

Spirax-Sarco Engineering plc

Engineering



with Purpose

Annual Report 2021

Engineering with Purpose

The Spirax-Sarco Engineering Journey

Our Purpose is to create sustainable value for all our stakeholders as we engineer a more efficient, safer and sustainable world.

This Purpose guides us on our journey, unites us, informs our decisions and inspires us everywhere that we operate.



Our journeys in 2021

In a year fraught with challenges, our colleagues took inspiration from our Purpose, energy from our culture and confidence from our strong business model and strategy to respond to the increased demand for our products and solutions.

Through our journeys we have helped our customers and communities to fight the global pandemic; developed new technologies to advance industrial sustainability; created a roadmap for our own net zero future and we've looked after our people as well as the planet.

Our journeys demonstrate how we are living our Purpose to create the more efficient, safer and sustainable world we all aspire to have.



Our journey to net zero

⊕ See pages 12-15



Our journey to a more efficient, safer and sustainable future

⊕ See pages 16-19



Our journey to enabling critical industrial processes

⊕ See pages 20-21



Our journey to a more inclusive culture

⊕ See pages 52-53



Our journey to a more biodiverse world

⊕ See pages 58-61

Who we are

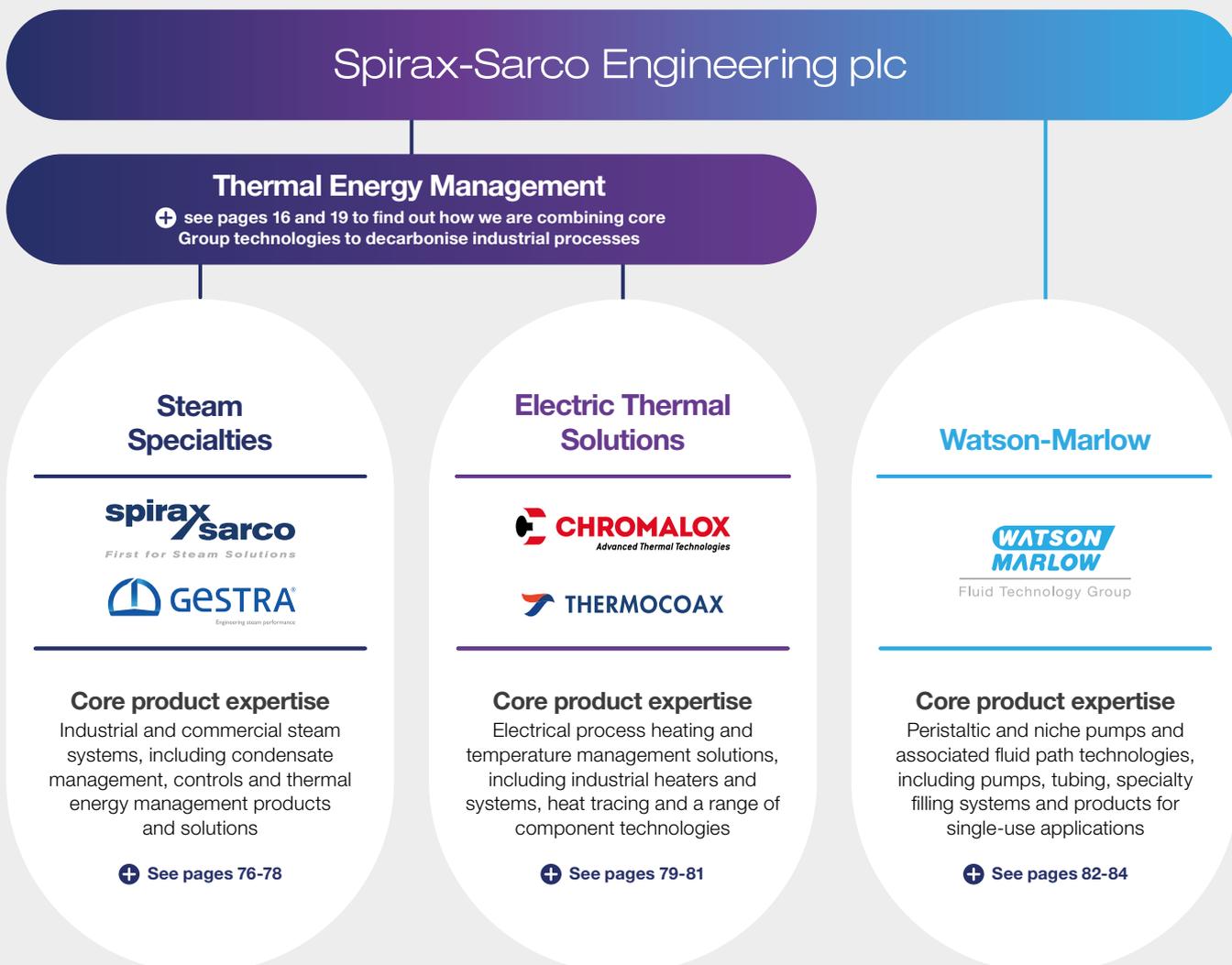
Spirax-Sarco Engineering plc is a multi-national industrial engineering Group with expertise in the control and management of steam, electric thermal solutions, peristaltic pumping and associated fluid path technologies.

Our technologies play an essential role in critical industrial processes across multiple industries as diverse as Food & Beverage, Pharmaceutical & Biotechnology, Power Generation and Healthcare.

With customers in 134 countries, we provide the engineered solutions that sit behind the production of many items used in daily life.

Our Purpose, supported by our culture and Values, unites us, guides our decisions and inspires us everywhere that we operate.

