Press
Release

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2020 half year results

4 August 2020 – Spectris plc (SXS: LSE), the expert in providing insight through precision measurement, announces half year results for the six months ended 30 June 2020.

- Continuing to prioritise the well-being of our people and taking a balanced approach to managing our business through this challenging period
- Better than expected Q2 performance: H1 sales of £599.0 million, a 14% LFL sales decrease
- Focus on cost control: execution of profit improvement programme and short-term, temporary cost measures delivered 11% reduction in LFL overheads
- Profit drop-through of 32%[1]: adjusted operating profit decreased 41%, on a LFL basis, to £44.1 million
- Strong cash generation: net cash of £94.3 million at 30 June and adjusted cash flow conversion of 201%
- Dividend reinstated: additional interim dividend of 43.2 pence per share to be paid in October in lieu of 2019 final dividend; interim dividend of 21.9 pence per share declared for payment in November
- Statutory operating loss of £56.2 million includes a non-cash impairment charge of £58.4 million relating to goodwill and £20.8 million relating to acquisition-related intangible assets and other property, plant and equipment, predominantly at Millbrook
- Addressing new economic reality: profit improvement programme on track to deliver £20 million of benefits in 2020; restructuring programme announced and expected to deliver further benefits of £20 million in 2021
- Continued focus on strategy execution: deliver growth, drive operating margin expansion and optimise the portfolio

	H1 2020	H1 2019	Change	Like-for-like change[2]
Adjusted[2]				
Sales (£m)	**599.0**	759.1	(21.1%)	(13.7%)
Operating profit (£m)	**44.1**	83.5	(47.2%)	(41.0%)
Operating margin (%)	**7.4%**	11.0%	(360bps)	(340bps)
Profit before tax (£m)	**40.4**	77.2	(47.7%)	
Earnings per share (pence)	**27.2p**	52.4p	(48.1%)	
Adjusted cash flow conversion (%)	**201%**	89%	112pp	
Return on gross capital employed (%)	**11.3%**	13.4%	(210bps)	
Statutory				
Sales (£m)	**599.0**	759.1	(21.1%)	
Operating loss (£m)	**(56.2)**	(46.1)	(21.9%)	
Operating margin (%)	**(9.4%)**	(6.1%)	(330bps)	
Loss before tax[3] (£m)	**(65.5)**	(50.1)	(30.7%)	
Basic loss per share (pence)	**(57.3p)**	(41.8p)	(37.1%)	
Dividend per share (pence)	**21.9p**	21.9p	-	

1. Profit drop-through is defined as the year-on-year differential in adjusted operating profit as a percentage of the differential in sales, on a like-for-like basis.
2. **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 Note 2 to the Condensed Financial Statements.
3. The main adjusting items to statutory loss before tax in H1 2020 were goodwill impairment of £58.4 million and impairment of acquisition-related intangible assets and other property, plant and equipment of £20.8 million. The main adjusting items to statutory loss before tax in H1 2019 were goodwill impairment of £35.1 million, impairment of acquisition-related intangible assets of £43.1 million and restructuring costs of £29.1 million.

Commenting on the results, Andrew Heath, Chief Executive, said: "Our priority remains to protect the health and safety of our employees and balance the needs of all our stakeholders. The response from all our people has been exceptional, and they are able to work effectively, either on site or from home. I would again like to thank everyone for their commitment and selflessness as we responded to all that COVID-19 has presented.

Through the support of our people, we were able to move quickly to support our customers in new ways, at a lower cost. The actions we have taken have demonstrated the resilience and quality of the Spectris business model and its cash generative nature. As a result, our profit drop-through impact was limited and cash conversion was strong, such that we strengthened our balance sheet and liquidity position in the first half. This has enabled us to reinstate our dividend, restore salaries and bring people back to work, where appropriate.

However, we must remain vigilant, both in terms of our people's well-being and our forward planning. While the performance in the second quarter was better than we anticipated, it has been a demanding period for us, and many of our customers, and the outlook remains uncertain. It is now evident that we are facing an extended recovery period and therefore, we must move to implement sustainable cost actions in the face of a new economic reality.

Our strategic direction is unchanged. Whilst the backdrop has altered, it has provided new opportunities to emerge from this crisis stronger and more resilient. We will continue to focus on what we can control – investing in our business to deliver growth, implementing costs initiatives to drive operating margin expansion and optimising the portfolio to deliver long-term value to our shareholders. Our strong balance sheet and cash generative business will allow us to execute our strategy to build high-performing platform businesses of scale."

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Conference call

A webcast and conference call for analysts and investors will be hosted by Andrew Heath, Chief Executive, and Derek Harding, Chief Financial Officer, at 07.45 today to discuss this statement. To access the call, please dial +44 (0) 20 3936 2999 – Pin code: 527999#. Or for replay, please dial +44 (0) 20 3936 3001 – Pin code: 121797#. Questions will also be taken via the webcast at www.spectris.com

Copies of this press release are available to the public from the registered office at Heritage House, Church Road, Egham, Surrey TW20 9QD 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 Egham, Surrey, United Kingdom, the Company employs approximately 9,000 people located in more than 30 countries. For more information, visit www.spectris.com.

Chief Executive's review

Trading performance

In the first half of 2020, sales decreased by 21% to £599.0 million (H1 2019: £759.1 million). On an organic, constant currency (like-for-like, 'LFL') basis, sales decreased 14%. There was a 9% impact from disposals, primarily related to BTG, and a 1% positive impact from foreign currency exchange movements. LFL sales declined less than anticipated during the second quarter with sales in May down 20%, similar to the 21% decline in April, and June sales only 12% down on last year. Orders in the first half fared better with a 11% decline.

LFL sales by geography and business

	H1		H1
North America	(11%)	Malvern Panalytical	(21%)
Europe	(15%)	HBK	(8%)
Asia	(16%)	Omega	(13%)
Rest of the World	(11%)	Industrial Solutions	(13%)
Total	(14%)	Total	(14%)

All three platform businesses posted a decline in LFL sales, with Malvern Panalytical being the most impacted, primarily resulting from a reduction in demand in metals, minerals and mining and from universities and research institutes being closed during lockdown. After only a small LFL decline in the first quarter, HBK's sales fell further in the second quarter, resulting in an 8% decline overall, whilst both Omega and the Industrial Solutions division saw 13% lower LFL sales.

All regions saw a decline in sales from the previous year. While Asia posted the largest decline, China grew in the second quarter. By end market, the fall in LFL sales was highest in metals, minerals and mining and academic research, with pharmaceutical and machine manufacturing suffering the least.

Financial performance

Group adjusted operating profit decreased by 47% to £44.1 million (H1 2019: £83.5 million). On a LFL basis, the decrease was 41%, after adjusting for the impact of disposals, net of acquisitions, of 12% and a 1% positive foreign currency impact.

LFL overheads declined 11%, resulting in an operating margin of 7.4% (H1 2019: 11.0%), 340bps lower on a LFL basis. The profit improvement programme delivered benefits of £11 million in the first half. Additionally, the short-term cost measures, taken as a result of COVID-19, and the receipt of £6.7 million of COVID-19 related overseas government support, contributed to a further reduction of £21.8 million. These swift and decisive cost reduction actions have contributed to a strong drop-through of 32% on a LFL basis.

The Group incurred costs of £3.0 million (H1 2019: 29.1 million) relating to restructuring in the first half and £58.4 million was recognised as an impairment of goodwill (H1 2019: £35.1 million) and £20.8 million as an impairment of acquisition-related intangible assets and property, plant and equipment (H1 2019: £43.1 million), primarily in relation to Millbrook. As a result, the Group booked a statutory operating loss of £56.2 million (H1 2019 £46.1 million loss).

Cash performance was strong in the first half of 2020. The Group ended the period with net cash of £94.3 million (H1 2019: net debt £312.6 million), an adjusted cash flow conversion of 201% (H1 2019: 89%). We have continued to invest, spending £46.4 million (7.7% of sales) in R&D (H1 2019: £49.3 million, 6.5% of sales) and £23.2 million in capex, net of grants related to capex (H1 2019: £39.3 million). There was a net cash inflow from proceeds of disposals of £21.4 million. The Group recorded a return on gross capital employed of 11.3% (H1 2019: 13.4%), primarily reflecting the decrease in adjusted operating profit.

Taking a balanced approach to managing the business

The first half of 2020 has clearly been an unprecedented time. The Group responded well to the challenges that it has faced, and I would again like to recognise our people for their commitment and selflessness, as we pulled together to support our customers and one another. I would also like to thank our shareholders for their support for the decisions we have made, not least regarding the deferral of dividend payments.

Throughout, we have endeavoured to take a balanced, socially responsible approach to managing our business, consistent with our culture and values. As we seek to deliver our financial performance in 2020, we are ensuring we address the needs of all our stakeholders – protecting and supporting our people; working more closely and flexibly with our customers and suppliers; while also considering how we can aid the communities within which we operate – to position the business for 2021 and deliver long-term value to our shareholders.

We have managed the crisis in three phases: React; Respond; Reset.

React – supporting employees, customers and suppliers
The health, safety and well-being of our people remains our key priority. We moved quickly to enable working from home arrangements for all roles where possible and this continues for the majority of our office-based roles. To protect employees still deployed at our sites, we implemented revised working practices and heightened safety standards, including social distancing and split shifts within our facilities, PPE provision, enhanced cleaning and disinfection processes. In addition, we have enhanced our mental health support, provided practical guidance and focused on staying connected with those people who are working remotely.

Disruption to our manufacturing activities and to our supply chains has been very limited to date. All our manufacturing sites have continued to operate through the period. We have also been working more closely with our suppliers to mitigate any potential impact to customers, maintaining our payment terms and offering to provide early payment to any small business suffering hardship.

We innovated how we engage with our customers, many of whom continue to work remotely themselves. We increased our use of digital engagement, including virtual training and webinars, online demonstrations and product introductions and expanded our online marketing campaigns and programmes. We also accelerated self-installation and remote support tools to keep our customers operational.

Respond – reducing costs and preserving cash to protect the business
As the extent of the potential impact of COVID-19 started to become apparent, we enacted our business continuity plans and took swift action to protect the company, while retaining capabilities and protecting jobs for as long as possible.

We prioritised short-term costs savings over structural long-term cost reduction, to support our financial performance and mitigate the impact on jobs. In addition to a reduction in discretionary spending, we asked for and received support from our people in reducing salary costs. These took the form of temporary measures such as headcount freezes, stopping the annual pay award and asking our people to take a reduction in pay, work a shorter week or be furloughed. We have drawn on government wage replacement schemes in certain jurisdictions, but decided not to take up UK government support schemes.

We were able to implement these savings quickly, due to the support of our people despite the financial burden it placed on them. Their support has been exceptional and is very much appreciated.

By acting together, as swiftly as we did, we rapidly reduced expenditure, resulting in overheads in the first half being 11% lower than the prior year on a LFL basis. This reflects the initiatives implemented both under our profit improvement programme, as well as these latest, short-term temporary cost measures.

We also decided to withdraw the special dividend and postpone the final dividend, in order to conserve cash at a very uncertain time.

The above actions helped to underpin our profit generation and strong cash flow performance during the period, further strengthening our robust balance sheet and liquidity position. They have also allowed us to protect R&D and priority capex projects, to support the long-term growth of the business. R&D expenditure has been maintained at prior year levels. Capex was limited to key projects, reducing spend by £16.1 million compared to the prior year. Our full year capex is now expected to be broadly in line with depreciation.

Reset – preparing for the recovery

The actions we have taken to date have demonstrated the resilience of the Spectris business model and its cash generative nature. We have been resilient through the initial impact of COVID-19, but we must remain vigilant, both in terms of the well-being of our employees and our forward planning. While the performance in the second quarter was better than we initially anticipated, it has been a demanding period, with LFL sales 18% lower. Equally, it is now evident that we are facing an extended recovery and, therefore, we must move to the next stage of our planning in the face of a new economic reality.

While we continue to believe in the long-term growth outlook for our target markets, it remains unclear exactly how they will recover in the short term. Having reviewed a number of scenarios, we are planning our business based on a recovery that extends through 2021. As a result, we will now implement permanent reductions in our cost base.

Our objective remains to retain capability and protect as many jobs as possible. However, it is no longer appropriate, or fair, to expect our people to shoulder the financial burden of reduced pay, shorter time working or furloughs for an extended period of time. Consequently, and regrettably, additional restructuring of the business will take place during the second half of 2020 and into 2021.

The current profit improvement programme remains in place. It is still on track to deliver £20 million of benefits in 2020 for a cost of £20-25 million. Additionally, we are launching a restructuring programme to further reduce our cost base, targeting sustainable benefits of £20 million in 2021. Detailed plans are being developed and further information on these will be provided in October. The last few months has led to a different way of working, which provides a number of opportunities for us to be a lower cost organisation. These benefits will come from:

- Footprint rationalisation – the past few months have shown that working independently from fixed locations offers many advantages and is possible on a much wider scale than previously thought. Having surveyed our people, it has confirmed their desire to work more flexibly. Consequently, a number of physical facilities will be closed or reduced in size.
- Reduction in discretionary costs – COVID-19 has triggered a surge in digitalisation, both in terms of how we engage with customers and enabling remote working. We have already invested in mobile working solutions and are now taking this a step further. As such, we will be able to translate much of the savings we have recently achieved to a permanent reduction in discretionary costs.
- Resizing our capacity and headcount reduction – given the varying outlooks for different end markets and each of our operating companies, we will be implementing a targeted headcount reduction programme by business. We will focus on how we can best support our people as we implement this programme – wherever possible, job reductions will be achieved through natural attrition, early retirement and voluntary redundancy. Unfortunately, in certain circumstances, compulsory redundancy cannot be ruled out.
- Asset optimisation and portfolio management – our disposal programme will continue. Additionally, we will look to cease or sell low profitability business activities, consistent with our strategy to focus on markets and activities which offer higher growth and profitability potential.

Reinstating payments to our stakeholders

As part of this transition, we must also find a way to return to a sense of normality and business as usual, implementing sustainable changes that are productive and provide incentives for all our stakeholders.

For this reason, supported by our strong cashflow generation in the first half, the Board has reflected on the decision regarding the 2019 final dividend of 43.2 pence per share which was postponed in April. An additional interim dividend of 43.2 pence per share will now be paid on 2 October to shareholders on the register at 11 September. In regard to the first half of 2020, an interim dividend of 21.9 pence has been declared, to be paid on 6 November. There is no change to our progressive dividend policy, which is based on affordability and sustainability.

