

Press Release

Spectris plc
Melbourne House
5th floor
44-46 Aldwych
London
England
WC2B 4LL
T: +44 (0)20 4566 9400
info@spectris.com
www.spectris.com

2022 half year results

1 August 2022 – Spectris plc (SXS: LSE), the expert in providing insight through precision measurement, announces half year results for the six months ended 30 June 2022.

A more focused, more profitable, more resilient business, delivering strong growth

• Continuing strong demand and growth, delivering good financial performance

- 20% like-for-like ('LFL')¹ order growth; record order book provides strong visibility into H2
- 11% LFL sales growth driven by market share gains; statutory reported sales up 6%
- Adjusted operating margin maintained at 12.7%; statutory operating margin 9.5%
- Increased investment in R&D, up from 7.6% to 8.3% of sales
- · Confidence in high single digit organic sales growth and margin expansion for the full year

Further simplification of the Group

• Sale of Omega completed, £410 million headline proceeds in July, delivering significant shareholder value and further improving the quality of the Group

· Strong balance sheet and capital allocation policy in action

- Increasing investment for growth; 17% increase in R&D spending; higher capex for facility expansion at PMS; higher working capital to support order book execution
- £150 million of share buyback programme completed; remaining £150 million re-starting
- Dividend per share increase of 5%
- Acquisitions announced across all divisions, with capacity for further value-enhancing M&A

Sustainability at the core of our strategy

- Joined the UN Global Compact in support of our commitment
- Well positioned in attractive end markets, with strong fundamentals, supported by key sustainability themes

				Like-for-like
Continuing operations	H1 2022	H1 2021	Change	change ¹
Adjusted 1,2				
Sales (£m)	570.2	537.5	6.1%	11%
Operating profit (£m)	72.3	68.1	6.2%	6%
Operating margin (%)	12.7 %	12.7%	-	(60bps)
Profit before tax (£m)	70.3	65.1	8.0%	
Earnings per share (pence)	49.8p	44.0p	13.2%	
Adjusted cash flow conversion (%)	39 %	117%	(78pp)	
Return on gross capital employed (%)	13.8%	12.4%	140bps	
Statutory				
Sales (£m)	570.2	537.5	6.1%	
Operating profit (£m)	54.3	55.4	(2.0%)	
Operating margin (%)	9.5%	10.3%	(80bps)	
Profit before tax (£m)	41.8	181.9	(77.0%)	
Cash generated from operations	43.4	96.7	(55.1%)	
Basic earnings per share from				
continuing operations (pence)	26.5p	152.4p	(82.6%)	
Dividend per share (pence)	24.1p	23.0p	5%	

^{1.} Alternative performance measures ('APMs') are used consistently throughout this press release and are referred to as 'adjusted' or 'like-for-like' ('LFL'). These are defined in full and reconciled to the reported statutory measures in the appendix.

^{2.} The Omega business has been classified as a discontinued operation and the assets and liabilities have been classified as held for sale.

Accordingly, the financial statements for the current and comparative periods have been amended and show continuing operations.

Commenting on the results, Andrew Heath, Chief Executive, said: "Over the past three years, we have transformed the Group into a more focused, more profitable and more resilient business, with the ability to compound growth at a higher rate through the cycle. Today, Spectris is in a position of strength with a robust balance sheet, well positioned in attractive end markets, with strong fundamentals, supported by key sustainability themes to deliver structural growth. We have fantastic, engaged people all contributing to a purpose-led, high-performance growth culture.

I am pleased with our progress in the first half of 2022. We are continuing to see healthy demand for our products and services, with strong LFL growth in both orders and sales. While vigilant to the macro environment and alert to signs of changes in demand, we have confidence in our business and have increased our investment for growth in R&D, to enhance our customer offerings. With our current order visibility, we expect to deliver high single digit organic sales growth and margin expansion for the full year, supported by the Spectris Business System and pricing already in the order book. The successful sale of Omega delivered significant shareholder value; demonstrating our continued portfolio discipline, as we further improve the quality of the Group.

The next stage of our strategy will advance our ambition to be a leading sustainable business, delivering on our purpose to help make the world cleaner, healthier and more productive. We will build on the platform we have created to deliver strong, sustainable organic growth through the cycle, alongside continued margin expansion. We look forward to sharing more details at our upcoming Capital Markets Day in October."

Contacts:

Spectris plc Siobhán Andrews Head of Corporate Affairs +44 20 4551 4549/+44 7920 230093

Tulchan Communications Martin Robinson Giles Kernick +44 20 7353 4200

Conference call

A webcast of the presentation will be made available on-demand from 07.00 and a Q&A conference call for analysts and investors will be hosted by Andrew Heath, Chief Executive, and Derek Harding, Chief Financial Officer, at 10.00 today to discuss this statement. To access the call, please dial +44 (0) 20 3936 2999/0800 640 6441 – Pin code: 441101. Or for replay, please dial +44 (0) 20 3936 3001 – Pin code: 318025. Copies of this press release are available to the public from the registered office at Melbourne House, 44-46 Aldwych, London, WC2B 4LL and on the Company's website at www.spectris.com.

About Spectris

Spectris' global group of businesses are focused on delivering value beyond measure for all our stakeholders. We target global, attractive and sustainable markets, where growth and high returns are supported by long-term drivers. Precision is at the heart of what we do. We provide customers with expert insight through our advanced instruments and test equipment, augmented by the power of our software and services. This equips customers with the ability to reduce time to market, improve processes, quality and yield. In this way, Spectris know-how creates value for our wider society, as our customers design, develop, test and manufacture their products to make the world a cleaner, healthier and more productive place. Headquartered in London, United Kingdom, the Company employs approximately 7,350 people located in more than 30 countries. For more information, visit www.spectris.com.

Chief Executive's review

A more focused, more profitable, more resilient business

We have made good progress in the first half of 2022. Having entered the year in a strong position, with a record order book, healthy demand has remained for our products and services; enabling us to build on the positive momentum from 2021. We delivered double digit sales growth in the first half and continued to extend our order book, reflecting the underlying strength of demand from our customers.

With our current visibility, we expect to deliver high single digit organic sales growth with margin expansion for the full year, supported by the Spectris Business System and pricing already in the order book.

Our higher quality, more focused portfolio, provides us with confidence that we will continue to enhance margins, even in the current inflationary environment. The gross margin is temporarily impacted by the delay in recognising increased prices and supply chain disruption costs in executing the order book to support our customers. While we remain vigilant to the macro environment and alert to any potential signs of changes in demand, we have confidence in the outlook for our business and have increased our investment for growth through the first six months of the year. I am grateful to all of our employees for their continued efforts in driving this strong performance.

Our Strategy for Profitable Growth has positioned us well. Since 2019, we have significantly strengthened our businesses, as well as transforming the Group through disciplined portfolio management. Following the successful divestment of Omega, with a highly attractive valuation, Spectris today is an even more focused and less cyclical business, with an improved financial profile, concentrating on attractive growth markets, with the ability to compound growth at a higher rate through the cycle. We are excited about the opportunities across our businesses and are confident of continuing to improve the quality and profitability of the Group further.

Spectris is also now a much more resilient business. We operate across a number of targeted end market segments and our businesses work closely with customers, providing differentiated technologies that provide premium, high-value services to our customers around the world, equipping them to improve the drugs that heal us, the food we eat, the materials we build with, the cars we drive, the semiconductors that power our devices, or the air we breathe.

The strategy work we have executed over the past three years, has been assisted by the roll out of the Spectris Business System ('SBS'), tightening our processes and improving the efficiency and effectiveness of our operations. Additionally, it has been bolstered by the Group-wide drive to bring the best out of the Spectris culture, uniting our people behind a common purpose, creating support networks, and embedding a high performance, 'aim high' ethos that continues to push us forward.

We are now looking ahead to the next stage of our strategy, which will build on the platform we have created to deliver strong, sustainable organic growth, through the cycle, alongside continued margin expansion. We see significant opportunities as we continue to align the Group's activities with key sustainability themes, in markets with long-term, strong structural growth drivers. We enter this next phase from a position of strength, and our strong balance sheet allows us to invest more in R&D, developing the next wave of technologies and products that will drive our organic growth, in addition to making targeted acquisitions that fit our strategy.

We look forward to sharing more on the next chapter and exciting future for Spectris at our Capital Markets Day in October.

Good financial performance with strong revenue and order book growth Sales by geography and business – LFL growth vs H1 2021

	Q1	Q2	H1		Q1	Q2	H1
North America	10%	21%	15%	Malvern Panalytical	14%	15%	14%
Europe	12%	2%	7%	HBK	8%	6%	7%
Asia	15%	9%	12%	Industrial Solutions	15%	8%	11%
Rest of the World	6%	5%	6%				
Total sales	12%	9%	11%		12%	9%	11%
Total orders	31%	11%	20%		31%	11%	20%

Customer demand continues to remain buoyant, delivering very strong growth in the order book, with like-for-like ('LFL') order intake up 20% in the first half.

As expected, this resulted in strong LFL sales growth of 11% over the first six months of 2022, reflecting the introduction of new and enhanced products over the past few years, which have helped deliver market share gains. All our businesses are growing ahead of their respective markets. All businesses delivered strong order growth, and Asia saw good growth, even despite the COVID lockdowns in China in the second quarter.

Our record order book and current visibility provide us with confidence in our second half sales performance. We continue to expect high single digit LFL sales growth for the full year, consistent with previous guidance.

Adjusted operating profit of £72.3 million (H1 2021: £68.1 million) increased 6% on a LFL basis, at an adjusted operating margin of 12.7% (H1 2021: 12.7%). This reflected higher sales, partly offset by a lower gross margin and higher planned LFL R&D spend, being 18% higher year-on-year, as we increase investment for growth.

Our higher quality, more focused portfolio and pricing power provides us with confidence that we will continue to enhance margins, even in the current inflationary environment. The gross margin is temporarily impacted by the timing lag in recognising increased prices and supply-chain disruption costs in executing the order book to support our customers.

Our premium products provide us with good pricing power to continue to offset the higher inflation than expected at the time of setting this year's budget. As such, we expect gross margins to recover progressively in the second half, as price increases implemented earlier in the year start to be reflected in sales. Additionally, we are working hard to offset inflationary pressures through the application of the SBS to drive cost efficiencies. Consequently, we expect to see margin expansion in the second half.

Our near-term target remains to return the Group to its previous adjusted operating margin highs of 18%, and longer term to drive further margin expansion beyond this level.

Positioned in diverse, attractive markets with structural and sustainable growth drivers

Our focus on premium, precision measurement with sustainable competitive advantage, equips our customers to make the world, cleaner, healthier and more productive. We are more aligned than ever to markets with attractive growth trajectories, positioned in technology-driven end markets with strong fundamentals, increasingly supported by sustainability thematics.

Within our established, target markets, these strong sustainability trends are providing further, new growth opportunities, which are expected to grow faster than average industry growth rates. Many of these trends are already underpinning the strong demand that we are currently seeing from our customers. We have advantaged positions in these attractive segments today:

- Advancements in health Group sales into pharma and life sciences accounted for 25% of sales in the first half. Malvern Panalytical has an established position in drug discovery, development and manufacturing and PMS is a leader in the contamination monitoring for aseptic manufacturing. In the first half, both businesses saw continued strong demand, helped by the success of our new products and services launched over the past few years. For example, Malvern Panalytical's Zetasizer and OmniTrust software for regulated environments delivered incremental sales of £15 million;
- **Transformation of mobility** HBK's electrical powertrain testing suite of offerings has grown from an annual contribution of £6 million to £14 million over the past three years, in electric and hybrid transportation, for both the automotive and aerospace sectors;
- Energy transition Malvern Panalytical delivered above-market growth in energy technology-focused end markets and academia, based on its strong domain knowledge and customer relationships. Its products support the development of new/advanced materials and technologies and in the first half, products into battery and new energy technologies delivered £11 million in new revenue and orders of £17 million. HBK has the unique ability to integrate the physical and simulated testing space, supporting customers with their product development, including helping to solve complex testing requirements involved with the introduction of new electrification technologies. HBK's battery solutions, for

mechanical vibration and electrical testing, accelerate development of batteries for hybrid and pure EVs. In 2022, HBK is expecting to realise £40 million in revenues in support of customers' investments in battery development.

- **Environmental protection** Servomex's gas analysis solutions saw growth into energy and utilities sectors for emissions monitoring and control in the first half, due to alignment with decarbonisation and net zero trends across the industry
- More productive HBK's virtual test activity has grown materially over the past three years, delivering c.£60 million in incremental annual revenue over that time, through the investment in software and simulation offerings enabling customers to significantly accelerate R&D, reducing time to market, cost and risk, and carbon footprint in the development of new vehicles. PMS' contamination monitoring and Servomex's high purity gas analysers help deliver the highest yield rates in semiconductor fabrication. Both businesses have has seen rapidly growing demand for their latest products, with 39% and 21% LFL order growth in the first half.

We see exciting opportunities to accelerate our growth along these avenues over the coming years, both through organic development, supported by our strategic growth initiatives and the introduction of new products and services, and in targeted M&A activity, closely aligned to our purpose.

Increasing investment to accelerate growth

We continue to invest more in R&D to better position us to take advantage of these key trends and opportunities and to accelerate growth. Since the launch of the Strategy for Profitable Growth, there has been an increased focus across the Group on innovation for growth – refreshing our product portfolios and focusing our R&D investments on the most attractive opportunities, aligned with our strategic initiatives, as evidenced above.

We are confidently investing to drive growth and returns.

This year, we planned an incremental £10 million increase in R&D spend. In the first half of the year, our R&D spend rose £6.8 million year-on-year, up 17%, or 18% on a LFL basis, of which £3 million is due to the acquisition of Creoptix and CCRT. The increase in organic R&D investment includes product extensions such as:

- expanding our range of X-ray spectrometers and our particle analysers, including a robot driven sample automation for the Mastersizer, as well as next generation calorimeters and analytics software at Malvern Panalytical;
- the development of our new data acquisition hardware and software platform, Advantage & Fusion, electric powertrain testing, smart sensoring and virtual test offerings at HBK;
- the release of seven new products at PMS, including several that use novel IP;
- the completion of the product refresh at Red Lion and the launch of its new industrial ethernet switch line, with additional investment focused on advancing the security of the FlexEdge product line; and
- investment in a product refresh at Servomex for ultra-trace moisture and oxygen analysers and the photometric process analyser for industrial processes.

We have also increased our capital expenditure, with £31.6 million spent in the first half (H1 2021: £18.3 million), and a key project being a new facility for PMS, more than doubling its capacity, supporting long-term growth.

To deliver near-term growth, we have been investing in our working capital, protecting customer deliveries and to ensure successful execution of the record order book.

Growth is also being supported through our sales strategy, by adopting a more strategic approach to account management, helping to deliver more repeat and recurring revenue, and a greater focus on driving service revenues. The deployment of the new CRM and sales system in HBK is further assisting this approach, while also enabling a lower cost to serve.

Spectris Business System and ERP investment, supporting margin expansion

We continue to improve our cost structure and invest in new operational technologies to improve efficiency and reduce expense, making our business even stronger, particularly in a higher inflationary environment.

SBS is key to our strategy in delivering continuous, incremental improvements in our performance, year over year, by engaging the talents of our teams across the Group. I am pleased with the progress we are making.

Examples in the first half include, amongst others, improvements in revenue, manufacturing processes, working capital management and environmental sustainability with positive impacts across all of our businesses. These examples include:

- At Malvern Panalytical, improvements in order planning and balancing of the production of the Mastersizer assembly process to better increase throughput and almost halve overall order lead times;
- Using Value Analysis and Value Engineering methodology, HBK delivered a 40%+ reduction in per unit cost for a torque sensor product line, and a significant reduction in use of disposed plastics;
- At HBK, an analysis of work-in-progress for its yarn tension sensor products resulted in a rearranged production line layout to make the material flow more smoothly, leading to a 28% improvement in product delivery time, a 23% decrease in labour time and a reduction in inventory;
- At PMS, an analysis of our service provision and subsequent retrofit of our service room and retraining of our engineering capacity enabled us to provide a faster service response time to customers, improving turn-around time by 46% and a quadrupling in our service capacity, generating £1.6 million of extra revenue;
- Packaging analysis and redesign at PMS and Red Lion is supporting our environmental sustainability goals while reducing cost and use of packaging material.