What we do



Our diverse Group



People
8,700



Sales and
service engineers
2,000



Countries with a resident
direct sales presence

68



Operating units**

133



Core product lines

1,700+



Direct buying customers†

110,000

** Operating units are business units that invoice locally

† Actively purchasing in the last 24 months

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Financial summary

for the year ended 31st December 2021

A year of record performance

- Revenues up 13%, or 17% organically; industrial production growth (IP) 7.6%
- Record adjusted operating profit margin of 25.3%, up 260 bps or 300 bps on a statutory basis
- Watson-Marlow organic sales up 32%; strong growth in all sectors
- Steam Specialties organic sales up 12%, well above IP; demand growth even stronger
- Electric Thermal Solutions organic sales up 7%; demand growth above Steam Specialties**
- Record closing order book across all three Businesses
- Accelerated revenue investments to support future organic growth
- Net debt[^] reduced to 0.35x EBITDA* despite record capital investment
- Total dividend up by 15% to 136.0p

2021 key figures

Statutory	2021	2020	Reported	
Revenue [†]	£1,344.5m	£1,193.4m	+13%	
Operating profit	£320.9m	£249.0m	+29%	
Operating profit margin	23.9%	20.9%	+300 bps	
Profit before taxation	£314.5m	£240.1m	+31%	
Basic earnings per share	318.3p	235.5p	+35%	
Dividend per share	136.0p	118.0p	+15%	
Adjusted*	2021	2020	Reported	Organic*
Revenue [†]	£1,344.5m	£1,193.4m	+13%	+17%
Adjusted operating profit*	£340.3m	£270.4m	+26%	+31%
Adjusted operating profit margin*	25.3%	22.7%	+260 bps	+280 bps
Adjusted profit before taxation*	£333.9m	£261.5m	+28%	
Adjusted earnings per share*	338.9p	256.6p	+32%	
Cash conversion	82%	102%		

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

** Electric Thermal Solutions demand growth was ahead of demand growth in Steam Specialties, after adjusting for the record US\$14 million order from the US Navy in 2020.

[^] Net debt includes total borrowings, cash and bank overdrafts but excludes IFRS 16 lease liabilities, as set out in Note 2 to the Financial Statements.

Segmental reporting

Our segmental reporting is consistent with how we present management information to the Board. A detailed segmental breakdown is provided in Note 3 of the Consolidated Financial Statements on pages 192 to 194. A performance review by operating segment is set out on pages 70 to 84.

	2021 Revenue	Change		2021 Adjusted operating profit*	Change		2021 Statutory operating profit	Change Reported
		Reported	Organic		Reported	Organic		
Steam Specialties	£754.9m	+9%	+12%	£188.7m	+22%	+27%	£186.8m	+18%
Electric Thermal Solutions	£181.3m	+2%	+7%	£24.0m	-2%	+3%	£11.1m	+131%
Watson-Marlow	£408.3m	+27%	+32%	£150.0m	+40%	+46%	£145.4m	+42%
Corporate expenses				(£22.4m)			(£22.4m)	
Total	£1,344.5m	+13%	+17%	£340.3m	+26%	+31%	£320.9m	+29%

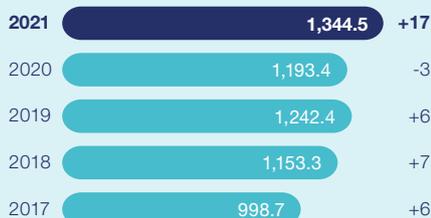
* All adjusted profit measures exclude certain items, which totalled a charge of £19.4 million (2020: charge of £21.4 million), as set out in Note 2 to the Financial Statements.

Revenue £m

£1,344.5m

KPI

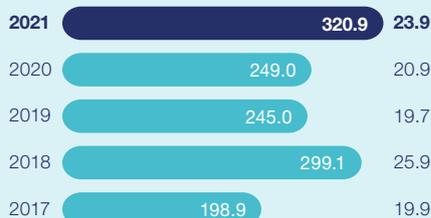
Organic change %



Statutory operating profit £m

£320.9m

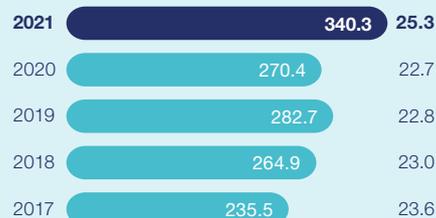
Margin %



Adjusted operating profit* £m

£340.3m

Margin %



H&S over three-day lost time injury rate per 1,000 employees

0.6

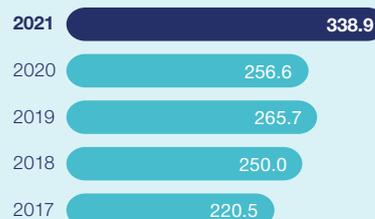
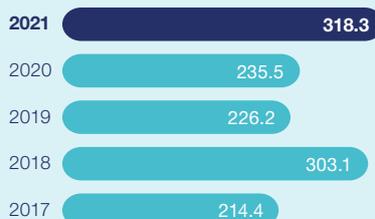
KPI

Statutory earnings per share p

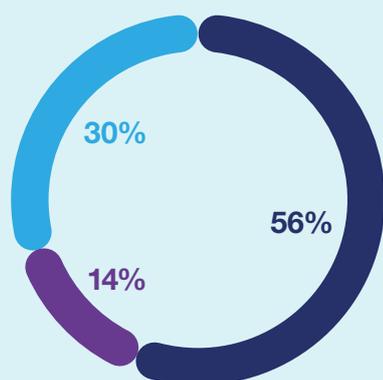
318.3p

Adjusted earnings per share* p

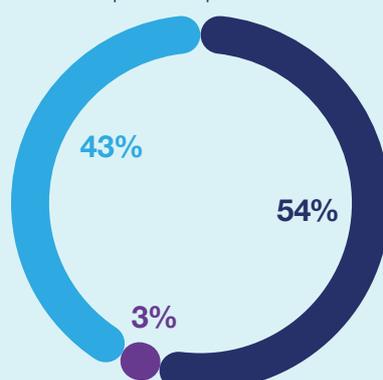
338.9p



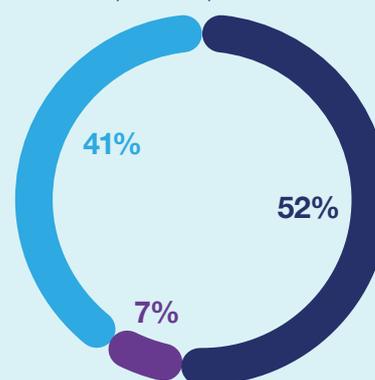
Revenue by segment %



Statutory operating profit by segment %
Before corporate expenses of £22.4 million.