We are committed to recognising the sacrifice and dedication of our people during this challenging period. While the method of doing this will be reliant on our full year performance as a Group, we will ensure that this recognition is aligned with the consideration of any final dividend to shareholders for 2020.

For our people, salaries and full-time working, where appropriate, is being reinstated during August and September as part of the reset to a sustainable business model. Executive Director salaries and Board fees, both which have been reduced by 25%, will be reinstated from 1 October, once this has been completed for our employees.

Delivering the strategy

We have reviewed our strategy in light of recent events and concluded that it is as relevant today as ever; namely driving growth, operating leverage and portfolio optimisation to deliver long-term value to our shareholders, supported by the deployment of the Spectris Business System. We continue to look at opportunities to add to our platform businesses.

Delivering value to our customers to drive growth

The last few months have demonstrated that we are important to our customers. For example, helping directly in the front line against COVID-19, providing products for ventilator development and production and human temperature readers, rapidly expanding capacity to meet the needs of our customers. As part of this effort, Servomex saw a significant increase in orders for its Paracube oxygen sensor and also launched a new variant which is much faster to manufacture, at much greater volumes to meet the increased ventilator demand. And in direct response to the pandemic and deliver on customer needs, Omega launched three human temperature sensing products within six weeks or less.

To ensure we are delivering the leading products and services that our customers demand and in order to drive growth, we will continue to invest in R&D and capex. During this period, with facility access constrained, the requirement for remote support, data, analytics and insights has become more prevalent. This is driving the need for more sensors and instruments, with greater levels of sensitivity and accuracy, as well as connectivity. We are investing in providing more integrated software and services, including predictive and prognostic analytics, in order that our products evolve to meet this increasing trend.

For example, Malvern Panalytical, recently won a major contract with Scott Automation for the engineering, design, equipment supply and the provision of a fully automated robotic analytical laboratory for a Rio Tinto iron ore mine.

At HBK, new hardware and software products have been launched to extend its eDrive offering to provide more complete e-Powertrain testing and optimisation, including eGrid (energy distributions systems) testing. Thereby providing specialist insights to customers in the power meter market and expanding its market reach in the process.

Omega launched the first phase of Layer N - a smart sensors, gateways and cloud services system that streamlines sensing, monitoring and access to data through wireless connectivity which have been opening new business opportunities.

These strategic initiatives are enhancing the product proposition to our customers. By ensuring our customers get the insights and analysis they need to meet their challenges, it enables them to deliver significant benefits to their own consumers and equips them to make the world cleaner, healthier, and more productive. Being positioned in attractive end markets and with products our customers highly value, means we are better placed to drive future growth and profitability for our shareholders.

Improving margins – driving operating leverage from a lower base

We remain intent on improving our operating margin, to at least previous highs. The outlook makes this longer-dated, so it is even more important that we continue to concentrate on self-help initiatives to drive cost-efficiency and ensure a more resilient and profitable business as we emerge from this period.

Portfolio optimisation

In these times, it is as important as ever that we focus our resources and capital to optimise our asset utilisation and therefore our disposal programme will continue. The candidates for divestment we previously identified have not changed, although the timing of these processes will be adjusted given the current backdrop.

We continue to seek acquisition targets and have maintained the work on our opportunity pipeline through this period. We will maintain our valuation discipline while at the same time have the courage to make significant investments, if we feel the opportunity is right.

As we have previously stated, these will be focused in our platform businesses, to increase scale and/or expand their capabilities into adjacent markets, as well as targeted M&A for businesses within the Industrial Solutions division that have platform potential. Our balance sheet strength has put us in a good position to pursue opportunities that may emerge in this new environment.

Spectris Business System

We will continue to strengthen the deployment of the Spectris Business System across the Group, focusing on reducing waste, increasing product profitability and growth through value-based selling and sales force effectiveness, R&D effectiveness and interrogating structural costs and ways of working. It has been good to see that momentum has been maintained, even during the disruptions of lockdown, with Lean events still taking place across our facilities, including a number of virtual Kaizens supported by people working remotely. Our efforts will continue in earnest as we aim to deliver sustainable improvement in both our effectiveness and efficiency.

Guidance and outlook

On 6 April, the Group withdrew financial guidance for the year. There is still insufficient visibility to provide accurate guidance on the likely sales performance for the full year. We expect the third quarter to show an improved performance over the previous quarter, however the outlook into the fourth quarter, which is typically the largest contributor, remains uncertain, given concerns of a potential second wave of COVID-19.

We continue to expect a full-year profit drop-through in the range of 40-50%, depending on the LFL decline in sales year-on-year. The 32% drop-through achieved in the first half will not be repeated as we translate temporary cost savings to permanent over the coming months.

Despite the uncertainty, our current strategy of driving growth, operating leverage and portfolio optimisation to deliver long-term value to our shareholders remains core and we remain focused on delivering this strategy over the medium-term.

Our Values and Code of Business Ethics underpin how we behave

During times of difficulty and change, businesses and their people get tested. Through this demanding period, I have been delighted to see the strengths of our culture come through. We have stepped up as a team like never before to support our customers, our businesses and each other.

In line with the new strategy, the Group has refreshed its Values and Code of Business Ethics. We decided to continue their launch, despite being in lockdown, to emphasise that their fundamental importance is as relevant as ever in the current circumstances and ensure that we maintain strong corporate governance despite the challenges of remote working.

Our Values underpin our behaviour. They represent what we believe and guide our behaviours, so that we are principled in what we do and our culture reflects what we want to see in Spectris: ambition, accountability and integrity.

Each of our businesses have unique traits and company cultures, yet certain characteristics connect all of us that work at Spectris. How we conduct our business matters to all of us in Spectris and to our many stakeholders – acting with absolute integrity, working as a team to be a world-class sustainable business and delivering value beyond measure for our customers and shareholders. Our Values are there to underpin how we act and behave in everything we do. Our Code of Business Ethics helps us perform and do business the right way.

Our new Values are:

- Be true – We believe in absolute integrity. It's how we win for stakeholders, the environment and each other;
- Own it – We believe in teamwork and keeping our promises. It's how we build our brands and businesses;
- Aim high – We believe in being bold and positive. It's how we perform at our best and achieve greater success.

Summary

Our priority remains to protect the health and safety of our employees and balance the needs of all our stakeholders. The response from all our people has been exceptional, and they are able to work effectively, either on site or from home. I would again like to thank everyone for their commitment and selflessness as we responded to all that COVID-19 has presented.

Through the support of our people, we were able to move quickly to support our customers in new ways, at a lower cost. The actions we have taken have demonstrated the resilience and quality of the Spectris business model and its cash generative nature. As a result, our profit drop-through impact was limited and cash conversion was strong, such that we strengthened our balance sheet and liquidity position in the first half. This has enabled us to reinstate our dividend, restore salaries and bring people back to work, where appropriate.

However, we must remain vigilant, both in terms of our people's well-being and our forward planning. While the performance in the second quarter was better than we anticipated, it has been a demanding period for us, and many of our customers, and the outlook remains uncertain. It is now evident that we are facing an extended recovery period and therefore, we must move to implement sustainable cost actions in the face of a new economic reality.

Our strategic direction is unchanged. Whilst the backdrop has altered, it has provided new opportunities to emerge from this crisis stronger and more resilient. We will continue to focus on what we can control – investing in our business to deliver growth, implementing costs initiatives to drive operating margin expansion and optimising the portfolio to deliver long-term value to our shareholders. Our strong balance sheet and cash generative business will allow us to execute our strategy to build high-performing platform businesses of scale.

Andrew Heath
Chief Executive

Financial review

Financial performance

Sales decreased by 21% or £160.1 million to £599.0 million on a reported basis (H1 2019: £759.1 million). LFL sales decreased by £94.3 million (-14%) and disposals reduced sales by £70.9 million (-9%), whilst favourable foreign exchange movements contributed £5.1 million (1%).

Adjusted operating profit decreased by 47% or £39.4 million to £44.1 million on a reported basis (H1 2019: £83.5 million). LFL adjusted operating profit decreased by £30.1 million (-41%), and the impact of disposals, net of acquisitions, was £10.3 million (-12%), whilst favourable foreign exchange movements contributed £1.0 million (+1%).

Adjusted operating margins reduced by 360bps, with LFL adjusted operating margins down 340bps compared to H1 2019. The reduction in the LFL operating margin was due to a 190bps decrease in LFL gross margin at 53.5% (H1 2019: 55.4%), reflecting the adverse volume impact partially offset by favourable pricing, procurement and production overhead cost savings. This was partially offset by a 10.7% reduction in LFL overheads, with savings generated from the cost saving initiatives put in place across the Group, including employee cost reductions through hiring freezes, furloughs, part-time working and decreased salaries. Other targeted savings include lower travel costs and incentive related accruals which more than offset overhead cost inflation and an increase in depreciation and bad debt provisions. Net overheads also benefited from £6.7 million of COVID-19 related overseas government support.

The LFL operating margin decreased across all platforms, excluding HBK, which saw an improvement of 60bps where the impact of lower sales volumes has been offset through cost saving activities, principally reduced employee costs and an improved operating margin at VI-grade. Malvern Panalytical's LFL operating margin was down 420bps. LFL sales were down 21%, despite favourable pricing impacts to increase gross margins by 260bps and further favourable impacts from overheads savings of 7.8% from cost saving initiatives. Omega's LFL operating margin was down 950bps, where positive price impacts were more than offset by volumes down 14%, together with increased IT and depreciation costs as a result of the e-commerce investment in 2019. The Industrial Solutions division ('ISD') was down 440bps mainly due to reduced activity in the European automotive sector and semiconductor market in Asia Pacific.

Investment in our R&D programmes amounted to £46.4 million or 7.7% of sales (including £4.0 million of capitalised development costs) (H1 2019: £49.3 million or 6.5% of sales, including £3.5 million of capitalised cost). The cost of R&D investment has decreased by 1.2% on a like-for-like basis in the half-year results to 30 June 2020.

	2020 Half year £m	2019 Half year £m
Adjusted operating profit	**44.1**	83.5
Restructuring costs	**(3.0)**	(29.1)
Net transaction-related costs and fair value adjustments	**(2.0)**	(6.3)
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	**(0.4)**	(0.4)
Profit on disposal of property	**-**	5.2
Impairment of goodwill	**(58.4)**	(35.1)
Amortisation and impairment of acquisition-related intangible assets and impairment of other property, plant and equipment	**(36.5)**	(63.9)
Statutory operating loss	**(56.2)**	(46.1)

Statutory operating loss increased by £10.1 million to £56.2 million (H1 2019: £46.1 million), due to the £39.4 million reduction in adjusted operating profit, a £58.4 million impairment of goodwill (H1 2019: £35.1 million), a £20.8 million impairment of acquisition-related intangible assets and other property, plant and equipment (H1 2019: £43.1 million) and a non-recurring profit on disposal of property of £5.2 million in H1 2019, offset by a £5.1 million reduction in amortisation of acquisition-related intangible assets to £15.7 million (H1 2019: £20.8 million), £26.1 million lower restructuring costs totalling £3.0 million (H1 2019: £29.1 million) and £4.3 million lower net transaction-related costs and fair value adjustments totalling £2.0 million (H1 2019: £6.3 million). Statutory operating margins of -9.4% were 330bps lower than H1 2019.

Statutory net finance costs increased by £13.2 million to £14.4 million (H1 2019: £1.2 million) principally due to £10.4 million of foreign exchange losses arising during the period on retranslation of short-term intercompany loan balances compared to £2.6 million of foreign exchange gains in respect of the same items in H1 2019. Adjusted net finance costs were up £0.2 million at £3.7 million (H1 2019: £3.5 million) due to the £1.7 million of interest income receivable in H1 2019 from the Group's joint venture EMS B&K, which was disposed of in early 2020, offset by a reduction in net interest payable in respect of cash, loans and overdrafts, reflecting the increase in net cash during the period.

Statutory loss before tax increased by £15.4 million to £65.5 million in H1 2020 from £50.1 million in H1 2019. In H1 2020, statutory loss before tax was impacted by the £10.1 million increase in statutory operating loss and the £13.2 million increase in statutory net finance costs, partly offset by a £5.1 million profit on disposal of businesses, which primarily arose from the sale of the Group's rheology product range and the non-recurrence of the £2.8 million share of post-tax losses from the EMS B&K JV incurred in H1 2019. Adjusted profit before tax decreased by 48% to £40.4 million.

The effective tax rate on adjusted profit before tax for H1 2020 was 22.0% (H1 2019: 21.5%), 50bps higher than the prior period. Based on the forecast for the full year, the effective adjusted tax rate for the full year is estimated to be 22.0%.

Adjusted earnings per share decreased by 48% to 27.2 pence (H1 2019: 52.4 pence), reflecting the net impact of the 48% decrease in adjusted profit before tax. Statutory loss per share was 57.3p (H1 2019: loss of 41.8p).

Disposals

On 31 January 2020, the Group sold its interest in the rheology product range to Netzsch Group for consideration of £8.8 million in cash, generating a profit on disposal of £6.0 million. The net assets disposed were £2.0 million, and transaction costs were £0.8 million. The cash flow includes £8.4 million of net proceeds from this disposal, which consists of £8.8 million of sales proceeds offset by £0.4 million of transaction cost-related payments.

On 28 February 2020, the Group sold its interest in the EMS B&K joint venture for total consideration of £17.7 million, consisting of £15.8 million in cash, £1.0 million of deferred consideration and £0.9 million in shares in Envirosuite Limited. The net assets disposed were £18.2 million and transaction costs were £0.4 million, resulting in a loss on disposal of £0.9 million. The cash flow includes £13.1 million of net proceeds related to the EMS B&K joint venture, consisting of £15.8 million in cash proceeds from the sale of the interest offset by £2.6 million payment of deferred consideration relating to the 2018 disposal and £0.1 million of transaction cost related payments.

Restructuring costs

The Group has incurred costs of £3.0 million relating to restructuring in H1 2020 (H1 2019: £29.1 million). These restructuring costs include £1.9 million of employee-related costs, including redundancy and related costs, and £1.1 million of other costs.

