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Spirax-Sarco Engineering PLC
09 March 2023

News Release

Thursday 9th March 2023

Strong performance in 2022; anticipate good growth in 2023

Statutory	2022	2021	Reported
Revenue+	£1,610.6m	£1,344.5m	+20%
Operating profit	£318.8m	£320.9m	-1%
Operating profit margin	19.8%	23.9%	-410 bps
Profit before taxation	£308.1m	£314.5m	-2%
Basic earnings per share	305.1p	318.3p	-4%
Dividend per share	152.0p	136.0p	+12%

Adjusted	2022	2021	Reported	Organic*
Revenue+	£1,610.6m	£1,344.5m	+20%	+14%
Adjusted operating profit	£380.2m	£340.3m	+12%	+7%
Adjusted operating profit margin	23.6%	25.3%	-170 bps	-160 bps
Adjusted profit before taxation	£370.6m	£333.9m	+11%	
Adjusted earnings per share	377.2p	338.9p	+11%	
Adjusted cash conversion	57%	82%		

- Revenues up 20% or 14% organically; driven by volume growth and price increases to protect margins
- Statutory operating profit down 1% due to revenue investments, ETS restructure and acquisition costs
- Adjusted operating profit of £380.2 million up 12% or 7% organically
- Adjusted operating profit margin of 23.6%, down 170 bps due to revenue investments
- Steam Specialties organic sales up 12%; Cotopaxi acquisition enhances Digital growth capabilities
- Electric Thermal Solutions organic sales up 14%; strategic acquisitions of Vulcanic and Durex Industries
- Watson-Marlow organic sales up 16%; Biopharm** normalising, Process Industries up strongly
- Net debt^ increased to 1.5x EBITDA* on a pro-forma basis, following ETS acquisitions
- Adjusted cash conversion lower at 57% due to record capital investment and inventory rebuilding
- Total dividend up by 12% to 152.0 pence; maintaining 55-year CAGR track record at 11%

Nicholas Anderson, Group Chief Executive, commenting on the results said:

"The strong performance of our Group in 2022, delivering 14% organic sales growth and 23.6% adjusted operating profit margin in a volatile geopolitical and weakening macroeconomic environment, is testament to the Group's robust strategies and business model, as well as our resilience through economic cycles. All three Businesses outperformed their markets while progressing our sustainability and inclusion agendas. In 2022, we also completed the strategic acquisitions of Vulcanic and Durex Industries that significantly enhance the scale, competitive positioning and growth prospects of the ETS Business.

"We remain confident in our ability to self-generate growth and protect margins, while navigating the uncertainties ahead. In 2023, we anticipate mid-single-digit growth over 2022 Group pro-forma sales, with mid-to-high single digit growth in Steam Specialties and ETS, as well as Watson-Marlow sales slightly below 2022. Watson-Marlow's extraordinary COVID vaccine-related demand should complete its normalisation cycle in 2023, with growth returning in the second half. Therefore, we look forward to delivering another year of overall double-digit sales growth, together with a small progression in the Group's adjusted operating profit margin and improved cash conversion."

+ The term 'sales' is used interchangeably with 'revenue' when describing the financial performance of the business.

* Organic measures are at constant currency and exclude contributions from acquisitions and disposals (with our Russian operating companies treated as disposals from the date at which the Group suspended all trading with and within Russia).

^Net debt includes total borrowings, cash and bank overdrafts but excludes lease liabilities, as set out in Note 8 to the

* Net debt includes total borrowings, cash and bank overdrafts but excludes lease liabilities, as set out in Note 3 to the Financial Statements.

** Biopharm refers to sales made to the Pharmaceutical & Biotechnology sector

See Note 2 to the Financial Statements for an explanation of alternative performance measures.

For further information, please contact:
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Mal Patel, Head of Investor Relations

Audio webcast
The meeting with analysts will be available as a live audio webcast at 9.00 am on the Company's website at www.spiraxsarcoengineering.com or via the following link:
https://edge.media-server.com/mmc/p/8pxn2ptq *and a recording will be made available on the website shortly after the meeting.*

Conference Call
The meeting with analysts will also be available via a full conference call with Q&A facility, at 9.00 am, participants must register in advance using the provided link below:
https://register.vevent.com/register/BIfa826711e66447009d83ecb13b46511e
After completing the conference call registration, you will receive dial-in details on screen and via email.

About Spirax-Sarco Engineering plc
Spirax-Sarco Engineering plc is a thermal energy management and niche pumping specialist. It comprises three world-leading Businesses: Steam Specialties, for the control and management of steam; Electric Thermal Solutions, for advanced electrical process heating and temperature management solutions; and Watson-Marlow, for peristaltic pumping and associated fluid path technologies. The Steam Specialties and Electric Thermal Solutions Businesses provide a broad range of fluid control and process heating products, engineered packages, site services and systems expertise for a diverse range of industrial and institutional customers. Both businesses help their customers improve process efficiencies, meet environmental sustainability targets, improve product quality and enhance the safety of their operations. Watson-Marlow provides solutions for a wide variety of demanding fluid path applications with highly accurate, controllable and virtually maintenance-free pumps and associated technologies.

The Group is headquartered in Cheltenham (UK), has 40 strategically located manufacturing plants around the world and employs more than 10,400 people, including more than 2,100 direct sales and service engineers. The Company's shares have been listed on the London Stock Exchange since 1959 (symbol: SPX) and it is a constituent of the FTSE 100 and the FTSE4Good Indexes.

Further information can be found at www.spiraxsarcoengineering.com

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Chair's Statement

Leading with Purpose
In a volatile year for the world's economies, the effects of the deteriorating macroeconomic situation were felt across our global societies, impacting our Group's stakeholders in many different ways. In these more challenging times, the Board has remained focused on ensuring the decisions we make create value for all our stakeholders and is pleased with the Group's strong and resilient performance.

During 2022, the Board engaged effectively and continued to reflect stakeholder views in our decision making. This was evidenced when making investment decisions such as increasing our manufacturing capacity, improving our sustainability performance, accelerating our Digital Strategy and the introduction of our Group Inclusion Plan. The Board also considered the impact we have on stakeholders when taking more difficult decisions, such as the closure of our loss-making manufacturing facility in Soissons (France) and the Group's withdrawal from Russia.

Our commitment to inclusion, equity and diversity
Our Board is diverse ethnically, culturally and in terms of gender, bringing value to our Group, because of our Board members' rich diversity of perspectives and experiences, enabling them to better understand and

Board members' rich diversity of perspectives and experiences, enabling them to better understand and consider the needs of all our stakeholders.

At the end of December 2022, the Board met the 40% female representation target and with three members of the Board coming from a minority ethnic background, we exceeded the Parker Review target of at least one individual. The Board composition was stable during 2022 and our focus for the year was on Board consolidation and succession planning for senior leadership.

Given the increasing importance placed on sustainability by all stakeholders, the Board supported elevating the representation of this area to the Group Executive Committee (GEC) level, with Sarah Peers, Group Director of Sustainability, becoming a member of the GEC effective 1st October 2022.

The Board was pleased to approve and oversee the implementation of the Group's Inclusion Plan in 2022, noting the impact it is already having across the Group. In 2022, we continued increasing the number of women in senior roles across the Group and improving gender balance in our senior leadership team (GEC plus their direct reports) which reached 34% female representation by October 2022. Although usual attrition and employee changes in the fourth quarter reduced this to 32% at the year-end, we anticipate female representation in our senior leadership will return to 34% by April 2023 and we remain committed to reaching at least 40% female representation across our senior leadership. We are also pleased that our global graduate programme again achieved its goal of 50% female intake for the year.

To further strengthen our focus on inclusion and equity leading to greater diversity in our Group, we approved a set of refreshed Diversity goals at our December meeting. The goals are published in our Annual Report and reaffirm our commitment to having a female Chair, Senior Independent Director, Chief Executive or Chief Financial Officer by the end of 2025, in line with the recommendations of the FTSE Women Leaders Review (formerly Hampton-Alexander).

We are fully supportive of the Group's continued activity to champion these important societal changes. In 2022, Nimesh Patel, Chief Financial Officer, became a Co-Chair of the FTSE Women Leaders Review and Nicholas Anderson, Group Chief Executive, is now an Ambassador for the 25x25 campaign, which is seeking to achieve 25 female CEOs in the FTSE100 by 2025. We became signatories to the UN Women's Empowerment Principles and the UN LGBTI Standards of Conduct for Business, building on previous commitments, including as signatories to the Change the Race Ratio campaign which we began supporting in 2021.

Although not yet required to do so, we have voluntarily reported on all diversity and inclusion data which complies with the Financial Reporting Conduct's new disclosure rules on this topic in respect of Board composition. These disclosures are also published in our Annual Report.

Board highlights
The Board met nine times in 2022. This included two ad hoc meetings to address the acquisitions of Vulcanic and Durex Industries. The Board was actively and directly involved in progressing the Group's **'One Planet: Engineering with Purpose'** Sustainability Strategy. Other highlights in the year included visits to three operating companies in the UK and USA. The Board also reviewed and approved strategy updates for Digital and Health & Safety. Eight colleague engagement focus groups were held and the Board undertook a full organisational and succession review down to the level of GEC-3.

The Board has overseen a year of significant investment to support the Group's sustainable growth over the long term. In addition to delivering a very strong financial performance, we are pleased with the progress made by Executive Management in advancing the Group's strategic agenda across different dimensions, creating significant value for all our **stakeholders** in ways that are meaningful to them.

In addition to three acquisitions designed to create sustainable, long-term value for **shareholders,** the Group also closed its loss-making Chromalox facility in Soissons (France) and fully exited Russia. Investments in additional supply capacity, factory modernisation, IT systems and Digital are helping our Businesses do even better what they already do well. Our collaborative and proactive approach has created mutual benefit across our global **supplier** networks during these more challenging times. The launch of new-to-world decarbonisation solutions, created through a cross-Business collaboration between Steam Specialties and Electric Thermal Solutions (ETS), will support our **customers** to achieve their sustainability goals and protect our **environment.** The Group launched its Inclusion Plan and global commitments to ensure all 10,400 **colleagues** across the globe can thrive by feeling included and supported. The outstanding efforts of our teams working in support of our community engagement framework **'Giving today for a better tomorrow'**, continue making a positive difference to the local **communities** in which they operate**.**

Board changes

On 31st January 2023, we reported that, for personal reasons, Olivia Qiu stepped down as a Non-Executive Director. On behalf of our shareholders the Board acknowledges with gratitude Olivia's significant contribution since her appointment. We have initiated the process to appoint another Non-Executive Director with the skills and experience required to support the implementation of our strategies and our commitments to inclusion and diversity.

Board effectiveness

In 2022, we conducted a Board effectiveness review with our external advisors Egon Zehnder, which enabled us to evaluate progress on the recommendations made in the 2021 review. The conclusions were positive and showed an improvement across all the key dimensions. The review highlighted the need for the Board to allow more time for keeping up with industry trends and competitor activity to better evaluate potential future risks and opportunities.

Dividends

The Directors are proposing the payment of a final dividend of 109.5 pence per share, an increase of 12% (2021: 97.5 pence). Subject to approval of the final dividend by shareholders at the Annual General Meeting on Wednesday 10th May 2023, the total Ordinary dividend for the year will be 152.0 pence per share, an increase of 12% over the 136.0 pence per share for the prior year.

Chief Executive's Review

ENGINEERING OUR DIFFERENCE

A war in Europe, global supply chain disruptions, COVID-19-related economic slowdown in China, rising energy prices and heightened inflationary pressures turned 2022 into a very challenging year, contributing to a significant weakening in global Industrial Production Growth (IP). I am, therefore, extremely proud of the way in which our teams successfully navigated these challenges to deliver strong financial results, as well as advancing the implementation of our strategies to benefit all our stakeholders.

We entered 2022 fully prepared for a softening in IP after the very strong 7.7% expansion of 2021. However, Russia's attack on Ukraine resulted in tragic consequences for the people of that country, with the economic shock reverberating immediately around the globe. The combined impact of further global supply chain disruptions, as well as significantly higher energy costs, raised inflation to levels the world has not seen in 40 years and progressively weakened the global economic outlook throughout the year. For the full year 2022, IP at 2.7% was materially lower than the 4.4% forecasted in February 2022 ahead of our 2021 Full Year Results.

Against this backdrop, all three Businesses outperformed their markets to deliver strong double-digit organic sales growth. This follows our Group's resilient performance during the COVID-19 pandemic in 2020, when we outperformed the IP decline, as well as our subsequent double-digit growth in 2021 when the world began recovering from the effects of the pandemic.

The Group adjusted operating profit margin of 23.6% in 2022, is comparable to the highest margins achieved in our Company's history, excluding the exceptional 25.3% adjusted operating profit margin achieved in 2021.The difference, in line with our guidance last year, is due to the full-year impact of the 2021 revenue investments, in addition to investments made in 2022 to support sustainable, future growth.

In what has been another incredibly busy year, we continued placing the health, safety and wellbeing of our colleagues at the centre of everything we do. This included expanding the role of the Group Health & Safety Director and launching a new Group Safety Framework. Disappointingly, our Lost Time Accident (LTA) rates (per 100,000 work hours) rose slightly to 0.12 in 2022, compared to the all-time low rate of 0.10 in 2021. However, these rates are materially lower than in prior years (0.23 in 2020 and 0.26 in 2019), which suggests the lower 2021 rate may have been a positive anomaly vis-a-vis the Group's general trend.

I'm grateful for the commitment, expertise and efforts of our teams across the world. Our colleagues, supported by our Company Purpose, strong culture and Values, robust business model and strategy, have once again demonstrated the resilience of our Group that remains well positioned to continue growing and adapting to economic cycles. In 2022, this resilience helped us deliver a strong financial performance, while adapting to economic cycles. In 2022, this resilience helped us deliver a strong financial performance, while creating benefits for all stakeholders through our sustainability and inclusion initiatives.

Self-generating growth

Our long track record of helping customers meet their efficiency, safety and sustainability goals, through our direct sales model and solutions focus, became even more critical in 2022 amidst swiftly rising energy prices, as well as the increasing demand from customers seeking to decarbonise their industrial processes in line with net zero commitments.

Our direct sales business model, which always involved 'walking our customers' sites' and now includes 'walking our customers' data', through the evolution of our digital capabilities, is highly effective at uncovering opportunities to improve the efficiency and effectiveness of our customers' processes.

These self-generated solutions are becoming a larger part of our sales mix and remain attractive even during challenging economic times, as they are typically paid for from customers' operating budgets and have a short payback period. Approximately 85% of Group sales continue to be funded from our customers' operational budgets.

The increasing commitments to net zero targets will have a profound effect on industrial activity over the coming decades and is an additional source of growth for our Group over at least the next 30 years. To address the opportunities arising from the decarbonisation of industrial processes, we have invested significantly in the development of sustainable products and solutions that help customers meet their own sustainability goals. In 2022, we launched new-to-world **'TargetZero'** decarbonisation solutions, created through an internal collaboration between Steam Specialties and Electric Thermal Solutions (ETS). You can read more about the benefits of the three '**TargetZero**' solutions, branded 'ElectroFit', 'Steam Battery' and 'SteamVolt', on page 21 of the Operating Review.

The scale of the decarbonisation opportunity is unprecedented, as direct burning of fossil fuels is the most prevalent manner of transferring thermal energy into industrial processes and only 5% of industrial process heating is currently generated by electricity. There are, however, several factors that will influence the adoption rate of decarbonisation solutions. Most notably, the rates of progress towards net zero in different countries, the infrastructure requirements and the capacity to deliver that infrastructure quickly, as well as the relatively higher costs of electricity compared to hydrocarbon fuels. It is still too early in the cycle to predict the precise rate of adoption, which is why we anticipate this opportunity will play out globally for at least the next 30 years.

Delivering value to all our stakeholders

Our strategy seeks to achieve organic revenue growth that consistently outperforms our markets. In the Operating Review section, you can read more about how each of our three Businesses are advancing the implementation of their strategy in line with our six strategic themes.

I am delighted with the progress made on all fronts during 2022, as we worked hard and in challenging circumstances to engineer our difference for all our stakeholders.

Colleagues

We continued to invest in the development and wellbeing of our colleagues to help them feel supported and included. We believe that diverse teams bring diversity of thought and experience, helping us become a better and higher performing business. Combined with an inclusive and equitable working culture, this fuels our continued growth, creating opportunities for everyone.

In February 2022, our Group Inclusion Plan, **'Everyone is Included'** became effective. This gives all colleagues, everywhere, the opportunity to benefit from our ten Group Inclusion Commitments. The impact of '**Everyone is Included'** has been far reaching and made a tangible difference to the lives of many colleagues who tell us they feel more welcomed, included and proud of our Group.

In September 2022, we recognised the impact of the cost-of-living crisis on colleagues worldwide and brought forward our annual pay review from March to January 2023. We set above-market pay increases country-by-country at levels designed to materially mitigate the purchasing power eroded by inflation, which for the UK meant a pay increase of 7.1% for the wider employee base, which excluded senior executive leaders who received a reduced pay increase. Following its success in 2022, we also awarded another paid Wellbeing Day in 2023 to all colleagues globally.

In December 2022, the Board approved a refreshed set of Diversity goals. Our focus on inclusion remains a priority and these Diversity goals will help accelerate our progress in support of sustainable growth.

Customers

To keep delivering for our customers, we strengthened our direct business model by investing in the expansion and training of our direct sales teams, in digital technology solutions and introduced multiple new products, including innovative new-to-world decarbonisation solutions.

To better serve our customers, we expanded our manufacturing capacity and increased our regional supply chain capabilities. Our capital investments in 2022 included a significant proportion of our US$106 million investment in a 14,000m^2 state-of-the-art, sustainable, multi-brand manufacturing facility for Watson-Marlow in Devens, Massachusetts (USA). In 13 months the project went from 'breaking ground' to 'first customer shipment' in December 2022. This facility, which will shorten supply chains and provide enhanced support for customers across the Americas, is scheduled to ramp-up during 2023.

A new facility for Watson-Marlow's BioPure brand was also completed in 2022 to support increased demand from customers in the Biotechnology & Pharmaceutical sector. The £37 million facility located in Portsmouth (UK), shipped its first customer deliveries at the end of the Q1 2022 and has enabled BioPure to double its previous output.

We are planning a US$58 million investment in ETS to materially expand the existing manufacturing facility at Ogden, Utah (USA). The new 9,600m^2 extension will expand the current footprint by almost 60% and is scheduled to complete by the end of 2024.

Around the Group, we also invested significantly in equipment modernisation and process automation to support and expand our manufacturing capacity.

Environment

Since refreshing our sustainability goals in June 2021, including our commitment to achieve net zero emissions in scopes 1 and 2 by 2030, we made good progress in line with our targets. Through our **'One Planet: Engineering with Purpose'** Sustainability Strategy, we continued to build on our responsible business foundations and have successfully embedded across the Group our six sustainability initiatives. These focus on net zero greenhouse gas (GHG) emissions, biodiversity net gain, improved environmental performance of our operations, sustainable products, supply chain sustainability and community engagements, with good progress made in every area.