Adjusted operating profit by segment* %
Before corporate expenses of £22.4 million.



- Steam Specialties
- Electric Thermal Solutions
- Watson-Marlow

- Steam Specialties
- Electric Thermal Solutions
- Watson-Marlow

- Steam Specialties
- Electric Thermal Solutions
- Watson-Marlow

* All adjusted profit measures exclude certain items, which totalled a charge of £19.4 million (2020: charge of £21.4 million), as set out in Note 2 to the Financial Statements. The Group's three operating segments, as defined by IFRS 8, are Steam Specialties, Electric Thermal Solutions and Watson-Marlow.

The industries we serve

We apply our products, solutions and expertise across a diverse range of industrial sectors, helping our customers to increase their efficiency, safety and sustainability.



Pharmaceutical & Biotechnology

27%
of Group revenue

Our peristaltic pumps, valves and single-use components enable precise flow control and fluid isolation. Clean steam reduces the risk of product and process contamination. Electrical heating is used in a wide range of process heating applications.



Food & Beverage

19%
of Group revenue

Steam is used for blanching, cooking, baking, brewing, distilling, packaging, cleaning and sterilising. Electric heating elements are used in commercial food equipment. Pumps are used to meter and transfer ingredients, deliver food to process lines and handle process waste.



OEM Machinery

12%
of Group revenue

Original Equipment Manufacturers (OEMs) are companies that build and supply machines for use in industry. Our activities with OEMs vary from simple product supply to advising on machine performance improvements and process plant design.



Oil & Gas

5%
of Group revenue

Electrical heating products reduce fluid viscosity, deliver freeze protection and help separate natural gas, crude oil and water during extraction. Our steam products enable optimum steam system performance and reduce energy use during oil and gas production.



Chemicals

5%
of Group revenue

Steam and electricity are widely used as an energy source in chemical production and product processing, while our pumps are used to safely and accurately transfer and dose critical chemical components.



Power Generation

4%
of Group revenue

Electrical heating technologies are widely used to optimise power generation. Steam turbines transfer chemical energy in fuel into electrical energy and steam is used to distribute and reuse waste heat formed during the power generation process.



Healthcare

4%
of Group revenue

Steam is used in hospitals and clinics for space heating, hot water production, humidification and sterilisation. Pumps and associated equipment are used in the manufacture of products for the Healthcare industry.



Water & Wastewater

3%
of Group revenue

Peristaltic pumps are used to dose chemicals during water treatment processes and to transfer viscous and abrasive slurries. Electrical heating solutions provide freeze protection, temperature maintenance and space heating in water treatment plants.



Buildings

3%
of Group revenue

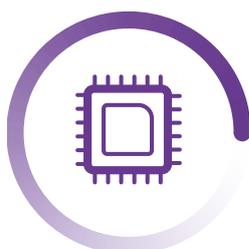
Steam is used to provide space heating, humidification and hot water in public and private buildings, while our electrical products are used for hot water and heat generation, snow melting, gutter and roof de-icing and frost-heave prevention.



Mining & Precious Metal Processing

2%
of Group revenue

Peristaltic pumps reduce water, energy and chemical use and increase productivity while moving and processing abrasive ores and slurries. Electrical heating is used for temperature maintenance and space heating for workers.



Semiconductor

2%
of Group revenue

Electrical products are used in printing production processes to ensure thermal uniformity which is critical during the chemical production process; clean and pure steam generators supply the humidification system to ensure the air is not too dry or wet.



Transport

2%
of Group revenue

Electrical heating components provide freeze protection and defrost for engines, rotating equipment, mechanical systems and fluid delivery. PTFE lined hoses are used for braking, cooling, transmission and steering systems. Our steam heat exchange and recovery solutions are used on cruise ships.

Chair's statement



“Our excellent performance was achieved thanks to the outstanding efforts of our teams in challenging circumstances.”

Jamie Pike
Chair

Introduction

Our excellent performance in 2021 was achieved against a backdrop of industrial production growth (IP) of 7.6%, significant supply chain disruption, a strong currency headwind and the ongoing global pandemic.

Our position on Ukraine and Russia

In response to the further escalation of the conflict ordered by the Russian authorities, as well as the tragic consequences for the people and economy of Ukraine, we have suspended all trading with Russia. This means all Group Companies will no longer trade with, or within, Russia. We will continue to support our 70 Russian colleagues by paying their salaries for a period of time. Our business within the region represented close to 1% of Group revenues in 2021.

Adapting our working practices

Having adapted quickly to the constraints caused by the COVID-19 pandemic in 2020, our teams have been operating effectively throughout 2021. Our direct sales and service engineers have embraced virtual tools to engage customers and continued to self-generate sales. In-person visits to customers resumed during the year where this was possible. Our manufacturing facilities have remained open and continued operating with strong COVID-19 protocols in place in order to meet significant levels of demand. Following a successful transition to home working for office-based colleagues during the pandemic, our Group has adopted a hybrid approach to work going forward. This provides greater flexibility for individuals while still meeting the needs of our customers and continuing to support collaboration.