Impairment of goodwill, acquisition-related intangible assets and other property, plant and equipment

During the period, £58.4 million was recognised as an impairment of goodwill (H1 2019: £35.1 million) and £20.8 million as an impairment of acquisition-related intangible assets and other property, plant and equipment (H1 2019: £43.1 million). This predominantly related to Millbrook.

During the first half of 2020, Millbrook's business has been impacted by a number of factors:

1. There has been reduced demand from automotive customers, who have delayed development projects (and therefore testing) in response to the impact of COVID-19 on their businesses.
2. On 31 March 2020, a large customer decided to in-house all outsourced engine testing services for the period from April 2020 through to April 2021.
3. Millbrook's events business has been largely shut down as a result of COVID-19 restrictions.

As a result of this, an impairment of the whole of Millbrook's goodwill balance of £58.4 million, £11.0 million of other intangibles and £6.4 million of other property, plant and equipment was charged to the Condensed Consolidated Income Statement during the half year ended 30 June 2020.

The remaining £3.4 million impairment of intangible assets relates to other items within Industrial Solutions with short remaining useful economic lives.

Cash flow

Adjusted cash flow	Half year 2020 £m	Half year 2019 £m
Adjusted operating profit	**44.1**	83.5
Adjusted depreciation and software amortisation[1]	**31.0**	28.0
Working capital and other non-cash movements	**36.9**	1.7
Capital expenditure, net of grants related to capital expenditure	**(23.2)**	(39.3)
Adjusted cash flow	**88.8**	73.9
Adjusted cash flow conversion	**201%**	89%

1. 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.

Adjusted cash flow improved by £14.9 million to £88.8 million during the period, resulting in an adjusted cash flow conversion rate of 201% (H1 2019: 89%). The improvement principally resulted from the favourable working capital movement mainly attributable to a reduction in trade receivables and lower capital expenditure, principally in Millbrook, partly offset by an increase in inventories.

Average trade working capital (the monthly average of the sum of inventory, trade receivables, trade payables and other current trading net assets), expressed as a percentage of sales, increased by 2.1bps to 14.7% (H1 2019: 12.6%). Excluding acquisitions, disposals and foreign exchange, the LFL average trade working capital increased by 2.3bps to 14.9%, with increases across all platforms, mainly at ISD and Omega, which both experienced a higher level of inventory and lower level of trade payables.

Capital expenditure (net of grants related to capital expenditure) on property, plant and equipment and intangible assets during the period of £23.2 million (H1 2019: £39.3 million) equated to 3.9% of revenue (H1 2019: 5.2%) and was 75% of adjusted depreciation and software amortisation (H1 2019: 140%).

Other cash flows and foreign exchange	Half year 2020 £m	Half year 2019 £m
Tax paid	**(11.5)**	(17.8)
Net interest paid	**(1.8)**	(2.9)
Dividends paid	**-**	(46.9)
Acquisition of businesses, net of cash acquired	**(7.1)**	(5.7)
Transaction-related costs paid	**(3.9)**	(1.7)
Proceeds/(payments) from disposal of businesses, net of tax paid of £1.0 million (2019 half year: £0.1 million)	**21.4**	(0.4)
Loan repaid by joint venture	**3.0**	-
Lease payments and associated interest	**(9.8)**	(9.9)
Adjusting proceeds from disposal of property	**-**	9.1
Restructuring costs paid	**(8.2)**	(13.0)
Net proceeds from exercise of share options	**0.1**	0.6
Foreign exchange	**(10.2)**	(0.8)
Total other cash flows and foreign exchange	**(28.0)**	(89.4)
Adjusted cash flow	**88.8**	73.9
Decrease/(increase) in net debt	**60.8**	(15.5)

Financing and treasury

The Group finances its operations from both retained earnings and third-party borrowings. The 30 June 2020 gross debt balance consists entirely of fixed rate borrowings.

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 COVID-19 on the Group, which are described in the Chief Executive's review, financial review and operating review.

As at 30 June 2020, the Group had £844.5 million of committed facilities denominated in different currencies, consisting of an $800.0 million (£651.8 million) revolving credit facility maturing in July 2025, a seven-year €94.8 million (£86.6 million) term loan maturing in October 2020, and a seven-year €116.2 million (£106.1 million) term loan maturing in September 2022. From these facilities, the Group had total gross borrowings of £192.7 million at 30 June 2020. The revolving credit facility ('RCF') was undrawn at 30 June 2020. During the first half, the Group requested a further one-year extension of its $800 million RCF, as permitted under the agreement. The extension has now been approved by all ten banks in the syndicate, ensuring the Group continues to have access to the full amount under the facility until July 2025.

These facilities have a leverage (net debt/EBITDA) covenant of up to 3x for the EIB loans and up to 3.5x for the RCF. The Group regularly monitors its financial position to ensure that it remains within the terms of its banking covenants. At 30 June 2020, interest cover (defined as adjusted earnings before interest, tax and amortisation divided by net finance charges) was more than 35 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 less than zero due to the Group's net cash position, against a maximum permitted leverage of 3 times.

In addition to the above, at 30 June 2020, the Group had a cash balance of £287.0 million and various uncommitted facilities and bank overdraft facilities available, resulting in a net cash position of £94.3 million, an increase of £60.8 million from £33.5 million at 31 December 2019.

In April 2020, Spectris successfully applied for access to the Bank of England's Covid Corporate Financing Facility ('CCFF'), resulting in the ability to raise up to £600 million of additional short-term funding, if required, before 23 March 2021 by issuing commercial paper for purchase by the Bank under the programme. The Group is under no obligation to utilise the facility and, in view of the Group's other undrawn facilities and current financial position, we do not anticipate accessing the programme before its expiry.

The Group has prepared and reviewed cash flow forecasts, which reflect forecasted changes in revenue across its business as set out 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. Assuming similar levels of cash conversion as experienced in recent months since the outbreak occurred, a monthly decline of revenue well in excess of that experienced in any month during the first half of 2020 would need to persist throughout the going concern period for a covenant breach to occur, which is considered very unlikely. In addition, the reverse stress test does not take in 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.

Net bank interest costs for the last twelve months were covered by adjusted operating profit 40 times (2019: 35 times).

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 flows where there is reasonable certainty of an exposure. At 30 June 2020, approximately 86% of the estimated transactional exposures for 2020 were hedged using forward exchange contracts, mainly against Sterling, the Euro 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.

	Half year 2020 (average)	Half year 2019 (average)	Change	**Half year 2020 (closing)**	Half year 2019 (closing)	Change
US Dollar (USD)	**1.26**	1.29	(2%)	**1.23**	1.27	(3%)
Euro (EUR)	**1.14**	1.14	-	**1.10**	1.12	(2%)
Chinese Yuan Renminbi (CNY)	**8.86**	8.78	1%	**8.68**	8.73	(1%)

During the period, currency translation effects resulted in operating profit being £1.0 million higher (H1 2019: £2.5 million higher) than it would have been if calculated using prior year exchange rates.

Transactional foreign exchange gains of £1.9 million (H1 2019: £1.0 million loss) were included in administrative expenses, whilst sales include a loss of £1.3 million (H1 2019: £1.2 million loss) arising on forward exchange contracts taken out to hedge transactional exposures in respect of sales. During the period a £62.4 million gain was recognised in the Condensed Consolidated Statement of Comprehensive Income in relation to foreign exchange movements on translation of overseas operations (H1 2019: £3.6 million).

Operating review

	Malvern Panalytical		HBK		Omega		Industrial Solutions		Total	
	H1 2020	H1 2019	**H1 2020**	H1 2019	**H1 2020**	H1 2019	**H1 2020**	H1 2019	**H1 2020**	H1 2019
Sales (£m)	**151.0**	200.2	**179.4**	193.5	**60.9**	69.3	**207.7**	296.1	**599.0**	759.1
LFL sales growth (%)	**(21%)**		**(8%)**		**(13%)**		**(13%)**		**(14%)**	
Adjusted operating profit (£m)	**8.4**	18.5	**16.4**	16.7	**2.9**	9.9	**16.4**	38.4	**44.1**	83.5
LFL adjusted operating profit change (%)	**(55%)**		**(2%)**		**(71%)**		**(44%)**		**(41%)**	
Adjusted operating margin (%)	**5.6%**	9.2%	**9.1%**	8.6%	**4.8%**	14.3%	**7.9%**	13.0%	**7.4%**	11.0%
LFL adjusted operating margin change (bps)	**(420bps)**		**60bps**		**(950bps)**		**(440bps)**		**(340bps)**	
Statutory operating profit/(loss) (£m)	**4.8**	(63.2)[1]	**10.9**	(8.2)[2]	**(0.9)**	9.6	**(71.0)[3]**	15.7	**(56.2)**	(46.1)
Statutory operating margin (%)	**3.2%**	(31.6%)	**6.1%**	(4.2%)	**(1.5%)**	13.9%	**(34.2%)**	5.3%	**(9.4%)**	(6.1%)
Sales % of Group sales	**25%**	26%	**30%**	26%	**10%**	9%	**35%**	39%	**100%**	100%

1. The statutory operating loss of £63.2 million was largely impacted by the £67.5 million impairment of goodwill and intangible assets in CLS.

2. The statutory operating loss of £8.2 million was largely impacted by the costs of restructuring and impairment of intangible assets as a result of the strategic review.

3. The statutory operating loss of £71.0 million was largely impacted by the £75.8 million impairment of goodwill, other acquisition-related intangible assets and other property, plant and equipment at Millbrook.

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 Note 2.

Malvern Panalytical

	Half year 2020	Half year 2019	Change	LFL change
Sales (£m)	**151.0**	200.2	(25%)	(21%)
Adjusted operating profit[1] (£m)	**8.4**	18.5	(55%)	(55%)
Adjusted operating margin[1] (%)	**5.6%**	9.2%	(360bps)	(420bps)

1. This is an alternative performance measure ('APM'). APMs are defined in full and reconciled to the reported statutory measures in Note 2 to the Condensed Consolidated Financial Statements.

Financial performance

Sales decreased 25% to £151.0 million, primarily reflecting a 21% decrease in LFL sales and 5% from disposals, with a marginally positive foreign currency exchange impact.

All regions experienced a notable decline in sales in the first half of the year. This reflected a reduction in demand in metals, minerals and mining where investments are being put on hold as demand for metals-based products declines, and academic research, as universities and research institutes have been closed. LFL sales into the pharmaceutical and food sectors, although also lower year-on-year, fared better.

Despite the adverse volume impact, a favourable mix impact led to an increase in gross margin. Overheads were lower reflecting a reduction in travel and entertainment ('T&E') spend, the receipt of government subsidies and employee costs savings, resulting in a 55% LFL reduction in adjusted operating profit and a 420bps LFL contraction in adjusted operating margin.

COVID-19

Malvern Panalytical kept all its manufacturing facilities open during the period (except a short government-mandated closure in Canada) whilst all non-production related employees moved quickly to working from home. The business was impacted by the inability to access customer sites, given many have had restricted/limited access or are temporarily closed. Several of Malvern Panalytical's products require expert installation and training and this therefore impacted the sales performance. In addition, Malvern Panalytical also provides services (e.g. periodic maintenance, re-calibration) and this also impacted sales levels given field engineers' inability to access customers' in-situ products. As a result, Malvern Panalytical has adapted its customer engagement with online demos and pre-installation meetings, introducing self-install on an increasing number of products and providing remote, virtual installation support.

To further engage with customers, Malvern Panalytical undertook a COVID-19-specific voice of customer survey with more than 200 large and/or repeat customers to identify their needs and provide solutions. The sales team have adopted live streaming events to replace face-to-face meetings and marketing campaigns have moved to webinar and virtual exhibitions with intensified digital and social activation. Malvern Panalytical has also increased the availability of products, consumables and user-replaceable spare parts on its online store.

Product launches

Malvern Panalytical launched Amplify Analytics – a new range of flexible services designed to help pharmaceutical companies rapidly identify those drug candidates that meet bio-availability and processability requirements, focused on accelerating and de-risking drug development harnessing data-driven 'win quick, fail fast' approaches. The result is a range of uniquely scalable services that deliver bespoke combinations of analytics, know-how, instrumentation and expert support to customers.

Another key product development has been in the increased provision of process automation solutions. For example, Malvern Panalytical won a major contract with Scott Automation for the provision of a fully automated robotic analytical laboratory for a Rio Tinto iron ore mine in Australia. The project includes engineering, design, equipment supply and the provision of a fully automated robotic analytical laboratory system. The laboratory incorporates complementary technologies from the two companies, from sample preparation to complete analysis, allowing Rio Tinto to test initially 600 samples a day, with the potential for future expansion to double this number. Once complete, the project's objective is to improve safety, quality and productivity.

To drive closer engagement with customers in China and support a rebound of business after the COVID-19 lockdown, Malvern Panalytical opened its APAC Application Centre of Excellence in Shanghai in May. The new multi-functional application centre showcases a large part of the Malvern Panalytical product portfolio and will be used for customer demonstrations and to develop new applications and solutions.

Market trends and outlook

Pharmaceutical and food

LFL sales to the pharmaceutical sector were down in the first half of the year with all regions declining by a similar amount. The only key markets to see growth were China and the UK. The decline reflected a shift in focus to production from R&D with COVID-19-related research (vaccines and gene therapy) being prioritised and other projects being paused for the moment. In addition, laboratories were closed to meet social distancing requirements or were under-resourced given employee absenteeism (COVID-19 related).

With many academic research institutes currently closed, we see continued weakness into the second half of the year. Funding may also be at risk as various governments look to delay and even reduce spending. Whilst already-allocated funding is likely to continue, future funding might flow to other industries which have had a greater COVID-19 impact.

LFL sales into manufacturing and quality control ('QC') within pharmaceutical were down to a lesser degree. Sales to the food sector were also more resilient within manufacturing and quality control, but we saw customers dedicating less time to food development projects. However, the continued focus on food safety, and the need for sustainable sourcing and manufacture, represent opportunities relevant to our solution portfolio moving forward.

Primary materials

LFL sales to primary materials customers were notably lower year-on-year, with sales into Asia down more markedly than in other regions. With significantly lower commodity prices, capex is being reduced and requests from petro-chemical customers have declined sharply, with recovery expected to be slow.

Within mining, some mines have been closed or placed on restricted operations to meet social distancing requirements which has led to lower demand. In the metals market, after a lower level of activity in 2019, a resumption in demand was expected in 2020 but, with many metal suppliers dependent on customers significantly impacted by COVID-19 (e.g. automotive, aerospace), we expect this end market to continue to be weaker through the second half of the year.

