
Depreciation of property, plant and equipment	**12.4**	12.2
Depreciation of right-of-use assets	**7.9**	8.4
Loss on the disposal of property, plant and equipment	**0.2**	0.1
Share-based payment	**6.2**	4.7
Changes in working capital:		
Increase in inventories	**(2.2)**	(1.5)
(Increase)/decrease in receivables	**(31.7)**	10.7
Increase/(decrease) in payables	**9.7**	(9.0)
Increase in contract liabilities	**14.1**	13.7
(Decrease)/increase in provisions	**(1.9)**	1.0
Defined benefit pension plan employer contributions net of plan administration expenses paid by the plan and past service cost	**(11.7)**	(6.0)
Deferred compensation plan	**0.7**	0.6
Cash flow from operations	**112.9**	132.0

10 Business combinations

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 will enable the Group to consolidate its leadership in Wi-Fi test.

octoScope has been incorporated into our Lifecycle Service Assurance operating segment along with our emerging Wi-Fi revenue stream previously residing in our high-speed Ethernet business within the Networks & Security operating segment (note 3).

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.

In 2021, $0.6 million of acquisition related performance payments have been charged to other adjusting items in the income statement (note 4). 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 $0.3 million, through other adjusting items in the income statement (note 4), and there was $0.1 million incurred in relation to the unwind of discounting. At 31 December 2021, the liability had a fair value of $0.5 million.

10 Business combinations *continued*

The provisional fair values of the identifiable net assets acquired are set out below:

$ 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 are 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 $1.9 million have been expensed to other adjusting items within the income statement in 2021 (note 4).

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.

There were no business combinations in 2020.

11 Fair value

The Directors consider that the carrying amounts of the financial instruments included within trade and other receivables, trade and other payables and contractual provisions approximates their fair value.

Corporate owned life insurance, included within trade and other receivables, is designated as financial assets at fair value through profit or loss, 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, amounted to $4.0 million at 31 December 2021 (31 December 2020: $3.6 million).

12 Employee Share Ownership Trust

During the year, 3.9 million shares were purchased and placed into the Employee Share Ownership Trust at a cost of $15.1 million, and 2.3 million shares were transferred from the Employee Share Ownership Trust to satisfy options exercised under the Spirent employee share plans (2020: 4.1 million shares purchased and placed at a cost of $11.9 million, and 2.8 million shares transferred).

Appendix
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 2021 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 do not reflect the underlying trading performance of the Group 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 6 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 19.

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.