Additionally, we are investing in new ERP implementations at Malvern Panalytical and HBK over the next three years. This will standardise, simplify and automate processes to enhance operations, enabling our businesses to become more lean and agile, and also scalable and flexible for growth. It will drive long-term structural improvements to our operating model supporting our growth and margin expansion ambitions, whilst also driving efficiency and working capital improvements.

Deploying our strong cashflow and balance sheet for value-enhancing M&A

Our strategy remains to deploy our capital to compound growth and returns, investing in R&D for organic growth and value enhancing M&A. Following completion of £150 million of the share buyback programme, our balance sheet position at 30 June was a net debt of £98.3 million. We expect to complete the remainder of the £300 million buyback programme in the second half.

In April, we announced the divestment of Omega Engineering to Arcline Investment Management for \$525 million (£410 million). The proceeds were received in early July, restoring the Group to a strong net cash position.

In the first half of 2022, we made a number of bolt-on acquisitions that will support our customers and accelerate our strategic growth initiatives.

At Malvern Panalytical, the acquisition of Creoptix, in January, strengthens our affinity offering for early-stage drug development and discovery, a key target area in our pharma workflow strategy. Its core instrument, the WAVE system, provides customers with advanced molecular interaction analysis for lead generation in the early stages of a drug's development cycle.

At HBK, the acquisition of Dytran Instruments, Inc, expected to close in the second half, strengthens its piezo-electric sensor offering, adds new MEMS capability and expands sales into North America. Its products are used in a broad range of applications in the space, aerospace, industrial and automotive industries in both product development testing and embedded monitoring solutions.

HBK have also signed a joint venture agreement with DEWESoft, a leading manufacturer of data acquisition ('DAQ') hardware, to help accelerate the development of its new Fusion DAQ platform, and to create a new industry, open standard for DAQ products.

In April, Red Lion acquired MB connect line GmbH, whose high security hardware and software solutions enhance Red Lion's industrial automation and networking technology portfolio. The combination brings a full complement of products in industrial cyber-security and offers customers a secure portal for remote monitoring and configuration.

On 28 February, the Group announced that it was in discussions with Oxford Instruments regarding a potential acquisition of the business, to create a leading global player in precision measurement. Due to significant uncertainty in the wake of Russia's invasion of Ukraine, the Group announced the termination of talks on 7 March.

We continually seek out opportunities to complement our capabilities through M&A, from smaller bolt-on acquisitions to larger-scale opportunities. Following the activity in the first half, we continue to refresh our pipeline of opportunities. We will maintain a disciplined approach to capital allocation and generating enhanced returns.

The Board is proposing to pay an interim dividend of 24.1 pence per share, (H1 2021: 23.0 pence per share), 5% growth year-on-year. This is in line with our underlying policy of making progressive dividend payments based upon affordability and sustainability through-the-cycle.

Sustainability at our core

Sustainability is at the heart of our purpose, delivering value beyond measure for all our stakeholders. We have a clear ambition to create a positive and lasting impact, with the intention of setting the benchmark among our peers for both the sustainability of our operations and for our opportunity to harness the power of precision measurement to make the world cleaner, healthier and more productive.

In support of our commitment to a sustainable future, we were proud to join the UN Global Compact in February. We are making good progress on our environmental initiatives towards meeting our net zero targets and on our social agenda.

We recognise that the sustainable success of our Group relies on the ambition, expertise and engagement of our people. The attraction, retention and development of talented technical individuals is a core growth enabler for the Group. In the first half, we have taken significant steps with our STEM strategy to deepen our relationship with key academic and professional bodies to build the pipeline of our future workforce. This includes a strategic partnership with the Society of Hispanic Professional Engineers in the USA, joining the Society of Women Engineers and retaining our sponsorship of the International Women in Engineering Day. We have also launched our first online work experience programme with The Forage, a free global education platform for college and university students, to support the development of future STEM students and provide a showcase of careers within the Group for future talent.

The Spectris Foundation supports STEM provision in the communities where the Group operates and is now in its second year of grant making. In the first half, grants were made to STEM India Foundation to create a phygital lab and the SAE Foundation in the USA to inspire the next generation in STEM education, through a hands-on project called A World In Motion.

We continue to work on initiatives to ensure we have an inclusive and supportive culture where individuals can thrive and have the development and opportunities to progress their careers. I am very pleased that we have seen meaningful progress over the past 12 months in the results of our latest, all-employee engagement survey. We continue to invest in our Ascend leadership programme, with the first cohort of 80 attendees halfway through the programme, as well as in our mental health provision and diversity programme.

We are very cognisant of the potential economic backdrop and the cost of living challenges that are impacting some of our employees and have been addressing salaries where appropriate. Our colleagues in China have also been subject to continued COVID-19 lockdowns and we have been working closely with them to ensure their continued safety and mental wellbeing. While we have no employees in Ukraine, we made a donation of £100,000 to the Red Cross as part of the Disasters Emergency Committee appeal and also matched employee donations of over £11,000 to help provide humanitarian aid.

Changes to Executive Committee

Plans had been underway to run the Industrial Solutions Division as a more integrated division, with some potential restructuring. A decision has been made not to pursue this path, and to maintain the businesses on a stand-alone basis, while continuing to seek further efficiencies through the deployment of SBS. To take out additional cost, the three businesses will now report directly to the Chief Executive and the ISD management layer will be removed. As a result, Mary Beth Siddons who is on the Spectris Executive Committee, has decided to leave the Group.

Summary and outlook

Over the past three years, we have transformed the Group into a more focused, more profitable and more resilient business, with the ability to compound growth at a higher rate through the cycle. Today, Spectris is in a position of strength with a robust balance sheet, well positioned in attractive end markets, with strong fundamentals, supported by key sustainability themes to deliver structural growth. We have fantastic, engaged people all contributing to a purpose-led, high-performance growth culture.

I am pleased with our progress in the first half of 2022. We are continuing to see healthy demand for our products and services, with strong LFL growth in both orders and sales. While vigilant to the macro environment and alert to signs of changes in demand, we have confidence in our business and have increased our investment for growth in R&D, to enhance our customer offerings. With our current order visibility, we expect to deliver high single digit organic sales growth and margin expansion for the full year, supported by the Spectris Business System and pricing already in the order book. The successful sale of Omega delivered significant shareholder value; demonstrating our continued portfolio discipline, as we further improve the quality of the Group.

The next stage of our strategy will advance our ambition to be a leading sustainable business, delivering on our purpose to help make the world cleaner, healthier and more productive. We will build on the platform we have created to deliver strong, sustainable organic growth through the cycle, alongside continued margin expansion. We look forward to sharing more details at our upcoming Capital Markets Day in October.

Andrew Heath

Chief Executive

Financial review

Financial performance

Statutory reported sales increased by 6.1% or £32.7 million to £570.2 million (H1 2021: £537.5 million), LFL sales increased by £52.5 million (+10.7%) with the impact of disposals, net of acquisitions reducing sales by £30.5 million (-6%) and foreign exchange movements increasing sales by £10.7 million (+2%).

The statutory operating profit was £54.3 million, a decrease of £1.1 million compared to the H1 2021 statutory operating profit of £55.4 million. Statutory operating margins of 9.5% were 80bps lower than H1 2021 (10.3%). The decrease results from a £8.9 million volume and pricing-driven gross profit increase, offset by a £10.0 million increase in SG&A expenses.

Net transaction-related costs and fair value adjustments were £6.8 million, primarily related to the acquisition of Creoptix, the disposal of Omega and the aborted proposed offer for Oxford Instruments plc. The group incurred £2.3 million of ongoing Software as a Service projects in relation to the development of the ERP solution benefiting both Malvern Panalytical and HBK and £8.8 million of ongoing amortisation of acquisition-related intangible assets in the period.

	2022 Half year	2021 Half year
Continuing operations	£m	£m
Statutory operating profit	54.3	55.4
Restructuring costs	-	3.8
Net transaction-related costs and fair value adjustments	6.8	3.4
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	0.1	0.1
Configuration and customisation costs carried out by third parties on material SaaS projects	2.3	-
Amortisation of acquisition-related intangible assets	8.8	5.4
Adjusted operating profit	72.3	68.1

Adjusted operating profit increased by 6.2% or £4.2 million to £72.3 million (H1 2021: £68.1 million). LFL adjusted operating profit increased by £3.6 million (+5.6%), with the impact of disposals net of acquisitions decreasing adjusted operating profit by £3.2 million (-5%), and foreign exchange movements increasing adjusted operating profit by £3.8 million (+6%).

Adjusted operating margins remained flat, with LFL adjusted operating margins lower by 60bps compared to H1 2021. The marginal decline in the LFL operating margin was due to a 240bps decrease in LFL gross margin at 55.7% (H1 2021: 58.1%), reflecting the lag between price increases impacting sales and a high inflationary cost environment. A planned higher investment in R&D and increases in cost have resulted in a 6.3% LFL increase in overheads. Investment in our R&D programmes amounted to £47.6 million or 8.3% of sales (H1 2021: £40.8 million or 7.6% of sales), increasing by 18.3% on a LFL basis.

Statutory profit before tax of £41.8 million (H1 2021: £181.9 million) is calculated after net finance cost of £12.8 million (H1 2021: £8.8 million credit), higher due to the utilisation of borrowing facilities during 2022, whereas H1 2021 included a £5.1 million interest credit on release of a provision on settlement of an EU dividends tax claim. H1 2021 also included a £117.7 million profit on disposal of businesses, predominantly related to Brüel & Kjær Vibro.

The effective tax rate on adjusted profit before tax for H1 2022 was 22.0% (H1 2021: 21.8%). The effective adjusted tax rate for the full year is estimated to be 22.0%.

Disposals

The Group announced the disposal of its Omega business on 19 April. This sale completed on 1 July 2022, with the receipt of headline sales proceeds \$525 million (£410 million equivalent). The total sales proceeds received is subject to a customary completion accounts true-up. The Group has not disposed of any other businesses in the first half year.

Compliant with IFRS 5, the Omega business has been classified as a discontinued operation and the assets and liabilities have been classified as held for sale. The financial statements for the current and comparative periods in this interim report have been amended accordingly. The statutory profit after

tax from the discontinued operations was £10.2 million (H1 2021: £3.9 million). Volume and price driven sales increases were strong across all regions, especially in North America and China, reflecting strong customer demand in their core semiconductor market. Statutory profit benefited from this growth, but was partly offset by higher material and labour costs.

Cash flow

Adjusted cash flow was £27.9 million during the period (H1 2021: £79.9 million), resulting in an adjusted cash flow conversion rate of 39% (H1 2021: 117%). £5.1 million higher EBITDA was offset by £43.8 million of higher working capital and £13.3 million higher capital expenditure. The increase in working capital was driven by higher trade debtors, predominantly as a result of the higher level of sales in June, a planned stock build to support the order book growth, as well as forward purchases for all key components to ensure customer orders are met in the second half. The higher level of capital expenditure was predominantly as a result of a \$19.9 million (£15.3 million equivalent) investment in a new production facility and headquarters for PMS in Colorado.

	Half year	Half year
	2022	2021
Adjusted cash flow from continuing operations	£m	£m
Adjusted operating profit	72.3	68.1
Adjusted depreciation and software amortisation ¹	18.8	17.9
Working capital and other non-cash movements	(31.6)	12.2
Capital expenditure, net of grants related to capital expenditure	(31.6)	(18.3)
Adjusted cash flow from continuing operations	27.9	79.9
Adjusted cash flow conversion from continuing operations	39 %	117%

Adjusted depreciation and software amortisation represent depreciation of property, plant and equipment, software and internal development amortisation, adjusted for depreciation of acquisition-related fair value adjustments to property, plant and equipment.

	Half year	Half year
	2022	2021
Other cash flows and foreign exchange	£m	£m
Tax paid	(20.5)	(17.2)
Net interest paid on cash and borrowings	(0.3)	(2.5)
Dividends paid	(53.3)	(53.6)
Share buyback	(150.8)	(79.7)
Acquisition of businesses, net of cash acquired	(44.3)	(1.3)
Acquisition of investment in associate	(3.4)	-
Transaction-related costs paid	(6.0)	(9.0)
Proceeds from disposal of equity investments	-	38.3
(Outflow)/proceeds from disposal of businesses	(15.1)	208.8
SaaS-related cash expenditure	(2.3)	-
Lease payments and associated interest	(7.6)	(7.3)
Restructuring costs paid	(2.6)	(6.8)
Net proceeds from exercise of share options	-	0.3
Total other cash flows	(306.2)	70.0
Adjusted cash flow from continuing operations	27.9	79.9
Adjusted cash flow from discontinued operations	7.3	13.5
Foreign exchange	4.9	3.3
Increase in net (debt)/cash	(266.1)	166.7

During the period, 5,068,643 ordinary shares were repurchased and cancelled by the Group in relation to the first £150 million tranche of the £300 million share buyback programme announced on 19 April, resulting in a cash outflow of £150.8 million. In H1 2021, the Group had a cash outflow of £79.7 million as part of the £200 million share buyback announced on 25 February 2021.

During the period, the Group paid net consideration totalling £34.8 million for the acquisition of Creoptix, £8.7 million for the acquisition of MB connect line and £0.8 million of deferred consideration on acquisitions entered into in prior periods.

Financing and treasury

The Group finances its operations from retained earnings and, where appropriate, from third-party borrowings. The 30 June 2022 gross debt balance was £228.2 million (H1 2021: £0.2 million).

In determining the basis of preparation for the Condensed Consolidated Financial Statements, the Directors have considered the Group's available resources, current business activities and factors likely to impact on its future development and performance, including the impact of economic factors such as rising interest rates and inflation as well as climate change on the Group, which are described in the Chief Executive's Review, Financial Review and Operating Review.

As at 30 June 2022, the Group had £411.3 million of committed facilities, consisting entirely of an \$500.0 million multi-currency revolving credit facility ('RCF') maturing in July 2025. An amount of £220 million was drawn on the RCF as at 30 June 2022.

The Group regularly monitors its financial position to ensure that it remains within the terms of its banking covenants. At 30 June 2022, interest cover (defined as adjusted earnings before interest, tax and amortisation divided by net finance charges) was 144.7 times (31 December 2021: 67 times), against a minimum requirement of 3.75 times, and leverage (defined as adjusted earnings before interest, tax, depreciation and amortisation divided by net cash/(debt)) was 0.6 times (31 December 2021: less than zero) against a maximum permitted leverage of 3.5 times.

At 30 June 2022, the Group had a cash and cash equivalents balance of £129.9 million (including £7.7 million of cash included in assets held for sale). In addition to the RCF borrowings of £220 million, the Group also had various uncommitted facilities and bank overdraft facilities available, of which £8.2 million were utilised, resulting in a net debt position of £98.3 million. This compares to a net cash position of £167.8 million as at 31 December 2021, a decrease of £266.1 million. This is, in part, due to the completion of a £150 million share buyback, the acquisitions of Creoptix and MB connect line and payment of the 2021 final dividend in June 2022.

On 1 July 2022, the Group received headline sales proceeds of \$525 million (£410 million) for the sale of its Omega business to Arcline Investment Management. The total sales proceeds received is subject to a customary completion accounts true-up. All outstanding drawings on the RCF were immediately repaid from these proceeds and the remainder invested in interest-bearing deposit accounts.

The Group has prepared and reviewed cash flow forecasts for the period to 30 June 2025, which reflect forecasted changes in revenue across its business and compared these to a reverse stress test of the forecasts to determine the extent of downturn which would result in a breach of covenants. The reverse stress test does not take into account any mitigating actions which the Group would implement in the event of a severe and extended revenue decline, which would increase the headroom further. This assessment indicates that the Group can operate within the level of its current facilities, as set out above, without the need to obtain any new facilities for a period of not less than 12 months from the date of this report.