The health, safety and wellbeing of our colleagues remained our highest priority during 2021. We recorded an improved Health & Safety performance across the Group, achieving no lost-time accidents in five of the twelve months and reducing the number of lost-time injuries by 55%, achieving its lowest level since we began measurement. We maintained our COVID-19 Minimum Standards across all manufacturing locations and offices and our controls were commended by Inspectors from the UK Health and Safety Executive. We applaud and thank our teams for their continued vigilance and commitment to ensuring we maintain safe places of work. We also supported our colleagues during the year by producing a wellbeing toolkit in multiple languages, announcing an additional ‘wellbeing day’ of leave in 2022 and launching a Group-wide Inclusion Plan called Everyone is Included.

Recognising our colleagues

On behalf of the Board, I would like to thank all our colleagues around the world, who have lived our Values in support of our Purpose to deliver outstanding outcomes for all our stakeholders. Our teams have pulled together to meet the needs of our customers and worked closely with our supply chain partners to mitigate a challenging environment, while supporting each other as well as our local communities. This has been especially evident in the way our teams have embraced our volunteering and community-based initiatives with over 11,000 volunteering hours recorded in 2021. These hours, taken together with financial and in-kind support represented close to £1 million being donated to good causes.



Meeting strong demand growth

In 2021 our Group recovered rapidly from the economic impacts of the COVID-19 pandemic. We saw unprecedented demand growth across all three Businesses, particularly in Watson-Marlow. In Steam Specialties, demand growth was well in excess of IP and in Electric Thermal Solutions (ETS) demand growth was ahead of demand growth in Steam Specialties, after adjusting for the record US\$14 million US Navy order in 2020. Our growth benefitted from the exceptional demand from our customers in the Pharmaceutical & Biotechnology sector, with the Group's other revenue streams growing well above IP. Our organic sales growth of 17% in 2021 more than offset the 3% decline experienced in 2020, demonstrating both the resilience of our business model as well as our exposure to attractive long-term demand trends, including the drive towards decarbonisation.

This strong growth was delivered amidst an increasingly challenging operating environment. Our teams were required to deliver a significant ramp-up in capacity, achieved through the expansion of our existing manufacturing facilities, along with additional shifts and new equipment, while managing the impact of COVID-19 related absences. In parallel, there was increasing disruption to the global supply chain throughout the year, impacting freight timelines and restricting the availability of components, such as motors and printed circuit boards.

While all three Businesses were impacted by delayed deliveries from their supply chains, the effects were greater within Watson-Marlow and ETS. In Watson-Marlow, shipments were impacted in the second half of the year by shortages in

raw materials and components. Within ETS, supply chain constraints combined with delays in the delivery of operational performance improvements, resulted in lower than anticipated sales growth. Our strategic sourcing initiatives partially offset these challenges and our Group achieved sales growth materially above IP, ending 2021 with a record order book.

During 2021 we saw material cost inflation across a variety of input commodities including energy, stainless steel, plastics and rubber. Through our proactive approach to price management, we mitigated the impact of these pressures on our adjusted operating profit margin.

This record adjusted operating profit margin was achieved despite a significant increase in our revenue investments, which underpin our future organic sales growth and adjusted operating profit margin improvement. During 2021, these investments were focused on our sustainability and digital initiatives, as well as new product development and increasing our direct sales force. In light of strong financial performance throughout the year, these investments were more weighted towards the second half. As a consequence, the adjusted operating profit margin in the year did not reflect the full-year effect of the associated costs, which will be felt in 2022.

Board highlights

The Board met in-person twice during the year, with the remaining six meetings held virtually. We had the opportunity to speak with colleagues from around the Group through employee engagement forums and attendance at the Group's inaugural Leadership Conference. This engagement has informed key decisions, reflecting colleagues' views on topics such as hybrid-

working and wellbeing, now incorporated within the Group's new Inclusion Plan.

During the year, we approved substantial investment programmes to support our future growth, including investments in our manufacturing capacity such as the decision to accelerate the expansion of Watson-Marlow's BioPure facility in Portsmouth (UK). We supported investments to deliver on our net zero targets, through commencing the decarbonisation of the Steam Specialties' manufacturing facility in Cheltenham (UK), as well as continuing to invest in the development of products and solutions to help our customers decarbonise their industrial processes. The Board also approved the acquisition of Cotopaxi, a digitally-enabled global energy consulting and optimisation company. The acquisition was subsequently completed in January 2022 and will help accelerate the implementation of the Group's Digital strategy.

Corporate governance

Having strengthened the Board in 2020, we have 40% female representation and 30% ethnic diversity on the Board. In July 2021, Dr Trudy Schoolenberg stepped down as planned after nine years as a Director. On behalf of our shareholders, the Board acknowledges with gratitude Trudy's significant contribution to the Group's growth and prosperity over the last nine years. Trudy was succeeded as Senior Independent Director by Richard Gillingwater, who joined the Board in March 2021.

To continue enhancing the Board's effectiveness, we reorganised membership

Chair's statement continued

of our Board Committees, better aligning the skills of individual Non-Executive Directors across our different Committees. We also undertook a Board effectiveness review, supported by independent advisors Egon Zehnder.

Management change

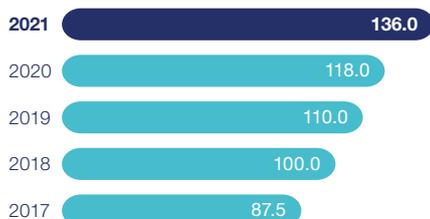
During 2021, Dominique Mallet, President of our Electric Thermal Solutions (ETS) Business, informed us of a change in his personal circumstances which meant he was unable to relocate to the USA from France as planned and had instead elected to pursue his career outside of our Group. We were sorry to see Dominique leave but we fully supported his decision and he left with our best wishes and sincere thanks for his contribution. We were very pleased to appoint Armando Pazos as President for ETS, effective 1st December 2021. Armando is an experienced industrial leader who joined ETS in March 2020 as Vice President Global Sales, following a 24-year career with Ingersoll Rand and Trane. Armando was instrumental in the development of the ETS strategy alongside Dominique and the wider management team.