We are executing on our net zero roadmap for 2030. By the end of 2022, we reduced our GHG emissions by 41%, compared to our 2019 baseline. We also introduced a new electric vehicle leasing portal in the UK, as the first step towards a global transition to electric vehicles across the Group. Other highlights of our sustainability progress include the introduction of self-generation of renewable energy at four of our manufacturing sites and that 57% of our electricity use now comes from renewable sources, largely through green energy contracts. To protect biodiversity, we partnered with the World Land Trust for a second consecutive year to offset by 1x our global operating footprint, as well as our colleagues implementing a further 78 biodiversity projects across our Group operating companies in 2022.

During 2022, we saved our customers 17.7 million tonnes of CO_2, 235 million GJ of energy and 88.4 million m^3 of water through a select range of product categories sold, as well as launching our new-to-world **'TargetZero'** decarbonisation solutions. You can read more about our commitment to sustainability, as well as the progress we are making, in our Annual Report.

Communities

Through our community engagement programme **'Giving today for a better tomorrow'**, our teams have gone above and beyond in our local communities, using their paid volunteering leave to deliver more than 22,000 volunteering hours while our Group-wide charitable giving (cash and in-kind) exceeded £900,000. In addition, we supported 51 community projects nominated by colleagues across the Group, through donations of over £1 million by our new Group Education Fund. The Fund, which aims to provide equitable access to education, is particularly focused on helping women and girls achieve their potential and encouraging pathways to is particularly focused on helping women and girls achieve their potential and encouraging pathways to careers in science and engineering through a variety of grass roots initiatives.

Suppliers
During the year, we relaunched our Supplier Sustainability Code in 17 languages and started to roll out a new Supplier Sustainability Portal to support our collaborative journey towards a more sustainable supply chain. Double-digit inflation in certain raw materials led to challenges for our suppliers too, as some companies struggled to manage the impacts of such sharp price increases. Recognising this, we supported our suppliers through these challenging and uncertain times, de-risking their businesses by flexing our pricing agreements while maintaining our supply of raw materials and components.

Shareholders
We invested close to £540 million in three important acquisitions to accelerate the implementation of our Digital Strategy and expand our ETS Business.

The acquisition of Cotopaxi, a digitally-enabled global energy consulting and optimisation company, is enabling Steam Specialties to digitally enhance its customer bonding through the provision of physical and digital connections to customers' infrastructure and equipment, using Cotopaxi's proprietary STRATA platform. STRATA generates critical insights that are used to better understand industrial customers' management and use of Water, Air, Gas, Energy and Steam (WAGES). We are also installing Cotopaxi's solutions across our Group manufacturing sites to improve our own WAGES efficiency, in line with our sustainability targets.

To support the growth of ETS, Vulcanic and Durex Industries became part of our Group on 29th September and 30th November, respectively. Vulcanic is a European leader in industrial process heating solutions and Durex Industries, based in the USA, is a specialist in custom electric thermal solutions for ultra-critical applications of industrial equipment. Vulcanic and Durex Industries have rebalanced the geographic footprint of ETS between the USA and Europe, adding an additional 11 manufacturing sites.

The acquisitions also support a more effective deployment of the ETS strategy, **'Engineering Premium Solutions'**. The introduction of dual brand strategies, which has proven to be highly successful for the Steam Specialties Business with Spirax Sarco and Gestra, aligns each brand with their chosen strategic market sectors for growth.

As the lead brands within ETS for electric process heating, Chromalox and Vulcanic will support the effective deployment of our industry-leading decarbonisation solutions alongside Steam Specialties. Thermocoax and Durex Industries are the lead brands for ultra-critical heating solutions for industrial equipment, being well positioned to capitalise on the growing demand for increasingly stringent thermal energy requirements in high-technology equipment within market sectors with high barriers to entry.

The acquisitions of Vulcanic and Durex Industries added over 1,100 colleagues. The integration of both companies mirrors the successful integration processes deployed on previous acquisitions and builds upon lessons learnt. Integration began immediately following completion and we are very encouraged by the positive engagement by new colleagues, as well as constructive collaborations already unfolding. These acquisitions have significantly grown ETS which now accounts for 22% of Group revenues on a pro-forma basis. Steam Specialties and Watson-Marlow's share of Group revenues accordingly reduced to 50% and 28% respectively.

More details on Cotopaxi are provided on page 20 of the Operating Review and on pages 22 and 23 we have set out more details about Vulcanic and Durex Industries.

The role of digital technologies for our Group is to enhance our existing business model across the four main adaptive processes of customer targeting, operational effectiveness, innovation and people management. During 2022 we completed the development of our Digital Strategy, as well as its implementation framework. We also recruited an experienced Digital leader who joined in early March 2023 to accelerate the implementation of our Digital Strategy across the Group.

We also invested in new technologies, systems and controls to improve efficiencies, communications and collaboration, as well as strengthen our resilience. This includes ERP, BI and CRM systems, product configurators, a new colleague engagement platform, smart manufacturing capabilities and enhanced internal controls capabilities. We also strengthened cyber defences and operational IT, as well as laying the foundations for the IT integration of Vulcanic and Durex Industries.

All of these initiatives contributed to a stronger, more balanced and more sustainable Group that delivered differentiated financial returns to shareholders in 2022 and is well positioned for the future.

Financial Review

The Group reports under International Financial Reporting Standards (IFRS) and references 'adjusted' and 'organic' alternative performance measures where the Board believes that they help to effectively monitor the performance of the Group and support readers of the Financial Statements in drawing comparisons with past performance. Certain alternative performance measures are also relevant in calculating a meaningful element of Executive Directors' variable remuneration and our debt covenants. Alternative performance measures referenced in the text below are further explained in Note 2 to the Financial Statements. The term 'adjusted' is not defined under IFRS and may therefore not be comparable with similarly titled measures reported by other companies. Alternative performance measures are not considered to be a substitute for, or superior to, IFRS measures.

As a multi-national Group of companies, we trade in a large number of currencies and occasionally acquire or dispose of companies. Therefore, we also refer to 'organic' alternative performance measures, which strip out the effects of the movement of currency exchange rates and of acquisitions and disposals not included in the prior year. The Board believes that these measures allow readers of the Financial Statements to gain a further understanding of how the Group has performed.

Summary of performance in 2022

	2021	Exchange	Organic	Acquisitions & disposals*	2022	Organic	Reported
Revenue	£1,344.5m	£52.5m	£191.6m	£22.0m	£1,610.6m	+14%	+20%
Adjusted operating profit	£340.3m	£13.0m	£23.5m	£3.4m	£380.2m	+7%	+12%
Adjusted operating profit margin	25.3%				23.6%	-160 bps	-170 bps
Statutory operating profit	£320.9m				£318.8m		-1%
Statutory operating margin	23.9%				19.8%		-410 bps

*Results include the impact of (i) the acquisition of Cotopaxi, Durex Industries and Vulcanic and (ii) the treatment of our Russian operating companies as disposals from the date at which the Group suspended all trading with and within Russia.

Sales

Group sales increased by 20% to £1,610.6 million (2021: £1,344.5 million), up 14% organically. Currency movements and acquisitions (net of the disposal of our Russian operations) both had a positive effect on sales of 4% and 2%, respectively.

Organic sales growth was significantly ahead of global IP of 2.7% across all three Businesses as we successfully navigated global supply chain disruptions and a weakening macroeconomic environment to deliver a strong increase in volumes. Our proactive price management practices also allowed us to offset significant inflation in raw material costs, protecting our adjusted operating profit margin.

Steam Specialties sales of £866.0 million (54% of Group revenue) grew 15% in 2022 or 12% organically. This very strong performance, significantly ahead of IP, was delivered despite the challenging macroeconomic environment. Demand growth exceeded sales growth across all Divisions, with a higher proportion of larger orders compared to 2021, as customers' capital expenditure continued to recover from pandemic-driven reductions.

Electric Thermal Solutions (ETS) sales of £256.1 million (16% of Group revenue) grew 41% or 14% on an organic basis, with the difference due to currency movements and acquisitions that had a positive effect of 7% and 18%, respectively. Strong organic growth in both Thermocoax (driven by the Semiconductor and Aerospace & Defence sectors) and Chromalox (led by decarbonisation solutions) was achieved despite continuing disruptions in the global supply chain, although these constraints began to ease in the second half of 2022.

Chromalox's manufacturing facility in Ogden, Utah (USA) remained capacity constrained as it transitions to focus on more complex and bespoke industrial heating solutions, supporting the decarbonisation of buildings

and industrial processes. During the year, we continued investing in further operational improvements as well as increasing capacity in Ogden. These factors, together with strong demand growth, resulted in ETS carrying a record order book into 2023, underpinning sales in the year ahead.
We completed the acquisitions of Vulcanic and Durex Industries towards the end of the year with both companies delivering strong double-digit sales growth in 2022, driven by the same decarbonisation trend and Semiconductor sector growth benefiting Chromalox and Thermocoax. Including the acquisitions of Vulcanic and Durex Industries on a twelve-month pro-forma basis, ETS sales would be £382.9 million.

Watson-Marlow sales of £488.5 million (30% of Group revenue) grew 20% or 16% organically supported by our strong order book. Sales to the Pharmaceutical & Biotechnology sector grew close to 15% organically, while sales to Process Industries sectors grew 19%, significantly ahead of global IP. In the second half of 2022, as expected, COVID-19 vaccine-related demand began to normalise as effects of the pandemic moderated and our customers began to work through their existing stocks, repurposing COVID-19 vaccine production to meet the continued strong underlying demand for cell and gene therapy medications. As a result, Watson-Marlow saw a reduction in overall demand in 2022 and Pharmaceutical & Biotechnology customers also rescheduled some deliveries from our order book into 2023.

During the fourth quarter of 2022, steps were taken to appropriately right-size capacity and overhead support costs in Watson-Marlow, which included factory labour reductions. Further actions are underway in early 2023, ensuring Watson-Marlow is able to both meet customers' needs and protect our adjusted operating profit margin.

Adjusted operating profit
Group adjusted operating profit of £380.2 million (2021: £340.3 million) grew 12%, or 7% organically, the difference being due to 4% favourable currency movements and a net 1% contribution from acquisitions less the impact of the disposal of our Russian operations. Adjusted operating profit in Steam Specialties, ETS and Watson-Marlow grew organically by 8%, 23% and 3% respectively.

Adjusted operating profit margin
Group adjusted operating profit margin in 2022 was 23.6%, down 170 bps from the exceptional 25.3% of 2021. Organically the margin was down 160 bps, driven by the full year impact of revenue investments made during 2021 and the additional revenue investments of 2022 to support future growth, partially offset by the benefits of operational gearing from higher sales. To note, the 2021 Group adjusted operating profit margin of 25.3% would have been approximately 200 bps lower, had we incurred the full-year cost of revenue investments made during that year.

Steam Specialties adjusted operating margin of 23.8% was down 120 bps or 90 bps organically. Our lower margin, compared to the exceptionally high level of 2021, reflects the full year impact of prior year revenue investments, partially offset by the benefits of operational gearing from higher sales. During 2022, we continued investing in support of future revenue growth, with an expansion in sales-related headcount and new product development, as well as digital and sustainability initiatives.
ETS adjusted operating profit margin was 15.6%, up 240 bps or 100 bps on an organic basis, with the difference due to the positive impact from the acquisitions of Vulcanic and Durex Industries, which have a combined margin similar to the overall Group margin. Strong sales growth, supported by increased volumes, resulted in operational gearing benefits with positive effects on organic margin progression.

During 2022, both Chromalox and Thermocoax shipped a high proportion of orders from their existing order book that were booked in 2021 or earlier, when future inflation expectations were lower. These orders did not benefit from price increases in 2022 and their margin was adversely impacted by higher raw material cost inflation, as well as higher freight costs. In 2023, we anticipate margin improvements as we increase the shipment of orders taken in 2022 and 2023.

Thermocoax, which has a higher proportion of sales to OEMs on medium-term contracts and was impacted by one-off costs associated with the ramp-up of our new manufacturing facility in Normandy (France), experienced a contraction in 2022 adjusted operating profit margin. Chromalox adjusted operating profit margin increased in 2022, with overhead reductions from the closure of the Soissons (France) facility having a positive effect in the fourth quarter. The full year impact of this plant closure will contribute to further margin progression in 2023.

Including the acquisitions of Vulcanic and Durex Industries on a twelve-month pro-forma basis, ETS adjusted

Including the acquisitions of Vulcanic and Durex Industries on a twelve-month pro-forma basis, ETS adjusted operating profit margin would have exceeded 18.0%.

Watson-Marlow's 32.8% adjusted operating profit margin was down 390 bps against the exceptional margin of 2021 and 400 bps down on an organic basis. However, Watson-Marlow's adjusted operating profit margin in 2022 was still 100 bps higher than its 2019 pre-pandemic margin. The lower adjusted operating profit margin was driven by the full year impact of 2021 revenue investments, which had an impact of over 200 bps, as well as costs associated with the transition of BioPure to a new facility in Portsmouth (UK) and the ramp-up of our new facility in Devens, Massachusetts (USA), which together had an impact of over 150 bps.

Currency movements

The Group's Income Statement and Statement of Financial Position are exposed to movements in a wide range of different currencies. This stems from our direct sales business model, with a large number of local operating companies. These currency exposures and risks are managed through a rigorously applied Treasury Policy, typically using centrally managed and approved simple forward contracts to mitigate exposures to forecast future cash flows and avoiding the use of complex derivative transactions. The largest exposures are to the euro, US dollar, Chinese renminbi and Korean won. While currency effects can be significant, the structure of the Group provides some mitigation through our regional manufacturing presence, diverse spread of geographic locations and through the natural hedge of having a high proportion of our overhead costs in the local currencies of our operating companies.

Currency movements positively impacted adjusted operating profit by close to 4% with a translational benefit of £12.2 million and an additional transactional benefit of £0.8 million. The translation benefit reflects the impact of the weakening of sterling during 2022 against the currencies in which the Group generated its adjusted operating profit. The main transactional exposure flow affecting the Group is the export of products from our factories in the UK, invoiced in sterling, less the import of goods from overseas Group factories and third parties priced predominately in euros and US dollars. The net exposure to transactional currency movements is approximately £150 million.

Statutory operating profit and margin

Statutory operating profit was down 1% to £318.8 million (2021: £320.9 million) and the statutory operating profit margin of 19.8% was down 410 bps (2021: 23.9%). Statutory operating profit and statutory operating profit margin are impacted by the same drivers as explained in the adjusted operating profit sections above, as well as the reconciling items detailed below:

- A charge of £23.7 million (2021: £21.4 million) for the amortisation of acquisition-related intangible assets
- Accelerated depreciation and other associated one-off costs of £4.2 million relating to the Group Head Office building in Cheltenham (UK), which is being comprehensively re-developed
- A restructuring charge of £15.5 million, primarily relating to Chromalox's manufacturing operation in Soissons (France)
- A loss on disposal of £7.1 million relating to the Group's Russian operating companies, including associated disposal costs
- A charge of £9.1 million for costs related to the acquisitions of Cotopaxi, Vulcanic and Durex Industries
- A charge of £1.8 million from the reversal of fair value adjustments to inventory on the acquisition of Vulcanic

Net financing expense

During the fourth quarter of 2022, the Group raised new euro and US dollar denominated debt, which in aggregate amounted to £509 million. The weighted average interest rate on these new debt facilities is 4.8%. As a result, net bank interest increased to £8.4 million (2021: £4.0 million).

Net costs under IAS 19 in respect of Group defined benefit pension schemes decreased to £0.8 million (2021: £1.3 million) and lease interest charges for the year increased to £1.5 million (2021: £1.1 million).

As a result, adjusted net financing expenses increased to £9.6 million (2021: £6.4 million) and on a statutory basis net financing expenses increased to £10.7 million (2021: £6.4 million), with the difference being the costs of arranging the acquisition debt financing.

Net financing expenses are expected to increase in 2023 as a result of the full-year effect of the acquisition-related debt.

Profit before tax

Adjusted profit before tax was up 11% to £370.6 million (2021: £333.9 million). Statutory profit before tax was down 2% to £308.1 million (2021: £314.5 million). The reconciling items between adjusted profit before tax and statutory profit before tax are shown above and in Note 2 to the Financial Statements.

Taxation

The Group tax rate reflects the blended average of rates in tax jurisdictions around the world in which the Group trades and generates profit. The Group adjusted effective tax rate decreased by 10 bps to 25.0% (2021: 25.1%) and on a statutory basis the Group effective tax rate was 27.0% (2021: 25.3%).

The Group adjusted effective tax rate is lower than our forecast for 2022 by close to 100 bps due to initiatives that delivered both one-off benefits and structural changes, reducing the rate in 2022 and on an ongoing basis. For 2023, we currently anticipate that, based on a forecast mix of profits, including the effect of the Vulcanic and Durex Industries acquisitions, the Group adjusted effective tax rate will be marginally higher than the 2022 rate.

On 8th June 2022, the European Union (EU) General Court published its decision on the appeals for annulment made against the European Commission's (EC) 2019 decision that certain aspects of the UK's Controlled Foreign Company regime constituted State Aid, finding in favour of the EC. The UK Government has appealed the decision of the EU General Court.

Whilst the EU General Court ruling was in favour of the EC, our assessment is that there are grounds for successful appeal. As a result, we have continued to recognise a receivable of £4.9 million in the Consolidated Statement of Financial Position. This relates to the full amount paid to HM Revenue & Customs for Charging Notices received in 2021. The Group has not received a Charging Notice for either the benefit received prior to 2017, which is estimated to be £2.8 million, or the benefit received during 2019 of £1.0 million. No provisions have currently been recognised relating to these amounts and therefore they remain a contingent liability at 31st December 2022. Further details are included in Note 5 to the Financial Statements.

Earnings per share

Adjusted basic earnings per share increased by 11% to 377.2 pence (2021: 338.9 pence), consistent with the increase in adjusted operating profit. Statutory basic earnings per share were 305.1 pence (2021: 318.3 pence). The statutory fully diluted earnings per share were not materially different to the statutory basic earnings per share per share in either year.

Dividends

The Group has a progressive dividend policy under which dividend payments follow underlying earnings per share growth while maintaining prudent levels of dividend cover. The aim is to provide sustainable, affordable dividend growth, building on our 55-year record of dividend progress, with a compound annual increase of 11% over that period and over the last ten years. The Board is proposing a final dividend of 109.5 pence per share for 2022 (2021: 97.5 pence) payable on 19th May 2023 to shareholders on the register at 21st April 2023. Together with the interim dividend of 42.5 pence per share (2021: 38.5 pence), the total Ordinary dividend for the year is 152.0 pence per share, an increase of 12% on the Ordinary dividend of 136.0 pence per share in 2021.

The total amount paid in dividends during the year was £103.6 million, 14% above the £91.0 million paid in 2021.