Sales to building materials customers were down, but to a lesser degree, and there may be some demand support via potential government investments in new infrastructure projects to help boost their economies. This may also support some commodities such as iron ore and bauxite. Against this backdrop, customers will need to further focus on delivering improved yields, productivity, product quality and lowering costs in the extraction and processing of raw materials. Malvern Panalytical instruments are well placed to help them to deliver these improvements.

Advanced materials

LFL sales into the advanced materials industries were also lower year-on-year. Previously, the main growth drivers have been in academia and, as with pharma, demand has been impacted by research institutes being closed.

In certain areas, we expect the weakness in demand to be more temporary. For example, in additive manufacturing, the industry is built around just-in-time operations and it is now running out of inventory due to supply chain disruption. Also, there have been requests for 3D printing for applications which typically do not use additive manufacturing due to cost, design or production capacity reasons. For example, Malvern Panalytical itself has been using its own 3D printers to print and assemble parts for face shield parts to supply to the UK NHS and police force to help with the front-line fight against COVID-19.

Within the battery space demand also declined, due to supply chain disruption, and, therefore, demand for Malvern Panalytical QC instruments was weaker. Given the prevalence of emerging battery technologies and new applications (e.g. electric vehicles), we would expect demand to recover within the research and development areas more quickly, as our instruments help customers control both the quality and function of battery materials, enhancing battery performance and cycle life.

Within semiconductor, we also expect the recovery to continue with 5G and IIoT being the driving forces.

We expect growth in this sector overall to recover, with our focus being on customers involved in the research, development and manufacturing of these novel materials, complex systems and devices. Asia will be a key region driving this growth.

HBK

	Half year 2020	Half year 2019	Change	LFL change
Sales (£m)	**179.4**	193.5	(7%)	(8%)
Adjusted operating profit[1] (£m)	**16.4**	16.7	(2%)	(2%)
Adjusted operating margin[1] (%)	**9.1%**	8.6%	50bps	60bps

1. This is an alternative performance measure ('APM'). APMs are defined in full and reconciled to the reported statutory measures in Note 2 to the Condensed Consolidated Financial Statements.

Financial performance

HBK performed strongly in the circumstances. Sales decreased 7%, reflecting a 1% positive impact from foreign currency exchange movements and a 8% LFL sales decline driven by broader weakness in the automotive and aerospace and defence sectors.

By region, North America posted flat LFL sales reflecting a decline in aerospace and defence, offset by higher sales to automotive and machine manufacturing customers. Europe LFL sales fell, with Germany and the UK lower, reflecting the downturn in the automotive market. Asia recorded a decrease in LFL sales, with China posting lower LFL sales to automotive and machine manufacturing customers.

Net overheads were lower reflecting operational improvements arising from the profit improvement programme and the temporary measures, including lower T&E and marketing spend, use of furloughs and salary reductions and receipt of government subsidies to support these measures. This resulted in adjusted operating profit decreasing by 2% on a LFL basis, while LFL adjusted operating margin increased 60bps.

COVID-19 update

Since the start of the year, HBK has kept all of its production facilities open (except for the mandated short-term closure of one facility in China). HBK has responded to these new challenges by modifying its business practices including shifting to remote working where possible, with more frequent virtual engagement to help facilitate the continued integration of the business into OneHBK.

Externally, HBK has changed the way it interacts and connects with customers. There has been an adoption of new selling tools to offer HBK services to clients such as increased social media use, the provision of product demos, as well as individual training and support via webcam. HBK has also redirected all marketing efforts onto digital channels, significantly increasing the number of webinars and has arranged various digital user conferences for later this year to replace traditional trade shows.

In regard to its supply chain, HBK worked quickly to identify and successfully work with critical, sole source and large volume suppliers to avoid any potential disruption.

Strategic initiatives and product launches

Following the launch last year of HBK's new eDrive Testing system for electrical inverters and machines, HBK stepped up its digital marketing initiative for electric powertrain testing with newly-designed web pages and promotional activity. To help customers widen their knowledge, HBK expanded its range of webinar tutorials and expert talks. Whilst electric powertrain testing orders have been lower than expected due to COVID-19, the funnel of opportunities is improving with automotive and aerospace customers committed to further investment in electric drive technology.

HBK provides the entire measurement chain for electrical power testing – from electrical machines to high voltage and complex inverter controls in the automotive, ground vehicle and aerospace industry, as well as the manufacturing, production and energy industries. New products have been launched to extend the offering to a more complete e-Powertrain testing and optimisation, as well as expanding into eGrid (energy distribution systems) testing. The new package for eDrive and eGrid consists of measurement hardware, intuitive software packages and accessories, designed to optimise costs. With these products, HBK is targeting the power meter market to broaden its addressable market.

In the first half, the consolidation of VI-grade and HBK simulator technology was completed with a new combined suite of simulator and simulation tools made available. With HBK's noise, vibration and harshness ('NVH') simulation, it is possible to test the NVH effects of alternative designs back-to-back, without making a physical prototype, with simulations that combine real-world test data and data from computer-aided engineering models. NVH have a significant impact on car layout, comfort, technology and audio experience which are an integral component of vehicle and brand DNA. VI-grade NVH simulators are able to create an interactive driving experience within a vehicle's interior, bringing customer sound and vibration data from the real world.

As part of its ongoing merger initiatives, HBK has started to build a global standardised operating model for sales covering organisational structure, processes and tools, supported by a singular customer engagement platform.

Market trends and outlook

Automotive

Within the automotive sector, the reduction in sales reflected the impact of a continued slowdown in the overall automotive sector. LFL sales declined in Europe, led by large falls in the UK and Germany, decreased in Asia, but rose in North America.

The electric vehicle market remains a bright spot in the sector. For example, in the UK, the sale of new electric vehicles ('EV') was the only area of growth compared with the prior year. Manufacturers are competing to release newer electric models to capture market share. This, coupled with government plans in various countries to stimulate growth in EVs, such as the introduction of more charging infrastructure, will underpin increasing demand to test not only electric drive, but also noise and vibration compliance. This is underlined by HBK winning a large shaker order within its VTS vibration testing business.

Simulation in product design and development is becoming more prevalent and more important. It is also becoming faster, more accurate and more heavily relied on. HBK and VI-grade have a unique set of tools to simulate NVH, driving dynamics and advanced driver assistance systems. The result is a quicker, lower cost development process – increasing development efficiency and reducing time to market.

Machine manufacturing

LFL sales to the machine manufacturing sector were down slightly. Sales fell in both Europe and Asia, but did grow strongly in North America, due to exposure to the automotive supply chain, which rebounded well. The growth in sales also reflected good onward demand for weighing technologies from the process and medical markets, where HBK was able to book a large order from a US medtech manufacturer.

Aerospace and defence

LFL sales declined across all regions, albeit more modestly in Europe than in North America and Asia. With global travel restrictions heavily impacting the commercial aerospace sector, industry observers expect both 2020 and 2021 to be years of severe disruption for the industry, with companies expected to take actions to preserve cash. HBK's exposure to commercial aviation is limited however and, to date, aerospace and defence firms have kept large investment programmes running in the short to medium term. Aircraft electrification projects by major OEMs could also help support demand. In the defence and satellite markets we expect spending to be impacted to a lesser degree.

Consumer electronics and telecoms

LFL sales were lower in the first half, falling across all key regions, albeit less so in Asia. Underlying demand in the consumer electronics and telecoms markets have been impacted by the weaker macro-economic conditions and the resulting lower levels of customer spending. Demand is expected to recover in the second half however, driven by increased government stimulus and employment resuming.

Omega

	Half year 2020	Half year 2019	Change	LFL change
Sales (£m)	**60.9**	69.3	(12%)	(13%)
Adjusted operating profit[1] (£m)	**2.9**	9.9	(71%)	(71%)
Adjusted operating margin[1] (%)	**4.8%**	14.3%	(950bps)	(950bps)

1. This is an alternative performance measure ('APM'). APMs are defined in full and reconciled to the reported statutory measures in Note 2 to the Condensed Consolidated Financial Statements.

Financial performance

LFL sales decreased 13% and there was a 1% positive impact from foreign currency exchange movements, resulting in reported sales being 12% lower year-on-year.

Omega has a high exposure to North America (70%), where it experienced a fall in LFL sales, the majority of which was caused by the closure of many US businesses during lockdown. Similarly, LFL sales growth was lower in Europe. Asia, however, experienced growth, driven by strong performances in South Korea and Japan, due to high electronics and semiconductor demand and market share gains.

LFL adjusted operating profit declined 71% and LFL operating margins fell 950bps as a result of the lower sales and a relatively fixed cost base at this level of activity. Despite overheads savings from lower compensation-related costs and reduced travel and marketing spend, this was not sufficient to compensate for the higher IT costs and amortisation related to the new e-commerce platform.

COVID-19 update

Omega made the necessary adjustments to ensure employee safety and keep its operations running and productive. These adjustments included the provision of PPE, splitting shifts, rearrangement of production lines to allow more spacing between employees, rigorous employee health and temperature screening and enhanced sanitation. Its factories and distribution centres have remained fully operational during the pandemic.

Non-production personnel have largely been working from home, with the digital and phone nature of Omega's business model meaning this transition happened seamlessly with minimal disruption and productivity loss. The new CRM, e-commerce and enhanced voice over internet protocol systems allow its sales, application engineering and customer service personnel to have a complete view of the customer regardless of their location.

COVID-19 has resulted in a slowdown of Omega's planned strategic product launches in 2020, but has also been the generator of opportunities for temperature related products, allowing Omega to serve the human temperature screening market. As businesses across the USA prepare for re-opening, Omega has launched and increased the marketing of its temperature measurement products and expertise to help customers tackle the new challenge of implementing remote temperature sensing. Omega's infra-red cameras include face detection technology that allows for fast group temperature screening at a social distance, while handheld infra-red thermometers offer a simple solution for easy screening. Medical related opportunities are also being explored e.g. ventilators, hospital room pressure and temperature monitoring.

The COVID-19 pandemic has created world-wide demand for ventilators. To meet this demand, a team of multi-disciplinary experts at Imperial College, London designed a ventilator that met a new 'minimally acceptable' standard using Omega industrial pressure transducers and rail transmitters; both of which were readily available, rather than await specialist or medical supply chain components. The resulting ventilator met all the specifications required by the regulatory body, whilst being suitable for long-term use, at a low price point and quick and easy to manufacture.

Strategic initiatives

Omega has undergone a thorough re-assessment of its markets and strategy due to the changing landscape and its recent business performance. It is recognised that Omega needs to increase its sales volume to achieve economies of scale on the existing cost base. This has led Omega to identify four focus areas to bring sustainable scale to the business. Firstly, improving business development and sales effectiveness through expanding distribution channels in the USA, and globally, by developing new partnerships to complement the e-commerce revenue stream, while continuing to pursue large opportunities and develop strategic accounts. Secondly pursuing operational excellence by simplifying operations. Thirdly, digital investments continue to be optimised to deliver a best-in-class online experience. Lastly, focusing the existing product portfolio and launching new products for the highest growth markets, with 65 new product launches this year to date and a further 133 planned in the remainder of the year.

For example, Omega launched Layer N, a simple, smart and flexible way to monitor a wide range of applications without requiring users to be on-site. Temperature, humidity, light and barometric pressure readings are captured, stored, processed and transported in real-time to the cloud via wireless smart sensors and gateways, allowing reports to be accessed from anywhere at any time, vitally required at this time when access can be a challenge.

As the lower-price segment of the magnetic flow meter market continues to gain rapid acceptance, Omega has partnered with Endress+Hauser ('E&H') to onboard a branded electromagnetic flow meter, an innovative multi-output magnetic flow meter, often used to measure the amount of wastewater flow. This is the first time that Omega has partnered with E&H and will allow Omega to capture market share in a different segment of the magnetic flow meter market.

Additionally, Omega has strengthened its core product lines. In its pressure sensing segment, Omega re-designed a popular line of pressure gauges, making them configurable and user-friendly, while streamlining operational procedures to cover a broad range of customer needs with minimal inventory. Omega has also made its existing product offering easier to use for customers. Omega printed circuit board ('PCB') connector installation is now simpler for high-volume PCBs. Omega PCB temperature sensors (thermocouples, RTDs, and thermistor probes) can be easily integrated into automated pick and placement processes allowing customers to adapt their system quickly, allowing mass production at lowest cost.

Website and product launches
Following the launch in 2019 of the new digital platform, the focus for 2020 was to continue to drive volume though the website to deliver sales growth. In the first two months of 2020, and before the economic slowdown, Omega saw an increase in digital revenue of 7% versus the prior year. Further enhancements continue to be delivered to enhance the customer experience.

Market trends and outlook
LFL sales growth was lower in North America, Omega's main market, mainly caused by business disruption stemming from COVID-19. The resumption of growth in North America is not expected until 2021. In Asia, LFL sales increased driven by strong performance in South Korea and Japan, with semiconductor demand continuing to improve, building on tailwinds experienced in the fourth quarter of 2019. The outlook for semiconductor demand looks more positive than other end markets.

The demand for remote sensor monitoring has increased due to the changing business and personal health environment brought on by COVID-19. There is now a greater need to be able to monitor, capture, store and process data remotely. Omega's 'Back to work' campaign launched in May, focusing on temperature screening products, places the business in a good position to capture this growth.

Wireless sensing, a large portion of the IIoT space, is growing rapidly due to the trend towards greater connectivity and cloud storage. Legacy wired systems are increasingly being upgraded or retrofitted with IIoT solutions in order to provide end users with access to larger and more centralised datasets. This represents a significant opportunity for Omega's IIoT solutions which features ease of use and customisability.

Industrial Solutions

	Half year 2020	Half year 2019	Change	LFL change
Sales (£m)	**207.7**	296.1	(30%)	(13%)
Adjusted operating profit[1] (£m)	**16.4**	38.4	(57%)	(44%)
Adjusted operating margin[1] (%)	**7.9%**	13.0%	(510bps)	(440bps)

1. This is an alternative performance measure ('APM'). APMs are defined in full and reconciled to the reported statutory measures in Note 2 to the Condensed Consolidated Financial Statements.

Financial performance

Sales declined 30% to £207.7 million, reflecting a LFL sales decrease of 13% with all operating companies posting a decline in LFL sales. There was a 1% positive impact from foreign currency exchange movements and a 21% negative impact from the disposal of BTG (£61.6 million of sales in the first half of 2019, £9.8 million of adjusted operating profit).