Dividends

The interim dividend paid on 12th November 2021 was 38.5 pence per share, an increase of 15% (2020: 33.5 pence per share). The Board is recommending an increase in the final dividend of 15% to 97.5 pence per share (2020: 84.5 pence). Subject to approval of the final dividend by shareholders at the Annual General Meeting on 11th May 2022, the total Ordinary dividend for the year will be 136.0 pence per share, an increase of 15% over the 118.0 pence per share for the prior year.

Dividend per share p

136.0p



Section 172 Statement

In accordance with the Companies Act 2006 (the Act) (as amended by the Companies (Miscellaneous Reporting) Regulations 2018), the Directors have prepared a statement describing how they have had regard to the matters set out in section 172(1) of the Act, when performing their duty to promote the success of the Company, under section 172. The statement can be found on page 101 of the Governance Report.

We confirm that to the best of our knowledge:

- the Financial Statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation, taken as a whole;
- the Annual Report for 2021, taken as a whole, is fair, balanced and understandable, and provides the information necessary for shareholders to assess the Group's financial position, performance, business model and strategy;
- the Directors have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the five-year period to 31st December 2026. For the full Viability Statement, see page 44; and
- the Annual Report contains the information required for compliance with the Companies, Partnerships and Groups (and Non-Financial Reporting) Regulations 2016, see page 68; and
- in accordance with Listing Rule 9.8.6R(8) we confirm that the Sustainability Report contains disclosures consistent with the Task Force on Climate-related Financial Disclosures' recommendations and recommended disclosures, which can be found on page 57.

The Strategic Report was approved by the Board on 9th March 2022

Signed by:
Jamie Pike
Chair
on behalf of the Board of Directors
9th March 2022



“Our teams have lived our Values and supported our Purpose by delivering outstanding outcomes for customers, communities and shareholders.”

Our journey to net zero

Engineering

Harnessing natural technology

Steam is a clean and natural technology used every day in a variety of industrial applications. Sustaining this pure and natural source of thermal energy in industrial and manufacturing processes is critical for many of our customers. That's why we're combining technologies from across our Group to create innovative solutions which decarbonise industrial processes, including the use of steam.





with Purpose

Supporting a zero carbon future

Because we only have One Planet, we're doing everything we can to preserve the Earth's natural resources. Our goal is to reach net zero in scope 1 and 2 greenhouse gas emissions by 2030* and we're continuously investing in products and solutions to help our customers meet their own sustainability objectives, by reducing carbon emissions and using energy more efficiently. We estimate our solutions sold in 2021 will save our customers 18.2 million tonnes of CO₂ annually. The equivalent of 8.8 million less cars on our roads.

* We are targeting net zero in scope 3 emissions by 2050.
Read more in our Sustainability Report on pages 54 to 56.

Our journey to net zero continued

Engineering a more sustainable future.

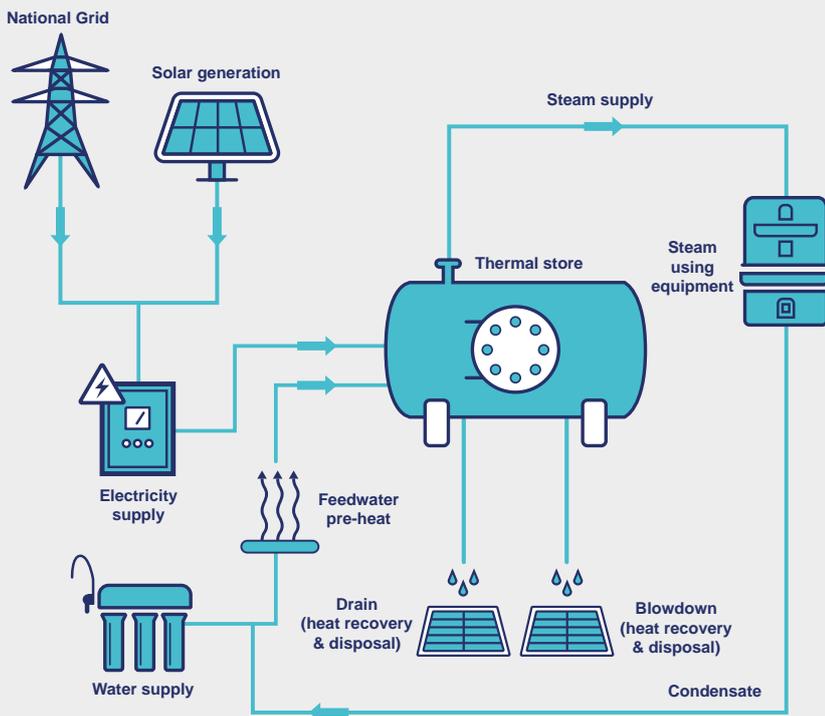
The thermal energy storage system utilises technology from the Group's Spirax Sarco and Chromalox brands, to offer a dynamic and flexible solution that converts electrical energy into steam to be used 'on demand'.

"When combined with renewable electricity, it supports our customers' aspirations to decarbonise their steam generation. By decoupling the electric charging from the thermal energy (steam) discharging, costs are optimised compared to other current technologies."

Rebecca Bowen
Project Manager, Spirax Sarco



How it works



Zero carbon steam, when and where you need it.