Following this assessment, the Board of Directors are satisfied that the Group has sufficient resources to continue in operation for the foreseeable future, a period of not less than 12 months from the date of this report. Accordingly, they continue to adopt the going concern basis in relation to this conclusion and preparing the Condensed Consolidated Financial Statements.

Currency

The Group has both translational and transactional currency exposures. Translational exposures arise on the consolidation of overseas company results into Sterling. Transactional exposures arise where the currency of sale or purchase invoices differs from the functional currency in which each company prepares its local accounts. The transactional exposures include situations where foreign currency denominated trade receivables, trade payables and cash balances are held.

After matching the currency of revenue with the currency of costs wherever practical, forward exchange contracts are used to hedge a proportion of the remaining forecast net transaction cashflows where there is reasonable certainty of an exposure. At 30 June 2022, approximately 62% of the estimated transactional exposures for the next 12 months of £131.9 million were hedged using forward exchange contracts, mainly against Sterling, the Euro, the US Dollar and the Danish Krone.

The largest translational exposures during the period were to the US Dollar, Euro and Chinese Yuan Renminbi. Translational exposures are not hedged. The table below shows the average and closing key exchange rates compared to Sterling.

	HY 2022 (average)	HY 2021 (average)	Change	HY 2022 (closing)	HY 2021 (closing)	Change
US Dollar (USD)	1.30	1.39	(7%)	1.22	1.38	(13%)
Euro (EUR)	1.19	1.15	3%	1.17	1.16	1%
Chinese Yuan Renminbi (CNY)	8.40	8.99	(7%)	8.14	8.93	(10%)

During the period, currency translation effects resulted in adjusted operating profit being £3.8 million higher (H1 2021: £5.6 million lower) than it would have been if calculated using prior year exchange rates.

Transactional foreign exchange gains of £1.4 million (H1 2021: £nil) were included in administrative expenses, whilst sales include a loss of £1.5 million (H1 2021: £1.4 million gain) arising on forward exchange contracts taken out to hedge transactional exposures in respect of sales.

Capital allocation

During the period, the Group has continued to follow its approach to capital allocation set out in 2019. The balance sheet remains strong with net debt to EBITDA of 0.6x at the period end. Within the year, we have used the cash generated from operations and disposals to invest in the business, to position it for stronger through the cycle growth, via a 18% LFL increase in R&D to drive further innovation and through selected acquisitions. We continue to look to drive attractive shareholder returns through a combination of growth and income and reflecting this have increased the interim dividend by 5% and used the excess capital following the sale of Omega to return £150 million to shareholders via a share buyback in the first half.

Operating segments - financial summary - continuing Group

	Malvern Pa	Malvern Panalytical		НВК		Solutions	Tot	al
	H1 2022	H1 2021	H1 2022	H1 2021	H1 2022	H1 2021	H1 2022	H1 2021
Sales (£m)	209.1	178.5	215.0	188.0	146.1	171.0	570.2	537.5
LFL sales growth (%)	14%		7 %		11%		11%	
Statutory operating profit (£m)	17.7	17.6	16.1	14.9	20.5	22.9	54.3	55.4
Statutory operating margin (%)	8.5%	9.9%	7.5%	7.9%	14.0%	13.3%	9.5%	10.3%
Adjusted operating profit (£m)	26.3	22.3	24.2	21.7	21.8	24.1	72.3	68.1
LFL adjusted operating profit change (%)	24%		(8%)		1%		6%	
Adjusted operating margin (%)	12.6%	12.5%	11.3%	11.5%	14.9%	14.1%	12.7 %	12.7%
LFL adjusted operating margin change (bps)	100bps		(160bps)		(160bps)		(60bps)	
Sales % of Group sales	37 %	33%	38%	35%	25%	32%	100%	100%

Throughout this Operating Review, all commentary refers to the adjusted LFL measures unless otherwise stated. A reconciliation of adjusted measures to statutory measures for all segments can be found in the appendix.

Malvern Panalytical

				LFL
	Half year 2022	Half year 2021	Change vs 2021	change vs 2021
Statutory reported sales (£m)	209.1	178.5	17%	14%
Adjusted operating profit¹(£m)	26.3	22.3	18%	24%
Adjusted operating margin ¹ (%)	12.6 %	12.5%	10bps	100bps
Statutory operating profit (£m)	17.7	17.6	1%	
Statutory operating margin (%)	8.5%	9.9%	(140bps)	

^{1.} This is an alternative performance measure ('APM'). APMs are defined in full and reconciled to the reported statutory measures in the Appendix to the Financial Statements.

Financial performance

On a statutory basis, reported sales increased 17% to £209.1 million, with operating profit at £17.7 million, primarily reflecting the strong end market growth and good operational performance offset by additional transaction-related costs and ERP investment. The statutory operating margin was 8.5%, down from 9.9% in 2021.

Continued robust customer demand, plus market share gains supported by the positive impact from new products, helped underpin a strong order intake with 12% growth in LFL orders and a 14% increase in LFL sales.

All regions saw strong LFL sales growth. Strong demand continued in all sectors including pharmaceutical. In the advanced materials sector, strong demand was driven by the semiconductor and energy technology-focused end markets. Primary materials sector growth was underpinned by a recovery in the metals, mining and building materials end markets.

Adjusted operating profit of £26.3 million increased by 24% on a LFL basis and LFL adjusted operating margins rose 100bps, predominantly reflecting the volume increase, partly offset by higher investment in R&D and reflecting the acquisition of Creoptix. Price increases implemented at the start of the year only started to come through in revenue in May, so will have a greater impact in the second half.

Delivering the strategy

To support growth at Malvern Panalytical, there has been increased investment in R&D to both enhance the performance of existing products and develop new solutions, with software, services and analytics being key areas of focus. During the first half, a number of new products have been launched. For the compound semiconductor industry, we have launched a cleanroom compatibility option for our X-ray diffraction product. This is rated to ISO Class 4 and will expand the applicability of our offering within the customers' typical workflow. To meet the growing demand, the clean room building facilities at Malvern Panalytical's Almelo site have been expanded. Sales of the Zetasizer, launched in 2021, continue to significantly exceed the business plan and new features have been added to further support its application to the pharmaceutical industry.

To supplement this organic spend, M&A is being targeted to expand Malvern Panalytical's offerings in support of its customer workflow strategy. The pharmaceutical industry is one of the key strategic focus areas, in particular the instrumentation market for structure, stability, and affinity measurements, supporting both small molecule and biologics drug development. In January, Creoptix AG was acquired to further strengthen and expand our offering in the affinity space, offering leading analytical tools, software and consumables for drug binding (i.e. kinetics) measurements. The combination provides an exciting opportunity to quickly scale Creoptix's superior technology, in terms of speed and sensitivity, by leveraging Malvern Panalytical's extensive customer base. The core Creoptix instrument, WAVE, provides exceptionally high sensitivity and resolution to study real-time biological interactions.

In addition to its strategic growth initiatives, to drive further efficiencies in our operating performance, a programme to simplify, standardise and automate ways of working across the organisation is underway, which includes an enterprise-wide ERP solution. It will provide better access to data, offer scalability to support Malvern Panalytical's growth ambitions and help deliver margin expansion. It will also further enhance Malvern Panalytical's customer engagement, especially as it focuses on large and strategic accounts, working more closely with the customer, standardising on Malvern Panalytical's solutions globally.

In recognition of its standing with customers, at the 2021 Scientists' Choice Awards, Malvern Panalytical won the prestigious Science Customer Service of the Year award, in recognition of the consistently positive after-sales feedback it has received from scientists globally.

Market trends and outlook

Pharmaceutical and food

Sales growth remained robust in the pharmaceutical sector in the first half of the year. LFL sales to the pharmaceutical sector saw particularly strong growth in North America, driven by investment in biologics and onshoring of manufacturing capacity. Growth has been further driven by the success of our new products like Zetasizer and OmniTrust software for regulated environments.

The outlook for the pharmaceutical sector remains positive. Small molecule drugs still represent around two-thirds of development pipelines and quality control investment is returning as projects restarted last year, increasing demand for stability solutions such as our Mastersizer product. In addition, investment in development and manufacturing capabilities for the higher growth, large molecule, cell and gene therapies remains high. This is expected to support an increase in instrumentation demand and further investment in analytical capabilities, underpinning the robust opportunity pipeline. For example, we have been working closely with Particle Works, which develops and manufactures nanoparticle production platforms for the pharmaceutical and biotech industries. Its innovative systems are used to produce lipid nanoparticles, important delivery vectors for mRNA-based medicines, such as vaccines and gene therapy.

Demand is also being supported by an increase in onshoring, as western governments seek to increase supply chain robustness, by reducing reliance on China for critical pharmaceutical supplies. For example, the US Senate passed 'innovation and competition' legislation designed to restore its manufacturing base and encourage corporation with European partners. This has prompted investment in pharmaceutical facilities, with key biopharmaceutical manufacturing capacity being developed in the USA.

Primary materials

Performance in this sector has been more mixed and with a lower speed of recovery in sales, with strong, but later cycle, order income. LFL sales were higher year-on-year, although lower into Asia, reflecting supply chain impacts and the COVID lockdown in China. In this sector, the aftersales and service revenue opportunity remains strong, as we look to drive additional service revenues through our extensive installed base.

The mining, minerals and metals market outlook has become more optimistic with improved metal prices helping increase exploration budgets. Our key account management approach and process automation tools are also helping to drive sales growth.

In oil and petrochemicals, performance has been more variable. The higher oil price has been supportive and activity levels have improved, although growth for new capex projects is still to recover, with companies continuing to concentrate on product maximisation, productivity and cost constraint. The increased focus on energy transition has affected this segment, slowing current investments in analytical solutions, but will create further opportunities in the near future.

Our strength in process automation and digital solutions, to help improve quality and yield, while reducing risk and improving safety, is helping drive demand in these markets. Additionally, the increasing focus by customers on sustainable practices and environmental matters will support our growth prospects.

Advanced materials

LFL sales in advanced materials continued the strong growth that was underway in 2021. Our key areas of focus include energy/battery/hydrogen and semiconductor, where we are seeing above-market growth based on our strong domain knowledge and customer relationships. In this space, we are also well positioned in academia, with a strong brand image, high precision measurement and scientific credibility, positioning us well as academia research flows into end market applications. We have seen increased demand for both our X-ray systems and laser diffraction instruments, and a notable order was received for 42 Mastersizer particle size analysers from a Chinese battery manufacturer.

Demand for emerging battery technologies, electric vehicles and other new applications is supporting additional capital investment and certain industry participants have announced large organic expansions in new battery materials sites. Alongside batteries, as the energy sector and transport

industry seek to mitigate their environmental impact, we expect fuel cell and green hydrogen technology to be an element of smart energy infrastructure. Also, the expansion and onshoring of semiconductor manufacturing facilities, will continue as digitisation trends drive the increased supply of semiconductors. Within additive manufacturing, growth is currently lower, but we expect investment to expand with various customers and industry participants announcing expanded capabilities along with new manufacturing facilities.

HBK

	Half year 2022	Half year 2021	Change vs 2021	LFL change vs 2021
Statutory reported sales (£m)	215.0	188.0	14%	7%
Adjusted operating profit ¹ (£m)	24.2	21.7	11%	(8%)
Adjusted operating margin ¹ (%)	11.3%	11.5%	(20bps)	(160bps)
Statutory operating profit (£m)	16.1	14.9	8%	
Statutory operating margin (%)	7.5 %	7.9%	(40bps)	

^{1.} This is an alternative performance measure ('APM'). APMs are defined in full and reconciled to the reported statutory measures in the Appendix to the Financial Statements.

Financial performance

Statutory reported sales at HBK increased 14% to £215.0 million and statutory operating profit rose to £16.1 million from £14.9 million, primarily reflecting the end market growth on operational performance, as well as the absence of restructuring and transaction-related costs, although the statutory operating margin declined 40bps to 7.5%.

HBK saw continued strong order intake, with a 23% increase in LFL orders reflecting good customer demand across all regions, along with share gains, in particular in automotive end of line testing and agriculture smart sensing. LFL sales grew 7%, being especially strong in North America, driven by the automotive transition to electrification increasing demand for torque sensors and high speed DAQ, and acceleration of smart applications for HBK sensing technology. Robust demand was seen from automotive customers, especially for electric vehicle ('EV') projects including simulators as well as production lines. Sales growth in machine manufacturing continued, against a tough comparator, supported by strong demand for our weighing technologies and OEM sensors, the former including textile manufacturing, and the latter notably in advanced agriculture. Order growth continued to be ahead of sales, reflecting longer lead times, as well as a planned higher weighting of OEM orders, where delivery phasing is longer.

Adjusted operating profit rose 11% to £24.2 million, though was 8% lower on a LFL basis, with LFL adjusted operating margins 160bps lower. The higher sales, plus positive mix and pricing effects, were more than offset by higher overheads to support order growth and higher input and production costs.

Delivering the strategy

HBK has been further expanding its breadth of offering with new and enhanced product launches and a number of bolt-on acquisitions and partnerships.

VI-grade launched AutoHawk, its new hardware-in-the-loop solution for automotive applications, based on leading technology from Concurrent Real-Time. It addresses the need for a flexible solution that can cost-effectively test and validate EVs and the function of the battery unit and other power electronics components. AutoHawk perfectly addresses the industry's demand for a cost-effective, complete and open solution comprising hardware, software and integration services.

HBK released the latest version of its Tescia Repetitive Testing system. Designed for vibration, acoustics and rotating machinery monitoring and testing, Tescia's comprehensive analysis and monitoring capabilities provide detailed insight into the live test, to enable faster testing, improved product quality and time to market. The latest release allows for integration with weather and other parameters to analyse all aspects of a live test.

HBK also launched the C5 reference force sensor range, used to compare calibration systems, and as a reference transducer for calibration machines using hydraulic force. The very high performance sensor integrates with HBK's measurement amplifier and software to create a unique precision measurement chain.

A purchase agreement has been signed to acquire Dytran Instruments, Inc, a leading designer and manufacturer of piezo-electric and MEMS-based accelerometers and sensors for measuring dynamic force, pressure, and vibration. Its products are used in a broad range of applications in the space, aerospace, industrial and automotive industries in both product development testing and embedded monitoring solutions. The acquisition strengthens HBK's piezo-electric sensor offering, adds new MEMS capability and expands sales into North America. The combination will strengthen HBK's position in the US space, aerospace, and defence industries, as well as expand Dytran's growth,

by leveraging HBK's existing global sales channels, providing enhanced customer offerings and solutions to enable accelerated product development.

HBK signed a joint venture agreement with DEWESoft, a leading manufacturer of data acquisition ('DAQ') systems, to accelerate its new Fusion DAQ hardware platform, and to create a new open industry standard for DAQ hardware products. The joint venture, to be known as Blueberry, comprises employees from both HBK and DEWESoft, working together to design scalable DAQ ecosystems for both parent companies. Blueberry will allow HBK to complete its Fusion hardware platform range earlier than previously expected, by standardising modular designs. The Fusion product line will retain its distinct HBK identity and performance, however time to market, its open standard functionality and commonality of the basic components will benefit both companies' respective customers. Alongside this, HBK plans to launch new data management and connectivity products to solve the customer's data challenge, following the agreement signed last year with VIMANA, a provider of software and cloud services for smart manufacturing.

HBK acquired a minority stake in CM Labs Inc, a manufacturer of turnkey solutions for operator training simulators in the construction and port equipment markets. Within the virtual test division, VI-grade's core simulator products are currently focused on product development and motorsports, and this investment allows us to explore operator training segments where there is considerable overlap.

Alongside product developments, initiatives to further strengthen and develop the organisation are being implemented, with simpler and faster processes, providing even greater customer response. The new go-to-market model and CRM system are being rolled out now, enhancing the sales and marketing effort to further drive growth and strengthen customer relationships. HBK has also embarked on driving further efficiencies in its operating performance, with a programme to simplify, standardise and automate ways of working across the organisation, which includes an enterprise-wide standard business processes, underpinned by an ERP solution. This transition will result in the deployment of one common ERP platform for HBK, following a similar approach to Malvern Panalytical.