On a regional basis, LFL sales were down most markedly in Asia, despite growth in China, with sharp declines elsewhere in the region. LFL sales in Europe and North America were down by a similar amount. By end market, there was an increase in LFL sales in pharmaceutical (PMS and Hummingbird products at Servomex) and in food and beverage (NDC).

Net overheads were lower as a result of the profit improvement programme initiatives and lower T&E and general discretionary spending from the implementation of temporary cost measures. However, the volume decline, as well as an adverse mix effect, led to a LFL adjusted operating profit decrease of 44% and a fall in LFL adjusted operating margins of 440bps.

COVID-19

Across the IS division businesses, there has been a significant move towards remote working across all sites, whilst all manufacturing operations have remained open with suitable social distancing and cleanliness measures to ensure production capacity is not impacted.

The main challenge facing operating companies in this division has been customer access for sales related activities, as well as access for progressing or completing projects. Each operating company has stepped up their different approaches to working with customers to keep business moving forward during this period with many examples of webinars, additional remote selling activities with clients and remote service and maintenance with an increased use of technology such as wearables/visual assistance tools and connected devises to assist customers.

Given the access issues experienced, we believe that post COVID-19, there could be additional investment in remote access and automation solutions which a number of our ISD businesses provide. For example, Red Lion's industrial automation and networking solutions provide critical information and controls to customers to access their data remotely. During the period, it launched the FlexEdge™ Intelligent Edge Automation Platform. This revolutionary system brings a new degree of versatility to edge computing allowing industrial customers to effortlessly connect systems and process data, and is available with advanced automation features. Its ease of use helps customers makes productivity and efficiency gains from their digital transformation initiatives.

Market trends and outlook

Energy and utilities

In energy and utilities, the collapse in the oil price resulting from oversupply and a notable reduction in demand has led to a decline in LFL sales across all regions. Already scoped projects have continued, however, we expect the lower price environment to potentially result in project delays and some cancellations especially in upstream, with midstream and downstream potentially less impacted. This backdrop is already having a major impact on customer's capex budgets with reductions of 30-50%.

At Servomex, this has impacted demand for its gas analysers into the industrial and hydrocarbon processing and petro-chemicals sectors. However, the requirements from increased environmental monitoring and the decarbonisation of energy is leading to demand for 'green investment' in this space, which is likely to underpin demand for low-cost, high-purity products.

B&K Vibro had a more resilient performance in the first half, with growth in North America and flat sales in Asia. Sales into oil and gas/utility customers were markedly lower, and they are seeing the delay of some capex projects. However, sales into wind customers were strong, with good demand from major wind turbine OEMs. There was some delay to projects given travel restrictions to wind farm sites, however, B&K Vibro adapted its process to enable virtual site surveys using mobile phones. This may be an opportunity to speed up processes in the future and reduce time and travel cost.

At ESG, LFL sales were notably lower primarily reflecting the downward pressure on oil pricing and a notable year-on-year reduction in the North American drilling rig count. Some projects have started to be cancelled and further orders are likely at risk. Although ESG entered 2020 with an enhanced pipeline, this has deteriorated, although mining has been less impacted than oil and gas.

Pharmaceutical and life sciences

The pharmaceutical and life sciences industries saw good LFL sales growth in the first half, particularly in North America and in China, whilst sales declined in Europe. Sales at both the companies exposed to this end market, PMS and Servomex, posted growth. There has been access restrictions to certain customer sites which have impacted some services and the installation of systems, but underlying demand has been strong.

At PMS, there was strong demand in North America with pharmaceutical customers indicating they intend to move forward with existing projects. There is also the potential for COVID-19 to have a positive long-term impact on aseptic manufacturing as the production of vaccines are likely to increase and countries may insist on local production of key medicines.

Also, in response to COVID-19, manufacturers have been ramping up the production of ventilators and Servomex is seeing the direct result of this through a significant expansion in orders for its Paracube oxygen sensor. There has been a significant increase in demand for this product compared to last year and it has been working closely with companies such as GE Healthcare and others to meet this rapid increase. Servomex is also launching a new variant of the Paracube which is much faster to manufacture, at much greater volumes. This development project has required a significant reduction in the development time as well as a strong partnership with key customers.

In general, medical oxygen is in high demand, rising in all regions, to support hospitals and critical care. To help support this, Servomex has enhanced the operational performance of its Chroma gas monitoring solution product to provide improved detection levels for impurities.

Semiconductor and electronics

Sales in the semiconductor and electronics industries declined, although China and North America posted growth in electronics sales. Growth is expected to resume in the second half of 2020, and we are well positioned with key customers and channel partners to benefit as it does. Although the industry is forecasting single-digit contraction in capital equipment spend in 2020, a recovery is expected to start in the third quarter. China is also anticipated to show strong growth and the building of new semiconductor fabs in the USA will also be supportive. The roll-out of 5G networks, increasing use of IIoT and remote working is also expected to support demand.

At PMS, there is good underlying demand for its high-purity products such as the Chem-20™ Chemical Particle Counter, with notable orders in the first half from most major chip manufacturers. The pipeline of opportunities continues to strengthen. To support this product range, PMS released its new SLS 20 Syringe Liquid Sampler which alongside the on-line capabilities of the Chem 20™, provides a new combined and complete solution for all chemical monitoring needs at high (20 nanometre) sensitivity. This reliable solution for use in high sensitivity particle monitoring is required in industries such as semiconductor and medical/pharmaceutical, where chemical quality assurance, parts cleanliness testing and water quality sampling are essential to the overall quality and yield of the process.

Automotive

In the automotive industry, there has been a significant negative impact from COVID-19 with the widespread closure of manufacturing plants, a collapse in new-car sales and delays to new development projects (and therefore testing) in many areas. Although LFL sales into automotive decreased only slightly, this reflected the expansion in testing capacity (e.g. new electric driveline test facility in California) and testing capability (e.g. new 5G-enabled telecoms network at Millbrook Proving Ground) at Millbrook in both Europe and the USA.

However, underlying performance at Millbrook has been negatively impacted as its customers have been operating under severe cost pressure and some have decided to delay or even cancel testing. In addition, a major customer decided to bring in-house all outsourced engine testing services until April 2021 and Millbrook's events business has been largely shut down as a result of COVID-19 restrictions. In response to travel restrictions, Millbrook has found innovative ways of operating and has introduced remote access in certain areas to allow customers and certification authorities, who would usually be present, to observe tests virtually and enable customers to continue their development programmes. As vehicle manufacturing plants start to re-open and R&D programmes re-start, we expect testing requirements will increase.

Other

In our other end markets, which are primarily served by NDC, the converting and film extrusion industries saw sales decrease although plastics and packaging end markets continue to hold up, with orders being more robust, principally with OEMs in the cast film applications, which will support the sales performance into the second half and next year. Cable and tubing saw a decline and is expected to remain weak, although there may be opportunities in medical and telecom cabling (related to 5G). For example, Onyx Hose and Tube, a Canadian producer of medical hose, uses NDC systems to measure the diameter and ovality of their product which is used in ventilators and oxygen supply.

LFL sales to the food, drink and tobacco sector remained robust with strong growth in Europe and Asia. Although demand for restaurant/fast-food related products have been impacted by COVID-19 related closures, there has been good demand from producers of snacks and frozen food products. The revised sales strategy implemented in 2019 has helped the business to limit, to some degree, the impact on sales overall.

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 42 to 46 of the 2019 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 2019 Annual Report.

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

- Business Disruption
- Compliance
- Cyber Threat
- Intellectual Property
- Market / Financial Shock
- Political
- Talent
- Strategic Transformation

The COVID-19 pandemic has driven a near-term increase in business disruption risk and a medium/long-term increase in market/financial shock risk. Both risks are existing principal risks, and therefore have been subject to Executive oversight and formal assessment prior to and during the pandemic. Consequently, many of the mitigations already in place have proven to be effective from the outset or have informed a refined/enhanced approach to risk mitigation throughout the first half of 2020 such that the economic/disruption impact has been limited to an appropriately managed 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
4 August 2020	

Independent Review Report to Spectris PLC

We have been engaged by Spectris plc ("the company") to review the condensed set of financial statements in the half-yearly financial report for the six months ended 30th June 2020 which comprises the Condensed Consolidated Income Statement, Condensed Consolidated Statement of Comprehensive Income, Condensed Consolidated Statement of Changes in Equity, Condensed Consolidated Statement of Financial Position, Condensed Consolidated Statement of Cash Flows and related notes 1 to 13 . We have read the other information contained in the half-yearly financial report and considered whether it contains any apparent misstatements or material inconsistencies with the information in the condensed set of financial statements.

Directors' responsibilities

The half-yearly financial report is the responsibility of, and has been approved by, 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.

As disclosed in note 1, the annual financial statements of the group are prepared in accordance with IFRSs as adopted by the European Union. The condensed set of financial statements included in this half-yearly financial report has been prepared in accordance with International Accounting Standard 34 "Interim Financial Reporting" as adopted by the European Union.

Our responsibility

Our responsibility is to express to the Company a conclusion on the condensed set of financial statements in the half-yearly financial report based on our review.

Scope of review

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 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.

Conclusion

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 2020 is not prepared, in all material respects, in accordance with International Accounting Standard 34 as adopted by the European Union and the Disclosure Guidance and Transparency Rules of the United Kingdom's Financial Conduct Authority.

Use of our report

This report is made solely to the company in accordance with International Standard on Review Engagements (UK and Ireland) 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

Reading, UK

4 August 2020

Condensed Consolidated Income Statement (unaudited)

For the six months ended 30 June 2020

		2020 Half year	2019 Half year	2019 Full year
Continuing operations	Note	£m	£m	£m
Revenue	3	**599.0**	759.1	1,632.0
Cost of sales		**(278.5)**	(342.0)	(717.8)
Gross profit		**320.5**	417.1	914.2
Indirect production and engineering expenses		**(48.9)**	(54.7)	(108.2)
Sales and marketing expenses		**(131.8)**	(175.4)	(345.7)
Administrative expenses	9	**(196.0)**	(233.1)	(376.0)
Adjusted operating profit	2	**44.1**	83.5	258.1
Restructuring costs	2	**(3.0)**	(29.1)	(52.2)
Net transaction-related costs and fair value adjustments	2	**(2.0)**	(6.3)	(6.1)
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	2	**(0.4)**	(0.4)	(1.0)
Profit on disposal of property	2	**-**	5.2	5.2
Impairment of goodwill	2, 8	**(58.4)**	(35.1)	(35.1)
Amortisation and impairment of acquisition-related intangible assets and other property, plant and equipment	2, 8	**(36.5)**	(63.9)	(84.6)
Operating (loss)/profit	2, 3	**(56.2)**	(46.1)	84.3
Share of post-tax results of joint venture		**-**	(2.8)	(4.9)
Impairment of non-current receivable from joint venture		**-**	–	(21.3)
Profit on disposal of businesses	13	**5.1**	–	204.7
Financial income	4	**0.6**	4.4	7.9
Finance costs	4	**(15.0)**	(5.6)	(11.4)
(Loss)/profit before tax		**(65.5)**	(50.1)	259.3
Taxation (charge)/credit	5	**(1.0)**	1.7	(25.2)
(Loss)/profit for the period from continuing operations attributable to owners of the Company		**(66.5)**	(48.4)	234.1
Basic (loss)/earnings per share	7	**(57.3p)**	(41.8p)	202.2p
Diluted (loss)/earnings per share	7	**(57.3p)**	(41.8p)	201.6p
2020 interim dividend and additional interim dividend declared/2019 interim dividend paid for the period (per share)	6	**21.9p**	21.9p	43.2p
Dividends paid during the period (per share)	6	**-**	40.5p	62.4p

Condensed Consolidated Statement of Comprehensive Income (unaudited)

For the six months ended 30 June 2020

	2020 Half year £m	2019 Half year £m	2019 Full year £m
(Loss)/profit for the period attributable to owners of the Company	**(66.5)**	(48.4)	234.1
Other comprehensive income:			
Items that will not be reclassified to the Consolidated Income Statement:			
Re-measurement of net defined benefit obligation, net of foreign exchange	**(1.6)**	(9.1)	(10.6)
Fair value loss on investment in equity instruments designated as at FVTOCI	**(0.1)**	-	-
Tax credit on items above	**0.4**	1.5	1.7
	(1.3)	(7.6)	(8.9)
Items that are or may be reclassified subsequently to the Consolidated Income Statement:			
Net (loss)/gain on effective portion of changes in fair value of forward exchange contracts on cash flow hedges	**(3.7)**	(0.3)	3.1
Foreign exchange movements on translation of overseas operations	**62.4**	3.6	(32.7)
Share of joint venture other comprehensive income	**-**	0.4	–
Currency translation differences transferred to profit on disposal of business	**-**	–	(35.8)
Tax credit/(charge) on items above	**0.7**	0.1	(0.6)
	59.4	3.8	(66.0)
Total other comprehensive income/(loss)	**58.1**	(3.8)	(74.9)
Total comprehensive (loss)/income for the period attributable to owners of the Company	**(8.4)**	(52.2)	159.2

Condensed Consolidated Statement of Changes in Equity (unaudited)

For the six months ended 30 June 2020

	Share capital £m	Share premium £m	Retained earnings £m	Translation reserve £m	Hedging reserve £m	Merger reserve £m	Capital redemption reserve £m	Total equity £m
At 1 January 2020	**6.0**	**231.4**	**983.3**	**98.6**	**(1.4)**	**3.1**	**0.5**	**1,321.5**
Loss for the period	–	–	**(66.5)**	–	–	–	–	**(66.5)**
Other comprehensive (loss)/income	–	–	**(1.3)**	**62.4**	**(3.0)**	–	–	**58.1**
Total comprehensive (loss)/income for the period	–	–	**(67.8)**	**62.4**	**(3.0)**	–	–	**(8.4)**
Transactions with owners recorded directly in equity:								
Share-based payments, net of tax	–	–	**0.1**	–	–	–	–	**0.1**
Proceeds from exercise of equity-settled share options	–	–	**0.1**	–	–	–	–	**0.1**
At 30 June 2020	**6.0**	**231.4**	**915.7**	**161.0**	**(4.4)**	**3.1**	**0.5**	**1,313.3**