Eastwood Park is a leader in healthcare management training, providing practical, hands-on courses in decontamination, engineering, facilities and estates management. It puts sustainability at the forefront of its operations. The centre recently became the first pilot location for Spirax-Sarco Engineering's thermal energy storage system which has been installed on site and is powered by energy from solar panels on the roof. The steam is generated while the solar panels are active and is stored, ready to be drawn down on demand for different applications at any time of the day or night. Bruce and his team use the steam generated to demonstrate the procedures for safely cleaning and sterilising medical equipment as well as for heating and hot water. On average the site will have demand of 300 kg/hour of steam throughout periods of the day and the thermal energy storage system enables safe and reliant steam distribution on demand.



“Precision steam on demand, with zero carbon emissions is good for us and for our planet.”

**Bruce Garbutt
Decontamination and Mechanical
Eastwood Park Training Centre,
Gloucestershire, UK**

Our journey to a more efficient, safer and sustainable future

Engineering

Innovating every day

We focus on improving the economics of our customers' business by helping them operate efficiently, safely and sustainably. To meet their needs today and anticipate what's required for tomorrow, we invest in new products and solutions. Decarbonising industrial processes is key to a more sustainable future. Through technical innovation, we are playing our part. Our Electric Thermal Solutions Business is working with customers at the forefront of change around the world to electrify systems which previously relied on burning fossil fuels.





with Purpose

Solving tomorrow's challenges

The campuses of McGill University in Montreal, Canada, comprise around 200 buildings over 8,000,000 square feet and are home to more than 50,000 students and staff. This leading research University has set itself ambitious sustainability targets, which include becoming carbon neutral by 2040. Currently consuming energy equivalent to that of 13,000 Canadian homes the University is taking big steps towards reducing the emissions from its downtown powerhouse by 30%, through a partnership with Chromalox, part of our Electric Thermal Solutions Business.

Our journey to net zero continued

Supporting McGill University to reduce its energy footprint

Achieving carbon neutrality on a campus the size of a small City is no easy task. McGill's Climate and Sustainability Strategy sets out the roadmap the University has adopted in order to achieve its objectives through action in eight categories, including buildings and utilities.

The team charged with looking at how to reduce the carbon emissions from energy consumption have put a plan in place which adopts a number of strategies including reducing, recovering, converting and offsetting energy use.

In order to decarbonise a significant proportion of the University's existing energy consumption, McGill set out its technological requirements which resulted in the creation of a flagship decarbonisation project with Chromalox. One of McGill's natural gas-fired boilers will be replaced by two of Chromalox's DirectConnect™ Medium Voltage electric steam generators as part of its customised solution. These high-capacity steam generators are uniquely designed for larger industrial applications and were primarily selected for their ease of operation and maintenance. The Medium Voltage electricity is a highly efficient and sustainable solution to generate the high volumes of steam needed to power the significant requirements of McGill's heating distribution network.

30%
Expected reduction in emissions from the University's downtown powerhouse



Chromalox DirectConnect™ Medium Voltage steam generator





“Along with waste heat recovery, our transition toward renewable sources of energy is a key component of our energy management strategy.”

Jerome Conraud
Director of Utilities and Energy Management
McGill University

Our journey to enabling critical industrial processes

Engineering

Building world-class manufacturing facilities

At Spirax-Sarco Engineering we intensify our market sector focus to bring unique solutions to our customers. At 27%, Pharmaceutical & Biotechnology is our Group's largest sector and accounted for almost 60% of Watson-Marlow's sales in 2021. Global manufacturing expansion is a key enabler for our Group to continue to meet strong customer demand and Watson-Marlow is investing over £100 million in two new state-of-the-art facilities in the UK and USA which will come on stream in 2022.





with Purpose

Supplying industry's most critical applications

Biopharmaceutical customers need low risk, high-quality and proven fluid path solutions that guarantee product integrity throughout the manufacturing process. Watson-Marlow is the only peristaltic pump manufacturer in the world to also manufacture fluid path components and we are at the leading edge of meeting regulatory expectations for this industry. The production from our two new facilities coming on stream during 2022 will expand our capacity and create regional manufacturing capability at scale outside of the UK to help our customers satisfy demand for critical, lifesaving products such as gene therapies and vaccines.

Making our difference

Our ONE Group approach



Our Purpose

To create sustainable value for all our stakeholders as we engineer a more efficient, safer and sustainable world.

In living our Purpose, our Group is united by a strong culture, a consistent business model and common strategic framework, which enables us to create outcomes with lasting impact for all our stakeholders across a breadth of geographies and diverse end market sectors.

Engineering with Purpose

All the Businesses in our Group provide products and solutions which are essential to the efficient operation of the critical industrial processes responsible for essential products used in everyday life. In this way, our customers' needs drive all that we do and to meet their needs effectively, we leverage our culture, business model and strategic framework to inform the way we work.

+ Read more about what we do on page 71.

Our culture

Achieving our Purpose depends on our culture, what we do in our workplaces and how we operate.

Our culture is shaped by our shared Values. They guide our decisions and behaviours wherever we work in the world.



Safety



Excellence



Collaboration



Respect



Customer Focus



Integrity

As part of this culture based on Values, we promise our colleagues challenging work with real impact and the chance for development every day. That's best achieved in supportive teams with strong relationships. It's those types of teams and relationships that enable our colleagues to better understand and help each other, to learn and to grow.

Inclusion is present in all of this. It runs through every one of our Values. It's central to the promises we make to our colleagues. It's critical to achieving our Purpose.

That's why we created Everyone is Included. It's our Group Inclusion Plan through which we are committed to empowering an inclusive and equitable working culture where all our colleagues can be themselves and achieve their full potential.

EVERYONE IS INCLUDED

+ Find out more on pages 50, 52 to 53 and 115 to 116.

Our strategy

Our strategy is designed to help us do better what we already do well. Our Business strategies, which are refreshed from time to time, drive our Group's organic performance, while our Corporate strategy drives inorganic revenue growth. Our Sustainability strategy drives our Environmental, Social and Governance performance.