Market trends and outlook

Automotive

The automotive sector saw strong demand with significant order and sales growth in the first half, reflecting the market recovery.

HBK's virtual test division booked a number of large orders, including for its full scale, DiM400 simulator, and saw good order flow momentum; a contrast to the first half of 2021 when COVID-19 restrictions limited customer access to its SIM-centres, delaying large simulator orders. Recent key wins were to Ford to install a simulator at its Dearborn development centre and to automotive engineering services company HORIBA MIRA for the DiM250 simulator, the first facility of its kind installed in the UK. This will enable customers to significantly increase the speed of vehicle development, reducing the design phase cost and carbon footprint by minimising the prototype fleets.

In physical test, there was a similar strong performance in the first half, with notable orders for EV production testing system orders, for our GenHS and QuantumX data acquisition systems, as well as for vibration test equipment.

We continue to expect strong and growing demand for testing, driven by the increasing pace of new EV model launches and increasing demand for ADAS capabilities. Automotive OEMs are committing to increased development and production of EVs, with newcomers continuing to enter this market. This has led to growth in both R&D and production budgets for EV technology and ADAS capabilities. These new technologies have complex testing requirements, requiring significant domain expertise. HBK is well positioned across the physical and simulated testing space to support customers with their development challenges. Also, the speed of development in pure EV and HEV technologies is prompting manufacturers to increase investment in the R&D of batteries, where HBK's battery solutions for mechanical vibration and electrical testing are particularly relevant.

Machine manufacturing

Demand from machine manufacturers continued to be elevated. Against an extremely strong comparator in first half 2021, HBK posted moderate but robust LFL sales growth. LFL sales to this sector have been buoyant since 2020, helped by HBK's focus on selected high value asset markets, which has driven demand for its weighing technologies overall, and specifically for smart OEM-type solutions in

medical and healthcare applications. HBK's reputation in providing durable and reliable sensors and application know-how, for process optimisation is supporting customers to improve their applications. Resilient end-market growth driven by emerging economies and rising consumer preference is supporting the positive outlook, further underpinned by the strong fit of our sensors in a broad range of applications, such as food production, medical equipment and semiconductor manufacturing.

Aerospace and defence

LFL sales increased in the first half, where a good pipeline of larger project orders won in 2021 were delivered, along with smaller orders received in the half. The highly complex testing requirements in these sectors requires very sophisticated sensors supporting demand for HBK's breadth of testing solutions. Demand in defence and satellite/space markets spending has continued to be resilient, with key orders received in the first half including NASA Jet Propulsion Lab and Airbus Helicopter, which will ship in subsequent periods.

Consumer electronics and telecoms

LFL sales into electronics and telecoms customers were lower year-on-year with growth in Asia but down in North America and Europe. A notable order was to a large smartphone manufacturer for a series of acoustic/sound test equipment (acoustic camera, HATS, sound level meters) to locate and map the sound of its smartphone's unique dual-speaker design and present this at the product launch. Demand for high quality, smart consumer electronics products requires audio quality testing in both R&D and production applications, supporting demand for HBK's market-leading acoustic testing solutions.

Industrial Solutions

	Half year 2022	Half year 2021	Change vs 2021	LFL change vs 2021
Statutory reported sales (£m)	146.1	171.0	(15%)	11%
Adjusted operating profit ¹ (£m)	21.8	24.1	(10%)	1%
Adjusted operating margin ¹ (%)	14.9 %	14.1%	80bps	(160bps)
Statutory operating profit (£m)	20.5	22.9	(10%)	
Statutory operating margin (%)	14.0%	13.3%	70bps	

^{1.} This is an alternative performance measure ('APM'). APMs are defined in full and reconciled to the reported statutory measures in the Appendix to the Financial Statements.

Financial performance

Statutory reported sales decreased 15% to £146.1 million, primarily reflecting a 26% decrease from the 2021 divestments of B&K Vibro, ESG Solutions, Millbrook and NDC Technologies. Statutory operating profit decreased to £20.5 million from £22.9 million, with the statutory operating margin at 14.0%,up 70bps year-on-year.

Strong demand from semiconductor and pharmaceutical customers continued, further enhancing a record order book, with LFL orders for the division up 28%. LFL sales increased 11%. PMS had the strongest performance given its exposure to these two end markets. LFL sales were strongest into Asia, with Europe and North America broadly flat. LFL sales into energy and utilities increased, with order growth into this sector stronger as the market recovers.

Adjusted operating profit increased 1% on a LFL basis to £21.8 million, while LFL adjusted operating margins decreased 160bps. This primarily resulted from the sales increase offset by lower gross margin, reflecting higher production costs, and higher overheads and investment, in part to support the order book expansion. It also reflected the impact of the disposals which enhanced the margin, but was offset by a higher burden of central costs.

Delivering the strategy

ISD is made up of three, high quality, specialist businesses, PMS, Servomex and Red Lion Controls, centred around the provision of high precision, in-line sensing and monitoring solutions.

Plans had been underway to run ISD as a more integrated division, with some potential restructuring. A decision has been made not to pursue this path, and to maintain the businesses on a stand-alone basis, while continuing to seek further efficiencies through the deployment of SBS. To take out additional cost, the three businesses will now report directly to the Chief Executive and the ISD management layer will be removed. Plans to strengthen our services provision will carry on and we will continue to invest organically to grow these businesses.

Servomex has been capitalising on its new range of gas purity analysers, the Ultra Oxygen and Moisture range, which has driven order growth above that of the market in semiconductor. In April, it launched the Laser 3 Plus Environmental, an ammonia CEMS (continuous emissions monitoring system) analyser which forms a key part of its three-phase strategy for clean air and is the latest solution for accurate ammonia measurements in nitrous oxide reduction processes.

To expand its offering, Red Lion acquired MB connect line GmbH ('MB connect line'), whose high security hardware and software solutions enhance Red Lion's Industrial IoT portfolio. The addition of MB connect line builds on the existing strategic collaboration between the two companies and expands Red Lion's portfolio by adding a full complement of products in industrial cyber-security and offering customers a portal for remote monitoring and configuration. Customers will be able to connect to their production assets with secure remote access solutions.

At Servomex, Hummingbird Sensing Technology won the Queen's Award for Enterprise, the UK's highest accolade for business success. The award recognised Hummingbird's significant growth in international trade over the past six years, partly attributable to how Hummingbird responded to COVID-19, meeting a surge in demand for its sensors, as the global need for medical equipment reached an all-time high.

Market trends and outlook

Semiconductor and electronics

Sales into semiconductor customers continued to see strong growth, notably in Asia, with robust demand for PMS' liquids instruments and Servomex's purity range. There are large growing

semiconductor manufacturing markets in China, where we are seeing an increase in activity from local, non-traditional, smaller Chinese chip or chip related manufacturers, leading to an expectation that these markets will grow faster in China than the rest of the world.

PMS achieved market share gains, due to its leading product sensitivity and the strong backlog it had entering 2021. The sales pipeline funnel has continued to expand, being driven by investment programmes by major semiconductor manufacturers, and demand for its Chem-20 and Ultra-DI 20 products.

Servomex has seen a similarly high level of LFL sales growth in Asia. A key order was secured with a large industrial gas manufacturer for its DF Series oxygen and moisture analysers to be used in a major semiconductor manufacturer's facility.

The trend for regional onshoring investments in new fabs to protect chip supply continues to further support demand. This trend is underpinned by new legislation in the USA and Europe (CHIPS Act) supporting funding for large-scale investments in production capacities to ensure the security of supply, which could lead to new locations of customer concentration.

Pharmaceutical and life sciences

Demand also remained strong in the pharmaceutical and life sciences sectors driving LFL growth in both sales and orders; up notably at PMS, especially for its aerosol products, and in Asia. Pharmaceutical investments in Asia remain at high levels, particularly in biological manufacturing.

PMS is focused on aseptic pharmaceutical manufacturers and suppliers, and the strategy of providing a more complete sterility assurance solution has driven growth in sales by reducing risk of poor product quality and regulatory compliance. In addition, collaboration with OEM suppliers has resulted in notable orders from filling-machine and isolator manufacturers.

At Servomex, Hummingbird order growth has started to ease, as expected, given the reducing demand for ventilators.

Energy and utilities

Sales to energy and utilities continued an improving trend following growth in the second half of 2021, as the hydrocarbon sector recovers. LFL sales to energy customers at Servomex were up year-on-year with strong growth in Asia, especially China. For Red Lion, there has been recent high demand for automation products driving additional opportunities for its HMI products.

Servomex closed a major order for its OxyExact 2000 models and associated services for a new PTA plant in India. A major order was also placed by a major US steel manufacturer for its SERVOTOUGH 2500s and Oxy 1910s analysers, sampling systems and spares , to aid their direct iron reduction process and deliver the lowest CO2 emission process in the steelmaking industry. This demonstrates how effective solutions for process control, safety and quality can help customers meet environmental challenges and the energy transition, as well as ensure regulatory compliance, in a wide range of midstream and downstream applications. Red Lion received a large order from a North American producer of gas compression systems to enable remote access and asset management.

Industrial production

Red Lion posted higher LFL sales with order growth much higher, being up in all regions. Order backlog continues to be notably above historical levels. Orders of its new product, the FlexEdge Intelligent Edge Automation Platform launched in 2021, have been strong. Its smart-device connectivity enables customers to remotely gather the process insights they need to increase productivity.

Derek Harding

Chief Financial Officer

Principal Risks and Uncertainties

A number of potential risks and uncertainties exist which could have a material impact on the Group's performance over the second half of the financial year and could cause actual results to differ materially from expected and historical results. The Group has processes in place for identifying, evaluating and managing the key risks which could have an impact upon the Group's performance.

The current risks, together with a description of how they relate to the Group's strategy and the approach to managing them, are set out on pages 48-52 of the 2021 Annual Report and Accounts which is available on the Group's website at www.spectris.com. The Group has reviewed these risks and concluded that they will continue to remain relevant for the second half of the financial year. The potential impact of these risks on our strategy and financial performance, together with details of our specific mitigation actions, are set out in the 2021 Annual Report.

The full list of principal risks relevant as at the half year comprises:

- **Strategic transformation.** Failure to successfully deliver the Group strategy, including business transformation and key mergers, acquisitions and divestment activity.
- **Cyber threat.** Failure to appropriately protect critical information and other assets from cyber threats, including external hacking, cyber fraud, demands for ransom payments and inadvertent/intentional electronic leakage of critical data.
- **Compliance.** Failure to comply with laws and regulations, leading to reputational damage, substantial fines and potential market exclusion.
- **Political.** Material adverse changes in the geopolitical environment putting at risk our ability to execute our strategy. Includes trade protectionism, punitive tax/regulatory regimes, and general heightened tension between trading parties or blocs.
- Market/financial shock. Material adverse changes in market conditions, such as economic recession, inflation, sudden negative investor sentiment and currency fluctuation.
- **Talent and capabilities.** Failure to attract, retain, and deploy the necessary talent to deliver Group strategy.
- **Business disruption.** Failure to appropriately prepare for and respond to a crisis or major disruption to key operations either across the Group, in a key region/location, or via a critical supplier.
- **Climate change.** Failure to respond appropriately, and sufficiently, to climate change risks or failure to identify the associated potential opportunities in assisting others manage their climate agendas.

During 2022, we have seen an increase in gross risk in a number of areas, including political and market risk, cyber threat and business disruption. These risks are subject to Executive oversight and formal assessment, and we continue to review the effectiveness of existing controls over those risks and to identify further actions where appropriate in order to manage our net exposure.

Responsibility statement of the Directors in respect of the Interim report

We confirm that to the best of our knowledge:

- a) the condensed set of financial statements has been prepared in accordance with IAS 34 'Interim Financial Reporting';
- b) the interim management report includes a fair review of the information required by DTR 4.2.7R (indication of important events and their impact during the first six months and description of the principal risks and uncertainties for the remaining six months of the year); and
- c) the interim management report includes a fair review of the information required by DTR 4.2.8R (disclosure of related party transactions and changes therein).

By order of the Board

Andrew Heath

Derek Harding

Chief Executive

Chief Financial Officer

31 July 2022

Independent Review Report to Spectris PLC

Conclusion

We have been engaged by the company to review the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2022 which comprises the Condensed Consolidated Income Statement, Condensed Consolidated Statement of Comprehensive Income, the Condensed Consolidated Statement of Financial Position, the Condensed Consolidated Statement of Changes in Equity and the Condensed Consolidated Statement of Cash Flows and related notes 1 to 12.

Based on our review, nothing has come to our attention that causes us to believe that the condensed set of financial statements in the half-yearly financial report for the six months ended 30 June 2022 is not prepared, in all material respects, in accordance with United Kingdom adopted International Accounting Standard 34 and the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

Basis for conclusion

We conducted our review in accordance with International Standard on Review Engagements (UK) 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Financial Reporting Council for use in the United Kingdom. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

As disclosed in note 1, the annual financial statements of the Group will be prepared in accordance with United Kingdom adopted international accounting standards. The condensed set of financial statements included in this half-yearly financial report has been prepared in accordance with United Kingdom adopted International Accounting Standard 34, "Interim Financial Reporting".

Conclusion related to Going Concern

Based on our review procedures, which are less extensive than those performed in an audit as described in the Basis for Conclusion section of this report, nothing has come to our attention to suggest that the directors have inappropriately adopted the going concern basis of accounting or that the directors have identified material uncertainties relating to going concern that are not appropriately disclosed.

This conclusion is based on the review procedures performed in accordance with this ISRE (UK), however future events or conditions may cause the entity to cease to continue as a going concern.

Responsibilities of the directors

The directors are responsible for preparing the half-yearly financial report in accordance with the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

In preparing the half-yearly financial report, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the review of the financial information

In reviewing the half-yearly financial report, we are responsible for expressing to the Group a conclusion on the condensed set of financial statement in the half-yearly financial report. Our conclusion, including our Conclusions Relating to Going Concern, are based on procedures that are less extensive than audit procedures, as described in the Basis for Conclusion paragraph of this report.

Use of our report

This report is made solely to the company in accordance with International Standard on Review Engagements (UK) 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" issued by the Financial Reporting Council. Our work has been undertaken so that we might state to the company those matters we are required to state to it in an independent review report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company, for our review work, for this report, or for the conclusions we have formed.

Deloitte LLP

Statutory Auditor London, United Kingdom 31 July 2022

Condensed Consolidated Income Statement (unaudited)

			(Restated)1	(Restated) ¹
		2022	2021	2021
		Half year	Half year	Full year
Continuing operations	Note	£m	£m	£m
Revenue	2	570.2	537.5	1,163.0
Cost of sales		(253.0)	(229.2)	(487.5)
Gross profit		317.2	308.3	675.5
Indirect production and engineering expenses		(53.7)	(44.8)	(92.6)
Sales and marketing expenses		(110.4)	(109.2)	(222.2)
Administrative expenses		(98.8)	(98.9)	(220.8)
Operating profit	2	54.3	55.4	139.9
Share of results of associates	7	0.1	-	_
Profit on disposal of businesses		0.2	117.7	226.5
Financial income	3	0.3	11.9	12.8
Finance costs	3	(13.1)	(3.1)	(5.4)
Profit before tax		41.8	181.9	373.8
Taxation charge	4	(12.6)	(5.5)	(38.2)
Profit for the period from continuing operations		29.2	176.4	335.6
Profit from discontinued operations	8	10.2	3.9	11.3
Profit for the period from continuing and discontinued operations attributable to owners of				
the Company .		39.4	180.3	346.9
Earnings per share				
From continuing operations Basic	6	26.5p	152.4p	295.2p
Diluted	6	26.4p	151.9p	294.1p
From continuing operations and discontinued operations	J	20p	131.36	23 1.16
Basic	6	35.8p	155.8p	305.1p
Diluted	6	35.6p	155.3p	304.0p
Dividends				
Interim and final dividends proposed/paid for the	5	24.1p	23.0p	71 9n
period (per share)	3	24.IP	23.0β	71.8p
Dividends paid during the period (per share)	5	48.8p	46.5p	69.5p

The Omega reportable segment has been classified as a discontinued operation under IFRS 5, following
the announcement and completion of its disposal during 2022. As a result, the income statement-related
financial data for the six months ended 30 June 2021 and twelve months ended 31 December 2021 have
been represented to show continuing operations where required to by IFRS 5 throughout this interim
report. Further details are provided in note 8 to the Interim Condensed Consolidated Financial
Statements.