Capital employed

Capital employed	2022 £m	2021 £m
Property, plant and equipment	384.5	277.4
Right-of-use assets	67.2	62.9
Software & Development costs	44.5	38.9
Inventories	290.0	201.3
Trade receivables	341.1	272.3
Prepayments and other current assets	100.6	61.7
Trade, other payables, current provisions and current tax payable	(335.4)	(255.3)
Capital employed	**892.5**	**659.2**
Acquired intangibles including goodwill	1,159.1	628.0
Investment in Associate	-	-
Post-retirement benefits	(52.1)	(44.7)
Net deferred tax	(59.1)	(35.7)

Non-current provisions and long-term payables	(15.0)	(6.2)
Lease liabilities	(65.2)	(60.1)
Net debt	(690.4)	(130.5)
Net assets	**1,169.8**	**1,010.0**
Adjusted operating profit	380.2	340.3
Adjusted operating profit (excluding acquisitions, disposals and leases)	369.9	339.2
Average capital employed	775.9	621.5
Average capital employed (excluding acquisitions, disposals and leases)	677.5	571.9
Return on capital employed	**49.0%**	**54.7%**
Return on capital employed (excluding acquisitions, disposals and leases)	**54.6%**	**59.3%**

Capital employed increased by £233.3 million to £892.5 million, including £68.6 million from acquisitions. On an organic basis, excluding the impact of currency movements, acquisitions and disposals, capital employed increased by £136.9 million. Tangible fixed assets (PPE and right-of-use-assets) increased by £111.4 million to £451.7 million, principally as a result of acquisitions and expenditure on new manufacturing capacity for Watson-Marlow.

The capital intensity of our business is low with capital expenditure typically amounting to between 4% and 6% of sales. Record capital expenditure of £117.5 million in 2022 was equivalent to 7% of sales, delivering new manufacturing capacity for Watson-Marlow, including the BioPure facility in Portsmouth (UK) and new facility in Devens, Massachusetts (USA), as well as other significant projects to advance our **'One Planet: Engineering with Purpose'** Sustainability Strategy and development of our digital capabilities. Excluding our investment in new construction projects, capital expenditure, as a percentage of sales, would have been at the low end of our typical range.

We are expecting capital expenditure in 2023 to be similar, as a percentage of sales, to 2022 and above the top end of our historical range. In 2023, we will begin the expansion of our ETS manufacturing facility in Ogden, Utah (USA), to meet customer demand for our decarbonisation solutions. We anticipate capital investment in 2024 will remain above historical levels while we complete new construction projects.

Total working capital increased by £91.9 million and the ratio of working capital to sales was 24.6% (2021: 21.3% on a constant currency basis), including the impact of acquisitions. Adjusting for the full year effect of acquisitions and disposals on a twelve-month pro-forma basis, the ratio of working capital to sales was 22.8%. The increase in working capital was driven by a recovery in the level of inventory as global supply chain constraints eased, alongside a net cash outflow across trade receivables and trade payables, largely due to business growth. Going forward, we anticipate maintaining a similar percentage of working capital to sales.

Return on capital employed (ROCE)

ROCE reduced by 570 bps to 49.0% (2021: 54.7%, 2020: 48.9%). Excluding the impacts of acquisitions, disposals and leases, ROCE decreased by 470 bps to 54.6% (2021: 59.3%, 2020: 48.9%), driven by an increase in both capital investment and working capital that more than offset growth in adjusted operating profit. ROCE is defined in Note 2 to the Financial Statements.

Return on invested capital (ROIC)

ROIC decreased by 370 bps to 18.3% (2021: 22.0%, 2020: 17.8%), primarily as a result of the acquisitions of Vulcanic and Durex Industries. Excluding the impacts of acquisitions, disposals and leases, ROIC decreased by 90 bps to 22.0% (2021: 22.9%, 2020: 17.8%). ROIC is defined in Note 2 to the Financial Statements.

Post-retirement benefits

The net post-retirement benefit liability under IAS 19 increased to £52.1 million (2021: £44.7 million). Assets decreased by 39% to £341.6 million (2021: £560.7 million), primarily due to the impact of interest rate increases on fixed income investments. Liabilities decreased by 35% to £393.7 million (2021: £605.4 million), largely due to an increase in AA corporate bond rates used to discount future cash flows.

The main UK schemes, which constitute 83% of assets, were closed to new members in 2001 and closed to future accrual in 2020. These schemes continue to be managed under a de-risking strategy whereby asset and liability values are closely monitored by our asset manager with appropriate asset allocation decisions taken as the funding level improves.

Cash flow and treasury

	2022	2021
Cash flow	**£m**	£m

Adjusted operating profit	380.2	340.3
Depreciation and amortisation	36.0	35.7
Depreciation of leased assets	13.4	11.4
Cash payments to pension schemes more than the charge to adjusted operating profit	(5.3)	(5.6)
Equity settled share plans	8.9	9.2
Working capital changes	(91.9)	(39.5)
Repayments of principal under lease liabilities	(12.9)	(11.7)
Capital expenditure (including software and development)	(117.5)	(64.1)
Capital disposals	4.0	2.0
Adjusted cash from operations	**214.9**	**277.7**
Net interest	(8.8)	(5.1)
Income taxes paid	(90.0)	(78.1)
Free cash flow	**116.1**	**194.5**
Net dividends paid	(103.6)	(91.0)
Purchase of employee benefit trust shares/Proceeds from issue of shares	(19.0)	(24.6)
(Acquisitions)/Disposals of subsidiaries	(538.3)	-
Restructuring costs	(3.2)	-
Cash flow for the year	**(548.0)**	**78.9**
Exchange movements	(11.9)	19.4
Opening net debt	(130.5)	(228.8)
Net debt at 31st December	**(690.4)**	**(130.5)**
Lease liability	(65.2)	(60.1)
Net debt and lease liability at 31st December	(755.6)	(190.6)

A reconciliation between adjusted cash from operations and statutory operating cash flow can be found in Note 2 to the Financial Statements.

As expected, adjusted cash from operations was lower than previous years, decreasing by £62.8 million to £214.9 million (2021: £277.7 million) with 57% cash conversion (2021: 82%), due to planned record capital expenditure of £117.5 million (2021: £64.1 million) and an increase in total working capital of £91.9 million (2021: £39.5 million). Excluding our investment in new construction projects and the rebuilding of inventory, 2022 cash conversion would have been higher than the prior year and in line with the Group's historical performance.
Tax paid in the year increased by £11.9 million to £90.0 million as a result of the increase in profit before tax in 2022. Free cash flow for the year was £116.1 million (2021: £194.5 million).

Dividend payments, including payments to minorities, were £103.6 million (2021: £91.0 million), and reflect the final dividend for 2021, as well as the interim dividend for 2022. Share purchases net of new shares issued for the Group's various employee share schemes resulted in a cash outflow of £19.0 million (2021: £24.6 million). Acquisitions (net of disposals) during the year amounted to £538.3 million (2021: £nil), primarily driven by the purchase consideration for Vulcanic and Durex Industries. Restructuring spend during the year was £3.2 million due to the closure of Chromalox's manufacturing operations in Soissons (France).

Financing and liquidity
Net debt at the end of the year was £690.4 million (2021: £130.5 million), including debt raised to finance the acquisitions of Vulcanic and Durex Industries, with a net debt to EBITDA ratio of 1.7 times (2021: 0.35 times). On a pro-forma basis, including a full-year of EBITDA for companies acquired during the year, the net debt to EBITDA ratio is 1.5 times. At the end of the year total committed and undrawn debt facilities amounted to £285.3 million alongside a net cash balance of £243.8 million. The average tenor of our debt is over four years with the next contractual repayment maturity in September 2023. Since the end of the year the Group has successfully exercised the first of two options to extend the maturity of our £400 million revolving credit facility by an additional year to April 2028.

Capital structure
The Board keeps the capital requirements of the Group under regular review, maintaining a strong financial position to protect the business against risks that could impact trading while providing flexibility to invest for future growth. The Group earns a high return on capital, which is reflected in strong cash generation over time. Our capital allocation policy remains unchanged. Our first priority is to maximise organic investment in the business to drive future growth. Next, we prioritise investing in acquisitions that can expand our addressable market through increasing our geographic reach, deepening our market penetration, or broadening our product range. Acquisition targets are required to exhibit a strong strategic fit whilst meeting strict commercial, economic and return on investment criteria. When cash resources significantly exceed expected future requirements, we would look to return capital to shareholders, as evidenced by special dividends declared in respect of 2010, 2012 and 2014. In the near term, we will look to reduce our financial leverage, which increased during the year as a result of the acquisitions of Vulcanic and Durex Industries.

leverage, which increased during the year as a result of the acquisitions of Vulcanic and Durex Industries, prior to considering one-off returns of capital to shareholders.

Group Outlook

Forecasts for 2023 IP have trended steadily downwards since February 2022 and are now at 0.7%, reflecting the likelihood of recession in developed markets and low growth in emerging markets. Against this uncertain macroeconomic backdrop, our resilient business model, ability to self-generate sales and significant proportion of demand from maintenance and repairs, underpins our confidence in another year of progress for the Group.

If exchange rates at the end of February were to prevail for the remainder of the year, there would be a tailwind impact of between approximately 1% and 2% on sales and adjusted operating profit. Movements in exchange rates are often volatile and unpredictable so the actual impact could be significantly different. Therefore, our guidance excludes any impact from currency movements.

The full year effect of the acquisitions of Vulcanic and Durex Industries on a twelve-month pro-forma basis, net of the disposal of our Russian operations, would have expanded Group revenues by almost 8% to £1,734 million in 2022.

During the second half of 2022, COVID-19 related demand from Watson-Marlow's Pharmaceutical & Biotechnology customers began to normalise and, in the first two months of 2023, we have continued to see a level of demand consistent with the fourth quarter of 2022, which still ended with untypically strong order book levels. In the first half of 2023, we expect these customers to continue utilising their existing stocks and reschedule deliveries from our order book. However, with strong underlying demand for cell and gene therapy applications in the Pharmaceutical & Biotechnology sector, as well as Process Industry applications, we anticipate significantly higher demand in the second half of 2023 as excess customer stocks are depleted, although defining the precise timing and scale of any recovery remains difficult. Therefore, excluding any impact from currency movements for the full-year 2023, we anticipate Watson-Marlow's overall sales for 2023, to be slightly below 2022, as lower sales to the Pharmaceutical & Biotechnology sector will be largely offset by strong growth of its Process Industry sectors.

The Steam Specialties and ETS Businesses also opened 2023 supported by record order books, so we anticipate mid-to-high single-digit growth over 2022 pro-forma sales, driven by volume growth above IP and proactive price management practices that offset inflation of wages, energy and materials to protect margins.

Assuming no material deterioration in forecasted IP and excluding any impacts from currency movements, we anticipate mid-single-digit growth over 2022 Group pro-forma sales, together with a small progression to the Group's adjusted operating profit margin. As Watson-Marlow's sales will be strongly weighted to the second half of the year, we anticipate the Group's sales phasing in 2023 will also be more weighted to the second half than the typical 48%: 52% phasing of previous years. Based on increased operational gearing in the second half, as well as the full benefit in the second half of first half cost saving initiatives in Watson-Marlow to right-size capacity and overhead support costs, we anticipate the Group's adjusted operating profit phasing in 2023 will be more weighted to the second half than the 44%: 56% phasing of 2020.

Cash conversion of 57% in 2022 was impacted by a rebuilding of inventory as global supply chain disruptions eased, as well as a step-up in capital investment as we expanded our manufacturing capacity to support future growth. In 2023, we anticipate cash conversion will improve to above 70% with capital investment remaining at approximately 7% of sales driven by project completions and the expansion of Chromalox's manufacturing facility in Ogden, Utah (USA).

Therefore, we look forward to delivering another year of overall double-digit sales growth, together with a small progression in the Group's adjusted operating profit margin and improved cash conversion.

Operating Review

Market environment

Global industrial production growth[1] (IP) was 2.7% in 2022, compared to 7.7% in 2021. All regions recorded positive IP, although growth was below the level achieved in 2021 when the global economy bounced back strongly from the COVID-19 pandemic-related impacts of 2020.

	IP Performance 2022	IP Performance 2021
Europe, Middle East & Africa	+2.5%	+6.8%
of which, Europe	*+1.7%*	*+8.3%*
North America	+3.9%	+4.9%
Latin America	+1.3%	+6.2%
Asia Pacific	+3.1%	+8.3%
of which, China	*+3.8%*	*+8.7%*

[1] Source for industrial production data: Oxford Economics, 23rd February 2023

IP was strongest in the first half of 2022 at 2.8%, despite a demanding comparator in 2021. IP slowed in the second half although at 2.6% industrial production remained higher than the second half of 2021. In the final quarter of 2022, sequential IP growth over the third quarter moved into negative territory, contracting 0.5%. For the full year 2022, IP of 2.7% was materially lower than the forecasted 4.4% at the time of our 2021 Full Year results in March 2022. Russia's invasion of Ukraine on 24th February 2022 and the consequential impact on global supply chains and energy prices, as well as other inflationary pressures, dampened the global economic outlook that weakened progressively throughout 2022.

In Asia Pacific, IP was 3.1%, significantly lower when compared to the strong 8.3% expansion in 2021, reflecting the reintroduction of lockdowns in China, particularly in Shanghai. In the Americas, IP was 3.9% in North America but only 1.3% in Latin America, with Brazil registering a minor IP contraction over 2021. In EMEA, IP contracted 3.6% in the UK with Germany, France and Italy broadly flat.

In March 2022, we suspended all Group trading with or within Russia and commenced the process of exiting our Spirax Sarco and Watson-Marlow operations in Russia. This process concluded in July, with the disposal of our Russian operating companies. The impact on our 2022 results was small as Russia accounted for close to 1% of Group revenues in 2021.

In our largest sectors, Pharmaceutical & Biotechnology and Food & Beverage, which accounted for 41% of Group pro-forma sales in 2022, IP was 0.9% and 1.8% respectively. In the OEM sector (12% of Group pro-forma sales in 2022) IP was 5.8% and in the Oil & Gas sector that accounted for 5% of 2022 Group pro-forma sales, IP was 1.7%.

During the last year, forecasts[1] for 2023 IP have trended downwards, from 4.0% in February 2022 to 0.7% in February 2023, reflecting ongoing geopolitical tensions, rising interest rates to combat high levels of inflation and the potential for recession in some countries.

Steam Specialties

	2021	Exchange	Organic	Acquisitions & disposals*	2022	Organic	Reported
Revenue	£754.9m	£19.1m	£95.6m	(£3.6m)	£866.0m	+12%	+15%
Adjusted operating profit	£188.7m	£3.5m	£15.7m	(£1.8m)	£206.1m	+8%	+9%
Adjusted operating profit margin	25.0%				23.8%	-90 bps	-120 bps
Statutory operating profit	£186.8m				£196.2m		+5%
Statutory operating margin	24.7%				22.7%		-200 bps

*Includes the impact of (i) the acquisition of Cotopaxi and (ii) the treatment of Spirax Sarco Russia as a disposal from the date at which the Group suspended all trading with and within Russia.

Progress in 2022

Steam Specialties comprises our two world-leading product brands of Spirax Sarco and Gestra and operates across three geographic Divisions: Europe, Middle East and Africa (EMEA), Asia Pacific and the Americas. The OEM sector represented 19% of Steam Specialties total sales, while Food & Beverage and Healthcare accounted for 29% and 3% respectively.

Steam Specialties sales of £866.0 million grew 15% in 2022 or 12% organically. This very strong performance combined strong volume growth ahead of IP, despite the challenging macroeconomic environment, with proactive price management practices that offset significant raw material, energy and wage cost inflation to protect margins. The strong volume growth delivered benefits from operational gearing, supporting revenue investments to drive future organic sales growth.

Demand growth exceeded sales growth across all Divisions, expanding order books, with a higher proportion of larger orders compared to 2021, as customers' capital expenditure continued to recover from pandemic-driven reductions.

EMEA generated 11% organic sales growth. In the UK, Germany, France and Italy, the four largest markets in EMEA which collectively represent over 60% of regional sales, IP progressively weakened during the year and turned negative in the final quarter. There was a strong recovery in demand from the marine sector in Italy, as the outlook for worldwide travel improved due to the relaxation of COVID-19 restrictions that enabled cruise ships to start operating again.

Asia Pacific achieved 10% organic sales growth despite lower IP and the challenges in China caused by COVID-19 related lockdowns, particularly in Shanghai. The region benefited from a recovery in large orders funded from customers' capital budgets, which account for a higher proportion of sales than in the rest of the world. China, our largest market in the region representing over 50% of sales, achieved 8% organic sales growth compared to 3.8% IP. In Korea, our second largest market in Asia Pacific, organic sales increased by 11%, significantly above IP of 1.6%.

In the Americas, sales grew 20% organically against a mixed backdrop for IP. In the USA, the largest market in the region, representing around 50% of the Americas, sales were up 11% compared to IP of 3.9%. This outperformance against IP reflects good progress in implementing our strategy to drive higher growth from direct sales, compared to growth through distributors, as well as our focus on the Healthcare and Chemical sectors which grew strongly.

In Latin America, which accounts for over 40% of the Americas' sales, there was strong volume growth in the largest markets of Argentina and Brazil, driven mainly by the Food & Beverage sector, Chemicals and Oil & Gas sectors, as well as good price management practices to offset higher inflationary pressures and protect margin.

Steam Specialties adjusted operating profit grew 9% to £206.1 million, up 8% organically. The adjusted operating profit margin was 23.8%, down 120 bps or 90 bps organically. Statutory operating profit of £196.2 million was up 5% from £186.8 million in 2021.

Our lower adjusted operating profit margin, compared to the exceptionally high level of 2021, reflects the full year impact of prior year revenue investments, partially offset by the benefits of operational gearing from higher sales. Had we incurred the full-year cost of these revenue investments in 2021, Steam Specialties 25.0% adjusted operating profit margin would be reduced by close to 200 bps. During 2022, we continued investing further to support future revenue growth, with an expansion of sales-related headcount and new product development, as well as digital and sustainability initiatives.

Gestra's adjusted operating profit margins increased for the full year and exceeded the 20% threshold achieved in 2021, the highest since we acquired the company in 2017.

Business strategy update

In 2021, Steam Specialties launched its refreshed business strategy, **Customer first^2** (**Cf^2**) and 2022 represented the first full year of its implementation. The refreshed strategy builds on the original Customer first strategy that has been in place since 2014 and focuses on mega trends such as customer insight, sustainability, innovation, digital and inclusivity.

Increase direct sales effectiveness through market sector focus

Following the acquisition of Gestra in 2017, Steam Specialties adopted a sector-driven dual brand strategy. Aligning market sectors that offer the best opportunities with the brand that is traditionally strongest in that sector, ensures that we are well-placed to grow sales at above IP rates. For example, Gestra delivered 40% sales growth in the Chemicals sector as a result of its strong presence, while Spirax Sarco generated growth of 7% in the Healthcare sector, as hospitals sought to catch-up on deferred maintenance expenditure.

In January 2022, Steam Specialties completed the acquisition of Cotopaxi, a digitally enabled global energy consulting and optimisation specialist, to further accelerate the implementation of our Digital Strategy. Cotopaxi's proprietary software platform, STRATA, generates critical insights that are used to better understand industrial customers' management and use of Water, Air, Gas, Energy and Steam (WAGES). Cotopaxi's digital solutions experience in steam installations has enhanced our ability to connect to customers' systems and analyse their data, generating further opportunities and solutions that support system uptime, reduce waste and increase efficiency.