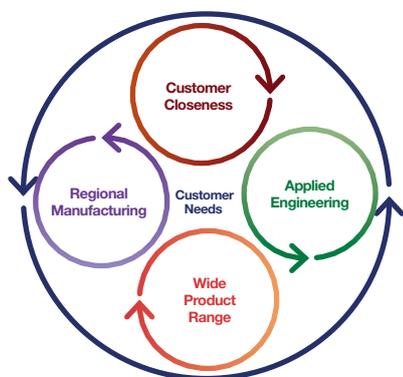
+ To understand more, read about our strategy in action and the performance of our Businesses on pages 30 to 35 and 70 to 84.

Making our difference continued

Customer focus

At the heart of our value creation is our deep engagement with and understanding of our customers and their processes.

This closeness enables us to meet our customers' needs as we combine our specialist knowledge and locally-available, industry-leading products and services to deliver value-adding engineered solutions.



Customer closeness

Our direct sales business model creates a unique understanding of our customers' needs. We build deep, long-term relationships as we help our customers solve their difficult productivity, control and energy efficiency problems and improve their operational performance, safety and sustainability.

Applied engineering

It is not our products alone that provide value to our customers, but also the application of our extensive knowledge of systems design, operations and maintenance. Our customers increasingly rely on our expertise to deliver unique engineering solutions to achieve enhanced and sustainable operating efficiencies.

Wide product range

The breadth of our product offering is unmatched by our competitors and our one-stop-shop approach simplifies the procurement process for our customers who are increasingly seeking partnerships with competent full-service suppliers. We are committed to research and development (R&D) to further widen our range of products and pre-fabricated engineered packages.

Regional manufacturing

Local availability of a wide range of products, which meet applicable regional design codes, is critical to our business model and enhances top-line revenue growth. We have strategically located our major manufacturing plants across the world in Europe, North America, Latin America and Asia and are continuing to invest in new and upgraded manufacturing facilities across our Group.

What we do

Our core activities are those things we do that enable us to meet the needs of our customers and achieve our Company Purpose.

Innovate and design

Through innovative R&D we develop and enhance our already broad range of products, pre-fabricated packages and site services, ensuring that we meet customers' changing needs.

1,700+
core product lines

Manufacture

We manufacture industrial and commercial steam system products, electrical process heating and temperature management products and peristaltic and niche pumps and associated fluid path technologies.

29
manufacturing sites

Sell

With a resident direct sales presence in 68 countries and non-resident direct sales or distributors in a further 66 countries, we serve customers in 134 countries worldwide.

68
countries with
direct sales presence

Monitor and measure

We offer a comprehensive range of site audits, maintenance services and digital monitoring solutions, to keep our customers' systems operating efficiently.

50%
revenue from
maintenance activities

Apply and solve

We combine our specialist knowledge with our industry-leading products and services to deliver value-adding engineered solutions to customers, who increasingly rely on our service, solutions and expertise.

2,000
sales and service engineers

Educate

We help our customers to identify in-house engineering knowledge skill gaps and offer a wide range of training courses, delivered in our 59 training centres worldwide, to help plug those knowledge gaps.

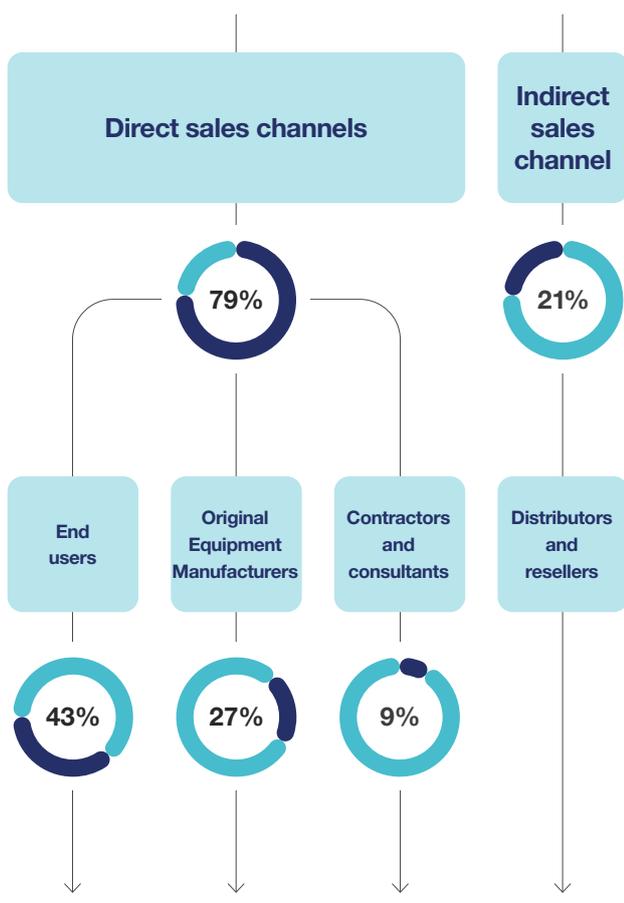
59
training centres

Our routes to market

Our direct sales approach is instrumental in delivering on our Purpose and creating value-adding opportunities for self-generated growth.

Sales companies

We have over 100 sales companies, mostly holding local inventories, which are supplied by our manufacturing companies. Our direct sales approach plays an important role in all routes to market – whether direct or indirect – as our engineers engage with end users to highlight the benefits of our products, solutions and services. End users can then purchase from us directly, specify our products in OEM equipment, request that contractors specify our products, or purchase from a distributor.



End users of our products and services

Industrial and commercial steam, electrical process heating and peristaltic and niche pump users, across a wide range of markets, purchasing from us directly, specifying our products, or buying from distributors.

Value for our stakeholders

We recognise the importance of operating in a way that delivers long-term sustainable value for our stakeholders.