For the six months ended 30 June 2019

	Share capital £m	Share premium £m	Retained earnings £m	Translation reserve £m	Hedging reserve £m	Merger reserve £m	Capital redemption reserve £m	Total equity £m
At 1 January 2019	6.0	231.4	828.7	167.1	(3.9)	3.1	0.5	1,232.9
Adoption of IFRS 16 and IFRIC 23	–	–	(3.7)	–	–	–	–	(3.7)
At 1 January 2019 (restated)	6.0	231.4	825.0	167.1	(3.9)	3.1	0.5	1,229.2
Loss for the period	–	–	(48.4)	–	–	–	–	(48.4)
Other comprehensive (loss)/ income	–	–	(7.6)	4.0	(0.2)	–	–	(3.8)
Total comprehensive (loss)/income for the period	–	–	(56.0)	4.0	(0.2)	–	–	(52.2)
Transactions with owners recorded directly in equity:								
Equity dividends paid by the Company	–	–	(46.9)	–	–	–	–	(46.9)
Share-based payments, net of tax	–	–	3.1	–	–	–	–	3.1
Proceeds from exercise of equity-settled share options	–	–	0.6	–	–	–	–	0.6
At 30 June 2019	6.0	231.4	725.8	171.1	(4.1)	3.1	0.5	1,133.8

For the year ended 31 December 2019

	Share capital £m	Share premium £m	Retained earnings £m	Translation reserve £m	Hedging reserve £m	Merger reserve £m	Capital redemption reserve £m	Total equity £m
At 1 January 2019	6.0	231.4	828.7	167.1	(3.9)	3.1	0.5	1,232.9
Adoption of IFRS 16 and IFRIC 23	–	–	(2.9)	–	–	–	–	(2.9)
At 1 January 2019 (restated)	6.0	231.4	825.8	167.1	(3.9)	3.1	0.5	1,230.0
Profit for the year	–	–	234.1	–	–	–	–	234.1
Other comprehensive income	–	–	(8.9)	(68.5)	2.5	–	–	(74.9)
Total comprehensive income for the year	–	–	225.2	(68.5)	2.5	–	–	159.2
Transactions with owners recorded directly in equity:								
Equity dividends paid by the Company	–	–	(72.3)	–	–	–	–	(72.3)
Share-based payments, net of tax	–	–	3.6	–	–	–	–	3.6
Proceeds from exercise of equity-settled share options	–	–	1.0	–	–	–	–	1.0
At 31 December 2019	6.0	231.4	983.3	98.6	(1.4)	3.1	0.5	1,321.5

Condensed Consolidated Statement of Financial Position (Unaudited)

As at 30 June 2020

	Note	2020 Half year £m	2019 Half year £m	2019 Full year £m
ASSETS				
Non-current assets				
Intangible assets:				
Goodwill	8	**621.8**	736.6	646.8
Other intangible assets	8	**162.1**	206.0	178.5
		783.9	942.6	825.3
Property, plant and equipment		**368.9**	398.0	369.0
Investment in equity instruments		**0.8**	–	–
Investment in joint venture		**–**	2.6	–
Other receivable – joint venture		**–**	40.6	–
Deferred tax assets		**9.0**	11.3	9.0
		1,162.6	1,395.1	1,203.3
Current assets				
Inventories		**221.8**	240.0	197.2
Current tax assets		**4.1**	4.4	4.1
Trade and other receivables		**298.1**	347.1	335.7
Derivative financial instruments		**1.5**	–	1.5
Cash and cash equivalents		**287.0**	70.4	213.1
Assets held for sale		**–**	–	18.9
		812.5	661.9	770.5
Total assets		**1,975.1**	2,057.0	1,973.8
LIABILITIES				
Current liabilities				
Borrowings		**(86.6)**	(27.3)	(80.7)
Derivative financial instruments		**(4.1)**	(2.4)	(0.1)
Trade and other payables		**(306.8)**	(334.9)	(296.8)
Lease liabilities		**(14.8)**	(18.9)	(15.1)
Current tax liabilities		**(14.3)**	(15.8)	(20.8)
Provisions		**(24.6)**	(28.4)	(27.3)
		(451.2)	(427.7)	(440.8)
Net current assets		**361.3**	234.2	329.7
Non-current liabilities				
Borrowings		**(106.1)**	(355.7)	(98.9)
Other payables		**(17.8)**	(22.1)	(21.3)
Lease liabilities		**(45.0)**	(51.3)	(45.4)
Provisions		**(4.8)**	(7.5)	(5.6)
Retirement benefit obligations		**(29.5)**	(41.7)	(27.5)
Deferred tax liabilities		**(7.4)**	(17.2)	(12.8)
		(210.6)	(495.5)	(211.5)
Total liabilities		**(661.8)**	(923.2)	(652.3)
Net assets		**1,313.3**	1,133.8	1,321.5
EQUITY				
Share capital		**6.0**	6.0	6.0
Share premium		**231.4**	231.4	231.4
Retained earnings		**915.7**	725.8	983.3
Translation reserve		**161.0**	171.1	98.6
Hedging reserve		**(4.4)**	(4.1)	(1.4)
Merger reserve		**3.1**	3.1	3.1
Capital redemption reserve		**0.5**	0.5	0.5
Total equity attributable to owners of the Company		**1,313.3**	1,133.8	1,321.5

Condensed Consolidated Statement of Cash Flows

For the six months ended 30 June 2020

	Note	2020 Half year £m	2019 Half year £m	2019 Full year £m
Cash generated from operations	10	**99.9**	97.1	277.8
Net income taxes paid		**(11.5)**	(17.8)	(37.0)
Net cash inflow from operating activities		**88.4**	79.3	240.8
Cash flows used (used in)/from investing activities				
Purchase of property, plant and equipment and intangible assets		**(23.4)**	(43.1)	(86.6)
Proceeds from disposal of property, plant and equipment and intangible assets		**-**	10.5	11.2
Acquisition of businesses, net of cash acquired	12	**(7.1)**	(5.7)	(9.7)
Proceeds/(payments) from disposal of businesses, net of tax paid of £1.0m (2019 half year: £0.1m; 2019 full year: £1.2m)	13	**21.4**	(0.4)	260.1
Proceeds from government grants related to purchase of property, plant and equipment and intangible assets	9	**0.2**	3.8	5.0
Interest received		**0.5**	0.1	0.7
Net cash flows (used in)/from investing activities		**(8.4)**	(34.8)	180.7
Cash flows used in financing activities				
Interest paid on borrowings		**(2.3)**	(3.0)	(7.0)
Interest paid on lease liabilities		**(1.3)**	(1.4)	(2.9)
Dividends paid	6	**-**	(46.9)	(72.3)
Net proceeds from exercise of share options		**0.1**	0.6	1.0
Payments on principal portion of lease liabilities		**(8.5)**	(8.5)	(17.6)
Loan repaid/(made) by/(to) joint venture		**3.0**	–	(2.2)
Proceeds from borrowings		**-**	72.7	193.2
Repayment of borrowings		**-**	(64.3)	(363.5)
Net cash flows used in financing activities		**(9.0)**	(50.8)	(271.3)
Net increase/(decrease) in cash and cash equivalents		**71.0**	(6.3)	150.2
Cash and cash equivalents at beginning of period		**213.1**	67.3	67.3
Effect of foreign exchange rate changes		**2.9**	–	(4.4)
Cash and cash equivalents at end of period		**287.0**	61.0	213.1

	Note	2020 Half year £m	2019 Half year £m	2019 Full year £m
Reconciliation of changes in cash and cash equivalents to movements in net cash/(debt)				
Net increase/(decrease) in cash and cash equivalents		**71.0**	(6.3)	150.2
Proceeds from borrowings		**-**	(72.7)	(193.2)
Repayment of borrowings		**-**	64.3	363.5
Effect of foreign exchange rate changes		**(10.2)**	(0.8)	10.1
Movement in net cash/(debt)		**60.8**	(15.5)	330.6
Net debt at beginning of year		**33.5**	(297.1)	(297.1)
Net cash/(debt) at end of period	2	**94.3**	(312.6)	33.5

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 2020 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 2019 are available upon request from the Company's registered office at Heritage House, Church Road, Egham, Surrey TW20 9QD, 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 European Union. 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 2019.

The Condensed Consolidated Financial Statements have been prepared using consistent accounting policies with those of the previous financial year. The Group has not adopted any new IFRSs during the half year ended 30 June 2020.

The Condensed Consolidated Interim Financial Statements for the six-month period ended 30 June 2020 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 2019 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 2019. These Condensed Consolidated Interim Financial Statements were approved by the Board of Directors on 4 August 2020.

b) Going concern

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 COVID-19 on the Group, which are described in the Chief Executive's review, financial review and operating review.

As at 30 June 2020, the Group had £844.5 million of committed facilities denominated in different currencies, consisting of an $800.0 million (£651.8 million) revolving credit facility maturing in July 2025, a seven-year €94.8 million (£86.6 million) term loan maturing in October 2020, and a seven-year €116.2 million (£106.1 million) term loan maturing in September 2022. From these facilities the Group had total gross borrowings of £192.7 million at 30 June 2020. The revolving credit facility ('RCF') was undrawn at 30 June 2020. During the first half, the Group requested a further one-year extension of its $800.0 million RCF, as permitted under the agreement. The extension has now been approved by all ten banks in the syndicate, ensuring the Group continues to have access to the full amount under the facility until July 2025.

These facilities have a leverage (net debt/EBITDA) covenant of up to 3x for the EIB loans and up to 3.5x for the RCF. The Group regularly monitors its financial position to ensure that it remains within the terms of its banking covenants. At 30 June 2020 interest cover (defined as adjusted earnings before interest, tax and amortisation divided by net finance charges) was more than 35 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 less than zero due to the Group's net cash position, against a maximum permitted leverage of 3 times.

1. Basis of preparation and accounting policies (continued)

In addition to the above, at 30 June 2020, the Group had a cash balance of £287.0 million and various uncommitted facilities and bank overdraft facilities available, resulting in a net cash position of £94.3 million, an increase of £60.8 million from £33.5 million at 31 December 2019.

In April 2020, Spectris successfully applied for access to the Bank of England's Covid Corporate Financing Facility ('CCFF'), resulting in the ability to raise up to £600 million of additional short-term funding, if required, before 23 March 2021 by issuing commercial paper for purchase by the Bank under the programme. The Group is under no obligation to utilise the facility and, in view of the Group's other undrawn facilities and current financial position, we do not anticipate accessing the programme before its expiry.

The Group has prepared and reviewed cash flow forecasts, which reflect forecast changes in revenue across its business as set out 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. Assuming similar levels of cash conversion as experienced in recent months since the outbreak occurred, a monthly decline of revenue well in excess of that experienced in any month during the first half of 2020 would need to persist throughout the going concern period for a covenant breach to occur, which is considered very unlikely. In addition, the reverse stress test does not take in 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, including the impact of COVID-19 on the Group.

Impairment reviews

Goodwill arising on business combinations is allocated to the relevant cash-generating unit ('CGU'). Impairment reviews in respect of the relevant CGUs are performed at least annually or more regularly if events indicate that this is necessary. Impairment reviews are based on a value in use model with future cash flows discounted using the weighted average cost of capital for the relevant CGU with terminal values calculated applying a long-term growth rate. The future cash flows, which are based on operating company forecasts, the long-term growth rates and the discount rates used are dependent upon management estimates. Future events, including the ongoing impact of COVID-19, could cause the assumptions used in impairment reviews to change with a consequential adverse impact on the results and net position of the Group.

1. Basis of preparation and accounting policies (continued)

During the first half of 2020, Millbrook's business has been impacted as follows:

1. There has been reduced demand from automotive customers, who have delayed development projects (and therefore testing).
2. On 31 March 2020, a large customer decided to in-house all outsourced engine testing services for the period from April 2020 through to April 2021.
3. Millbrook's events business has been largely shut down as a result of COVID-19 restrictions.

As a result of this, an impairment of the whole of Millbrook's goodwill balance of £58.4m was charged to the Condensed Consolidated Income Statement during the half year ended 30 June 2020, as set out in note 8. In addition, customer relationship, technology and brand intangible assets have been impaired by £11.0m and property, plant and equipment has been impaired by £6.4m. This impairment reflects the loss of value from the acquired workforce and the loss of expected future customer relationships. The estimated recoverable amount of the Millbrook cash generating unit at 30 June 2020 was £157.6m, which was determined on a value in use basis using a pre-tax discount rate of 12.1% (31 December 2019: 12.1%).

We have considered that the key sources of estimation in the assumptions used to derive the recoverable amount are as follows:

- Timing of cash flows. Our assessment of impairment is based on an assessment of the impact of the above factors on the timing of future cash flows. If the timing of those future cash flows was improved by six months compared to our assessment there would be an increase in value-in-use of £15.9 million. If the timing of those cash flows further deteriorated by six months compared to our assessment there would be a reduction in value-in-use of £12.4 million.
- Discount rate applied to future cash flows. Our assessment of impairment assumes a pre-tax discount rate of 12.1% based on our determination of Group WACC and risks specific to the Millbrook CGU cash flows. An increase to 12.6% would result in a reduction in value-in-use compared to our assessment of £8.2 million. A decrease to 11.6% would result in an increase in value-in-use compared to our assessment of £11.4 million.

The Group's other critical accounting judgments and 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 2019.

2. 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 better 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 as:

- restructuring costs from significant programmes;
- amortisation and impairment of acquisition-related goodwill and other intangible assets
- impairment of property, plant and equipment;
- bargain purchase on acquisition;
- depreciation of acquisition-related fair value adjustments to property, plant and equipment;
- transaction-related costs, deferred and contingent consideration fair value adjustments;
- profits or losses on termination or disposal of businesses;
- impairment of non-current receivable from joint venture and share of impairment of investment in joint venture;
- unwinding of the discount factor on deferred and contingent consideration;
- unrealised changes in the fair value of financial instruments;
- 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 5).

During 2019, a profit on disposal of property of £5.2m in Omega was treated as an adjusting item since it was significant in quantum and would distort the underlying trading performance if included.

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.

2. Alternative performance measures (continued)

On 10 October 2019, Malvern Panalytical's environment consultancy and testing business was disposed of and, as a result, the segmental LFL adjusted sales and adjusted operating profit for Malvern Panalytical for half year 2019 exclude the trading results of the environment consultancy and testing business.