Condensed Consolidated Statement of Comprehensive Income (unaudited)

	2022	2021	2021
	Half year	Half year	Full year
	£m	£m	£m
Profit for the period attributable to owners of the Company	39.4	180.3	346.9
Other comprehensive income:			
Items that will not be reclassified to the Condensed Consolidated Income Statement:			
Re-measurement of net defined benefit obligation	10.5	2.2	(1.8)
Fair value gain/(loss) and foreign exchange movements translation on investment in equity instruments designated		(0.5)	(7.0)
as at fair value through other comprehensive income	4.3	(0.6)	(1.8)
Tax (charge)/credit on items above	(3.1)	(O.1)	0.7
	11.7	1.5	(2.9)
Items that are or may be reclassified subsequently to the Condensed Consolidated Income Statement:			
Net loss on effective portion of changes in fair value of forward exchange contracts on cash flow hedges	(23.8)	-	(1.9)
Foreign exchange movements on translation of overseas operations	83.1	(27.0)	(25.1)
Currency translation differences transferred to profit on disposal of businesses	-	(3.8)	(4.8)
Tax credit on items above	4.6	-	0.3
	63.9	(30.8)	(31.5)
Total other comprehensive income/(loss)	75.6	(29.3)	(34.4)
Total comprehensive income for the period attributable to owners of the Company	115.0	151.0	312.5

Condensed Consolidated Statement of Changes in Equity (unaudited)

For the six months ended 30 June 2022

	Share capital	Share premium		Translation reserve		Merger reserve	Capital redemption reserve	Total equity
	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2022	5.8	231.4	957.6	66.2	(3.5)	3.1	0.7	1,261.3
Profit for the period	-	-	39.4	-	-	-	_	39.4
Other comprehensive income/(loss)	_	_	11.3	83.5	(19.2)	_	_	75.6
Total comprehensive income/(loss) for the period	-	-	50.7	83.5	(19.2)	-	-	115.0
Transactions with owners recorded directly in equity:								
Equity dividends paid by the Company (see note 5)	_	_	(53.3)	_	_	_	_	(53.3)
Own shares acquired for share buyback programme (see note 10)	(0.3)	_	(150.8)	_	_	_	0.3	(150.8)
Share-based payments, net of tax	_	_	4.4	_	_	_	_	4.4
At 30 June 2022	5.5	231.4	808.6	149.7	(22.7)	3.1	1.0	1.176.6

	Share capital	Share premium		Translation reserve	Hedging reserve	Merger reserve	Capital redemption reserve	Total equity
	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2021	6.0	231.4	901.5	98.0	(1.9)	3.1	0.5	1,238.6
Prior period restatement								
(see note 1)	-	-	(18.9)	-	-	-	-	(18.9)
At 1 January 2021								
(restated)	6.0	231.4	882.6	98.0	(1.9)	3.1	0.5	1,219.7
Profit for the period	_	_	180.3	_	_	_	_	180.3
Other comprehensive income/(loss)	_	_	1.5	(30.8)	_	_	_	(29.3)
Total comprehensive income/(loss) for the period	-	_	181.8	(30.8)	-	-	-	151.0
Transactions with owners recorded directly in equity:								
Equity dividends paid by the Company (see note 5)	-	-	(53.6)	_	-	_	_	(53.6)
Own shares acquired for share buyback programme (see note 10)	(O.1)	_	(97.8)	_	_	_	0.1	(97.8)
Share-based payments,	(0.1)		(37.0)				0.1	(37.0)
net of tax	_	_	4.6	_	_	_	_	4.6
Proceeds from exercise of equity-settled share options	_	_	0.3	_	_	_	_	0.3
At 30 June 2021 (restated)	5.9	231.4	917.9	67.2	(1.9)	3.1	0.6	1,224.2

For the year ended 31 December 2021

	Share capital p		Retained earnings	Translation reserve	Hedging reserve	Merger reserve	Capital redemption reserve	Total equity
	£m	£m	£m	£m	£m	£m	£m	£m
At 1 January 2021	6.0	231.4	882.6	98.0	(1.9)	3.1	0.5	1,219.7
Profit for the year	_	_	346.9	_	_	_	_	346.9
Other comprehensive loss	_	_	(1.0)	(31.8)	(1.6)	_	_	(34.4)
Total comprehensive income/(loss) for the year	-	_	345.9	(31.8)	(1.6)	_	-	312.5
Transactions with owners recorded directly in equity:								
Equity dividends paid by the Company (see note 5)	_	_	(79.0)	_	_	_	_	(79.0)
Own shares acquired for share buyback	(0.2)		(2017)				0.2	(2017)
programme (see note 10) Share-based payments, net of tax	(0.2)	_	(201.3) 9.1		_	_	0.2	(201.3) 9.1
Proceeds from exercise of equity-settled share options	_	_	0.3	_	_	_	_	0.3
At 31 December 2021	5.8	231.4			(3.5)	3.1	0.7	1,261.3

Condensed Consolidated Statement of Financial Position (Unaudited) As at 30 June 2022

(Restated)1 2022 2021 2021 Half year Half year Full year Note £m £m £m **ASSETS** Non-current assets Goodwill 571.3 564.4 631.5 Other intangible assets 158.0 96.7 169.1 Property, plant and equipment 157.6 151.1 150.5 Right-of-use assets 60.2 31.3 60.5 Investment in equity instruments 28.6 24.1 24.3 Investment in debt instruments 23.0 23.0 23.0 7 Investment in associate 3.5 Other receivables 4.2 Deferred tax assets 18.6 16.1 21.2 1,025.0 906.7 1,080.1 **Current assets** Inventories 231.3 178.0 187.9 Current tax assets 3.0 5.1 5.7 331.5 275.3 315.9 Trade and other receivables Derivative financial instruments 1.9 0.3 122.2 273.0 167.8 Cash and cash equivalents Assets held for sale 8 219.2 10.4 907.2 733.3 688.0 **Total assets** 1,932.2 1,640.0 1,768.1 LIABILITIES **Current liabilities** Borrowings (8.0)(0.2)Derivative financial instruments (25.7)(1.2)Trade and other payables (335.4)(309.2) (330.2)Lease liabilities (16.5)(13.4)(16.6)Current tax liabilities (9.7)(4.8)(28.1)**Provisions** (15.9)(14.7)(17.6)Liabilities held for sale 8 (31.9)(393.7)(342.3)(443.1)**Net current assets** 464.1 391.0 294.3 Non-current liabilities Borrowings (220.2)Other payables (20.3)(13.8)(14.7)Lease liabilities (48.7)(25.0)(49.3)Provisions (4.7)(4.2)(4.6)Retirement benefit obligations (11.3)(17.8)(22.3)Deferred tax liabilities (5.8)(23.0)(13.4)(312.5)(73.5)(113.1)**Total liabilities** (755.6)(415.8)(506.8)1,176.6 Net assets 1,224.2 1,261.3 **EQUITY** Share capital 5.5 5.9 5.8 Share premium 231.4 231.4 231.4 Retained earnings 808.6 917.9 957.6 149.7 Translation reserve 67.2 66.2 Hedging reserve (22.7)(1.9)(3.5)3.1 3.1 Merger reserve 3.1 Capital redemption reserve 0.7 1.0 0.6 Total equity attributable to owners of the Company 1,176.6 1,224.2 1,261.3 1. See note 1 for details of the SaaS-related prior period restatement.

Condensed Consolidated Statement of Cash Flows (Unaudited)

		2022	2021	2021
		Half year	Half year	Full year
	Note	£m	£m	£m
Cash generated from operations	9	43.4	96.7	191.6
Net income taxes paid		(20.5)	(17.2)	(32.2)
Net cash inflow from operating activities		22.9	79.5	159.4
Cash flows (used in)/from investing activities				
Purchase of property, plant and equipment and intangible assets		(32.3)	(19.1)	(35.3)
Proceeds from disposal of property, plant and equipment and software		13.2	-	-
Finance sublease receivable collected, net of initial direct costs		-	-	0.1
Acquisition of businesses, net of cash acquired Acquisition of investment in an associate	7 7	(44.3)	(1.3)	(135.5)
Proceeds from disposal of equity investments	/	(3.4) -	38.3	38.3
(Outflow)/ from disposal of businesses, net of tax paid of £12.6m (2021 Half year and 2021 Full		(15.1)	200.0	777 0
year: £nil) Interest received		(15.1) 0.3	208.8 0.1	333.7 0.5
Net cash flows (used in)/from investing activities		(81.6)	226.8	201.8
net cash nows (used my norm investing activities		(01.0)	220.0	201.0
Cash flows from/(used in) financing activities				
Interest paid on borrowings		(0.6)	(2.6)	(3.4)
Interest paid on lease liabilities		(1.3)	(0.7)	(1.8)
Dividends paid	5	(53.3)	(53.6)	(79.0)
Share buyback purchase of shares	10	(150.8)	(79.7)	(201.3)
Net proceeds from exercise of share options		-	0.3	0.3
Payments on principal portion of lease liabilities		(6.3)	(6.6)	(13.0)
Proceeds from borrowings		326.1	-	70.0
Repayment of borrowings		(98.7)	(99.8)	(169.8)
Net cash flows from/(used in) financing activities		15.1	(242.7)	(398.0)
		((= 0)		(7.0.0)
Net (decrease)/increase in cash and cash equivalents		(43.6)	63.6	(36.8)
Cash and cash equivalents at beginning of period		167.8	210.9	210.9
Effect of foreign exchange rate changes		5.7	(1.5)	(6.3)
Cash and cash equivalents at end of period ¹		129.9	273.0	167.8

^{1.} Cash and cash equivalents in the Condensed Consolidated Statement of Cash Flows at 30 June 2022 consisted of £122.2 million of cash and cash equivalents included in current assets and £7.7 million of cash and cash equivalents included in assets held for sale. Cash and cash equivalents in the Condensed Consolidated Statement of Cash Flows at 30 June 2021 and 31 December 2021 consisted solely of cash and cash equivalents included in current assets.

Notes to the accounts

1. Basis of preparation and accounting policies

a) Basis of accounting

The Condensed Consolidated Interim Financial Statements of the Company for the six months ended 30 June 2022 comprise the Company and its subsidiaries, together referred to as the 'Group'. These Condensed Consolidated Interim Financial Statements are presented in millions of Sterling rounded to the nearest one decimal place, which is the Group's presentational currency. The Consolidated Financial Statements of the Group for the year ended 31 December 2021 are available upon request from the Company's registered office at Melbourne House, 44-46 Aldwych, London, WC2B 4LL, and on the Company's website at www.spectris.com.

These Condensed Consolidated Interim Financial Statements have been prepared in accordance with the Disclosure and Transparency Rules of the Financial Conduct Authority and with IAS 34, 'Interim Financial Reporting', as adopted by the United Kingdom. They do not include all of the information required for full annual financial statements and should be read in conjunction with the Consolidated Financial Statements of the Group for the year ended 31 December 2021.

The Condensed Consolidated Financial Statements have been prepared using consistent accounting policies with those of the previous financial year except for the adoption of new accounting standards and interpretations noted below.

The Condensed Consolidated Interim Financial Statements for the six-month period ended 30 June 2022 are unaudited but have been subject to an independent review by the auditor. They do not constitute statutory financial statements as defined in section 434 of the Companies Act 2006. The comparative figures for the financial year ended 31 December 2021 are derived from the Company's statutory accounts for that financial year. Those accounts have been reported on by the Company's auditor and delivered to the Registrar of Companies. The Report of the auditor was (i) unqualified, (ii) did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying their report, and (iii) did not contain a statement under section 498(2) or 498(3) of the Companies Act 2006.

The Group's financial risk management objectives and policies are consistent with those disclosed in the Consolidated Financial Statements of the Group for the year ended 31 December 2021. These Condensed Consolidated Interim Financial Statements were approved by the Board of Directors on 31 July 2022.

New standards and interpretations applied for the first time

There were no standards, amendments or interpretations applied for the first time that had a material impact for the Group.

New standards and interpretations not yet applied

There were no new or revised IFRSs, amendments or interpretations in issue but not yet effective that are potentially material for the Group and which have not yet been applied.

Change in accounting policy – Software as a Service ('SaaS') arrangement

As disclosed in the 2021 Annual Report, the Group changed its accounting policy relating to the capitalisation of certain software costs during the twelve months ended 31 December 2021. This change follows the IFRIC Interpretation Committee's agenda decision published in April 2021 and relates to the capitalisation of costs of configuring or customising application software under 'Software as a Service' ('SaaS') arrangements. Refer to the 2021 Annual Report for details of the new accounting policy applied and the transitional method adopted.

1. Basis of preparation and accounting policies (continued)

The change in accounting policy led to adjustments amounting to a £25.7 million reduction in intangible assets, a £18.9 million reduction in retained earnings, a £2.6 million reduction in deferred tax liabilities, a £1.6 million increase in deferred tax assets, a £1.1 million reduction in current tax liabilities and a £1.5 million increase in trade and other receivables recognised in the 30 June 2021 Condensed Consolidated Statement of Financial Position. The Condensed Consolidated Income Statement and the Condensed Statement of Other Comprehensive Income for the six months ended 30 June 2021 have not been restated, as the impact on them is immaterial.

	As previously reported	Impact of restatement	Restated
	H1 2021	H1 2021	H1 2021
Cost	£m	£m	£m
Other intangible assets	122.4	(25.7)	96.7
Deferred tax assets	14.5	1.6	16.1
Trade and other receivables	273.8	1.5	275.3
Current tax liability	(5.9)	1.1	(4.8)
Deferred tax liabilities	(8.4)	2.6	(5.8)
Other assets/(liabilities)	846.7	-	846.7
Net assets	1,243.1	(18.9)	1,224.2
Retained earnings	936.8	(18.9)	917.9
Other equity balances	306.3	-	306.3
Total equity attributable to owners of the Company	1,243.1	(18.9)	1,224.2

b) Going concern

The Group finances its operations from retained earnings and, where appropriate, from third-party borrowings. The 30 June 2022 gross debt balance was £228.2 million.

In determining the basis of preparation for the Condensed Consolidated Financial Statements, the Directors have considered the Group's available resources, current business activities and factors likely to impact on its future development and performance, including the impact of economic factors such as rising interest rates and inflation as well as climate change on the Group, which are described in the Chief Executive's Review, Financial Review and Operating Review.

As at 30 June 2022, the Group had £411.3 million of committed facilities, consisting entirely of an \$500.0 million multi-currency revolving credit facility ('RCF') maturing in July 2025. An amount of £220 million was drawn on the RCF as at 30 June 2022.

The Group regularly monitors its financial position to ensure that it remains within the terms of its banking covenants. At 30 June 2022, interest cover (defined as adjusted earnings before interest, tax and amortisation divided by net finance charges) was 144.7 times (31 December 2021: 67 times), against a minimum requirement of 3.75 times, and leverage (defined as adjusted earnings before interest, tax, depreciation and amortisation divided by net cash/(debt)) was 0.6 (31 December 2021: less than zero) against a maximum permitted leverage of 3.5 times.

At 30 June 2022, the Group had a cash and cash equivalents balance of £129.9 million (including £7.7 million of cash included in assets held for sale). In addition to the RCF borrowings of £220 million, the Group also had various uncommitted facilities and bank overdraft facilities available, of which £8.2 million were utilised, resulting in a net debt position of £98.3 million. This compares to a net cash position of £167.8 million as at 31 December 2021, a decrease of £266.1 million. This is, in part, due to the completion of a £150 million share buyback, the acquisitions of Creoptix and MB connect line and payment of the 2021 final dividend in June 2022.