We continued to implement Customer Value Propositions (CVPs) to support our customers' changing requirements and needs. During 2022, our teams tailored a CVP to support lithium mining projects in Argentina for the automotive battery sector.

Develop the knowledge and skills of our expert sales and service teams
We continued to invest in our direct sales force and self-generated sales capability through our Sales Excellence training that is delivered by our Steam Academy. Following the acquisition of Cotopaxi, training now includes modules on our digital capabilities and the value that can be generated for our customers.

Broaden our global presence
Steam Specialties has direct sales capabilities in 66 countries and we continue establishing a stronger sales presence in parts of the world that have previously been under-represented. In 2022, this included parts of Africa and the Middle East with a substantial step-up in the recruitment of direct sales engineers across those regions.

Leverage our research and development (R&D) investments
We continued to invest in new product development across Steam Specialties and released multiple new products during 2022, to support the efficient use and control of steam, including the **'TargetZero'** decarbonisation solutions (for more information see below). Due to our relentless focus on innovation, in 2022 Steam Specialties exceeded their long-held Product Vitality (PV) target which compares the revenue from new products, services or solutions introduced in the previous five years to total revenue.

Optimise supply chain effectiveness
In 2021, we created a Global Supply Chain organisation responsible for all Steam Specialties manufacturing sites around the world, to further improve the efficiency of our operations. This global organisation enables the adoption of consistent supply chain methodologies and accelerates the sharing of best practices across the 11 Steam Specialties manufacturing sites, while accelerating investments in plant modernisation. In common with most businesses, Steam Specialties experienced considerable disruption to its supply chain over the past two years with an adverse impact on customer service levels. During 2022, we successfully mitigated materials shortages by expanding our supplier base while also increasing our sales volume.

Operate sustainably and help improve our customers' sustainability
We work closely with our customers to understand their sustainability goals and provide solutions to optimise their energy and water usage, as well as decarbonise steam generation. The Group developed a suite of innovative **'TargetZero'** decarbonisation solutions through the Thermal Synergy Solutions project, a collaboration between Steam Specialties and ETS designed to decarbonise customers' industrial processes, including the raising of steam. 'ElectroFit', replaces industrial boilers' fossil fuel-fired heating elements with an in-situ conversion to electric heating elements, eliminating the boiler's scope 1 greenhouse gas (GHG) emissions while minimising plant disruptions and retaining the existing boiler infrastructure. 'Steam Battery' is an energy storage system using steam, which retains the thermal energy until required and decouples the electric energy generation from the thermal energy use. 'SteamVolt' uses the patented Chromalox Medium Voltage (MV) technology to provide electric heating solutions at industrial scale to decarbonise the raising of steam, as well as other industrial processes. These solutions were successfully tested on customer sites and we started accepting orders in the second half of 2022.

Alongside our drive to help customers meet their sustainability goals, we are also taking steps to meet the Group's ambitious target of achieving net zero scope 1 and scope 2 GHG emissions by 2030. In 2022 Steam Specialties initiated a £5.9 million investment programme to decarbonise our UK manufacturing facility in Cheltenham (UK), through the installation of all three **'TargetZero'** solutions for the electrification of our on-site gas-fired boilers. Upon completion by the end of 2023, this project will eliminate the site's scope 1 emissions and our purchased electricity requirements (scope 2 emissions) will be satisfied by green energy contracts.

During the first half of 2023 we will also implement Cotopaxi's STRATA platform across the 11 Steam Specialties manufacturing locations, enabling us to monitor our efficiency and sustainability performance in real time, using the insights to make changes that eliminate waste and reduce consumption.

During the year, our colleagues were involved with more than 50 biodiversity projects across the Business. With projects including, the installation of beehives in Italy, a roof garden in China, a wildlife pond in the UK, as well as mangrove protection and tree planting in Indonesia and Argentina.

Focus for 2023

We anticipate a more challenging macroeconomic environment in 2023 for both our customers and ourselves. We will continue to support our customers with solutions that improve the safety and efficiency of their industrial processes, thereby reducing their operating costs. With our **'TargetZero'** solutions, we will also support their journeys towards zero GHG emissions while completing the decarbonisation of our UK manufacturing facility.

In key regions such as the USA, Middle East and Africa, we are focused on expanding our direct sales presence and our direct engagement with customers. We will also leverage our investments in digital capabilities, supported by Cotopaxi, to further enhance our understanding of customers' operations and how to best support them.

Steam Specialties Outlook

IP forecasts for 2023 have trended steadily downwards since February 2022 and are now at 0.7%, reflecting the likelihood of industrial recessions in developed markets and lower growth in emerging markets. Against this weak macroeconomic backdrop, our resilient business model, ability to self-generate sales, significant proportion of maintenance and repair sales and strong order books underpin our confidence in the growth outlook for Steam Specialties. Excluding any impact from currency movements, we currently anticipate mid-to-high single-digit growth, over 2022 pro-forma sales, driven by volume growth above IP and proactive price management practices that offset inflation of wages, energy and materials to protect margins.

We also anticipate a more typical drop-through from the increased sales to adjusted operating profit of close to 35%, leading to further improvement in our adjusted operating profit margin.

Electric Thermal Solutions

	2021	Exchange	Organic	Acquisitions & disposals*	2022	Organic	Reported
Revenue	£181.3m	£13.2m	£27.4m	£34.2m	£256.1m	+14%	+41%
Adjusted operating profit	£24.0m	£1.9m	£5.9m	£8.1m	£39.9m	+23%	+66%
Adjusted operating profit margin	13.2%				15.6%	+100 bps	+240 bps
Statutory operating profit	£11.1m				£7.3m		-34%
Statutory operating margin	6.1%				2.9%		-320 bps

*Includes the impact of the acquisition of Durex Industries and Vulcanic.

Acquisitions

During the last four months of 2022, the Group's Electric Thermal Solutions Business (ETS) completed the acquisitions of Vulcanic and Durex Industries, strengthening coverage of attractive end-market sectors and geographies to broaden the platform for strong organic growth of the Business.

Vulcanic

On 29th September, we completed the acquisition of Vulcanic, a European leader of industrial heating solutions that is headquartered in Paris (France) with ten manufacturing facilities worldwide. Chromalox generates close to three-quarters of its sales in the Americas, whereas Vulcanic generates around 80% of its sales in EMEA. Vulcanic complements Chromalox through its strong position in the Food & Beverage and OEM sectors, while serving different markets than Chromalox within the Oil & Gas and Chemicals sectors. Vulcanic comprises several product brands that are each individually strong in their respective sectors. We have appointed an experienced leader for Vulcanic from within our Group and the integration is progressing well.

We are implementing a dual brand strategy for Chromalox and Vulcanic, modelling the highly successful approach in Steam Specialties that aligns the Spirax Sarco and Gestra brands with specific strategic growth sectors. As the lead brands within ETS for electric process heating, including the decarbonisation of industrial processes, Chromalox and Vulcanic will support the effective deployment of our industry leading decarbonisation solutions alongside Steam Specialties.

Durex Industries

Durex Industries

On 30th November, we completed the acquisition of Durex Industries, a US-based specialist in custom precision thermal solutions with embedded electric heating, cooling and sensing technologies for ultra-critical applications within complex industrial equipment, with headquarters and manufacturing facilities in Cary, Illinois (USA). OEMs accounted for almost 90% of sales with approximately 60% of sales to the Semiconductor sector.

Durex Industries is a highly complementary brand to Thermocoax, with minimal customer overlap and over 80% of its sales in North America, whereas over 60% of Thermocoax's sales are in EMEA. As the lead brands within ETS for ultra-critical thermal solutions for industrial equipment, Thermocoax and Durex Industries are well positioned to capitalise on the growing demand for increasingly stringent thermal heating requirements in high technology equipment and will accelerate the development of ETS' critical OEM business.

We have retained the existing strong management of Durex Industries and they are working collaboratively across ETS to identify opportunities that accelerate the growth of each brand.

Market overview

Following the acquisitions of Vulcanic and Durex Industries, the Americas and EMEA will represent 56% and 32% of sales respectively on a pro-forma basis.

ETS has a different balance of end markets when compared to the rest of the Group with 18% of sales to the Semiconductor sector and 12% to the Power Generation sector on a pro-forma basis.

Our customers' focus on the decarbonisation of their critical industrial processes, in line with their own sustainability and net zero goals, continues to drive strong demand for both Chromalox and Vulcanic products and solutions. The rate of adoption over time of our decarbonisation solutions remains difficult to predict due to varying rates of progress towards net zero in different countries, capacity to deliver the necessary infrastructure quickly, as well as the relatively higher cost of electricity compared to gas. Therefore, we anticipate this market opportunity will unfold globally over at least the next 30 years.

During 2022, Semiconductor demand grew strongly with the proportion of ETS sales to the sector increasing. We anticipate demand will be lower in 2023 due to consumer spending on electronics being impacted by a weaker macroeconomic environment, as well as a slowdown in the expansion of Semiconductor manufacturing capacity. Through Thermocoax and Durex Industries, ETS supplies complex solutions for precise thermal control, incorporated by OEMs into Wafer Fabrication Equipment (WFE) for more advanced Semiconductor products utilised in higher-end applications. We expect that these niche positions will partially mitigate the impact of an overall reduction in Semiconductor demand. Additionally, there is an opportunity for our solutions to replace incumbent suppliers in the WFE aftermarket, further mitigating cyclicality in the new-build market.

Progress in 2022

ETS sales grew 41% to £256.1 million or 14% on an organic basis, with the difference due to acquisitions and currency tailwinds.

During 2022, ETS benefitted from strong overall demand growth, significantly ahead of IP and above the growth in sales. Growth in Thermocoax was driven by the Semiconductor sector, with increasing end user demand for sophisticated digital equipment and from the Aerospace & Defence sector, due to demand for sensing and heating technologies in satellites supporting mobile telecommunications networks. Chromalox experienced increasing demand for decarbonisation solutions.

Vulcanic and Durex Industries delivered strong double-digit growth in sales driven by the same decarbonisation trend and Semiconductor sector growth benefiting Chromalox and Thermocoax. Including the acquisitions of Vulcanic and Durex Industries on a twelve-month pro-forma basis, ETS sales would be £382.9 million in 2022.

Manufacturing continued being impacted by disruptions in the global supply chain, although these constraints are beginning to ease. Shipments from our manufacturing facility in Ogden, Utah (USA) remained capacity constrained during 2022 as it transitions to focus primarily on bespoke industrial heating solutions, increasingly utilising our patented Medium Voltage (MV) technology for the decarbonisation of buildings and industrial processes. Throughout the year we continued investing to increase capacity in Ogden, as well as making further operational improvements to support manufacturing of more complex and bespoke solutions. The capacity constraints were compounded by strong demand growth and resulted in ETS carrying a record order book into 2023, underpinning strong sales growth in the year ahead.

Sales from Chromalox EMEA contracted year-on-year following the announcement, in May 2022, of our plans to close the loss-making manufacturing plant in Soissons (France). This facility was successfully decommissioned in September, three months ahead of schedule, with minimal disruptions. The costs associated with the closure (£14.5 million) are included as an adjusting item in the Consolidated Income Statement as disclosed in Note 2 to the Financial Statements. The acquisition of Vulcanic restores the capability to manufacture in Europe some of the products previously sourced from the Soissons facility.

ETS adjusted operating profit grew 66% to £39.9 million and was up 23% on an organic basis, the difference being due to acquisitions and currency movements. Statutory operating profit of £7.3 million was down 34% from £11.1 million in 2021, driven by the restructuring of Chromalox's manufacturing operation in Soissons (France).

ETS adjusted operating profit margin of 15.6% was up 240 bps and 100 bps organically, with the difference due to the fourth quarter contributions from the Vulcanic and Durex Industries acquisitions that had a combined operating margin similar to the overall Group margin.

During 2022, both Chromalox and Thermocoax shipped a high proportion of orders from their existing order book that were booked in 2021 or earlier.These orders did not benefit from the 2022 price increases so the margins achieved were adversely impacted by high materials cost inflation and higher freight costs. Nickel-based alloys, electrical components, petrochemical and resin products, all experienced double-digit cost inflation.

Price increases were applied to new orders taken in 2022 to protect operating margins from this higher cost inflation, with further price increases being applied to new orders received in 2023. Although we still have some orders to be delivered that were taken in 2021, we anticipate some margin progression in 2023 as we increase the shipment of orders taken in 2022 and 2023.

Thermocoax experienced an adjusted operating profit margin decline in 2022, due to our higher proportion of sales on medium-term contracts and an adverse impact of one-off costs associated with the ramp-up of our new manufacturing facility in Normandy (France). Chromalox adjusted operating profit margin increased strongly in 2022, driven by operational gearing from sales volume growth above IP and improved price management practices to offset cost inflation on new orders that was partially offset by the lower margins of some older orders shipped in 2022, as well as a small benefit of overhead reductions in the fourth quarter from the closure of the Soissons (France) facility.

Including the acquisitions of Vulcanic and Durex Industries on a twelve-month pro-forma basis, ETS adjusted operating margin would be above 18.0%.

Business strategy update
ETS implemented a strategy refresh during 2020, resulting in the launch of their 'Engineering Premium Solutions' (EPS) strategy. An important component of this strategy is the drive towards 'Total Customer Solutions' moving from being mostly product centric to becoming more focused on selling solutions to higher-growth sectors in which we are well positioned. We also continued strengthening our business development function and increasing our focus on new product innovation, with demonstrable technological advantages and quantified sustainability benefits. We made good progress in advancing our strategic agenda in line with the Group's six strategic themes:

Increase direct sales effectiveness through market sector focus
Since reshaping our strategy to prioritise focus on strategic sectors that represent over 50% of our addressable market, we have realised higher growth in these targeted sectors and increased our proportion of direct sales.

We have also continued identifying opportunities for ETS to leverage its position as part of our Group by adopting best practice from other parts of the organisation. In 2022, this led to the launch of a revised 'go to market' strategy in EMEA and Asia Pacific, following its successful roll out in the Americas, which optimises the number of accounts assigned to individual direct sales engineers.

the number of accounts assigned to individual direct sales engineers.

Develop the knowledge and skills of our expert sales and service teams
We have continued to invest in our self-generated sales capability by developing the skills and knowledge of our direct sales engineers through the ETS Academy. Building on the success of the Steam Specialties' Academy, the ETS Academy was completed in the third quarter of 2022 and utilises virtual and visual assets to provide a rich and immersive experience for our direct sales teams and end-user customers. Additionally, our sales teams have been undertaking Sales Excellence training to develop or refresh skillsets in consultative value-based selling.

Chromalox has launched several Customer Value Propositions (CVPs) focused on its decarbonisation and net zero solutions during the year, which required specific training, marketing materials and decarbonisation calculators for the Engineered Chemicals, Sustainable Energy and Oil & Gas sectors.

Broaden our global presence
The acquisitions of Vulcanic and Durex Industries provide an improved geographical balance of the ETS Business globally and will support organic growth by leveraging customer bases, products and technologies. Over the coming years we will implement our integration plans that also accelerate the adoption of our market sector driven dual brand strategy on a global scale.

Leverage our research and development (R&D) investments
ETS is evolving its electrification solutions for decarbonisation and sustainability, which remain important growth drivers as we build a significant pipeline of opportunities.

By combining our core capabilities with Steam Specialties, we have been able to develop synergies within our thermal energy management portfolio that enabled the 'Thermal Solutions Synergy' team to design new industry-leading products that deliver significant sustainability benefits for customers. The new-to-world **'TargetZero'** solutions are covered in more detail in the Steam Specialties update on page 21. ETS has also been collaborating with Watson-Marlow to release a new product for its Aflex Hose product brand in 2023.

In addition to the '**TargetZero**' decarbonisation solutions developed with Steam Specialties, ETS developed and launched multiple new products to market in 2022 from both the Chromalox and Thermocoax Divisions. The new Chromalox products include a portable air heater designed for safely heating server rooms and a safe water heater, certified to heat potable water. In addition to range extensions, Thermocoax also launched two new-to-world products to support the fabrication of 3nm semiconductor chips, as well as radiation-hardened heating cables for aerospace applications.

Optimise supply chain effectiveness
During 2022, we continued investing in further operational improvements, as well as increasing manufacturing capacity in Ogden, Utah (USA). In order to ensure sufficient capacity to satisfy the anticipated long-term demand for Chromalox's Medium Voltage technologies that also support decarbonisation, we are planning a US$58 million investment to materially expand the Ogden facility. The new 9,600m2 extension will expand the current footprint by almost 60% by the end of 2024 and includes geothermal heating, as well as solar panels for on-site renewable energy supply.

In Normandy (France), Thermocoax's four separate sites came together in a new purpose-built, state-of-the-art manufacturing facility. Production ramped-up during the first half of 2022 as the teams adjusted to working in a single facility and secured all the process qualifications needed for the critical industrial applications that support the Semiconductor, Aerospace and Defence sectors. The plant is fully aligned to our **'One Planet: Engineering with Purpose'** Sustainability Strategy, with the implementation of solar panels to self-generate electricity, as well as waste reduction and on-site biodiversity projects.

Operate sustainably and help improve our customers' sustainability
During the year ETS continued to implement our **'One Planet: Engineering with Purpose'** Sustainability Strategy, which included the installation of 1.2 GWh of renewable energy supply at three of our sites in Nuevo Laredo (Mexico), Heidelberg (Germany) and Normandy (France). We completed net zero roadmaps at all manufacturing sites and rolled out environmental compliance calendars to ensure business continuity at key locations including Ogden and LaVergne, Tennessee (USA).

Focus for 2023

During 2023, we will focus on implementing the integration plans for Vulcanic and Durex Industries, as well as accelerating growth opportunities through collaboration with Chromalox and Thermocoax. We will align the 'go to market' dual brand strategy for Chromalox and Vulcanic in Europe during the first half of the year.

Product developments will focus on the next generation of Medium Voltage (MV) technology and Heat Trace systems, supporting decarbonisation and temperature management of commercial infrastructure. ETS is engaged with multiple partners, including universities, cities and agencies, working to decarbonise their district heating systems. We will also focus on leveraging Vulcanic's presence in Europe to increase the penetration of our Heat Trace systems, which is currently lower than in North America.

Operationally, our focus will be on increasing manufacturing output from our site at Ogden, as well as implementing our plant modernisation and sustainability initiatives. We will also progress the expansion of our Ogden facility.

ETS outlook

The full year effect of the Vulcanic and Durex Industries acquisitions, on a twelve-month pro-forma basis, would result in ETS sales in 2022 of £382.9 million with an adjusted operating profit margin above 18.0%.