On 1 December 2019, the Group completed the disposal of BTG and, as a result, the segmental LFL adjusted sales and adjusted operating profit for Industrial Solutions for half year 2019 exclude the trading results of BTG.

On 31 January 2020, Malvern Panalytical's rheology business was disposed of and, as a result, the segmental LFL adjusted sales and adjusted operating profit for Malvern Panalytical for half year 2019 exclude the trading results of the rheology business for the five-month period from February 2019 to June 2019.

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

2020 half year sales by segment	**Malvern Panalytical £m**	**HBK £m**	**Omega £m**	**Industrial Solutions £m**	**2020 Half year Total £m**
Sales	**151.0**	**179.4**	**60.9**	**207.7**	**599.0**
Constant exchange rate adjustment	**(0.2)**	**(1.5)**	**(0.8)**	**(2.6)**	**(5.1)**
LFL adjusted sales	**150.8**	**177.9**	**60.1**	**205.1**	**593.9**

2019 half year sales by segment	Malvern Panalytical £m	HBK £m	Omega £m	Industrial Solutions £m	2019 Half year Total £m
Sales	200.2	193.5	69.3	296.1	759.1
Disposal of businesses	(9.4)	-	-	(61.5)	(70.9)
LFL adjusted sales	190.8	193.5	69.3	234.6	688.2

b) Adjusted operating profit, operating margin and adjusted EBITDA

2020 half year adjusted operating profit	**Malvern Panalytical £m**	**HBK £m**	**Omega £m**	**Industrial Solutions £m**	**2020 Half year Total £m**
Statutory operating profit/(loss)	**4.8**	**10.9**	**(0.9)**	**(71.0)**	**(56.2)**
Restructuring costs	**-**	**3.0**	**-**	**-**	**3.0**
Net transaction-related costs and fair value adjustments	**-**	**(1.2)**	**-**	**3.2**	**2.0**
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	**0.1**	**-**	**-**	**0.3**	**0.4**
Impairment of goodwill	**-**	**-**	**-**	**58.4**	**58.4**
Amortisation and impairment of acquisition-related intangible assets and impairment of other property, plant and equipment	**3.5**	**3.7**	**3.8**	**25.5**	**36.5**
Adjusted operating profit	**8.4**	**16.4**	**2.9**	**16.4**	**44.1**
Constant exchange rate adjustment	**(0.2)**	**(0.3)**	**-**	**(0.5)**	**(1.0)**
Acquisitions	**-**	**0.3**	**-**	**-**	**0.3**
LFL adjusted operating profit	**8.2**	**16.4**	**2.9**	**15.9**	**43.4**

2. Alternative performance measures (continued)

2019 half year adjusted operating profit	**Malvern Panalytical £m**	**HBK £m**	**Omega £m**	**Industrial Solutions £m**	**2019 Half year Total £m**
Statutory operating (loss)/profit	(63.2)	(8.2)	9.6	15.7	(46.1)
Restructuring costs	9.0	7.3	1.8	11.0	29.1
Net transaction-related costs and fair value adjustments	(0.4)	1.9	–	4.8	6.3
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	0.1	–	–	0.3	0.4
Profit on disposal of property	–	–	(5.2)	–	(5.2)
Impairment of goodwill	35.1	–	–	–	35.1
Amortisation and impairment of acquisition-related intangible assets and impairment of other property, plant and equipment	37.9	15.7	3.7	6.6	63.9
Adjusted operating profit	18.5	16.7	9.9	38.4	83.5
Disposal of businesses	(0.2)	-	-	(9.8)	(10.0)
LFL adjusted operating profit	18.3	16.7	9.9	28.6	73.5

2019 Full year adjusted operating profit	**Malvern Panalytical £m**	**HBK £m**	**Omega £m**	**Industrial Solutions £m**	**2019 Full year Total £m**
Statutory operating (loss)/profit	(17.7)	18.1	12.0	71.9	84.3
Restructuring costs	16.4	17.7	2.2	15.9	52.2
Net transaction-related costs and fair value adjustments	(0.3)	3.1	–	3.3	6.1
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	0.4	–	–	0.6	1.0
Profit on disposal of property	–	–	(5.2)	–	(5.2)
Impairment of goodwill	35.1	–	–	–	35.1
Amortisation and impairment of acquisition-related intangible assets and impairment of other property, plant and equipment	42.3	21.5	7.9	12.9	84.6
Adjusted operating profit	76.2	60.4	16.9	104.6	258.1

2020 half year operating margin	**Malvern Panalytical %**	**HBK %**	**Omega %**	**Industrial Solutions %**	**2020 Half year Total %**
Statutory operating margin	**3.2**	**6.1**	**(1.5)**	**(34.2)**	**(9.4)**
Adjusted operating margin	**5.6**	**9.1**	**4.8**	**7.9**	**7.4**
LFL adjusted operating margin	**5.4**	**9.2**	**4.8**	**7.8**	**7.3**

2019 half year operating margin	**Malvern Panalytical %**	**HBK %**	**Omega %**	**Industrial Solutions %**	**2019 Half year Total %**
Statutory operating margin	(31.6)	(4.2)	13.9	5.3	(6.1)
Adjusted operating margin	9.2	8.6	14.3	13.0	11.0
LFL adjusted operating margin	9.6	8.6	14.3	12.2	10.7

2019 full year operating margin	**Malvern Panalytical %**	**HBK %**	**Omega %**	**Industrial Solutions %**	**2019 Full year Total %**
Statutory operating margin	(3.9)	4.2	8.7	11.7	5.2
Adjusted operating margin	17.0	14.1	12.2	17.0	15.8

2. Alternative performance measures (continued)

Adjusted EBITDA	2020 Half year £m	2019 Half year £m	2019 Full year £m
Statutory operating (loss)/profit	**(56.2)**	(46.1)	84.3
Depreciation and impairment of owned assets	**18.9**	18.3	35.5
Depreciation and impairment of right-of-use assets	**14.1**	12.1	22.1
Amortisation and impairment of intangible assets	**34.9**	70.0	95.2
Impairment of goodwill	**58.4**	35.1	35.1
EBITDA	**70.1**	89.4	272.2
Restructuring costs excluding impairment of owned and right-of-use property, plant and equipment and intangible assets	**3.0**	21.0	43.4
Profit on disposal of property classified as an adjusting item	**-**	(5.2)	(5.2)
Net transaction-related costs and fair value adjustments	**2.0**	6.3	6.1
Adjusted EBITDA	**75.1**	111.5	316.5

EBITDA is calculated as statutory operating profit before depreciation, amortisation and impairment of property, plant and equipment, intangible assets and goodwill. Adjusted EBITDA is calculated as EBITDA excluding other adjusting items as defined previously. This measure is used for the purpose of assessing capital management and covenant compliance and is reported to the Group Executive Committee.

c) Adjusted net finance costs

	2020 Half year £m	2019 Half year £m	2019 Full year £m
Statutory net finance costs	**(14.4)**	(1.2)	(3.5)
Net loss/(gain) on retranslation of short-term inter-company loan balances	**10.4**	(2.6)	(4.0)
Unwinding of discount factor on deferred and contingent consideration	**0.3**	0.3	0.7
Adjusted net finance costs	**(3.7)**	(3.5)	(6.8)

d) Adjusted profit before taxation

	2020 Half year £m	2019 Half year £m	2019 Full year £m
Adjusted operating profit	**44.1**	83.5	258.1
Adjusted share of post-tax results of joint venture	**-**	(2.8)	(3.9)
Adjusted net finance costs	**(3.7)**	(3.5)	(6.8)
Adjusted profit before taxation	**40.4**	77.2	247.4

In full year 2019, the share of post-tax results of the joint venture was adjusted to exclude £1.0m of impairment of acquisition-related intangible assets consistent with the Group's treatment of adjusted operating profit measures.

2. Alternative performance measures (continued)

e) Adjusted earnings per share

Adjusted earnings	**2020 Half year £m**	2019 Half year £m	2019 Full year £m
Statutory profit after tax	**(66.5)**	(48.4)	234.1
Adjusted for:			
Restructuring costs	**3.0**	29.1	52.2
Net transaction-related costs and fair value adjustments	**2.0**	6.3	6.1
Depreciation of acquisition-related fair value adjustments to property, plant and equipment	**0.4**	0.4	1.0
Profit on disposal of property	**-**	(5.2)	(5.2)
Impairment of goodwill	**58.4**	35.1	35.1
Amortisation and impairment of acquisition-related intangible assets and impairment of other property, plant and equipment	**36.5**	63.9	84.6
Profit on disposal of businesses	**(5.1)**	-	(204.7)
Impairment of non-current receivable from joint venture	**-**	-	21.3
Share of impairment of acquisition-related intangible in joint venture	**-**	-	1.0
Net loss/(gain) on retranslation of short-term inter-company loan balances	**10.4**	(2.6)	(4.0)
Unwinding of discount factor on deferred and contingent consideration	**0.3**	0.3	0.7
Tax effect of the above and other non-recurring items	**(7.9)**	(18.3)	(27.7)
Adjusted earnings	**31.5**	60.6	194.5

Adjusted earnings per share	**2020 Half year**	2019 Half year	2019 Full year
Weighted average number of shares outstanding (millions)	**116.0**	115.7	115.8
Adjusted earnings per share (pence)	**27.2**	52.4	168.0

Basic (loss)/earnings per share in accordance with IAS 33 'Earnings Per Share' are disclosed in Note 7.

Financial position measures
f) Net cash/(debt)

	2020 Half year £m	2019 Half year £m	2019 Full year £m
Bank overdrafts	**-**	(9.4)	–
Bank loans unsecured	**(192.7)**	(373.6)	(179.6)
Total borrowings	**(192.7)**	(383.0)	(179.6)
Cash and cash equivalents	**287.0**	70.4	213.1
Net cash/(debt)	**94.3**	(312.6)	33.5

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

2. Alternative performance measures (continued)

Cash flow measures

g) Adjusted cash flow

	2020 Half year £m	2019 Half year £m	2019 Full year £m
Net cash inflow from operating activities	**88.4**	79.3	240.8
Transaction-related costs paid	**3.9**	1.7	1.6
Restructuring cash outflow	**8.2**	13.0	34.3
Net income taxes paid	**11.5**	17.8	37.0
Purchase of property, plant and equipment and intangible assets	**(23.4)**	(43.1)	(86.6)
Proceeds from government grants related to purchase of property, plant and equipment and intangible assets	**0.2**	3.8	5.0
Proceeds from disposal of property, plant and equipment and software[2]	**-**	1.4	2.1
Adjusted cash flow	**88.8**	73.9	234.2
Adjusted cash flow conversion[1]	**201%**	89%	91%

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

2. Excludes the proceeds from disposal of property of £9.1m in half year 2019 and full year 2019 classified as an adjusting item.

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 and excluding accumulated amortisation and impairment of acquisition-related intangible assets including goodwill.

	30 June 2020 £m	30 June 2019 £m	30 June 2018 £m
Net (cash)/debt (see note 2f)	**(94.3)**	312.6	231.5
Accumulated impairment losses on goodwill (see note 8)	**247.3**	185.4	146.3
Accumulated amortisation and impairment of acquisition-related intangible assets	**415.3**	371.0	276.1
Shareholders' equity	**1,313.3**	1,133.8	1,131.8
Gross capital employed	**1,881.6**	2,002.8	1,785.7
Average gross capital employed (current and prior period)	**1,942.2**	1,894.2	
Adjusted operating profit for six months to June 2020 and 2019 (see note 2b)	**44.1**	83.5	
Adjusted operating profit for six months to December 2019	**174.6**	171.1	
Total adjusted operating profit for last 12 months	**218.7**	254.6	
Return on gross capital employed	**11.3%**	13.4%	

i) Net transaction-related costs and fair value adjustments

Net transaction-related costs and fair value adjustments comprise transaction costs of £3.3m (Half year 2019: £3.8m; Full year 2019: £2.1m) that have been recognised in the Condensed Consolidated Income Statement under IFRS 3 (Revised) 'Business Combinations' and other fair value adjustments relating to deferred and contingent consideration comprising a credit of £1.3m (Half year 2019: £2.5m charge; Full year 2019: £4.0m charge). 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 £3.9m (Half year 2019: £1.7m; Full year 2019: £1.6m) have been excluded from the adjusted cash flow.

3. Operating segments

The Group has four reportable segments, as described below. From 1 July 2019, the Group's operating segments changed following the strategic review which commenced in November 2018. The new segmental platform 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. As a result, the tables below show restated comparative figures for the operating segments for the half year ended 30 June 2019, reflecting the impact of changes the Group made to its operating segments during the second half of the year ended 31 December 2019. The operating segment results include an allocation of head office costs. The following summarises the operations in each of the Group's reportable segments:

- The Malvern Panalytical platform 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 platform 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 Omega platform is a global leader in the technical marketplace, offering products for measurement and control of temperature, humidity, pressure, strain, force, flow, level, pH and conductivity. Omega also provides a complete line of data acquisition, electric heating and custom-engineered products. The operating company in this segment is Omega Engineering.

- The Industrial Solutions division ('ISD') comprises a portfolio of high-value, niche businesses. A number of ISD companies have platform potential, with strong market positions, growth prospects and margins. The operating companies in this segment are Brüel & Kjær Vibro, ESG Solutions, Millbrook, NDC Technologies, Particle Measuring Systems, Red Lion Controls, Servomex and BTG (disposed on 1 December 2019).