1. Basis of preparation and accounting policies (continued)

On 1 July 2022, the Group received headline sales proceeds of \$525 million (£410 million) for the sale of its Omega business to Arcline Investment Management. The total sales proceeds received is subject to a customary completion accounts true-up. All outstanding drawings on the RCF were immediately repaid from these proceeds and the remainder invested in interest-bearing deposit accounts.

The Group has prepared and reviewed cash flow forecasts for the period to 30 June 2025, which reflect forecasted changes in revenue across its business and compared these to a reverse stress test of the forecasts to determine the extent of downturn which would result in a breach of covenants. The reverse stress test does not take into account any mitigating actions which the Group would implement in the event of a severe and extended revenue decline, which would increase the headroom further. This assessment indicates that the Group can operate within the level of its current facilities, as set out above, without the need to obtain any new facilities for a period of not less than 12 months from the date of this report.

Following this assessment, the Board of Directors are satisfied that the Group has sufficient resources to continue in operation for the foreseeable future, a period of not less than 12 months from the date of this report. Accordingly, they continue to adopt the going concern basis in relation to this conclusion and preparing the Condensed Consolidated Financial Statements.

c) Seasonality

The Group's financial results and cash flows have, historically, been subject to seasonal trends between the first and second half of the financial year. Historically, the second half of the financial year sees higher revenue and profitability. There is no assurance that this trend will continue in the future.

d) Critical accounting judgments and key sources of estimation uncertainty update

In determining and applying accounting policies, judgement is often required where the choice of specific policy, assumption or accounting estimate to be followed could materially affect the reported amounts of assets, liabilities, income and expenses, should it be determined that a different choice be more appropriate. Estimates and assumptions are reviewed on an ongoing basis and are based on historical experience and various other factors that are believed to be reasonable under the circumstances.

The Group's critical accounting judgments and other key sources of estimation uncertainty remain the same as those as set out in the Group's Consolidated Financial Statements for the year ended 31 December 2021.

2. Operating segments

The Group has three continuing reportable segments, as described below. The segmental business structure reflects the internal reporting provided to the Chief Operating Decision Maker (considered to be the Board) on a regular basis to assist in making decisions on capital allocated to each segment and to assess performance. The operating segment results include an allocation of head office expenses. The following summarises the operations in each of the Group's reportable segments:

- The Malvern Panalytical business provides products and services that enable customers to determine structure, composition, quantity and quality of particles and materials during their research and product development processes, when assessing materials before production, or during the manufacturing process. The operating companies in this segment are Malvern Panalytical and Concept Life Sciences.
- The HBK business supplies test, measurement and analysis equipment, software and services for product design optimisation, and manufacturing control. The operating companies in this segment are Hottinger, Brüel & Kjær and VI-grade.
- The Industrial Solutions division ('ISD') comprises a portfolio of high-value, niche businesses. The operating companies in this segment are Particle Measuring Systems, Red Lion Controls, Servomex, Brüel & Kjær Vibro (disposed 1 March 2021), ESG Solutions (disposed 3 May 2021), Millbrook (disposed 2 February 2021) and NDC Technologies (disposed 1 November 2021).

The Omega business, which had previously been disclosed as a reportable segment, has now been classified as a discontinued operation under IFRS 5, following the announcement and completion of its disposal on 1 July 2022 (after the balance sheet date) and therefore excluded from the segmental analysis. As a result, the financial data for the six months ended 30 June 2021 and twelve months ended 31 December 2021 have been represented to show continuing operations where required to by IFRS 5, including a reclassification of continuing head office expenses that had previously been allocated to the Omega reportable segment to the three continuing reportable segments. Further details of discontinued operations are provided in note 8 to the Interim Condensed Consolidated Financial Statements.

	Malvern Panalytical	нвк	Industrial Solutions	2022 Half year Total
Information about continuing reportable segments	£m	£m	£m	£m
Segment revenues	209.2	215.1	146.2	570.5
Inter-segment revenue	(0.1)	(0.1)	(0.1)	(0.3)
External revenue	209.1	215.0	146.1	570.2
Statutory operating profit	17.7	16.1	20.5	54.3
Share of results of associates	-	0.1	-	0.1
Profit on disposal of businesses ¹				0.2
Financial income ¹				0.3
Finance costs ¹				(13.1)
Profit before tax ¹				41.8
Taxation charge ¹				(12.6)
Profit after tax from continuing operations ¹				29.2

^{1.} Not allocated to reportable segments

2. Operating segments (continued)

	Malvern Panalytical	HBK	Industrial Solutions	2021 Half year Total
Information about continuing reportable segments	£m	£m	£m	£m
Segment revenues	178.6	188.1	171.2	537.9
Inter-segment revenue	(O.1)	(O.1)	(0.2)	(0.4)
External revenue	178.5	188.0	171.0	537.5
Statutory operating profit	17.6	14.9	22.9	55.4
Profit on disposal of businesses ¹ Financial income ¹				117.7 11.9
Finance costs ¹				(3.1)
Profit before tax ¹				181.9
Taxation charge ¹				(5.5)
Profit after tax from continuing operations ¹				176.4
1 Not allocated to voyoutable composite				170

^{1.} Not allocated to reportable segments

	Malvern Panalytical	НВК	Industrial Solutions	2021 Full year Total
Information about continuing reportable segments	£m	£m	£m	£m
Segment revenues	401.3	425.7	336.5	1,163.5
Inter-segment revenue	(O.1)	(0.2)	(0.2)	(0.5)
External revenue	401.2	425.5	336.3	1,163.0
Statutory operating profit Profit on disposal of businesses ¹	55.3	38.6	46.0	139.9 226.5
Financial income ¹				12.8
Finance costs ¹				(5.4)
Profit before tax ¹				373.8
Taxation charge ¹				(38.2)
Profit after tax from continuing operations ¹				335.6

¹ Not allocated to reportable segments

Geographical segments

The Group's operating segments are each located in several geographical locations and sell to external customers in all parts of the world. No individual country amounts to more than 3% of revenue by location of customer, other than those noted below. The following is an analysis of revenue from continuing operations by geographical destination.

	2022	2021	2021
	Half year	Half year	Full year
	£m	£m	£m
UK	26.0	26.1	51.2
Germany	53.6	51.3	111.2
France	19.3	18.9	41.4
Rest of Europe	77.7	83.4	166.8
USA	151.2	129.8	289.4
Rest of North America	14.0	13.8	28.6
Japan	31.8	30.6	66.1
China	96.8	91.7	200.7
South Korea	26.0	17.2	45.2
Rest of Asia	49.6	50.4	108.4
Rest of the world	24.2	24.3	54.0
	570.2	537.5	1,163.0

3. Financial income and finance costs

5. Financial income and finance costs			
	2022	2021	2021
	Half year	Half year	Full year
Financial income from continuing operations	£m	£m	£m
Interest receivable	(0.3)	(O.1)	(0.5)
Interest credit on release of provision on settlement of EU dividends tax claim	-	(5.1)	(5.1)
Net gain on retranslation of short-term inter-company loan balances	-	(6.7)	(7.2)
	(0.3)	(11.9)	(12.8)
	2022	2021	
	Half year	Half year	Full year
Finance costs from continuing operations	£m	£m	£m
Interest payable on loans and overdrafts	1.1	2.5	3.6
Net loss on retranslation of short-term inter-company loan balances	10.7	-	_
Unwinding of discount factor on lease liabilities	1.2	0.6	1.6
Net interest cost on pension plan obligations	0.1	-	0.2
Other finance costs	-	-	-
	13.1	3.1	5.4
Net finance costs/(credit) from continuing operations	12.8	(8.8)	(7.4)

4. Taxation

The tax charge for the six months to 30 June 2022 has been calculated using the effective tax rate which is expected to apply to the Group for the full year, using tax rates substantively enacted at 30 June 2022. The effective tax rate applied to adjusted profit before tax for the half year is 22.0% (Half year 2021: 21.8%; Full year 2021: 21.5%). The effective tax rate has been estimated using full year projections of adjusted profit before tax by territory and the tax rates applying in those territories. The tax rates applied to adjusting items are established on an individual basis for each adjusting item.

A reconciliation of the tax charge on adjusted profit to the actual tax charge is presented below:

	2022	2021	2021
	Half year	Half year	Full year
	£m	£m	£m
Tax charge on adjusted profit before tax	15.5	14.2	39.8
Tax credit on amortisation of acquisition-related intangible assets	(2.1)	(1.0)	(2.9)
Tax credit on net transaction-related costs and fair value adjustments	(0.9)	(O.1)	(3.0)
Tax charge on profit on disposal of businesses	0.1	-	14.2
Tax charge on retranslation of short-term inter-company loan balances	0.5	0.3	0.3
Tax credit on configuration and customisation costs carried out by third parties on material SaaS projects	(0.5)	-	(1.4)
Tax credit on release of provision on settlement of EU dividends tax claim	-	(7.0)	(7.0)
Tax charge on fair value through profit and loss movements on equity investments	_	-	0.9
Tax credit on restructuring costs	-	(0.9)	(2.7)
Total tax charge	12.6	5.5	38.2

5. Dividends

	2022	2021	2021
Amounts recognised and paid as distributions to owners of the	Half year	Half year	Full year
Company in the period	£m	£m	£m
Final dividend for the year ended 31 December 2021 of 48.8p per share	53.3	-	
Final dividend for the year ended 31 December 2020 of 46.5p per share	-	53.6	53.6
Interim dividend for the year ended 31 December 2021 of 23.0p per share	-	-	25.4
	53.3	53.6	79.0

An interim 2022 dividend of 24.1p per share has been declared and will be payable on 11 November 2022 to ordinary shareholders on the register at the close of business on 7 October 2022.

6. Earnings per share

Basic earnings per share amounts are calculated by dividing net profit for the period attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period (excluding treasury shares).

Diluted profit per share amounts are calculated by dividing the net profit attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period but adjusted for the effects of dilutive options. This additional adjustment is not made when there is a net loss attributable to ordinary shareholders.

	2022	2021	2021
Basic earnings per share from continuing operations	Half year	Half year	Full year
Profit after tax from continuing operations (£m)	29.2	176.4	335.6
Weighted average number of shares outstanding (millions)	110.0	115.7	113.7
Basic earnings per share from continuing operations (pence)	26.5	152.4	295.2
	2022	2021	2021
Diluted earnings per share from continuing operations	Half year	Half year	Full year
Profit after tax from continuing operations (£m)	29.2	176.4	335.6
Basic weighted average number of shares outstanding (millions)	110.0	115.7	113.7
Weighted average number of dilutive 5p ordinary shares under option (millions)	1.4	0.5	0.5
Weighted average number of 5p ordinary shares that would have been issued at average market value from proceeds of dilutive share options (millions)	(0.6)	(O.1)	(O.1)
Diluted weighted average number of shares outstanding (millions)	110.8	116.1	114.1
Diluted earnings per share from continuing operations (pence)	26.4	151.9	294.1
	2022	2021	2021
Basic earnings per share from discontinued operations	Half year	Half year	Full year
Profit after tax from discontinued operations (£m)	10.2	3.9	11.3
Weighted average number of shares outstanding (millions)	110.0	115.7	113.7
Basic earnings per share from discontinued operations (pence)	9.3	3.4	9.9
	2022	2021	2021
Diluted earnings per share from discontinued operations	Half year	Half year	Full year
Profit after tax from discontinued operations (£m)	10.2	3.9	11.3
Diluted weighted average number of shares outstanding (millions)	110.8	116.1	114.1
Diluted earnings per share from discontinued operations (pence)	9.2	3.4	9.9

The denominators used for diluted earnings per share from discontinued operations are the same as those used for diluted earnings per share from continuing operations.

7. Acquisitions **Business combinations**

Creoptix

On 7 January 2022, the Group acquired 100% of the share capital of Creoptix AG ('Creoptix') for net consideration of £37.0 million, made up of £37.3 million gross consideration (consisting of £35.1 million of cash paid and £2.2 million of contingent consideration) less £0.3 million of cash acquired. Creoptix is a bioanalytical sensor company, which provides solutions to accelerate discovery and development of new pharmaceutical drugs, substances and products. The transaction is in line with Spectris' strategy to make synergistic acquisitions to enhance and grow its businesses. Creoptix will be integrated into the Malvern Panalytical reportable segment and cash generating unit.

The excess of the fair value of consideration paid over the fair value of the net tangible assets acquired is represented by a technology intangible asset and goodwill. Goodwill arising is attributable to the assembled workforce, in process research, expected future customer relationships and synergies from cross-selling goods and services.

In the Condensed Consolidated Income Statement for the six months ended 30 June 2022, sales of £1.3 million and statutory operating loss of £2.0 million have been included for the acquisition of Creoptix. As Creoptix was acquired near to the start of the current reporting period, Group revenue and statutory operating profit for the six months ended 30 June 2022 would be the same had this acquisition taken place on the first day of the financial period.

Where appropriate, a detailed exercise has been undertaken to assess the fair value of assets acquired and liabilities assumed, supported by the use of third-party experts. The valuation of the above intangible and tangible assets requires the use of assumptions and estimates. Intangible asset assumptions consist of future growth rates, expected inflation and attrition rates, discount rates used and useful economic lives. Due to their contractual due dates, the fair value of receivables approximates to the gross contractual amounts receivable. The amount of gross contractual receivables note expected to be recovered is immaterial. There are no material contingent liabilities recognised in accordance with IFRS 3 (Revised).

Acquisition-related costs (included in administrative expenses) amount to £1.8 million.

MB connect line

On 31 March 2022, the Group acquired 100% of the share capital of MB connect line GmbH ('MB connect') for net consideration of £8.7 million, made up of £9.0 million gross consideration in cash less £0.3 million net cash acquired. There was no contingent consideration recognised on this acquisition. MB connect is a leading provider of secure connections between machines and plants for remote access, data collection, and M2M-communication. The transaction is in line with Spectris' strategy to make synergistic acquisitions to enhance and grow its businesses. MB connect will be integrated into the ISD reportable segment and the Red Lion Controls cash generating unit.

The excess of the fair value of consideration paid over the fair value of the net tangible assets acquired is represented by the following intangible assets: customer-related relationships, technology, brand and goodwill. Goodwill arising is attributable to the assembled workforce, synergies from cross-selling goods and services and cost synergies.

In the Condensed Consolidated Income Statement for the six months ended 30 June 2022, sales of £1.4 million and statutory operating profit of £0.2 million have been included for the acquisition of MB connect. Group revenue and statutory operating profit from continuing operations for the six months ended 30 June 2022 would have been £571.3 million and £54.5 million, respectively, had this acquisition taken place on the first day of the financial year.

7. Acquisitions (continued)

Where appropriate, a detailed exercise has been undertaken to assess the fair value of assets acquired and liabilities assumed, supported by the use of third-party experts. The valuation of the above intangible and tangible assets requires the use of assumptions and estimates. Intangible asset assumptions consist of future growth rates, expected inflation and attrition rates, discount rates used and useful economic lives. Due to their contractual due dates, the fair value of receivables approximates to the gross contractual amounts receivable. The amount of gross contractual receivables note expected to be recovered is immaterial. There are no material contingent liabilities recognised in accordance with IFRS 3 (Revised).

Acquisition-related costs (included in administrative expenses) amount to £0.1 million.