We opened 2023 with record order books, which underpins our confidence of achieving another year of good sales volume growth above IP, particularly as we continue to expand our manufacturing capacity to increase shipments. Strong customer demand for decarbonisation solutions will remain a driver of ETS sales growth, although Semiconductor demand that grew strongly in 2022 and accounted for 18% of ETS sales on a pro-forma basis, is likely to be lower in 2023. As Vulcanic and Durex Industries were acquired in late 2022, these Divisions of ETS have not yet managed to fully embed our Group's proactive price management practices so their sales growth rates in 2023 will benefit less from pricing. Consequently, excluding any impact from currency movements in 2023, we anticipate mid-to-high single-digit growth, over 2022 ETS pro-forma sales, albeit slightly lower growth than at Steam Specialties.

Operational gearing from increased sales, continued proactive price management practices that offset cost inflation, a higher proportion of order book shipments that benefit from improved pricing and the full year benefit of lower overheads resulting from the closure of the Soissons facility in France, are expected to drive further adjusted operating profit margin improvements for the Chromalox and Thermocoax Divisions of ETS. We anticipate the adjusted operating profit margin of the Vulcanic and Durex Industries Divisions will decline in 2023, compared to their full year pro-forma margins achieved in 2022, as they derive less benefits from the 2023 price increases and we step up the revenue investments planned for their integration. Consequently, we anticipate ETS adjusted operating profit margin in 2023 will be slightly below 18.0%.

Watson-Marlow

	2021	Exchange	Organic	Acquisitions & disposals*	2022	Organic	Reported
Revenue	£408.3m	£20.2m	£68.6m	(£8.6m)	£488.5m	+16%	+20%
Adjusted operating profit	£150.0m	£7.6m	£5.3m	(£2.9m)	£160.0m	+3%	+7%
Adjusted operating profit margin	36.7%				32.8%	-400 bps	-390 bps
Statutory operating profit	£145.4m				£154.4m		+6%
Statutory operating margin	35.6%				31.6%		-400 bps

*Includes the impact of the treatment of Watson-Marlow Russia as a disposal from the date at which the Group suspended all trading with and within Russia.

Market overview

Watson-Marlow sales to the Pharmaceutical & Biotechnology sector, which now accounts for around 60% of sales, have historically grown at close to 20% per annum. This was driven by advances in cell and gene therapies, as well as a move towards single-use manufacturing processes.

In 2020 and 2021, the sector experienced exceptional growth driven by its role in developing and producing COVID-19 vaccines, with Watson-Marlow sales growing 22% and 43% respectively. During the period between the fourth quarter of 2020 and the second quarter of 2022, our Pharmaceutical & Biotechnology customers experienced exceptionally strong demand for vaccines as the industry estimated that at least two doses would be required for a significant proportion of the global population in order to defeat the pandemic, which potentially could be followed by boosters or new vaccines to combat new variants of the virus. As such, capacity additions accelerated and production ramped-up, leading to increased demand for equipment and consumables. This exceptional demand exceeded Watson-Marlow's manufacturing capacity, notwithstanding our multiple capacity expansion initiatives, leading to an increase in the order book, which remained well above pre-pandemic levels at the end of 2022.

COVID-19 vaccine global adoption rates turned out to be much lower than the World Health Organisation (WHO) and most governments anticipated, especially in many developing economies. Nevertheless, the severity of the virus and its symptoms have subsided due to the effectiveness of the vaccines, despite lower-than-anticipated doses being administered. With lower forecasted demand and excess vaccine inventory, production has slowed. In the second half of 2022, as expected, Watson-Marlow's COVID-19 related demand began normalising, with many customers postponing new orders and rescheduling delivery dates of orders already placed. As a result, Watson-Marlow's full year sales to the Pharmaceutical & Biotechnology sector grew close to 15% in 2022 and untypically, over 50% of sales occurred in the first half of the year.

Demand growth in Process Industries was significantly above IP, supported by sector specific programmes to accelerate demand, such as in Food & Beverage and Water & Wastewater sectors, as well as new product introductions.

Following the rapid growth in COVID-19 related demand in 2021 and the first half of 2022, Watson-Marlow expanded capacity at its existing manufacturing facilities with additional shifts and new equipment, which also helped mitigate the impact of global supply chain disruptions. As demand started normalising in the second half of 2022, steps were taken to appropriately right-size capacity and overhead support costs, which included factory labour reductions in the fourth quarter of 2022. Further actions are underway in early 2023, ensuring we are able to both meet our customers' needs and protect our adjusted operating profit margin.

Progress in 2022
Watson-Marlow sales grew 20% to £488.5 million, or 16% up on an organic basis. Sales to the Pharmaceutical & Biotechnology sector grew close to 15% organically and sales to Process Industries sectors grew 19%, significantly ahead of global IP. This level of growth reflects both strong volume increases and our proactive price management practices that offset inflationary cost pressures to protect margin.

Watson-Marlow's adjusted operating profit grew 7% to a record £160.0 million, driven by strong sales growth and partially offset by revenue investments to support future growth. Organically, adjusted operating profit grew 3%, the difference being the impact of currency and the disposal of our high margin Russian operation.

Watson-Marlow's adjusted operating profit margin of 32.8% declined 390 bps from the exceptional margin of 2021. Despite declining 400 bps on an organic basis, the margin remains 100 bps above the 2019 pre-pandemic margin. Statutory operating profit grew 6% from £145.4 million in 2021 to £154.4 million in 2022.

The reduction in adjusted operating profit margin was driven by the full year impact of 2021 revenue investments, which had an impact of over 200 bps, as well as costs associated with the transition of BioPure to a new facility in Portsmouth (UK) and the ramp-up of our new facility in Devens, Massachusetts (USA), which together had an impact of over 150 bps.

Business strategy update
Strategy25 is Watson-Marlow's five-year organic growth strategy, building momentum to drive sustainable growth that outperforms our markets and create value for all stakeholders. We made good progress in advancing our strategy agenda in line with the Group's six strategic themes:

Increase direct sales effectiveness through market sector focus
During 2022, Watson-Marlow increased its direct sales workforce and continued embedding our sector driven approach to understand customers' processes, identifying opportunities for improvement and proposing solutions. For example, we have been working with lithium-ion battery customers to use our Bredel APEX pumps and hose solutions to accurately dose, meter and transfer the liquids required for automotive battery production. We are also supporting our customers in the Water treatment sector with high accuracy chemical dosing solutions that have facilitated reduced chemical usage, helping them to achieve their sustainability and cost goals.

Develop the knowledge and skills

In 2022, we invested in over 40,000 hours of training, learning and development for colleagues across all areas of Watson-Marlow. This included the development and deployment of a global training programme for our direct sales engineers to enhance consultative selling skills as we evolve towards our total solutions approach.

Broaden our global presence
During the fourth quarter of 2022 we completed the construction and first phase of production fit-out at our new state-of-the-art manufacturing facility in Devens, Massachusetts (USA), with the first customer deliveries shipped before the end of the year, as planned. This milestone was achieved in 13 months of breaking ground at the factory, demonstrating strong project management and governance, as well as cross-continental collaboration of our teams, set against significant supply chain and inflationary challenges.

Leverage our research and development (R&D) investments
During 2022, we opened our first dedicated Innovation Centre to support the Business globally. From its location close to our factory in Falmouth (UK), this state-of-the-art facility will support all new product developments and is the hub for evolving our Digital Strategy across all products, services, manufacturing processes and core enterprise systems. These ongoing investments are critical to support the quality and consistency of our operations and ensure we continue to deliver value to all our stakeholders.

We launched multiple new products during the year, including an expansion of our digital capability across the core pump range, with a communication protocol used to collect data and control equipment over Ethernet systems. We also launched BioPure-branded hose assemblies, which enable customers to specify a completely customisable solution based on their technical specifications, as well as fully integrated Flexmag single-use pressure sensing systems to extend our fluid path solutions.

Optimise supply chain effectiveness
During 2022, we made significant progress in expanding Watson-Marlow's manufacturing capacity. The new Biopure facility in Portsmouth (UK) commenced production in March 2022 and has enabled a doubling of capacity, following the successful transition to this new location. Injection moulding machines, which were temporarily located at subcontractor sites to increase capacity, are also being relocated to the new BioPure facility.

Due to global supply chain disruptions and the impact of transitioning to a new facility, we took the decision to hold more inventory to ensure continuity of supply, working with our partners to identify risks and opportunities.

Operate sustainably and help improve our customers' sustainability
Watson-Marlow has established a new dedicated business sustainability team to develop a deeper understanding of our product life cycle sustainability impact, drive engagement and accelerate progress on our commitments to the Group's **'One Planet: Engineering with Purpose'** Sustainability Strategy.

In 2022, our Aflex Hose facility in Yorkshire (UK) identified that 50% of their annual oil consumption could be filtered, recycled and re-used in the site's braiding machines. This large strong reduction in waste oil volume will support Watson-Marlow to achieve its goal of 10% waste reduction by 2025, as well as reducing costs. We have installed solar panels which generate 1.2 GWh of renewable energy at our new manufacturing facility at Devens, Massachusetts (USA).

Focus for 2023
Our focus for 2023 will include implementing our Operational Excellence Framework, an integrated planning process to better align resources across the demand and supply processes, with the aim of driving efficiency improvements across production and procurement that de-risk our supply chain and reduce costs. In support of our **'One Planet: Engineering with Purpose'** Sustainability Strategy, Cotopaxi's STRATA platform is being deployed across all Watson-Marlow's manufacturing operations to better monitor our sustainability footprint and drive reductions in consumption and waste. The ramp-up of the new Devens site will continue throughout 2023, supporting the tightly controlled validation and phased transfer of product brands to the state-of-the-art manufacturing facility.

Watson-Marlow outlook
COVID-19 related demand from Pharmaceutical & Biotechnology customers began to normalise in the second half of 2022 and in the first two months of 2023 we continued seeing a level of demand consistent with the

fourth quarter of 2022. In the first half of 2023, we expect that customers will continue working through their existing stocks of our products and may still defer some deliveries from our order book, while repurposing their production to meet continued strong underlying demand growth for cell and gene therapy applications. In the second half of 2023, we anticipate a return of customers' demand growth, although defining the precise timing and scale of the recovery remains difficult.

For the full year 2023, we anticipate Watson-Marlow sales to the Pharmaceutical & Biotechnology sector will be lower than 2022. However, this decline will be largely offset by Process Industries sales growth, driven by volume growth above IP and continued proactive price management practices to offset cost inflation and protect margins. Therefore, excluding any impact from currency movements, we anticipate overall Watson-Marlow sales in 2023 will be slightly below 2022, with over 55% of full year sales occurring in the second half of the year.

As Watson-Marlow continues driving proactive price management practices across all market sectors, slightly lower sales in 2023 implies mid-to-high single-digit sales volume decline, with resulting negative operational gearing. During the fourth quarter of 2022 and first months of 2023, Watson-Marlow has taken steps to appropriately right-size manufacturing capacity and reduce overhead support costs in order to offset the adverse impact of lower sales volumes on Watson-Marlow's adjusted operating profit margin. As a result, we anticipate the full year adjusted operating profit margin in 2023 will remain at a similar level to 2022, with close to 65% of full year operating profit occurring in the second half of the year.

Charges relating to the right-sizing of manufacturing capacity and reduction in overhead support costs are expected to be excluded from 2023 adjusted operating profit as defined in Note 2 to the Financial Statements.

PRINCIPAL RISKS AND FINANCIAL RESILIENCE

Principal Risks

The Group has processes in place to identify, evaluate and mitigate the Principal Risks that could have an impact on the Group's performance. A top-down risk review in 2022 highlighted an increased risk to our supply chain as a result of the impact of global inflation. Our Principal Risks have been revised in recognition of this impact and are set out below together with a description of why they are relevant. Details of how they link with the Group's strategy, an explanation of the change in risk and how each risk is managed will be disclosed in the 2022 Annual Report.

Economic and political instability - Increased compared to 2021

The Group operates worldwide and maintains operations in territories that have historically experienced economic or political instability, including regime changes. In addition to the potential impact on our local operations, this instability also increases credit, liquidity and currency risks.

This risk has increased due to escalating global political uncertainties and a weakening macroeconomic outlook, partially offset by declining COVID-19 related risks.

Significant exchange rate movements - Consistent compared to 2021

The Group reports its results and pays dividends in sterling. Sales and manufacturing companies trade in local currency. With our local presence in markets across the globe, the nature of our business necessarily results in exposure to exchange rate volatility.

Cybersecurity - Increased compared to 2021

Cybersecurity risks include theft of information, malware, ransomware and compliance with evolving statutory and legislative requirements. Risks may manifest through a direct attack on our business or through our supply chain.

This risk has increased due to rising geopolitical tensions and sophisticated, state-backed cyber attacks.

Loss of manufacturing output at any Group factory - Consistent compared to 2021

The risk includes loss of output as a result of natural disasters, industrial action, accidents or other causes. Loss of manufacturing output from our larger plants risks serious disruption to Group sales.

Failure to realise acquisition objectives - Consistent compared to 2021
The Group mitigates this risk in various ways, including through comprehensive due diligence, professional advisers, contractual protections and comprehensive integration planning. However, there are some variables that are difficult to control, such as adverse economic conditions, or the loss of key employees, which could impact acquisition objectives.

Loss of critical supplier - Increased compared to 2021
This risk relates to the loss of a critical supplier that could result in manufacturing constraints and delayed deliveries to customers.

This risk has increased on account of global supply chain constraints, the impacts of COVID-19-related lockdowns and the war in Ukraine.

Breach of legal and regulatory requirements (including ABC laws) - Consistent compared to 2021
We operate globally and must ensure compliance with laws and regulations wherever we do business. As we grow into new markets and territories we continually review and update our operating procedures and ensure our colleagues are fully informed and educated in all applicable legal requirements, such as with respect to anti-bribery and corruption (ABC) legislation. Breaching any of these laws or regulations could have serious consequences for the Group.

Inability to identify and respond to changes in customer needs - Consistent compared to 2021
This risk could lead to a reduction in demand from a failure to respond to changes in the needs of customers or technology shifts.

Climate change risks
Although not a Principal Risk, Climate change has been elevated to risk 9 in our Risk Register in 2022. Our Group Director of Sustainability became a member of the Risk Management Committee in 2022 in recognition of the increasing importance of this risk. Following a comprehensive review, our description of this risk was updated in the Group Risk Register, aligning with the TCFD framework and recognising that climate change is not a singular risk, but a combination of physical and transitional risks that will emerge differently under various scenarios.

The updated risk was extensively discussed at Risk Management Committee meetings, to ensure alignment and agreement on the definition and scope, the likelihood and velocity of the risk, as well as the Group's appetite for the risk.

Climate change-related risks are currently deemed to be low for the Group (based on assessment of likelihood, impact and control) and climate change is not identified as a Principal Risk. However, a number of the key risks associated with climate change are already managed through other Principal Risks on the Group Risk Register. These include physical risks - notably the impact of a climate-related event on our manufacturing operations, specifically the loss of a manufacturing site, or our supply chain - and transition risks - such as failure to meet changing market needs.

Based on this assessment we believe that our risk management processes are adequate and appropriate for the level of risk. During 2022, management of the Group's climate-change risk mitigation activities was overseen by the Board, the Group Executive Committee and the Group Sustainability Management Committee.

Emerging risks
Following the disposal our Russian operating companies, we are continuing to monitor the conflict in Ukraine and its subsequent impact on our Group, including rising energy costs, increasing inflationary pressures and corresponding interest rate rises in an effort to curb inflation. These risks have been partially offset by a reduction in COVID-19 related risks.

The fundamentals of our financial resilience
The strong operational and financial performance of the Group during 2022 continues to reflect the resilience of our business model. Alongside completing the acquisitions of Vulcanic and Durex Industries, we have continued to focus on organic opportunities with significant investments made in new manufacturing capacity, sustainability initiatives and building additional digital capability. The Group's longstanding track record of increasing returns to shareholders has continued with a proposed year-on-year increase of 12% in

record of increasing returns to shareholders has continued with a proposed year-on-year increase of 12% in ordinary dividends.

Our products and solutions support critical industrial processes across a broad range of industries and geographical markets, which links our business performance to movements in global IP. As in previous years, our business model supported our outperformance against global IP due to our ability to self-generate sales (accounting for 40% of sales) and a significant base business in maintenance and repair sales (accounting for 45% of sales). These sales are funded from our customers' operating budgets. The remaining 15% of sales are related to large projects, funded from customers' capital expenditure budgets, which are more heavily influenced by economic cycles. Over 60% of our sales are to defensive, less cyclical sectors and no single customer accounts for more than 1.5% of Group sales.

Resilience over the short, medium and long term

Our business model and the investments we have continued to make in our business, combined with our strong cash generation, position us well to adapt to economic cycles. Our Going Concern and Viability analysis gives us confidence in the robust nature of our business and our capital structure, even when analysed under a number of downside scenarios.

We have undertaken scenario-based modelling of our key risks, the results of which underpin our confidence in our short and medium-term resilience. The continued implementation of our strategy supports our longer-term resilience and we continue to closely monitor and respond to the changing external economic, environmental and social factors that will impact our Businesses in the future.

Going Concern statement

The Group's principal objective when managing liquidity is to safeguard the Group's ability to continue as a going concern for at least 12 months from the date of signing the 2022 Annual Report. The Group retains sufficient resources to remain in compliance with all the required terms and conditions within its borrowing facilities with material headroom and no material uncertainties have been identified. The Group continues to conduct ongoing risk assessments on its business operations and liquidity. Consideration has also been given to reverse stress tests, which seek to identify factors that might cause the Group to require additional liquidity and form a view as to the probability of these occurring.

Our financial position remains robust, with the next maturity of our committed debt facilities being €225 million of Private Placement notes which mature in September 2023 and which are included within the cashflow forecast that underpins our scenario modelling. The Group's debt facilities contain a leverage ratio (net debt/EBITDA) covenant with a limit of up to 3.5x. Certain debt facilities also contain an interest cover (EBITDA/net finance expense) covenant of a minimum of 3.0x. The Group closely monitors its financial position to ensure that it remains within the terms of these debt covenants. At 31st December 2022 the Group's reported leverage ratio was 1.7x (31st December 2021: 0.4x), the year-on-year increase resulting from the debt-financed acquisitions of Vulcanic and Durex Industries. It should be noted that including a full year of EBITDA for acquired businesses results in a pro-forma leverage ratio of 1.5x. Interest cover on a pro-forma basis was 62x at 31st December 2022 (31st December 2021: 93x).

Reverse 'stress testing' was also performed to assess what level of business under-performance would be required for a breach of the financial covenants to occur, the results of which evidenced that no reasonably possible change in future forecast cash flows would cause a breach of the Group's covenants. In addition, the reverse stress tests undertaken did not require us to take into account any mitigating actions which the Group would implement in the event of a severe and extended revenue and profitability decline. Such actions would serve to further increase covenant headroom.

Having assessed the relevant business risks as discussed in our Principal Risks on pages 31 and 32 and considered the liquidity and covenant headroom available under several alternative scenarios as set out in the viability assessment below, the Directors consider it appropriate to continue to adopt the going concern basis in preparing the financial statements.

Assessment of Viability

In accordance with provision 31 of the UK Corporate Governance Code 2018, the Board has assessed the viability of the Group, taking into account the Group's current financial position, business strategy, the Board's risk appetite and the potential impacts of the Group's Principal Risks. We set out the eight Principal Risks we have identified on pages 31 and 32.