Information about reportable segments	Malvern Panalytical £m	HBK £m	Omega £m	Industrial Solutions £m	2020 Half year Total £m
Segment revenues	151.0	179.7	60.9	207.9	599.5
Inter-segment revenue	-	(0.3)	-	(0.2)	(0.5)
External revenue	151.0	179.4	60.9	207.7	599.0
Operating profit/(loss)	4.8	10.9	(0.9)	(71.0)	(56.2)
Profit on disposal of businesses[1]					5.1
Financial income[1]					0.6
Finance costs[1]					(15.0)
Loss before tax[1]					(65.5)
Taxation charge[1]					(1.0)
Loss after tax[1]					(66.5)

1. Not allocated to reportable segments

3. Operating segments (continued)

Information about reportable segments	Malvern Panalytical £m	HBK £m	Omega £m	Industrial Solutions £m	2019 Half year Total £m
Segment revenues	200.2	194.2	69.3	296.3	760.0
Inter-segment revenue	–	(0.7)	–	(0.2)	(0.9)
External revenue	200.2	193.5	69.3	296.1	759.1
Operating (loss)/profit	(63.2)	(8.2)	9.6	15.7	(46.1)
Share of post-tax results of joint venture[1]					(2.8)
Financial income[1]					4.4
Finance costs[1]					(5.6)
Loss before tax[1]					(50.1)
Taxation credit[1]					1.7
Loss after tax[1]					(48.4)

1. Not allocated to reportable segments

Information about reportable segments	Malvern Panalytical £m	HBK £m	Omega £m	Industrial Solutions £m	2019 Full year Total £m
Segment revenues	448.4	430.7	138.5	616.7	1,634.3
Inter-segment revenue	(0.2)	(1.7)	(0.2)	(0.2)	(2.3)
External revenue	448.2	429.0	138.3	616.5	1,632.0
Operating (loss)/profit	(17.7)	18.1	12.0	71.9	84.3
Share of post-tax results of joint venture[1]					(4.9)
Impairment of non-current receivable from joint venture[1]					(21.3)
Profit on disposal of businesses[1]					204.7
Financial income[1]					7.9
Finance costs[1]					(11.4)
Profit before tax[1]					259.3
Taxation charge[1]					(25.2)
Profit after tax[1]					234.1

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 by geographical destination.

	2020 Half year £m	2019 Half year £m	2019 Full year £m
UK	**48.0**	61.8	124.8
Germany	**53.8**	67.7	142.5
France	**17.8**	25.1	53.4
Rest of Europe	**78.3**	101.2	221.5
USA	**182.9**	218.2	458.4
Rest of North America	**17.7**	24.0	48.9
Japan	**34.2**	41.2	89.3
China	**79.0**	96.4	218.1
South Korea	**16.1**	27.1	54.0
Rest of Asia	**44.9**	61.2	137.6
Rest of the world	**26.3**	35.2	83.5
	599.0	759.1	1,632.0

4. Financial income and finance costs

Financial income	2020 Half year £m	2019 Half year £m	2019 Full year £m
Interest receivable	**(0.6)**	(0.1)	(0.7)
Income on receivable from joint venture	**-**	(1.7)	(3.2)
Net gain on retranslation of short-term inter-company loan balances	**-**	(2.6)	(4.0)
	(0.6)	(4.4)	(7.9)

Finance costs	2020 Half year £m	2019 Half year £m	2019 Full year £m
Interest payable on loans and overdrafts	**2.7**	3.5	7.1
Net loss on retranslation of short-term inter-company loan balances	**10.4**	–	–
Unwinding of discount factor on lease liabilities	**1.3**	1.4	2.9
Unwinding of discount factor on deferred and contingent consideration	**0.3**	0.3	0.7
Net interest cost on pension plan obligations	**0.2**	0.3	0.6
Other finance costs	**0.1**	0.1	0.1
	15.0	5.6	11.4

Net finance costs	**14.4**	1.2	3.5

5. Taxation

The tax charge for the six months to 30 June 2020 is based on an estimate of the effective rate of taxation for the full year. The effective rate of taxation applied to adjusted profit before tax for the half year is 22.0% (Half year 2019: 21.5%; Full year 2019: 21.4%). A reconciliation of the tax charge on adjusted profit to the actual tax (credit)/charge is presented below:

	2020 Half year £m	2019 Half year £m	2019 Full year £m
Tax charge on adjusted profit before tax	**8.9**	16.6	52.9
Tax credit on amortisation and impairment of acquisition-related intangible assets and impairment of other property, plant and equipment	**(6.6)**	(12.8)	(16.9)
Tax credit on net transaction-related costs and fair value adjustments	**(0.1)**	(0.2)	(0.8)
Tax credit on impairment of goodwill	**(0.9)**	-	-
Tax charge on profit on disposal of businesses	**1.1**	-	3.2
Tax charge on profit on disposal of property	**-**	1.3	1.2
Tax credit on retranslation of short-term inter-company loan balances	**(0.6)**	-	(0.1)
Tax credit on depreciation of acquisition-related fair value adjustments to property, plant and equipment	**(0.1)**	(0.1)	(0.2)
Tax credit relating to prior period acquisitions	**-**	-	(2.2)
Tax credit on restructuring costs	**(0.7)**	(6.5)	(11.9)
Total tax charge/(credit)	**1.0**	(1.7)	25.2

6. Dividends

Amounts recognised and paid as distributions to owners of the Company in the period	2020 Half year £m	2019 Half year £m	2019 Full year £m
2018 final dividend paid	-	46.9	46.9
2019 interim dividend paid	-	–	25.4
	-	46.9	72.3

No dividends have been paid during the six month period ending 30 June 2020.

An additional interim dividend of 43.2 pence per share has been declared and will be payable on 2 October 2020 to ordinary shareholders on the register at the close of business on 11 September 2020.

An interim 2020 dividend of 21.9p per share has been declared and will be payable on 6 November 2020 to ordinary shareholders on the register at the close of business on 16 October 2020.

7. (Loss)/earnings per share

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

Diluted (loss)/earnings per share amounts are calculated by dividing the net (loss)/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.

Basic (loss)/earnings per share	2020 Half year	2019 Half year	2019 Full year
(Loss)/profit after tax (£m)	(66.5)	(48.4)	234.1
Weighted average number of shares outstanding (millions)	116.0	115.7	115.8
Basic (loss)/earnings per share (pence)	(57.3)	(41.8)	202.2

Diluted (loss)/earnings per share	2020 Half year	2019 Half year	2019 Full year
(Loss)/profit after tax (£m)	(66.5)	(48.4)	234.1
Basic weighted average number of shares outstanding (millions)	116.0	115.7	115.8
Weighted average number of dilutive 5p ordinary shares under option (millions)	n/a	n/a	0.4
Weighted average number of 5p ordinary shares that would have been issued at average market value from proceeds of dilutive share options (millions)	n/a	n/a	(0.1)
Diluted weighted average number of shares outstanding (millions)	116.0	115.7	116.1
Diluted (loss)/earnings per share (pence)	(57.3)	(41.8)	201.6

8. Goodwill and other intangible assets

Cost	Goodwill £m	Other intangible assets £m	Total £m
At 1 January 2020	**826.2**	**597.8**	**1,424.0**
Additions – separately acquired	–	**4.7**	**4.7**
Additions – internal development	–	**4.0**	**4.0**
Disposals	–	**(0.4)**	**(0.4)**
Disposal of business	**(0.5)**	–	**(0.5)**
Foreign exchange difference	**43.4**	**31.1**	**74.5**
At 30 June 2020	**869.1**	**637.2**	**1,506.3**
Accumulated amortisation and impairment			
At 1 January 2020	**179.4**	**419.3**	**598.7**
Charge for the period	–	**20.5**	**20.5**
Impairment	**58.4**	**14.4**	**72.8**
Disposals	–	**(0.4)**	**(0.4)**
Foreign exchange difference	**9.5**	**21.3**	**30.8**
At 30 June 2020	**247.3**	**475.1**	**722.4**
Carrying amount			
At 30 June 2020	**621.8**	**162.1**	**783.9**
At 1 January 2020	646.8	178.5	825.3

Impairment of goodwill

Millbrook

During the first half of 2020, Millbrook's business has been impacted as follows:

1. There has been reduced demand from automotive customers, who have delayed development projects (and therefore testing).
2. On 31 March 2020, a large customer decided to in-house all outsourced engine testing services for the period from April 2020 through to April 2021.
3. Millbrook's events business has been largely shut down as a result of COVID-19 restrictions.

As a result of this, an impairment of the whole of Millbrook's goodwill balance of £58.4m was charged to the Condensed Consolidated Income Statement during the half year ended 30 June 2020. In addition, customer relationship, technology and brand intangible assets have been impaired by £11.0m and property, plant and equipment has been impaired by £6.4m. This impairment reflects the loss of value from the acquired workforce and the loss of expected future customer relationships. The estimated recoverable amount of the Millbrook cash generating unit at 30 June 2020 was £157.6m, which was determined on a value in use basis using a pre-tax discount rate of 12.1% (31 December 2019: 12.1%).

We have considered that the key sources of estimation in the assumptions used to derive the recoverable amount are as follows:

- Timing of cash flows. Our assessment of impairment is based on an assessment of the impact of the above factors on the timing of future cash flows. If the timing of those future cash flows was improved by six months compared to our assessment there would be an increase in value-in-use of £15.9 million. If the timing of those cash flows further deteriorated by six months compared to our assessment there would be a reduction in value-in-use of £12.4 million.
- Discount rate applied to future cash flows. Our assessment of impairment assumes a pre-tax discount rate of 12.1% based on our determination of Group WACC and risks specific to the Millbrook CGU cash flows. An increase to 12.6% would result in a reduction in value-in-use compared to our assessment of £8.2 million. A decrease to 11.6% would result in an increase in value-in-use compared to our assessment of £11.4 million.

8. Goodwill and other intangible assets (continued)

Impairment of other intangible assets

Impairment of other intangible assets includes £11.0m relating to Millbrook customer relationships, technology and brand intangible assets, as set out above. The remaining £3.4m impairment of other intangible assets relates to other ISD items impaired as a result of the impact of COVID-19 on assets with short remaining useful economic lives.

9. Government Support

Government grants

Included in the Condensed Consolidated Income Statement is £6.7m of grant income from various COVID-19 related government support packages. This amount relates to a number of different government support packages, the largest of which is £2.5m from the Netherlands scheme (phase one). This scheme provided support based on the revenue decrease in March to May 2020. There are no material unfulfilled conditions associated with grants recognised in the period.

The Group has presented this amount as a credit in administrative expenses in the Condensed Consolidated Income Statement. Government support grants are recognised in the Condensed Consolidated Income Statement on a systematic basis over the periods in which the related revenue or expense for which the grants are intended to compensate.

During the period, the Group also received government grants totalling £0.2m in respect of purchases of property, plant and equipment and intangible assets (Half year 2019: £3.8m; Full year 2019: £5.0m).

Other assistance

In April 2020, Spectris successfully applied for access to the Bank of England's Covid Corporate Financing Facility ('CCFF'), resulting in the ability to raise up to £600m of additional short-term funding, if required, before 23 March 2021 by issuing commercial paper for purchase by the Bank under the programme. The Group is under no obligation to utilise the facility and, in view of the Group's other undrawn facilities and current financial position, we do not anticipate accessing the programme before its expiry.

10. Cash generated from operations

	2020 Half year £m	2019 Half year £m	2019 Full year £m
Cash flows from operating activities			
(Loss)/profit after tax	**(66.5)**	(48.4)	234.1
Adjustments for:			
Taxation charge/(credit)	**1.0**	(1.7)	25.2
Profit on disposal of businesses	**(5.1)**	–	(204.7)
Share of post-tax results of joint venture	**-**	2.8	4.9
Finance costs	**15.0**	5.6	11.4
Financial income	**(0.6)**	(4.4)	(7.9)
Depreciation and impairment of property, plant and equipment	**33.0**	30.4	57.6
Amortisation and impairment of intangible assets	**34.9**	70.0	95.2
Impairment of non-current receivable from joint venture	**-**	-	21.3
Impairment of goodwill	**58.4**	35.1	35.1
Transaction-related fair value adjustments	**(1.3)**	2.2	4.0
Profit on disposal of property, plant and equipment	**(0.4)**	(5.2)	(4.9)
Equity-settled share-based payment expense	**0.2**	2.3	3.0
Operating cash flow before changes in working capital and provisions	**68.6**	88.7	274.3
Decrease in trade and other receivables	**48.3**	33.6	13.9
Increase in inventories	**(14.2)**	(22.2)	(3.3)
Increase/(decrease) in trade and other payables	**1.4**	(8.3)	(10.0)
(Decrease)/increase in provisions and retirement benefits	**(4.2)**	5.3	2.9
Cash generated from operations	**99.9**	97.1	277.8

11. Share capital, treasury shares and employee benefit trust shares
At 30 June 2020, the Group held 5,060,339 treasury shares (Half year 2019: 5,245,693; Full year 2019: 5,182,366). During the period, 122,027 (Half year 2019: 390,460; Full year 2019: 453,787) 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.

12. Acquisitions
There were no new acquisitions during the half year ended 30 June 2020 (half year 2019 and full year 2019: £3.8 million cash paid on acquisition during the period). The Group paid £7.1 million during the half year ended 30 June 2020 in respect of deferred consideration on prior years' acquisitions (Half year 2019: £1.9 million; Full year 2019: £5.9 million).

13. Profit on disposal of businesses
On 31 January 2020, the Group sold its interest in the rheology range of products to Netzsch Group for consideration of £8.8m in cash, generating a profit on disposal of £6.0m. The net assets disposed were £2.0m, and transaction costs were £0.8m. The Condensed Consolidated Statement of Cash Flows includes £8.4m of net proceeds from this disposal, which consists of £8.8m of sales proceeds offset by £0.4m of transaction cost related payments.

On 28 February 2020, the Group sold its interest in the EMS B&K joint venture for total consideration of £17.7m, consisting of £15.8m in cash, £1.0m of deferred consideration and £0.9m in shares in Envirosuite Limited. The net assets disposed were £18.2m and transaction costs were £0.4m, resulting in a loss on disposal of £0.9m. The Condensed Consolidated Statement of Cash Flows includes £13.1m of net proceeds related to the EMS B&K joint venture, consisting of £15.8m in cash proceeds from the sale of the interest offset by £2.6m payment of deferred consideration relating to the 2018 disposal and £0.1m of transaction cost related payments.

The Condensed Consolidated Statement of Cash Flows also includes £0.1m of net payments from the sale of BTG. This consists of £1.0m of tax payments on the disposals and £0.9m of transaction fees, offset by £1.8m of deferred consideration received in cash.

The disposals in the period did not meet the definition of discontinued operations given in IFRS 5 'Non-Current Assets Held for Sale and Discontinued Operations' and, therefore, no disclosures in relation to discontinued operations were made.

Dividend timetable

Event	Date – 2020
Ex-dividend date – additional interim dividend	10 September
Record date – additional interim dividend	11 September
Payment date – additional interim dividend	2 October
DRIP purchase settlement – additional interim dividend	6 October
Ex-dividend date – H1 2020 interim dividend	15 October
Record date – H1 2020 interim dividend	16 October
Payment date – H1 2020 interim dividend	6 November
DRIP purchase settlement – H1 2020 interim dividend	9 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 press release are qualified by the cautionary 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.