The fair values included in the table below relate to the acquisition of Creoptix and MB connect during the period:

	Cusantin	MB	Total fair
	Creoptix	Connect	value
2022	£m	£m	£m
Intangible assets	18.5	5.1	23.6
Property, plant and equipment	0.1	1.2	1.3
Right of use assets	1.0	-	1.0
Inventories	0.6	0.3	0.9
Trade and other receivables	1.6	0.1	1.7
Cash and cash equivalents	0.3	0.3	0.6
Borrowings	-	(0.1)	(0.1)
Trade and other payables	(1.8)	(0.1)	(1.9)
Lease liabilities	(1.0)	-	(1.0)
Current tax liabilities	-	(0.1)	(0.1)
Deferred tax liabilities	(0.9)	(1.6)	(2.5)
Net assets acquired	18.4	5.1	23.5
Goodwill	18.9	3.9	22.8
Gross consideration	37.3	9.0	46.3
Adjustment for cash acquired	(0.3)	(0.3)	(0.6)
Net consideration	37.0	8.7	45.7

	2022	2021	2021
Analysis of cash outflow in Consolidated Statement of Cash Flows	Half year	Half year	Full year
Analysis of cash outflow in Consolidated Statement of Cash Flows from business combinations	£m	£m	£m
Gross consideration in respect of acquisitions during the period	46.3	-	146.1
Adjustment for net cash acquired	(0.6)	-	(12.3)
Net consideration in respect of acquisitions during the period	45.7	-	133.8
Deferred and contingent consideration on acquisitions included in net consideration during the period to be paid in future periods	(2.2)	-	-
Cash paid during the period in respect of acquisitions during the period	43.5	-	133.8
Cash paid in respect of prior years' acquisitions	8.0	1.3	1.7
Net cash outflow relating to acquisitions	44.3	1.3	135.5

7. Acquisitions (continued)

Investment in associates

CM Labs Simulations

On 8 April 2022, the Group acquired 19.4% (17.2% fully diluted) of the shares of CM Labs Simulations Inc. ('CM Labs') for total consideration of CAD4.3 million (£2.6 million), settled in cash. CM Labs is a manufacturer of turnkey solutions for operator training simulators in the heavy equipment industries. These simulators are developed using CM Labs' proprietary Vortex software, which is also commercially available as a machinery virtual prototyping software platform for tasks ranging from product development to creation of custom simulators. Its principal place of business is Montreal, Quebec, Canada. As a result of the rights and powers attached to the Group's shareholding the Group has concluded that it has significant influence and, as result, will equity account for its share of CM Labs' results, as an investment in associate.

The investment carrying value at 30 June 2022 is £3.0 million, consisting of the initial purchase consideration of £2.6 million, transaction costs of £0.3 million and £0.1 million share of profit after taxation. Transactions with related party associates consisted of £0.2 million sales and £0.2 million expenses.

Future acquisitions

Dytran Instruments

On 10 May 2022, the Group announced that it had signed a purchase agreement to acquire 100% of Dytran Instruments, Inc. ('Dytran') for a headline purchase consideration of \$82 million (£66 million), valuing the business at 15.8x EBITDA for the 12 months ending March 2022. The transaction is subject to regulatory approval and is anticipated to close in the second half of 2022. Dytran is a leading designer and manufacturer of piezo-electric and MEMS-based accelerometers and sensors for measuring dynamic force, pressure and vibration, with its largest market in North America. Dytran will be integrated into the HBK reportable segment and cash generating unit.

8. Discontinued operations and disposal groups held for sale

On 19 April 2022, the Group announced that it had entered into a sale agreement to divest of the Omega reportable segment. The divestment was effected to offer a better opportunity to generate returns for shareholders and further enhance Group margins. The disposal was completed on 1 July 2022, after the end of the reporting period covered by these Condensed Consolidated Interim Financial Statements. The above operations have been classified discontinued operations in the Condensed Consolidated Income Statement and have been classified as a disposal group held for sale and presented separately in the Condensed Consolidated Statement of Financial Position.

The headline sales proceeds received on 1 July 2022, which are subject to a customary completion accounts true-up, were \$525 million (c.£410 million), substantially in excess of the carrying amount of the related net assets and accordingly no impairment losses have been recognised on the classification of these operations as held for sale.

The results of the discontinued operations, which have been included in the profit for the period, were as follows:

-	2022	2021	2021
	Half year	Half year	Full year
	£m	£m	£m
Revenue	73.9	64.3	129.0
Expenses included in adjusted operating profit	(59.9)	(55.6)	(109.2)
Adjusted operating profit	14.0	8.7	19.8
Other expenses	(1.1)	(3.6)	(5.0)
Profit before tax	12.9	5.1	14.8
Attributable tax expense	(2.7)	(1.2)	(3.5)
Profit after tax from discontinued operations for the period attributable to owners of the Company	10.2	3.9	11.3

8. Discontinued operations and disposal groups held for sale (continued)

During the period, discontinued operations contributed £6.5 million (Half year 2021: £13.9 million; Full year 2021: £23.5 million) to the Group's net cash inflow from operating activities, paid £0.8 million (Half year 2021: £0.8 million; Full year 2021: £1.8 million) in respect of investing activities and paid £0.5 million (Half year 2021: £0.4 million; Full year 2021: £0.9 million) in respect of financing activities.

The major classes of assets and liabilities comprising the operations classified as held for sale at 30 June 2022 are as follows:

	2022
	Half year
	£m
Goodwill	121.3
Other intangible assets	39.9
Property, plant and equipment	20.5
Right-of-use assets	1.8
Inventories	20.8
Current tax assets	0.1
Trade and other receivables	7.1
Cash and cash equivalents	7.7
Total assets classified as held for sale	219.2
Trade and other payables	(19.9)
Lease liabilities	(3.2)
Deferred tax liabilities	(8.6)
Provisions	(0.2)
Total liabilities classified as held for sale	(31.9)
Net assets of disposal groups	187.3

Assets and liabilities classified as held for sale include the Omega business and the Group's former headquarters building in Egham, Surrey, UK.

9. Cash generated from operations

		2022	2021	2021
		Half year	Half year	Full year
	Note	£m	£m	£m
Cash flows from operating activities				
Profit after tax		39.4	180.3	346.9
Adjustments for:				
Taxation charge		15.3	6.7	41.7
Profit on disposal of businesses		(0.2)	(117.7)	(226.5)
Share of results of associates	7	(0.1)	-	-
Finance costs	3	13.2	3.2	5.6
Financial income	3	(0.3)	(11.9)	(12.8)
Depreciation and impairment of property, plant and equipment		16.9	15.5	26.4
Amortisation and impairment of intangible assets		12.6	14.2	23.9
Transaction-related fair value adjustments		0.2	(O.1)	0.2
(Profit)/loss on disposal of property, plant and equipment		(2.1)	-	0.1
Equity-settled share-based payment expense		5.0	3.8	7.8
Operating cash flow before changes in working capital and				
provisions		99.9	94.0	213.3
(Increase)/decrease in trade and other receivables		(12.8)	9.9	(40.2)
(Increase) in inventories		(51.7)	(13.8)	(30.3)
Increase in trade and other payables		10.3	12.0	50.3
(Decrease) in provisions and retirement benefits		(2.3)	(5.4)	(1.5)
Cash generated from operations		43.4	96.7	191.6

10. Share buyback, treasury shares and employee benefit trust shares

During the half year ended 30 June 2022, 5,068,643 ordinary shares were repurchased and cancelled by the Group as part of the £300 million share buyback programme announced on 19 April 2022, resulting in a cash outflow of £150.8 million, including transaction fees of £1.0 million.

During the half year ended 30 June 2021, the Group repurchased 2,537,540 ordinary shares and cancelled 2,417,148, resulting in a cash outflow of £79.7 million as part of the £200 million share buyback announced

25 February 2021. This was concluded in the Full year 2021 with 5,596,739 shares repurchased and cancelled, resulting in a cash outflow of £201.3 million.

At 30 June 2022, the Group held 4,664,727 treasury shares (Half year 2021: 4,807,386; Full year 2021: 4,767,106). During the period, 102,379 (Half year 2021: 127,181; Full year 2021: 167,461) of these shares were issued to satisfy options exercised by, and SIP Matching Shares awarded to, employees which were granted under the Group's share schemes.

11. Financial instruments

The following tables show the fair value measurement of financial instruments by level following the fair value hierarchy:

- Level 1: quoted listed stock exchange prices (unadjusted) in active markets for identical assets;
- Level 2: inputs other than quoted prices within level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e. derived from prices); and
- Level 3: inputs for assets and liabilities derived from valuation techniques that include inputs for the assets or liability that are not based on observable market data.

				30 June 2022
	Level 1 fair value	Level 2 fair value	Level 3 fair value	Carrying amount
	£m	£m	£m	£m
Fair value hierarchy categorisation of financial instruments measured at fair value				
Deferred and contingent consideration payable on acquisitions	_	_	(2.9)	(2.9)
Investment in equity instruments designated at initial recognition at fair value through other comprehensive				
income	0.9	-	27.7	28.6
Investment in debt instruments	-	-	23.0	23.0
Financial instruments included in assets held for sale (see note 8)	_	7.7	_	7.7
Cash and cash equivalents (excluding £7.7 million classified as assets held for sale)	_	122.2	_	122.2
Floating rate borrowings and bank overdrafts	-	(228.2)	-	(228.2)
Forward exchange contract liabilities	-	(25.7)	-	(25.7)
	·	_		(75.3)

There were no movements between the different levels of the fair value hierarchy during the period.

The fair value of deferred and contingent consideration is determined by considering the performance expectations of the acquired entity or the likelihood of non-financial integration milestones whilst applying the entity-specific discount rates. The unobservable inputs are the projected forecast measures that are assessed on a periodic basis. Changes in the fair value of deferred and contingent consideration relating to updated projected forecast performance measures are recognised in the Consolidated Income Statement within administrative expenses in the Consolidated Income Statement in the period that the change occurs.

The level 1 investments in equity instruments is calculated using quoted market prices in an active market at the balance sheet date. The level 3 investment in equity instruments is measured at fair value, using the income approach, with the key input being a discounted cash flow.

11. Financial instruments (continued)

The investment in debt instruments is measured at fair value by establishing an appropriate market yield. The key inputs used were synthetic credit ratings and market interest rates.

The fair value of cash and cash equivalents (including cash and cash equivalents included in assets held for sale) approximates to the carrying amount because of the short maturity of these instruments.

The fair value of floating rate borrowings and bank overdrafts approximates to the carrying amount because interest rates are at floating rates where payments are reset to market rates at intervals of less than one year.

The fair value of forward exchange contracts is determined using discounted cash flow techniques based on readily available market data.

The fair value measurement methodology of all financial instruments remains consistent with the approach disclosed in the Consolidated Financial Statements for the financial year ended 31 December 2021.

			30	June 2021
		Level 2	Level 3	
	Level 1 fair value	fair value	fair value	Carrying amount
	£m	£m	£m	£m
Fair value hierarchy categorisation of financial instruments measured at fair value				
Deferred and contingent consideration payable on acquisitions	-	-	(1.6)	(1.6)
Investment in equity instruments designated at initial recognition at fair value through other comprehensive income	0.5	_	23.6	24.1
Investment in debt instruments	-	_	23.0	23.0
Forward exchange contract assets	-	1.9		1.9
Cash and cash equivalents	-	273.0	-	273.0
Floating rate borrowings and bank overdrafts	-	(0.2)	-	(0.2)
				320.2
			31 Dece	mber 2021
	Level 1 fair value	Level 2 fair value	Level 3 fair value	Carrying amount
	£m	£m	£m	£m
Fair value hierarchy categorisation of financial instruments measured at fair value	5			
Deferred and contingent consideration payable on acquisition	ns -	-	(1.5)	(1.5)
Investment in equity instruments designated at initial recogn at fair value through other comprehensive income	nition 1.2	-	23.1	24.3
Investment in debt instruments	-	-	23.0	23.0
Forward exchange contract assets	-	0.3	-	0.3
Cash and cash equivalents	-	167.8	-	167.8
Forward exchange contract liabilities	-	(1.2)	-	(1.2)
				212.7
		2022	2021	2021
		Half year	Half year	Full year
		£m	£m	£m
Reconciliation of level 3 fair value for investment in equity instruments				
At 1 January		23.1	-	-
Investment in equity instruments recognised on disposal of business		-	25.0	25.0
Fair value gain		4.1	-	-
Foreign exchange difference		0.5	(1.4)	(1.9)
At end of period		27.7	23.6	23.1

11. Financial instruments (continued)

	2022 Half year	2021 Half year	2021 Full year
	£m	£m	£m
Reconciliation of level 3 fair value for deferred and contingent consideration payable on acquisitions			
At 1 January	(1.5)	(3.1)	(3.1)
Deferred and contingent consideration arising from current period acquisitions payable in future periods	(2.2)	-	-
Deferred and contingent consideration paid in the current period relating to previous periods' acquisitions	0.8	1.3	1.7
Costs charged to the Condensed Consolidated Income Statement:			
Subsequent adjustment on acquisitions	(0.2)	0.1	(0.2)
Foreign exchange difference	0.2	0.1	0.1
At end of period	(2.9)	(1.6)	(1.5)

12. Post balance sheet events

On 1 July 2022, the Group received headline sales proceeds of \$525 million (£410 million) for the sale of its Omega business to Arcline Investment Management. The total sales proceeds received is subject to a customary completion accounts true-up. All outstanding drawings on the RCF were immediately repaid from these proceeds and the remainder invested in interest-bearing deposit accounts. See note 8 for further details.

Appendix - Alternative performance measures Policy

Spectris uses adjusted figures as key performance measures in addition to those reported under IFRS, as management believe these measures enable management and stakeholders to assess the underlying trading performance of the businesses as they exclude certain items that are considered to be significant in nature and/or quantum, foreign exchange movements and the impact of acquisitions and disposals.

The alternative performance measures ('APMs') are consistent with how the businesses' performance is planned and reported within the internal management reporting to the Board and Operating Committees. Some of these measures are used for the purpose of setting remuneration targets. The key APMs that the Group uses include like-for-like ('LFL') organic performance measures and adjusted measures for the income statement together with adjusted financial position and cash flow measures. Explanations of how they are calculated and how they are reconciled to an IFRS statutory measure are set out below.

Adjusted measures

The Group's policy is to exclude items that are considered to be significant in nature and/or quantum and where treatment as an adjusted item provides stakeholders with additional useful information to assess the period-on-period trading performance of the Group. The Group excludes such items which management have defined for 2022 and 2021 as:

- restructuring costs from significant programmes;
- amortisation of acquisition-related intangible assets;
- depreciation of acquisition-related fair value adjustments to property, plant and equipment;
- transaction-related costs, deferred and contingent consideration fair value adjustments;
- configuration and customisation costs carried out by third parties on material SaaS projects;
- profits or losses on termination or disposal of businesses;;
- unrealised changes in the fair value of financial instruments;
- interest credit on release of provision on settlement of EU dividends tax claim;
- gains or losses on retranslation of short-term inter-company loan balances; and
- related tax effects on the above and other tax items which do not form part of the underlying tax rate (see Note 4).

In November 2018, the Group announced the implementation of a Group-wide profit improvement programme. The total costs of implementation of this programme are considered to be significant in both nature and amount. On this basis the costs of the implementation of this programme are excluded from adjusted operating profit. Adjusted operating profit (including on a LFL basis) is therefore presented before the impact of the Group profit improvement programme costs. The ongoing benefits arising from this programme are considered to be part of underlying trading.

LFL measures

The Board reviews and compares current and prior year segmental sales and adjusted operating profit at constant exchange rates and excludes the impact of acquisitions and disposals during the period.

The constant exchange rate comparison uses the current period segmental information, stated in each entity's functional currency, and translates the results into its presentation currency using the prior period's monthly exchange rates, irrespective of the underlying transactional currency.

The incremental impact of business acquisitions is excluded for the first twelve months of ownership from the month of purchase. For business disposals, comparative figures for segmental sales and adjusted operating profit are adjusted to reflect the comparable periods of ownership.

On 2 February 2021, Industrial Solutions' Millbrook business was disposed of and, as a result, the segmental LFL adjusted sales and adjusted operating profit for Industrial Solutions for half year 2021 exclude the trading results of the Millbrook business.

On 1 March 2021, Industrial Solutions' Brüel & Kjær Vibro business was disposed of and, as a result, the segmental LFL adjusted sales and adjusted operating profit for Industrial Solutions for half year 2021 exclude the trading results of the Brüel & Kjær Vibro business.

On 3 May 2021, Industrial Solutions' ESG business was disposed of and, as a result, the segmental LFL adjusted sales and adjusted operating profit for Industrial Solutions for half year 2021 exclude the trading results of the ESG business.

On 1 November 2021, Industrial Solutions' NDC business was disposed of and, as a result, the segmental LFL adjusted sales and adjusted operating profit for Industrial Solutions for half year 2021 exclude the trading results of the NDC business.