The Board has adopted a five-year viability assessment, which it believes to be appropriate as this timeframe is covered by the Group's forecasts; takes into account the nature of the Group's Principal Risks, a number of which are external and have the potential to impact over short time periods; and is aligned with the maturity of the Group's principal committed bank credit facility. While the Board has no reason to believe that the Group will not be viable over a longer period, given the inherent uncertainty involved, the Board believes that a five-year period provides an appropriate degree of confidence whilst covering a sufficiently longer-term perspective.

In making their assessment, the Board completed a robust assessment, supported by detailed modelling, of the Principal Risks facing the Group, including those that would threaten its business model, future performance, solvency, or liquidity. In addition to completing an impact assessment of the Principal Risks, the Board considered the probability of the occurrence of the Principal Risks, the Group's ability to control them and the effectiveness of mitigating actions available. In every modelled scenario the Group is able to demonstrate that it continues to remain viable. The scenarios modelled to support this process were as follows:

Scenarios Modelled	**Links to Principal Risks**
Scenario 1: Revenue Fall We considered a combination of forward-looking scenarios in which sales were adversely impacted in all years of the assessment period.The reductions reflected the combined impact of economic political instability on global Industrial Production output, material currency exchange rate fluctuations and a loss of manufacturing output at a significant Group manufacturing site. We assumed a reduction of 17% in sales and no mitigating actions were taken by the Group. Despite these impacts the Group continued to trade profitably and always remained comfortably within the financial covenants in the external financing facilities.	**Risk 1:** Economic and political instability **Risk 2:** Significant exchange rate movements **Risk 4:** Loss of manufacturing output at any Group factory **Risk 6:** Loss of critical supplier **Risk 8:** Inability to identify or respond to changes in customer needs
Scenario 2: Exceptional Charge We considered the impact of a potential large, one-off expense as could be required in the case of a legal or regulatory fine or a compensation payment. An expense equivalent to 10% of the 2022 adjusted Group operating profit was assumed alongside a negative impact of 10% on revenue resulting from the associated reputational damage. Despite these impacts the Group continued to trade profitably and always remained comfortably within the financial covenants in the external financing facilities.	**Risk 7:** Breach of legal and regulatory requirements (including ABC laws)
Scenario 3: Cyber Attack We considered the occurrence of a cyber-attack that succeeds in severely impacting Group systems. We assumed an immediate disruption to trading followed by a fall in sales in subsequent years resulting from the associated negative reputational impact, the combined effect being a loss of 5% of sales in each year over the period. A significant initial cost was also included to rectify the immediate impact of the attack followed by increased investment in all subsequent years to strengthen our cyber-security. Despite these impacts the Group continued to trade profitably and always remained comfortably within the financial covenants in the external financing facilities.	**Risk 3:** Cybersecurity
Scenario 4: Acquisition Failure We considered a scenario whereby a large acquisition has failed to achieve the acquisition business case. We assumed a 20% shortfall in sales in the acquired business and disposal for a lower cash consideration than the original consideration. Despite these impacts the Group continued to trade profitably and remained comfortably within the financial	**Risk 5:** Failure to realise acquisition objectives

profitably and remained comfortably within the financial covenants contained within the external financing facilities at all times.	

A further scenario was modelled to ascertain what level of revenue or adjusted operating profit margin reduction would be required to cause a breach of the Group's debt covenants. The reductions in revenue and adjusted operating profit margin were significantly higher than those shown in the above scenarios. While linked to the Group's Principal Risks, the scenarios detailed above are hypothetical and designed to test the ability of the Group to withstand such severe outcomes. In practice, the Group has an established series of risk control measures in place that are designed to both prevent and mitigate the impact of any such occurrences from taking place. The results of the stress testing undertaken showed that the Group would be able to absorb the impact of the scenarios considered should they occur within the assessment time period. In all the scenarios considered, the Group was not required to implement any mitigating actions in relation to reductions in forecast expenditure in order to remain within its debt covenants.

Viability statement

Based on the outcomes of the scenarios and considering the Group's financial position, strategic plans and Principal Risks, the Directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment. The Directors' statement regarding the adoption of the going concern basis for the preparation of the financial statements can be found on page 43.

Long-term resilience

The Group has a long track record, over 130 years, of consistently adapting to changing macroeconomic, environmental and social factors supported by our business model. While our strategy and business model lessen any material impact from our Principal Risk factors, we nevertheless continuously review our markets, listen to our customers and adapt our solutions, while working responsibly and in line with our Values to build long-term sustainability.

We have a highly resilient business and strategy that will remain relevant across different climate-related scenarios. We recognise the need to anticipate and mitigate the impact of climate-related change. In 2021 we launched our **'One Planet: Engineering with Purpose'** Sustainability Strategy covered in more detail on page 47 of the Annual Report. Although not classed as a Principal Risk for our Group, the TCFD disclosures on pages 59 to 61 detail the anticipated impact of climate-change on the Group's longer-term resilience.

The increasing commitments to net zero targets will have a profound effect on industrial activity over the coming decades and is an additional source of growth for our Group over at least the next 30 years. To address the opportunities arising from the decarbonisation of industrial processes, we have invested significantly in the development of sustainable products and solutions that help customers meet their own sustainability goals. In 2022, we launched new-to-world '**TargetZero**' decarbonisation solutions, created through an internal collaboration between Steam Specialties and Electric Thermal Solutions (ETS). You can read more about the benefits of the three '**TargetZero**' solutions, branded 'ElectroFit', 'Steam Battery' and 'SteamVolt', on page 21 of the Operating Review.

Spirax-Sarco Engineering plc

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AT 31ST DECEMBER 2022

	Note	2022 £m	2021 £m
ASSETS			
Non-current assets			
Property, plant and equipment		384.5	277.4
Right-of-use assets		67.2	62.9
Goodwill		703.3	411.2
Other intangible assets		500.3	255.7
Prepayments		2.0	1.3
Taxation recoverable		5.1	4.9
Deferred tax assets		69.0	46.1
		1,731.4	1,059.5
Current assets			
Inventories		290.0	201.3
Trade receivables		341.1	272.3
Other current assets		79.6	44.7
Taxation recoverable		13.9	10.8
Cash and cash equivalents	8	328.9	274.6
		1,053.5	803.7
Total assets		**2,784.9**	**1,863.2**

EQUITY AND LIABILITIES			
Current liabilities			
Trade and other payables		283.0	217.0
Provisions		12.0	5.2
Bank overdrafts	8	85.1	55.6
Current portion of long-term borrowings	8	202.9	59.6
Short-term lease liabilities	8	14.1	11.2
Current tax payable		40.4	33.1
		637.5	381.7
Net current assets		**416.0**	**422.0**
Non-current liabilities			
Long-term borrowings	8	731.3	289.9
Long-term lease liabilities	8	51.1	48.9
Deferred tax liabilities		128.1	81.8
Post-retirement benefits		52.1	44.7
Provisions		6.2	1.5
Long-term payables		8.8	4.7
		977.6	471.5
Total liabilities		**1,615.1**	**853.2**
Net assets	3	**1,169.8**	**1,010.0**
Equity			
Share capital		19.8	19.8
Share premium account		88.1	86.3
Translation reserve		17.5	(40.5)
Other reserves		(23.4)	(17.7)
Retained earnings		1,067.0	961.1
Equity shareholders' funds		1,169.0	1,009.0
Non-controlling interest		0.8	1.0
Total equity		**1,169.8**	**1,010.0**
Total equity and liabilities		**2,784.9**	**1,863.2**

Spirax-Sarco Engineering plc

CONSOLIDATED INCOME STATEMENT FOR THE YEAR ENDED 31ST DECEMBER 2022

	Note	Adjusted 2022 £m	Adj't* 2022 £m	Total 2022 £m	Adjusted 2021 £m	Adj't* 2021 £m	Total 2021 £m
Revenue	2, 3	1,610.6	-	1,610.6	1,344.5	-	1,344.5
Operating costs		(1,230.4)	(61.4)	(1,291.8)	(1,004.2)	(19.4)	(1,023.6)
Operating profit	2, 3	380.2	(61.4)	318.8	340.3	(19.4)	320.9
Financial expenses		(15.2)	(1.1)	(16.3)	(9.8)	-	(9.8)
Financial income		5.6	-	5.6	3.4	-	3.4
Net financing expense	3, 4	(9.6)	(1.1)	(10.7)	(6.4)	-	(6.4)
Share of profit of Associate		-	-	-	-	-	-
Profit before taxation		370.6	(62.5)	308.1	333.9	(19.4)	314.5
Taxation	5	(92.5)	9.4	(83.1)	(83.9)	4.3	(79.6)
Profit for the period		278.1	(53.1)	225.0	250.0	(15.1)	234.9
Attributable to:							
Equity shareholders		277.8	(53.1)	224.7	249.7	(15.1)	234.6
Non-controlling interest		0.3	-	0.3	0.3	-	0.3
Profit for the period		278.1	(53.1)	225.0	250.0	(15.1)	234.9
Earnings per share	2, 6						
Basic earnings per share		377.2p		305.1p	338.9p		318.3p
Diluted earnings per share		376.3p		304.4p	338.0p		317.5p
Dividends	7						
Dividends per share				152.0p			136.0p
Dividends paid during the year (per share)				140.0p			123.0p

*Adjusted figures exclude certain items, as set out and explained in the Financial Review and as detailed in Note 2. All amounts relate to continuing operations.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31ST DECEMBER 2022

		2022 £m	2021 £m
Profit for the year		225.0	**234.9**
Items that will not be reclassified to profit or loss:			
Remeasurement (loss)/gain on post-retirement benefits		(8.3)	46.3
Deferred tax on remeasurement loss/(gain) on post-retirement benefits		1.8	(8.9)
		(6.5)	37.4
Items that may be reclassified subsequently to profit or loss:			
Foreign exchange translation differences and net investment hedges		54.8	(6.8)
Transfer to Income Statement of cumulative translation differences on	10	3.2	-

disposal of subsidiaries		
Loss on cash flow hedges net of tax	(3.5)	(2.8)
	54.5	(9.6)
Total comprehensive income for the year	273.0	**262.7**
Attributable to:		
Equity shareholders	272.7	262.4
Non-controlling interest	0.3	0.3
Total comprehensive income for the year	273.0	**262.7**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31ST DECEMBER 2022

	Share Capital £m	Share Premium Account £m	Translation reserve* £m	Other reserves £m	Retained Earnings £m	Equity shareholders' funds £m	Non-controlling interest £m	Total Equity £m
Balance at 1st January 2022	19.8	86.3	(40.5)	(17.7)	961.1	1,009.0	1.0	1,010.0
Profit for the year	-	-	-	-	224.7	224.7	0.3	225.0
Other comprehensive income/(expense):								
Foreign exchange translation differences and net investment hedges	-	-	54.8	-	-	54.8	-	54.8
Transfer to Income Statement of cumulative translation differences on disposal of subsidiaries	-	-	3.2	-	-	3.2	-	3.2
Remeasurement loss on post-retirement benefits	-	-	-	-	(8.3)	(8.3)	-	(8.3)
Deferred tax on remeasurement loss on post-retirement benefits	-	-	-	-	1.8	1.8	-	1.8
Cash flow hedges	-	-	-	(3.5)	-	(3.5)	-	(3.5)
Total other comprehensive income/(expense) for the year	-	-	58.0	(3.5)	(6.5)	48.0	-	48.0
Total comprehensive income/(expense) for the year	-	-	58.0	(3.5)	218.2	272.7	0.3	273.0
Contributions by and distributions to owners of the Company:								
Dividends paid	-	-	-	-	(103.1)	(103.1)	(0.5)	(103.6)
Equity settled share plans net of tax	-	-	-	-	(9.2)	(9.2)	-	(9.2)
Issue of share capital	-	1.8	-	-	-	1.8	-	1.8
Employee Benefit Trust shares	-	-	-	(2.2)	-	(2.2)	-	(2.2)
Balance at 31st December 2022	19.8	88.1	17.5	(23.4)	1,067.0	1,169.0	0.8	1,169.8

*In prior years, the translation reserve was included within other reserves with a breakdown being disclosed separately in the notes to the Financial Statements. Due to the material value of this reserve, we have presented it as a separate heading in the Statement of Changes in Equity for the year ended 31st December 2022. The comparatives have also been amended to reflect this reclassification to ensure comparability and consistency.

Other reserves represent the Group's cash flow hedges, capital redemption and Employee Benefit Trust reserves. The non-controlling interest is a 2.5% share of Spirax Sarco (Korea) Ltd held by employee shareholders.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31ST DECEMBER 2021

	Share Capital £m	Share Premium Account £m	Translation reserve* £m	Other Reserves £m	Retained Earnings £m	Equity shareholders' funds £m	Non-controlling interest £m	Total Equity £m
Balance at 1st January 2021	19.8	84.8	(33.7)	(2.4)	782.8	851.3	1.0	852.3
Profit for the year	-	-	-	-	234.6	234.6	0.3	234.9
Other comprehensive (expense)/income:								
Foreign exchange translation differences and net investment hedges	-	-	(6.8)	-	-	(6.8)	-	(6.8)
Remeasurement loss on post-retirement benefits	-	-	-	-	46.3	46.3	-	46.3
Deferred tax on remeasurement loss on post-retirement benefits	-	-	-	-	(8.9)	(8.9)	-	(8.9)
Cash flow hedges	-	-	-	(2.8)	-	(2.8)	-	(2.8)
Total other comprehensive (expense)/income for the year	-	-	(6.8)	(2.8)	37.4	27.8	-	27.8
Total comprehensive	-	-	(6.8)	(2.8)	272.0	262.4	0.3	262.7

(expense)/income for the year								
Contributions by and distributions to owners of the Company:								
Dividends paid	-	-	-	-	(90.7)	(90.7)	(0.3)	(91.0)
Equity settled share plans net of tax	-	-	-	-	(3.0)	(3.0)	-	(3.0)
Issue of share capital	-	1.5	-	-	-	1.5	-	1.5
Employee Benefit Trust shares	-	-	-	(12.5)	-	(12.5)	-	(12.5)
Balance at 31st December 2021	19.8	86.3	(40.5)	(17.7)	961.1	1,009.0	1.0	1,010.0

Spirax-Sarco Engineering plc

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31ST DECEMBER 2022

	Note	2022 £m	2021 £m
Cash flows from operating activities			
Profit before taxation		308.1	314.5
Depreciation, amortisation and impairment		81.0	69.0
Profit on disposal of property, plant and equipment		(1.4)	(0.5)
Cash payments to the pension schemes greater than the charge to operating profit		(5.3)	(7.6)
Loss on disposal of subsidiaries		7.0	-
Acquisition related costs		3.8	-
Restructuring related provisions and current asset impairments		10.2	-
Equity settled share plans		8.9	9.2
Net financing expense		10.7	6.4
Operating cash flow before changes in working capital and provisions		**423.0**	**391.0**
(Increase)/decrease in trade and other receivables		(56.3)	(71.3)
(Increase)/decrease in inventories		(58.3)	(26.7)
(Decrease)/increase in provisions		(0.8)	(1.0)
Increase/(decrease) in trade and other payables		23.5	59.5
Cash generated from operations		**331.1**	**351.5**
Income taxes paid		(90.0)	(78.1)
Net cash from operating activities	2	**241.1**	**273.4**
Cash flows from investing activities			
Purchase of property, plant and equipment		(104.3)	(52.8)
Proceeds from sale of property, plant and equipment		4.0	2.0
Purchase of software and other intangibles		(8.9)	(8.1)
Development expenditure capitalised		(4.3)	(3.2)
Disposal of subsidiaries	10	(2.8)	-
Acquisition of businesses net of cash acquired	9	(460.3)	-
Interest received	4	5.6	3.4
Net cash used in investing activities		**(571.0)**	**(58.7)**
Cash flows from financing activities			
Proceeds from issue of share capital		1.8	1.5
Employee Benefit Trust share purchase		(20.8)	(26.1)
Repaid borrowings	8	(511.1)	(77.5)
New borrowings	8	1,008.8	-
Interest paid including interest on lease liabilities	4	(15.5)	(8.5)
Repayment of lease liabilities	8	(12.9)	(11.7)
Dividends paid (including minorities)	7	(103.6)	(91.0)
Net cash used in financing activities		**346.7**	**(213.3)**
Net change in cash and cash equivalents	8	**16.8**	**1.4**
Net cash and cash equivalents at beginning of period		219.0	224.0
Exchange movement	8	8.0	(6.4)
Net cash and cash equivalents at end of period	8	**243.8**	**219.0**
Borrowings	8	(934.2)	(349.5)
Net debt at end of period	8	**(690.4)**	**(130.5)**
Lease liabilities	8	(65.2)	(60.1)
Net debt including lease liabilities at end of period	8	(755.6)	(190.6)

NOTES TO THE FINANCIAL STATEMENTS

1. BASIS OF PREPARATION

The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted for use in the United Kingdom (UK) and therefore comply with those parts of the Companies Act 2006 that are applicable to companies reporting under IFRS. IFRS includes the standards and interpretations approved by the International Accounting Standards Board (IASB) including International Accounting Standards (IAS) and interpretations issued by the IFRS Interpretations Committee (IFRIC).

The financial information included in this News Release does not constitute statutory accounts of the Group for the years ended 31st December 2022 and 2021, although it is derived from those accounts. Statutory accounts for the year ended 31st December 2021 have been reported on by the Group's auditor and delivered to the Registrar of Companies. Statutory accounts for the year ended 31st December 2022 have been audited and will be delivered to the Registrar of Companies following the Company's Annual General Meeting. The report of the auditors for both years was (i) unqualified, (ii) did not include a reference to any matters to which the auditors drew attention by way of emphasis without qualifying their report, and (iii) did not contain a statement under Section 498 (2) or (3) of the Companies Act 2006.

If approved at the Annual General Meeting on 10th May 2023, the final dividend will be paid on 19th May 2023 to shareholders on the register at 21st April 2023. No scrip alternative to the cash dividends is being offered.

Copies of the Annual Report will be sent on 30th March 2023 to shareholders who have requested a hard copy and can be obtained from our office at The Grange, Bishops Cleeve, Cheltenham, GL52 8YQ. The Report will also be available on our website at www.spiraxsarcoengineering.com.

As outlined below, there have been no significant changes in accounting policies from those set out in the Spirax-Sarco Engineering plc 2021 Annual Report. The accounting policies have been applied consistently throughout the years ended 31st December 2021 and 31st December 2022.

NEW STANDARDS AND INTERPRETATIONS ADOPTED IN THE CURRENT YEAR

During the current year, the Group has applied the following amendments to IFRS Standards and Interpretations issued by the International Accounting Standards Board (IASB) effective for annual periods that begin on or after 1st January 2022. Adoption has not had a material impact on the disclosures or on the amounts reported in these Financial Statements:

- Amendments to IFRS 3 Reference to the Conceptual Framework
- Amendments to IAS 16 Property, Plant and Equipment - Proceeds before Intended Use
- Amendments to IAS 37 Onerous Contracts - Cost of Fulfilling a Contract
- Annual Improvements to IFRS Accounting Standards 2018-2020 Cycle

The economies in Argentina and Turkey are subject to high inflation. At 31st December 2022 we have concluded that applying IAS 29 (Financial Reporting in Hyperinflationary Economies) is not required as the impact of adoption is not material. We will continue to assess the position going forward.

NEW STANDARDS AND INTERPRETATIONS NOT YET APPLIED

At the date of authorisation of these Financial Statements, the Group has not applied the following new and revised IFRS Standards that have been issued but are not yet effective:

- IFRS 17 Insurance Contracts
- IFRS 10 and IAS 28 (amendments): Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
- Amendments to IAS 1: Classification of liabilities as Current or Non-current
- Amendments to IAS 1 and IFRS Practice Statement 2: Disclosure of Accounting Polices
- Amendments to IAS 8: Definition of Accounting Estimates
- Amendments to IAS 12: Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The Directors do not expect that the adoption of the Standards listed above will have a material impact on the Financial Statements of the Group in future periods.

GOING CONCERN

In determining the basis of preparation for the 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, which are described in the Chair's Statement, Operating Review and Financial Review.

Financial Review.

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 Consolidated Financial Statements.

2. ALTERNATIVE PERFORMANCE MEASURES

The Group reports under IFRS and also uses alternative performance measures where the Board believe that they help to effectively monitor the performance of the Group and users of the Financial Statements might find them informative. Certain alternative performance measures also form a meaningful element of Executive Directors' variable remuneration. Net debt to EBITDA is also a covenant assessed for external borrowing purposes. A definition of the alternative performance measures included in the Annual Report and a reconciliation to the closest IFRS equivalent are disclosed below. The term 'adjusted' is not defined under IFRS and may therefore not be comparable with similarly titled measures reported by other companies. Adjusted performance measures are not considered to be a substitute for, or superior to, IFRS measures.

The term 'sales' is used interchangeably with 'revenue' when describing the financial performance of the business.

Drop-through is calculated as the organic increase in adjusted operating profit divided by the organic increased in revenue.

Adjusted operating profit

Adjusted operating profit excludes items that are considered to be significant in nature and/or quantum at either a Group or an operating segment level 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 including those defined as follows:

- amortisation and impairment of acquisition-related intangible assets
- costs associated with acquisitions and disposals
- reversal of acquisition-related fair value adjustments to inventory
- changes in deferred and contingent consideration payable on acquisitions
- gain or loss on disposal of subsidiary and disposal groups
- costs associated with a significant restructuring programme
- significant gains or losses on disposal of property
- significant non-recurring pension costs or credits
- accelerated depreciation, impairment and other related costs on one-off significant property redevelopments
- related tax effect on adjusting items above and other tax items which do not form part of the underlying tax rate

A reconciliation between operating profit as reported under IFRS and adjusted operating profit is given below.

	2022 £m	2021 £m
Operating profit as reported under IFRS	**318.8**	**320.9**
Amortisation of acquisition-related intangible assets	23.7	21.4
Reversal of acquisition-related fair value adjustments to inventory	1.8	-
Disposal of subsidiaries in Russia	7.1	-
Restructuring costs	15.5	-
Acquisition-related items	9.1	-
Accelerated depreciation and other related costs on one-off property redevelopments	4.2	-
Post-retirement benefit plan in Germany being closed to future accrual	-	(2.0)
Adjusted operating profit	**380.2**	**340.3**

The related tax effects of the above are included as adjustments in taxation as disclosed in Note 5.

The impact of adjustments to operating profit as reported under IFRS of £61.4m (2021: £19.4m) on net change in cash and cash equivalents is a total outflow of £13.5m (2021: £nil). Included within cash generated from operations is acquisition-related items of £7.1m, related costs on one-off property redevelopments of £0.3m and disposal-related costs £0.1m. Included within net cash used in investing activities is restructuring costs of £[illegible]m and disposal of subsidiaries in Russia of £[illegible]m.

£3.2m and disposal of subsidiaries in Russia of £2.8m.

Adjusted earnings per share

	2022	2021
Profit for the period attributable to equity holders as reported under IFRS (£m)	**224.7**	**234.6**
Items excluded from adjusted profit (£m)	62.5	19.4
Tax effects on adjusted items (£m)	(9.4)	(4.3)
Adjusted profit for the period attributable to equity holders (£m)	**277.8**	**249.7**
Weighted average shares (million)	73.6	73.7
Basic adjusted earnings per share	**377.2p**	**338.9p**
Diluted weighted average shares (million)	73.8	73.9
Diluted adjusted earnings per share	**376.3p**	**338.0p**

Basic adjusted earnings per share is defined as adjusted profit for the period attributable to equity holders divided by the weighted average number of shares in issue. Diluted adjusted earnings per share is defined as adjusted profit for the period attributable to equity holders divided by the diluted weighted average number of shares.

Basic and diluted EPS calculated on an IFRS profit basis are included in Note 6.

Adjusted cash flow

A reconciliation showing the items that bridge between net cash from operating activities as reported under IFRS to an adjusted basis is given below. Adjusted cash from operations is used by the Board to monitor the performance of the Group, with a focus on elements of cashflow, such as net capital expenditure, which are subject to day-to-day control by the business.

	2022 £m	2021 £m
Net cash from operating activities as reported under IFRS	**241.1**	**273.4**
Restructuring and acquisition-related costs	10.2	-
Net capital expenditure excluding acquired intangibles from acquisitions	(113.5)	(62.1)
Income tax paid	90.0	78.1
Repayments of principal under lease liabilities	(12.9)	(11.7)
Adjusted cash from operations	**214.9**	**277.7**

Adjusted cash conversion in 2022 is 57% (2021: 82%). Cash conversion is calculated as adjusted cash from operations divided by adjusted operating profit. The adjusted cash flow is included in the Financial Review on page 16.

Cash generation

Cash generation is one of the Group's key performance indicators used by the Board to monitor the performance of the Group and measure the successful implementation of our strategy. It is one of two financial measures on which Executive Directors' variable remuneration is based.

Cash generation is adjusted operating profit after adding back depreciation and amortisation, less cash payments to pension schemes in excess of the charge to adjusted operating profit, equity settled share plans, net capital expenditure excluding acquired intangibles, working capital changes and repayment of principal under lease liabilities. Cash generation is equivalent to adjusted cash from operations, a reconciliation between this and net cash from operating activities as reported under IFRS is shown above.

Return on invested capital (ROIC) and return on capital employed (ROCE)

The Group distinguishes between invested capital and capital employed when calculating return on capital. Invested capital represents the total capital invested in the business and is equal to total equity plus net debt and therefore includes the impact of acquisitions and disposals. Capital employed is invested capital less certain non-current assets and non-current liabilities and therefore reflects capital that is more operational in nature. Both of these return metrics are used to ensure a full assessment of business performance.

Return on invested capital (ROIC)

ROIC measures the post-tax return on the total capital invested in the business. It is calculated as adjusted operating profit after tax divided by average invested capital. Average invested capital is defined as the average of the closing balance at the current and prior year end. Taxation is calculated as adjusted operating profit multiplied by the adjusted effective tax rate.

An analysis of the components is as follows:

	2022 £m	2021 £m
Total equity	1,169.8	1,010.0
Net debt including lease liabilities	755.6	190.6
Total invested capital	**1,925.4**	**1,200.6**
Average invested capital	**1,563.0**	**1,157.9**
Average invested capital (excluding acquisitions, disposals and leases)	**1,263.8**	**1,108.4**
Operating profit as reported under IFRS	318.8	320.9
Adjustments (see adjusted operating profit)	61.4	19.4
Adjusted operating profit	380.2	340.3
Taxation	(94.9)	(85.5)
Adjusted operating profit after tax	**285.3**	**254.8**
Adjusted operating profit after tax (excluding acquisitions, disposals and leases)	**277.6**	**254.1**
Return on invested capital	**18.3%**	**22.0%**
Return on invested capital (excluding acquisitions, disposals and leases)	**22.0%**	**22.9%**

Return on capital employed (ROCE)

ROCE measures effective management of fixed assets and working capital relative to the profitability of the business. It is calculated as adjusted operating profit divided by average capital employed. Average capital employed is defined as the average of the closing balance at the current and prior year end. More information on ROCE can be found in the Capital Employed and ROCE sections of the Financial Review.

An analysis of the components is as follows:

	2022 £m	2021 £m
Property, plant and equipment	384.5	277.4
Right-of-use assets	67.2	62.9
Software and development costs	44.5	38.9
Prepayments	2.0	1.3
Inventories	290.0	201.3
Trade receivables	341.1	272.3
Other current assets	79.6	44.7
Tax recoverable	19.0	15.7
Trade, other payables and current provisions	(295.0)	(222.2)
Current tax payable	(40.4)	(33.1)
Capital employed	**892.5**	**659.2**
Average capital employed	**775.9**	**621.5**
Average capital employed (excluding acquisitions, disposals and leases)	**677.5**	**571.9**
Operating profit	318.8	320.9
Adjustments (see adjusted operating profit)	61.4	19.4
Adjusted operating profit	**380.2**	**340.3**
Adjusted operating profit (excluding acquisitions, disposals and leases)	**369.9**	**339.2**
Return on capital employed	**49.0%**	**54.7%**
Return on capital employed (excluding acquisitions, disposals and leases)	**54.6%**	**59.3%**

A reconciliation of capital employed to net assets as reported under IFRS and disclosed on the Consolidated Statement of Financial Position is given below.

	2022 £m	2021 £m
Capital employed	892.5	659.2
Goodwill and acquired intangibles	1,159.1	628.0
Post-retirement benefits	(52.1)	(44.7)
Net deferred tax	(59.1)	(35.7)
Non-current provisions and long-term payables	(15.0)	(6.2)
Lease liabilities	(65.2)	(60.1)
Net debt	(690.4)	(130.5)
Net assets as reported under IFRS	**1,169.8**	**1,010.0**

Net debt including lease liabilities

A reconciliation between net debt and net debt including lease liabilities is given below. A breakdown of the

A reconciliation between net debt and net debt including lease liabilities is given below. A breakdown of the balances that are included within net debt is given within Note 8. Net debt excludes lease liabilities to be consistent with how net debt is defined for external debt covenant purposes, as well as to enable comparability with prior years.

	2022 £m	2021 £m
Net debt	690.4	130.5
Lease liabilities	65.2	60.1
Net debt including lease liabilities	**755.6**	**190.6**

Net debt to earnings before interest, tax, depreciation and amortisation (EBITDA)

To assess the size of the net debt balance relative to the size of the earnings for the Group we analyse net debt as a proportion of EBITDA. EBITDA is calculated by adding back depreciation and amortisation of owned property, plant and equipment, software and development and the 12-month pro-forma EBITDA impact of acquisitions and disposals to adjusted operating profit. Net debt is calculated as Cash and cash equivalents less Bank overdrafts, Short-term borrowings and Long-term borrowings (excluding Short-term and Long-term lease liabilities). The net debt to EBITDA ratio is calculated as follows:

	2022 £m	2021 £m
Adjusted operating profit	380.2	340.3
Depreciation and amortisation of property, plant and equipment, software and development	37.4	36.2
Acquisitions and disposals pro-forma basis (EBITDA)	33.7	-
EBITDA	451.3	376.5
Net debt	**690.4**	**130.5**
Net debt to EBITDA	**1.5x**	**0.3x**

The components of net debt are disclosed in Note 8.

Organic measures

As we are a multi-national Group of companies, who trade in a large number of foreign currencies and also acquire and sometimes dispose of companies, we also refer to organic performance measures throughout the News Release. These strip out the effects of the movement of foreign currency exchange rates and of acquisitions and disposals. The Board believe that this allows users of the accounts to gain a further understanding of how the Group has performed.

Exchange translation movements are assessed by re-translating prior period reported values to current period exchange rates. Exchange transaction impacts on operating profit are assessed on the basis of transactions being at constant currency between years.

The incremental impact of any acquisitions that occurred in either the current period or prior period is excluded from the organic results of the current period at current period exchange rates. For any disposals that occurred in the current or prior period, the current period organic results include the difference between the current and prior period financial results only for the like-for-like period of ownership.

The organic percentage movement is calculated as the organic movement divided by the prior period at current period exchange rates, excluding disposals for the non like-for-like period of ownership. The organic bps change in adjusted operating margin is the difference between the current period margin, excluding the incremental impact of acquisitions, and the prior period margin excluding disposals for the non like-for-like period of ownership at current period exchange rates.

A reconciliation of the movement in revenue and adjusted operating profit compared to the prior period is given below.

	2021 £m	Exchange £m	Organic £m	Acquisitions and disposal[1] £m	2022 £m	Organic	Reported
Revenue	£1,344.5m	£52.5m	£191.6m	£22.0m	£1,610.6m	+14%	+20%
Adjusted operating profit	£340.3m	£13.0m	£23.5m	£3.4m	£380.2m	+7%	+12%
Adjusted operating profit margin	25.3%				23.6%	-160 bps	-170 bps

1 Includes the impact of (i) the acquisition of Cotopaxi, Durex Industries and Vulcanic and (ii) the treatment of our disposed Russian operating companies as disposed from the date at which the Group suspended all trading with and within Russia.

The reconciliation for each segment is included in the Operating Review on pages 19, 23 and 28.

Pro-forma Revenue

Due to the disposal of our Russian operating companies and the acquisitions of Cotopaxi, Vulcanic and Durex Industries, our financial results for 2022 only include the impact of these operations for the period of ownership by the Group. The table below reconciles statutory Revenue as reported within the Consolidated Income Statement, and the 2022 pro-forma Revenue had all acquisition and disposal transactions occurred on 1st January 2022. This allows users of the accounts to see the split of Revenue by operating segment on a basis that will be like-for-like against 2023.

	Revenue (statutory) £m	Pro-forma adjustments* £m	Revenue (pro-forma) £m	Proportion of Group
Steam Specialties	866.0	(1.2)	864.8	50%
Electric Thermal Solutions	256.1	126.8	382.9	22%
Watson-Marlow	488.5	(1.9)	486.6	28%
Total	**1,610.6**	**123.7**	**1,734.3**	

*includes the 2022 pre-acquisition financial results of Cotopaxi, Vulcanic and Durex Industries, and the removal of the 2022 statutory results of our Russian operating companies disposed.

3.SEGMENTAL REPORTING

As required by IFRS 8 (Operating Segments), the following segmental information is presented in a consistent format with management information considered by the Board.

No changes to the structure of operating segments have been made during the current period.

Analysis by operating segment

2022

	Revenue £m	Total operating profit £m	Adjusted operating profit £m	Adjusted operating margin %
Steam Specialties	866.0	196.2	206.1	23.8%
Electric Thermal Solutions	256.1	7.3	39.9	15.6%
Watson-Marlow	488.5	154.4	160.0	32.8%
Corporate expenses		(39.1)	(25.8)	
Total	**1,610.6**	**318.8**	**380.2**	**23.6%**
Net financing expense		(10.7)	(9.6)	
Share of Loss of Associate		-	-	
Profit before tax		**308.1**	**370.6**	

2021

	Revenue £m	Total operating profit £m	Adjusted operating profit £m	Adjusted operating margin %
Steam Specialties	754.9	186.8	188.7	25.0%
Electric Thermal Solutions	181.3	11.1	24.0	13.2%
Watson-Marlow	408.3	145.4	150.0	36.7%
Corporate expenses		(22.4)	(22.4)	
Total	**1,344.5**	**320.9**	**340.3**	25.3%
Net financing expense		(6.4)	(6.4)	
Share of Loss of Associate		-	-	
Profit before tax		**314.5**	**333.9**	

The following table details the split of revenue by geography for the combined Group:

	2022 £m	2021 £m
Europe, Middle East and Africa	649.6	563.3
Asia Pacific	384.3	334.2
Americas	576.7	447.0
Total revenue	**1,610.6**	**1,344.5**

Revenue generated by Group companies based in the USA is £433.0m (2021: £342.4m), in China is £213.2m (2021: £181.6m), in Germany is £134.3m (2021: £118.2m), in the UK is £115.7m (2021: £99.6m) and the rest of the world is £714.4m (2021: £602.7m)

The total operating profit for each period includes certain items as analysed below:

The total operating profit for each period includes certain items as analysed below:

2022

	Amortisation of acquisition-related intangible assets £m	Reversal of acquisition-related fair value adjustments to inventory £m	Disposal of subsidiaries in Russia £m	Restructuring costs £m	Acquisition-related items £m	Accelerated depreciation and other related costs on one-off property redevelopments £m	Total £m
Steam Specialties	(4.6)	–	(5.3)	–	–	–	(9.9)
Electric Thermal Solutions	(15.3)	(1.8)	–	(15.5)	–	–	(32.6)
Watson-Marlow	(3.8)	–	(1.8)	–	–	–	(5.6)
Corporate expenses	–	–	–	–	(9.1)	(4.2)	(13.3)
Total	**(23.7)**	**(1.8)**	**(7.1)**	**(15.5)**	**(9.1)**	**(4.2)**	**(61.4)**

2021

	Amortisation of acquisition-related intangible assets £m	Germany pension plan closed to future accrual £m	Total £m
Steam Specialties	(3.9)	2.0	(1.9)
Electric Thermal Solutions	(12.9)	-	(12.9)
Watson-Marlow	(4.6)	-	(4.6)
Corporate expenses	-	-	-
Total	**(21.4)**	**2.0**	**(19.4)**

Net financing income and expense

	2022 Income £m	2022 Expense £m	2022 Net £m	2021 Income £m	2021 Expense £m	2021 Net £m
Steam Specialties	3.6	(1.8)	1.8	3.0	(2.3)	0.7
Electric Thermal Solutions	0.3	(0.5)	(0.2)	–	(0.2)	(0.2)
Watson-Marlow	0.3	(0.6)	(0.3)	0.1	(0.5)	(0.4)
Corporate expenses	1.4	(13.4)	(12.0)	0.3	(6.8)	(6.5)
Total net financing expense	**5.6**	**(16.3)**	**(10.7)**	**3.4**	**(9.8)**	**(6.4)**

Net assets

	2022 Assets £m	2022 Liabilities £m	2021 Assets £m	2021 Liabilities £m
Steam Specialties	766.4	(226.8)	658.0	(182.1)
Electric Thermal Solutions	1,174.2	(78.0)	536.9	(33.0)
Watson-Marlow	427.4	(57.3)	331.8	(57.9)
	2,368.0	(362.1)	1,526.7	(273.0)
Liabilities	(362.1)		(273.0)	
Net deferred tax	(59.1)		(35.7)	
Net tax payable	(21.4)		(17.4)	
Net debt including lease liabilities	(755.6)		(190.6)	
Net assets	**1,169.8**		**1,010.0**	

Non-current assets in the USA were £686.8m (2021: £345.6m), in France were £403.1m (2021: £150.5m), in the UK were £284.1m (2021: £231.2m), in Germany were £165.6m (2021: £154.6m) and in the rest of the world were £191.8m (2021: £177.6m).