The Omega business has been classified as a discontinued operation under IFRS 5, following the announcement and completion of its disposal during 2022. As a result, the financial data for half year 2022 excludes the trading results of the Omega business, the six months ended 30 June 2021 and twelve months ended 31 December 2021 have been represented to show continuing operations where required to by IFRS 5, including a reclassification of continuing head office expenses that had previously been allocated to the Omega reportable segment to the three continuing reportable segments. Further details of discontinued operations are provided in note 8 to the Interim Condensed Consolidated Financial Statements.

The LFL measure is presented as a means of eliminating the effects of exchange rate fluctuations on the period-on-period statutory results as well as allowing the Board to assess the underlying trading performance of the businesses on a LFL basis for both sales and operating profit.

Based on the above policy, the adjusted performance measures are derived from the statutory figures as follows:

Income statement measures

a) LFL adjusted sales by segment

2022 Half year LFL adjusted sales versus 2021 Half year LFL adjusted sales

2022 Half year sales by segment	Malvern Panalytical £m	HBK £m	Industrial Solutions £m	2022 Half year Total £m
Sales	209.1	215.0	146.1	570.2
Constant exchange rate adjustment to 2021 half year	203.1	_15.0	1-10.1	370.2
exchange rates	(3.6)	(1.7)	(5.4)	(10.7)
Acquisitions	(1.3)	(12.5)	(1.4)	(15.2)
LFL adjusted sales	204.2	200.8	139.3	544.3

	Malvern Panalytical	НВК	Industrial Solutions	2021 Half year Total
2021 Half year sales by segment	£m	£m	£m	£m
Sales	178.5	188.0	171.0	537.5
Disposal of businesses	-	-	(45.7)	(45.7)
LFL adjusted sales	178.5	188.0	125.3	491.8

Appendix - Alternative performance measures (continued) b) Adjusted operating profit and operating margin

2022 Half year adjusted operating	Malvern Panalytical	нвк	Industrial Solutions	2022 Half year Total
profit	£m	£m	£m	£m
Statutory operating profit	17.7	16.1	20.5	54.3
Net transaction-related costs and fair value adjustments	3.9	2.0	0.9	6.8
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	0.1	_	-	0.1
Configuration and customisation costs carried out by third parties on material SaaS projects	1.1	1.2	_	2.3
Amortisation of acquisition-related intangible assets	3.5	4.9	0.4	8.8
Adjusted operating profit	26.3	24.2	21.8	72.3
Constant exchange rate adjustment to 2021 half year exchange rates	(0.7)	(1.6)	(1.5)	(3.8)
Acquisitions	2.0	(2.7)	(0.2)	(0.9)
LFL adjusted operating profit	27.6	19.9	20.1	67.6

2021 Half year adjusted operating	Malvern Panalytical	НВК	Industrial Solutions	2021 Half year Total
profit	£m	£m	£m	£m
Statutory operating profit	17.6	14.9	22.9	55.4
Restructuring costs	1.1	2.9	(0.2)	3.8
Net transaction-related costs and fair value adjustments	1.0	1.3	1.1	3.4
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	0.1	-	-	0.1
Amortisation of acquisition-related intangible assets	2.5	2.6	0.3	5.4
Adjusted operating profit	22.3	21.7	24.1	68.1
Disposal of businesses	-	-	(4.1)	(4.1)
LFL adjusted operating profit	22.3	21.7	20.0	64.0

2021 Full year adjusted operating	Malvern Panalytical	нвк	Industrial Solutions	2021 Full year Total
profit	£m	£m	£m	£m
Statutory operating profit	55.3	38.6	46.0	139.9
Restructuring costs	2.3	4.6	3.3	10.2
Net transaction-related costs and fair value adjustments	6.5	7.8	4.7	19.0
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	0.2	-	-	0.2
Configuration and customisation costs carried out by third parties on material SaaS projects	1.2	4.6	1.2	7.0
Amortisation of acquisition-related intangible assets	5.1	7.7	0.5	13.3
Adjusted operating profit	70.6	63.3	55.7	189.6

	Malvern Panalytical	нвк	Industrial Solutions	2022 Half year Total
2022 Half year operating margin	%	%	%	%
Statutory operating margin ¹	8.5	7.5	14.0	9.5
Adjusted operating margin ²	12.6	11.3	14.9	12.7
LFL adjusted operating margin ³	13.5	9.9	14.4	12.4

	Malvern Panalytical	нвк	Industrial Solutions	2021 Half year Total
2021 Half year operating margin	%	%	%	%
Statutory operating margin ¹	9.9	7.9	13.3	10.3
Adjusted operating margin ²	12.5	11.5	14.1	12.7
LFL adjusted operating margin ³	12.5	11.5	16.0	13.0

				2021
	Malvern Panalytical	нвк	Industrial Solutions	Full year Total
2021 Full year operating margin	%	%	%	%
Statutory operating margin ¹	13.8	9.1	13.7	12.0
Adjusted operating margin ²	17.6	14.9	16.6	16.3

^{1.} Statutory operating margin is calculated as statutory operating profit divided by sales

c) Adjusted net finance costs

	2022 Half year	2021 Half year	2021 Full year
	£m	£m	£m
Statutory net finance (cost)/credit	(12.8)	8.8	7.4
Net loss/(gain) on retranslation of short-term inter-company loan balances	10.7	(6.7)	(7.2)
Interest credit on release of provision on settlement of EU dividends tax claim	-	(5.1)	(5.1)
Adjusted net finance costs	(2.1)	(3.0)	(4.9)

d) Adjusted profit before taxation

	2022	2021	2021
	Half year	Half year	Full year
	£m	£m	£m
Adjusted operating profit	72.3	68.1	189.6
Share of results of associates	0.1	-	-
Adjusted net finance costs	(2.1)	(3.0)	(4.9)
Adjusted profit before taxation	70.3	65.1	184.7

^{2.} Adjusted operating margin is calculated as adjusted operating profit divided by sales

^{3.} LFL adjusted operating margin is calculated as LFL adjusted operating profit divided by LFL adjusted sales. Refer to the tables above for a reconciliation of the nearest GAAP measure (sales/operating profit respectively) to LFL adjusted sales/LFL adjusted operating profit.

e) Adjusted earnings per share

	2022	2021	2021
	Half year	Half year	Full year
Adjusted earnings	£m	£m	£m
Statutory profit after tax from continuing operations	29.2	176.4	335.6
Adjusted for:			
Restructuring costs	-	3.8	10.2
Net transaction-related costs and fair value adjustments	6.8	3.4	19.0
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	0.1	0.1	0.2
Configuration and customisation costs carried out by third parties on material SaaS projects	2.3	-	7.0
Amortisation of acquisition-related intangible assets	8.8	5.4	13.3
Profit on disposal of businesses	(0.2)	(117.7)	(226.5)
Interest credit on release of provision on settlement of EU dividends tax claim	-	(5.1)	(5.1)
Net loss/(gain) on retranslation of short-term inter-company loan balances	10.7	(6.7)	(7.2)
Tax effect of the above and other non-recurring items	(2.9)	(8.7)	(1.6)
Adjusted earnings	54.8	50.9	144.9

Adjusted earnings per share from continuing operations	2022 Half year	2021 Half year	2021 Full year
Weighted average number of shares outstanding (millions)	110.0	115.7	113.7
Adjusted earnings per share (pence)	49.8	44.0	127.4

Basic earnings per share in accordance with IAS 33 'Earnings Per Share' are disclosed in Note 6.

Financial position measures f) Net (debt)/cash

Half year	1,1101 (4001) 04011			
Bank overdrafts (8.0) (0.2) Emm Emm		2022	2021	2021
Bank overdrafts (8.0) (0.2)		Half year	Half year	Full year
Bank loans unsecured (220.2) Total borrowings (228.2) (0.2)		£m	£m	£m
Total borrowings (228.2) (0.2) Cash and cash equivalents included in assets held for sale 7.7 - Cash and cash equivalents included in current assets 122.2 273.0 167.8 Net (debt)/cash (98.3) 272.8 167.8 Reconciliation of changes in cash and cash equivalents to movements in net (debt)/cash £m £m £m Net (decrease)/increase in cash and cash equivalents (43.6) 63.6 (36.8) Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1	Bank overdrafts	(8.0)	(0.2)	-
Cash and cash equivalents included in assets held for sale 7.7 - Cash and cash equivalents included in current assets 122.2 273.0 167.8 Net (debt)/cash (98.3) 272.8 167.8 Net (debt)/cash 2022 2021 2021 Half year Half year Full year Em £m £m £m Em £m £m £m Reconciliation of changes in cash and cash equivalents to movements in net (debt)/cash (43.6) 63.6 (36.8) Net (decrease)/increase in cash and cash equivalents (43.6) 63.6 (36.8) Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1	Bank loans unsecured	(220.2)		-
Cash and cash equivalents included in current assets 122.2 273.0 167.8 Net (debt)/cash (98.3) 272.8 167.8 2022 2021 2021 2021 Half year Half year Full year Reconciliation of changes in cash and cash equivalents to movements in net (debt)/cash 4 6 6 6 6 6 6 6 6 6 6 6 8 6 7 6 7 7 7 0	Total borrowings	(228.2)	(0.2)	-
Net (debt)/cash 2022 2021 2021 2021 Half year Half year Full year Em Em Em Em Em Em Em E	Cash and cash equivalents included in assets held for sale	7.7	-	-
2022 2021 2021 2021 Half year Half year Full year Em Em Em Em Em Em Em E	Cash and cash equivalents included in current assets	122.2	273.0	167.8
2022 2021 2021 2021 Half year Half year Full year Em Em Em Em Em Em Em E	Net (debt)/cash	(98.3)	272.8	167.8
Reconciliation of changes in cash and cash equivalents to movements in net (debt)/cash 4.3.6 63.6 (36.8) Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1		•		
Reconciliation of changes in cash and cash equivalents to movements in net (debt)/cash (43.6) 63.6 (36.8) Net (decrease)/increase in cash and cash equivalents (43.6) 63.6 (36.8) Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1		2022	2021	2021
Reconciliation of changes in cash and cash equivalents to movements in net (debt)/cash Net (decrease)/increase in cash and cash equivalents (43.6) 63.6 (36.8) Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1		Half year	Half year	Full year
equivalents to movements in net (debt)/cash Net (decrease)/increase in cash and cash equivalents (43.6) 63.6 (36.8) Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1		£m	£m	£m
equivalents (43.6) 63.6 (36.8) Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1	Reconciliation of changes in cash and cash equivalents to movements in net (debt)/cash			_
Proceeds from borrowings (326.1) - (70.0) Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1				(= 0.0)
Repayment of borrowings 98.7 99.8 169.8 Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1	•		63.6	` ,
Effect of foreign exchange rate changes 4.9 3.3 (1.3) Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1		(326.1)	-	(70.0)
Movement in net (debt)/cash (266.1) 166.7 61.7 Net (debt)/cash at beginning of year 167.8 106.1 106.1	Repayment of borrowings	98.7	99.8	169.8
Net (debt)/cash at beginning of year 167.8 106.1 106.1	Effect of foreign exchange rate changes	4.9	3.3	(1.3)
		(266.1)	166.7	61.7
Net (debt)/cash at end of period (98.3) 272.8 167.8	Net (debt)/cash at beginning of year	167.8	106.1	106.1
	Net (debt)/cash at end of period	(98.3)	272.8	167.8

Net (debt)/cash excludes lease liabilities arising under IFRS 16 as this aligns with the definition of net (debt)/cash under the Group's bank covenants.

Cash flow measures

g) Adjusted cash flow

g,, tajasta sase.			
	2022	2021	2021
	Half year	Half year	Full year
	£m	£m	£m
Cash generated from operations (from continuing and discontinued			
operations)	43.4	96.7	191.6
Net income taxes paid	(20.5)	(17.2)	(32.2)
Net cash inflow from operating activities	22.9	79.5	159.4
Transaction-related costs paid	6.0	9.0	26.6
Restructuring cash outflow	2.6	6.8	11.9
Net income taxes paid	20.5	17.2	32.2
Purchase of property, plant and equipment and intangible assets from	(72.7)	(10.1)	(75.7)
continuing and discontinued operations)	(32.3)	(19.1)	(35.3)
SaaS-related cash expenditure	2.3	-	5.9
Proceeds from disposal of property, plant and equipment and software	13.2	-	-
Adjusted cash flow from discontinued operations	(7.3)	(13.5)	(22.6)
Adjusted cash flow from continuing operations	27.9	79.9	178.1
Adjusted cash flow conversion ¹	39%	117%	94%

^{1.} Adjusted cash flow conversion is calculated as adjusted cash flow as a proportion of adjusted operating profit.

Other measures

h) Return on gross capital employed ('ROGCE')

The return on gross capital employed is calculated as adjusted operating profit for the last 12 months divided by the average of opening and closing gross capital employed. Gross capital employed is calculated as net assets excluding net debt/(cash) and excluding accumulated amortisation and impairment of acquisition-related intangible assets including goodwill.

		(Restated) ¹	(Restated) ¹
	30 June 2022	30 June 2021	30 June 2020
	£m	£m	£m
Net debt/(cash) (see APM f)	98.3	(272.8)	(94.3)
Accumulated impairment losses on goodwill including items transferred to assets held for sale	167.0	156.7	247.3
Accumulated amortisation and impairment of acquisition-related intangible assets including items transferred to assets held for sale	253.1	362.7	415.3
Shareholders' equity	1,176.6	1,224.2	1,294.4
Gross capital employed	1,695.0	1,470.8	1,862.7
Average gross capital employed (current and prior period) ²	1,582.9	1,666.8	
Adjusted operating profit from continuing and discontinued operations for six months to June 2022 and 2021	86.3	76.8	
Adjusted operating profit from continuing and discontinued operations for six months to December 2021 and 2020	132.6	129.5	
Total adjusted operating profit for last 12 months	218.9	206.3	
Return on gross capital employed	13.8%	12.4%	

^{1.} Shareholders' equity and gross capital employed have been restated for the £18.9 million impact of the Group's change in accounting policy for Software as a Service ('SaaS') arrangements. See note 1 for further details.

^{2.} Average gross capital employed is calculated as current period gross capital employed divided by comparative period gross capital employed.

i) Net transaction-related costs and fair value adjustments

Net transaction-related costs and fair value adjustments comprise transaction costs of £6.6 million (Half year 2021: £3.5 million; Full year 2021: £18.8 million) that have been recognised in the continuing Condensed Consolidated Income Statement under IFRS 3 (Revised) 'Business Combinations' and other fair value adjustments relating to deferred and contingent consideration comprising a charge of £0.2 million (Half year 2021: credit of £0.1 million; Full year 2021: charge of £0.2 million). Net transaction-related costs and fair value adjustments are included within administrative expenses. Transaction-related costs have been excluded from the adjusted operating profit and transaction costs paid of £6.0 million (Half year 2021: £9.0 million; Full year 2021: £26.6 million) have been excluded from the adjusted cash flow.

Dividend timetable - H1 2022 interim dividend

Event	Date - 2022
Ex-dividend date	6 October
Record date	7 October
Payment date	11 November

Cautionary statement

This press release may contain forward-looking statements. These statements can be identified by the fact that they do not relate only to historical or current facts. Without limitation, forward-looking statements often use words such as anticipate, target, expect, estimate, intend, plan, goal, believe, will, may, should, would, could or other words of similar meaning. These statements may (without limitation) relate to the Company's financial position, business strategy, plans for future operations or market trends. No assurance can be given that any particular expectation will be met or proved accurate and shareholders are cautioned not to place undue reliance on such statements because, by their very nature, they may be affected by a number of known and unknown risks, uncertainties and other important factors which could cause actual results to differ materially from those currently anticipated. Any forward-looking statement is made on the basis of information available to Spectris plc as of the date of the preparation of this press release. All forward-looking statements contained in this section. Other than in accordance with its legal and regulatory obligations, Spectris plc disclaims any obligation to update or revise any forward-looking statement contained in this press release to reflect any change in circumstances or its expectations.