Capital additions, depreciation, amortisation and impairment

	2022 Capital additions £m	2022 Depreciation, amortisation and impairment £m	2021 Capital additions £m	2021 Depreciation, amortisation and impairment £m
Steam Specialties	47.1	37.3	35.6	33.9
Electric Thermal Solutions	285.4	24.7	16.6	18.3
Watson-Marlow	76.4	19.0	51.0	16.8
Total	**408.9**	**81.0**	**103.2**	**69.0**

Capital additions include property, plant and equipment of £135.0m (2021: £52.8m), of which £30.7m (2021: £nil) was from acquisitions in the period, and other intangible assets of £258.3m (2021: £11.3m) of which

£245.1m (2021: £nil) relates to acquired intangibles from acquisitions in the period. Right-of-use asset additions of £15.6m (2021: £39.1m) occurred during the 12-month period to 31st December 2022, of which £4.1m (2021: £nil) relates to acquired leases from acquisitions in the period. Capital additions split between the USA £186.4m (2021: £4.7m), UK £51.8m (2021: £54.2m) and rest of world £170.7m (2021: £44.4m).

4.NET FINANCING INCOME AND EXPENSE

	2022 £m	2021 £m
Financial expenses:		
Bank and other borrowing interest payable	(14.0)	(7.4)
Interest expense on lease liabilities	(1.5)	(1.1)
Net interest on pension scheme liabilities	(0.7)	(1.3)
	(16.3)	(9.8)
Financial income:		
Bank interest receivable	5.6	3.4
Net financing expense	**(10.7)**	**(6.4)**
Net bank interest	(8.4)	(4.0)
Interest expense on lease liabilities	(1.5)	(1.1)
Net pension scheme financial expense	(0.8)	(1.3)
Net financing expense	**(10.7)**	**(6.4)**

5.TAXATION

	2022			2021		
Analysis of charge in period	Adjusted £m	Adj't £m	Total £m	Adjusted £m	Adj't £m	Total £m
UK corporation tax:						
Current tax on income for the period	7.3	(0.2)	7.1	8.7	-	8.7
Adjustments in respect of prior periods	(0.7)	–	(0.7)	(1.7)	-	(1.7)
	6.6	(0.2)	6.4	7.0	-	7.0
Foreign tax:						
Current tax on income for the period	89.4	(0.8)	88.6	74.5	-	74.5
Adjustments in respect of prior periods	(1.3)	–	(1.3)	(1.5)	-	(1.5)
	88.1	(0.8)	87.3	73.0	-	73.0
Total current tax charge	94.7	(1.0)	93.7	80.0	–	80.0
Deferred tax - UK	(0.4)	(0.7)	(1.1)	4.0	(0.3)	3.7
Deferred tax - Foreign	(1.8)	(7.7)	(9.5)	(0.1)	(4.0)	(4.1)
Tax on profit on ordinary activities	**92.5**	**(9.4)**	**83.1**	**83.9**	**(4.3)**	**79.6**

The Group's tax charge in future years is likely to be affected by the proportion of profits arising from, and the effective tax rates in, the various territories in which the Group operates. The rate may also be affected by the impact of any acquisitions. The Group monitors income tax developments in the territories in which it operates in line with the requirements of the OECD Base Erosion and Profit Shifting (BEPS) initiative. This includes the setting of a new minimum global corporate tax rate of 15%. We will continue to monitor developments closely and assess whether this will lead to an increase in tax going forward.

The Group's tax charge includes a credit of £9.4 million in relation to certain items excluded from adjusted operating profit (as disclosed in Note 2). The tax impacts of these items are:

- Amortisation of acquisition-related intangible assets (£5.6m credit)
- Costs associated with the acquisition of Vulcanic (£1.8m credit)
- Costs associated with the acquisition of Durex Industries (£1.2m credit)
- Restructuring of the Chromalox manufacturing operations in Soissons (France) (£0.7m credit)
- Costs associated with the redevelopment of the Group Head Office building in Cheltenham (UK) (£0.1m credit)

Excluding these adjustments, the tax on profit and the effective tax rate are £92.5 million and 25.0% respectively.

The UK deferred tax assets and liabilities at 31st December 2022 that are expected to reverse before 1st April 2023 have been calculated based upon the rate of 19% whilst the UK deferred tax assets and liabilities expected to reverse on or after 1st April 2023 have been calculated based upon the rate of 25%.

In October 2017, the European Commission (EC) opened a State Aid investigation into the UK's Controlled Foreign Company (CFC) regime. In April 2019, the EC published its final decision that the UK CFC Finance Company Exemption (FCE) constituted State Aid in certain circumstances, following which the UK

Company Exemption (FCE) constituted State Aid in certain circumstances, following which the UK Government appealed the decision to the EU General Court. In June 2022, the EU General Court dismissed the UK Government's appeal following which the UK Government lodged a further appeal to the European Court of Justice. The UK Government's appeal has not yet been heard. Like other UK Groups, the Group submitted its own appeal against the EC's decision. The Group's benefit from the FCE in the period from 1st January 2013 to 31st December 2022 is approximately £8.7m, including compound interest. To date, the Group has received, paid, and appealed Charging Notices totalling £4.9m, assessed for the period from 1st January 2017 to 31st December 2018. The Group expects to recover this in the event of a successful appeal and has recognised a receivable for the full amount at the year-end balance sheet date. The Group has not received a Charging Notice for the period prior to 1st January 2017, the benefit for this period being £2.8m. HMRC has enquired into the benefit received during 2019, which the Group estimates to be £1.0m. No provisions have been recognised at the year-end balance sheet date for either the Charging Notice amounts or for the estimates for the other periods.

6.EARNINGS PER SHARE

	2022	2021
Profit attributable to equity shareholders (£m)	224.7	234.6
Weighted average shares (million)	73.6	73.7
Dilution (million)	0.2	0.2
Diluted weighted average shares (million)	73.8	73.9
Basic earnings per share	**305.1p**	**318.3p**
Diluted earnings per share	**304.4p**	**317.5p**

Basic and diluted earnings per share calculated on an adjusted profit basis are included in Note 2. The dilution is in respect of the Performance Share Plan.

7.DIVIDENDS

	2022 £m	2021 £m
Amounts paid in the year:		
Final dividend for the year ended 31st December 2021 of 97.5p (2020: 84.5p) per share	71.9	62.3
Interim dividend for the year ended 31st December 2022 of 42.5p (2021: 38.5p) per share	31.2	28.4
Total dividends paid	103.1	90.7
Amounts arising in respect of the year:		
Interim dividend for the year ended 31st December 2022 of 42.5p (2021: 38.5p) per share	31.2	28.4
Proposed final dividend for the year ended 31st December 2022 of 109.5p (2021: 97.5p) per share	80.8	71.8
Total dividends arising	**112.0**	**100.2**

8.ANALYSIS OF CHANGES IN NET DEBT, INCLUDING CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

2022

	At 1st Jan 2022 £m	Cash flow £m	Acquired debt* £m	Disposal of subsidiaries £m	Exchange movement £m	At 31st Dec 2022 £m
Current portion of long-term borrowings	(59.6)					(202.9)
Non-current portion of long-term borrowings	(289.9)					(731.3)
Total borrowings	**(349.5)**					**(934.2)**
Comprising:						
Borrowings	(349.5)	(497.7)	(67.0)	-	(20.0)	(934.2)
Changes in liabilities arising from financing	**(349.5)**	**(497.7)**	**(67.0)**	**-**	**(20.0)**	**(934.2)**
Cash at bank	274.6	46.3	-	(2.8)	10.8	328.9
Bank overdrafts	(55.6)	(26.7)	-	-	(2.8)	(85.1)
Net cash and cash equivalents	**219.0**	**19.6**	**-**	**(2.8)**	**8.0**	**243.8**
Net debt	**(130.5)**	**(478.1)**	**(67.0)**	**(2.8)**	**(12.0)**	**(690.4)**
Lease liabilities	(60.1)	12.9	(15.2)	-	(2.8)	(65.2)
Net debt including lease liabilities	**(190.6)**	**(465.2)**	**(82.2)**	**(2.8)**	**(14.8)**	**(755.6)**

*Debt acquired includes both debt acquired due to acquisition, and debt recognised on the balance sheet due to entry into new leases.

The net cashflow from borrowings of £497.7m consists of £1,008.8m of new borrowings and £511.1m of repaid borrowings.

New borrowings include acquisition-related short-term bank facilities of €265.0m (£232.8m) and US$185.0m (£153.5m), a US$150.0m (£124.4m) term loan, revolving credit facility drawdowns of £35.0m and €90.0m

(£76.8m) and new private placement debt of €265.0m (£234.6m) and $185.0m (£149.8m) that was issued to repay of the acquisition-related short-term bank facilities.

Repaid borrowings include €70.0m (£59.7m) of term loan that matured during the year, €265.0m (£234.6m) and US$185.0m (£149.8m) of acquisition-related short-term bank facilities and €76.3m (£67.0m) of acquired debt that was repaid on completion of the Vulcanic acquisition.

At 31st December 2022, total lease liabilities consist of £14.1m (2021: £11.2m) short-term and £51.1m (2021: £48.9m) long-term.

2021

	At 1st Jan 2021 £m	Cash flow £m	Acquired debt* £m	Disposal of subsidiaries £m	Exchange movement £m	At 31st Dec 2021 £m
Current portion of long-term borrowings	(0.6)					(59.6)
Non-current portion of long-term borrowings	(452.2)					(289.9)
Total borrowings	**(452.8)**					**(349.5)**
Comprising:						
Borrowings	(452.8)	77.5	-	-	25.8	(349.5)
Changes in liabilities arising from financing	**(452.8)**	**77.5**	**-**	**-**	**25.8**	**(349.5)**
Cash at bank	246.2	35.7	-	-	(7.3)	274.6
Bank overdrafts	(22.2)	(34.3)	-	-	0.9	(55.6)
Net cash and cash equivalents	**224.0**	**1.4**	**-**	**-**	**(6.4)**	**219.0**
Net debt	**(228.8)**	**78.9**	**-**	**-**	**19.4**	**(130.5)**
Lease liabilities	(34.1)	11.7	(39.1)	-	1.4	(60.1)
Net debt including lease liabilities	(262.9)	90.6	(39.1)	-	20.8	(190.6)

9.PURCHASE OF BUSINESSES

The provisional fair value accounting is shown below:

	Cotopaxi fair value £m	Vulcanic fair value £m	Durex fair value £m	Total £m
Non-current assets:				
Property, plant and equipment	-	15.8	14.9	30.7
Right-of-use assets	-	4.1	-	4.1
Acquired intangibles	2.8	115.6	126.2	244.6
Software and other intangibles	-	0.5	-	0.5
Deferred tax assets	-	2.9	0.5	3.4
	2.8	138.9	141.6	283.3
Current assets:				
Inventories	-	17.4	7.3	24.7
Trade receivables	0.8	24.5	9.5	34.8
Other receivables	0.4	3.5	1.2	5.1
Cash and cash equivalents	0.6	10.3	14.8	25.7
	1.8	55.7	32.8	90.3
Total assets	**4.6**	**194.6**	**174.4**	**373.6**
Current liabilities:				
Trade payables	0.1	7.5	1.1	8.7
Other payables, accruals and provisions	0.6	15.9	7.0	23.5
Short-term lease liabilities	-	1.1	-	1.1
	0.7	24.5	8.1	33.3
Non-current liabilities:				
Long-term borrowings	-	67.0	-	67.0
Long-term payables	-	3.7	-	3.7
Long-term lease liabilities	-	3.0	-	3.0
Deferred tax liabilities	0.6	33.4	0.1	34.1
Non-current provisions	-	4.6	0.1	4.7
Post-retirement benefit plans	-	1.1	-	1.1
	0.6	112.8	0.2	113.6
Total liabilities	**1.3**	**137.3**	**8.3**	**146.9**
Total net assets	3.3	57.3	166.1	226.7
Goodwill	10.0	119.2	130.1	259.3
Total	**13.3**	**176.5**	**296.2**	**486.0**
Satisfied by:				
Cash paid	13.3	176.5	296.2	486.0
Total consideration	**13.3**	**176.5**	**296.2**	**486.0**
Cash outflow for acquired businesses in the Statement of Cash Flows				
Cash paid for businesses acquired in the period and debt repaid	13.3	243.5	296.2	553.0
Debt repaid	-	(67.0)	-	(67.0)

Cash paid for businesses acquired in the period	13.3	176.5	296.2	486.0
Less cash acquired	(0.6)	(10.3)	(14.8)	(25.7)
Net cash outflow	**12.7**	**166.2**	**281.4**	**460.3**

On a debt-free cash-free basis the cash outflow for acquisitions was £535.5m consisting of £486.0m paid to the vendors, £67.0m of debt acquired and repaid and £8.2m of acquisition costs less cash acquired of £25.7m.

The acquisitions of 100% of Vulcanic (completed on 29th September 2022 for consideration of €200.8m or £176.5m), 100% of Durex Industries (completed on 30th November 2022 for consideration of US$357.1m or £296.2m) and 100% of Cotopaxi (completed on 30th January 2022 for consideration of £13.4m) have all been accounted for under the acquisition method.

The separately identified intangibles of all three acquisitions are recorded as part of the provisional fair value adjustment. The acquired intangibles relate to brand names and trademarks, manufacturing designs and core technology and customer relationships. The goodwill recognised represents the skilled workforce acquired and the opportunity to achieve synergies from being part of a larger Group.
Vulcanic is a European leader in industrial process heating solutions and is highly complementary to Chromalox within our ETS Business. As the lead brands within ETS for electric process heating, Chromalox and Vulcanic will support the effective deployment of our industry-leading decarbonisation solutions alongside Steam Specialties.

Goodwill arising on the acquisition of Vulcanic is not expected to be tax deductible. Following completion of the acquisition, Vulcanic generated €34.8m (£29.7m) of revenue and €8.3m (£7.1m) of adjusted pre-tax profit. Had the acquisition been made on 1st January 2022, Vulcanic revenue and adjusted pre-tax profit would have been approximately €111.9m (£95.5m) and €21.1m (£18.0m) respectively.

Durex Industries, located in Illinois (USA), is a specialist in custom electric thermal solutions for ultracritical applications of industrial equipment and is highly complementary to Thermocoax within our ETS Business. Together, Thermocoax and Durex Industries are well positioned to capitalise on the growing demand for increasingly stringent thermal energy requirements in high-technology equipment within market sectors with high barriers to entry.

Goodwill arising on the acquisition of Durex Industries is expected to be tax deductible in the USA. Following completion of the acquisition, Durex Industries generated US$5.6m (£4.5m) of revenue and US$1.2m (£1.0m) of adjusted pre-tax profit. Had the acquisition been made on 1st January 2022, Durex Industries revenue and adjusted pre-tax profit would have been approximately US$81.3m (£65.5m) and US$26.4m (£21.3m) respectively.

Cotopaxi is a UK based digitally-enabled global energy consulting and optimisation company, which will enable Steam Specialties to digitally enhance its customer bonding through the provision of physical and digital connections to customers' infrastructure and equipment.

Goodwill arising on the acquisition of Cotopaxi is not expected to be tax deductible. Following completion of the acquisition, Cotopaxi generated £2.9m of revenue and £0.5m of pre-tax profit. Had the acquisition been made on 1st January 2022, Cotopaxi revenue and pre-tax profit would not have been materially different from the figure disclosed.

As at the date of approval of the Financial Statements, the accounting for all current year acquisitions is provisional relating to the finalisation of the acquired intangible assets valuation and certain other provisional balances. Due to their contractual dates, the fair value of receivables acquired approximate to the gross contractual amounts receivable. The amount of gross contractual receivables not expected to be recovered is immaterial.

10.DISPOSAL OF SUBSIDIARIES

The loss on disposal of subsidiaries wholly relates to the disposal of 100% of Spirax Sarco Russia and Watson-Marlow Russia on 6th July 2022.

The consideration amounted to £nil which resulted in a loss on disposal for Spirax Sarco Russia of £2.2m and £1.7m for Watson-Marlow Russia, including £0.1m of legal fees, and cumulative currency translation losses recycled to the income statement of £3.2m. £2.8m of cash and cash equivalents were disposed as part of the transaction.

These disposals did not meet the definition of a discontinued operation in IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, and therefore, no disclosures in relation to discontinued operations have been made.

11. RESPONSIBILITY STATEMENT OF THE DIRECTORS ON THE ANNUAL REPORT

The Responsibility Statement below has been prepared in connection with the Company's full Annual Report for the year ending 31st December 2022. Certain parts thereof are not included within this announcement.

We confirm to the best of our knowledge:

- the Financial Statements, prepared in accordance with IFRS as adopted by the UK, give a true and fair view of the assets, liabilities, financial position and profit and loss of the Company and the undertakings included in the consolidation taken as a whole
- the Strategic Report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the Principal Risks and uncertainties they face
- the Annual Report and Financial Statements, taken as a whole, are fair, balanced and understandable and provide the information necessary to assess the Company's performance, business model and strategy

This Responsibility Statement was approved by the Board of Directors on 8th March 2023 and is signed on its behalf by:

N.J. Anderson, Group Chief Executive
N.B. Patel, Chief Financial Officer

12. CAUTIONARY STATEMENT

All statements other than statements of historical fact included in this document, including, without limitation, those regarding the financial condition, results, operations and businesses of Spirax-Sarco Engineering plc and its strategy, plans and objectives and the markets and economies in which it operates, are forward-looking statements. These forward-looking statements which reflect management's assumptions made on the basis of information available to it at this time, involve known and unknown risks, uncertainties and other important factors which could cause the actual results, performance or achievements of Spirax-Sarco Engineering plc or the markets and economies in which we operate to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. Spirax-Sarco Engineering plc and its Directors accept no liability to third parties in respect of this report save as would arise under English law. Accordingly, any liability to a person who has demonstrated reliance on any untrue or misleading statement or omission shall be determined in accordance with schedule 10A of the Financial Services and Markets Act 2000. It should be noted that schedule 10A contains limits on the liability of the Directors of Spirax-Sarco Engineering plc so that their liability is solely to Spirax-Sarco Engineering plc.

13. EXCHANGE RATE IMPACTS

Whilst not an IFRS disclosure or part of the audited accounts, set out below is an additional disclosure that highlights the movements in a selection of exchange rates between 2022 and 2021.

Exchange rates to sterling have been as follows:

	Average 2022	Average 2021	Change %	Closing 2022	Closing 2021	Change%
US Dollar	1.24	1.37	+10%	1.21	1.35	+10%
Euro	1.17	1.16	-1%	1.13	1.19	+5%
Renminbi	8.32	8.85	+6%	8.34	8.60	+3%
Won	1,587	1,569	-1%	1,525	1,607	+5%
Real	6.41	7.41	+13%	6.39	7.54	+15%
Argentine Peso	161.50	130.24	-24%	213.80	138.92	-54%

A negative movement indicates a strengthening in sterling versus that currency. When sterling strengthens against other currencies in which the Group operates, the Group incurs a loss on translation of the financial results into sterling.

On a translation basis, sales increased by 3.9% and adjusted operating profit increased by 3.6%, while transactional currency impacts also increased profit, giving a total increase to profit from currency movements of 3.8%.