We engineer sustainable value creation as we manage relationships in a way that reflects our Values; effectively manage financial, human and natural resources; understand our associated risks and opportunities; and implement our strategy for growth.

Colleagues

We focus on what matters to our colleagues wherever in the world they work.

£411m
paid in wages, salaries and pension contributions in 2021

Customers

Our products and solutions support mission critical industrial processes all around the world.

110,000
direct buying customers across multiple industries globally

Suppliers

We build long-term sustainable relationships with our supply chain partners.

£560m
paid to suppliers for materials and services in 2021

Communities

Supporting our local communities and removing barriers to education.

£2m
cash, in-kind donations and colleague time to community engagement activities worldwide in 2021, including the donation to our Group Education Fund

Environment

Water is precious and we are doing all we can to preserve it.

96.1m
m³ of water saved by customers annually from products sold in 2021

To achieve a zero carbon world we're doing all we can to make our products more sustainable.

18.2m
tonnes of CO₂ saved annually from products sold in 2021

Shareholders

We have a track record of creating sustainable value for our shareholders.

£91m
paid as dividends in 2021

Making our difference continued

Creating sustainable value for our shareholders

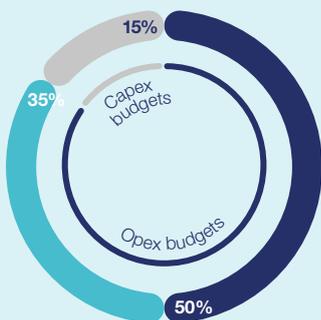
Our understanding of customers and markets, allows us to see where and how our revenues are generated and where best to invest for future returns.

With the majority of our revenues coming from our customers' maintenance activities and small improvement projects...

85%* of Group revenue is generated from annual maintenance and operational (Opex) budgets, rather than from capital (Capex) budgets.

Why is this important?

Capex budgets are more likely to be cut during periods of slower growth or recession. Therefore, the high proportion of revenue deriving from Opex budgets gives us resilience during economic downturns. Additionally, through our direct sales approach, we are able to self-generate business by providing bespoke engineered solutions, typically with better margins.



- Maintenance and repair sales** that *maintain existing systems*, supported by the end users' Opex budgets, with a typical invoice value of around £1.3k
- Small project sales** that *improve existing systems*, supported by the end users' Opex budgets, with a typical invoice value of £10k-£50k
- Large project sales** that *build new systems*, supported by the end users' Capex budgets, with a typical invoice value of over £100k

...and over a third of sales coming from self-generated opportunities...

35%* of revenue is derived from self-generated opportunities. This reflects our overall strategic objective to deliver growth that outperforms our markets. We achieve this by staying close to our customers – through our direct sales approach – understanding their system requirements and providing them with innovative products and solutions to solve their process challenges.

Why is this important?

By focusing on self-generated growth we identify problems and design solutions that deliver significant operational benefits for customers. Typically, these bespoke, engineered projects have higher margins and relatively short sign-off timeframes as they are funded by maintenance and operational budgets at plant level. As we deliver engineered solutions we self-generate growth, reinforce our customers' trust in our engineering expertise and forge sustainable business relationships.

Further reading

Our direct sales approach is our greatest competitive advantage and is covered in more detail in our business model and customer case studies.

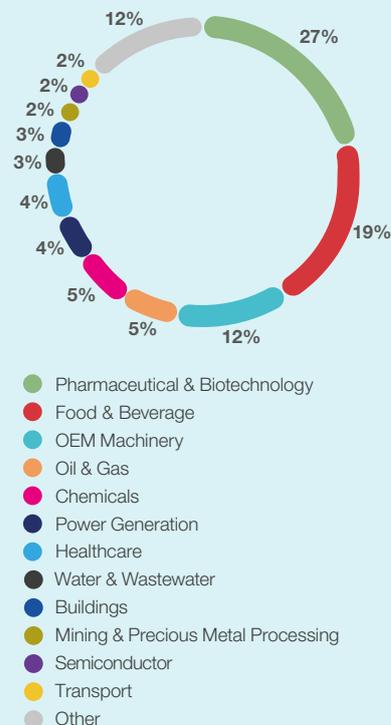
➕ See pages 25 to 26 and 12 to 21

...our revenue is balanced across multiple less-cyclical industries...

60+%* of Group revenue is derived from defensive, less cyclical end markets, including: Food & Beverage, Pharmaceutical & Biotechnology, Healthcare and Power Generation.

Why is this important?

Not only do we derive revenue from a diverse range of industry sectors, we also have an excellent balance between higher-growth end markets and those that are more defensive and resilient.



* Based on internal estimates. Where there is little visibility of end user industry sector (primarily in sales via distributors), sales have been allocated across industries on a pro-rata basis. In 2021 these 'unknown' sales accounted for 16% of total revenue. OEM sales to identifiable industries have been allocated to those industries. Sales to OEM customers accounted for 27% of Group revenue in 2021.

...and our long-term market drivers remain positive.

12%* is our share of addressable market, which is valued at £11.1bn at the end of 2021.

Our markets have significant growth potential due to a number of positive long-term market drivers (see the table below) at a macroeconomic and sector level.

Long-term market growth drivers

Population growth

Increased consumption and demand in all our major industry sectors.

Economic development in emerging markets

New markets and increased consumption.

Ageing population

Increased demand for healthcare and pharmaceutical products.

National and international climate change mitigation strategies

Requirement for companies to manage energy more efficiently, increasing demand for energy management products and services.

Increase in global energy consumption

Increased investment in renewable and non-renewable energy and power generation industries, with increased demand for energy management solutions.

Industrial production

Our markets reflect changes in industrial production growth rates but our sales have consistently outperformed them as we have expanded our addressable markets, extended our geographic penetration and grown our market share.

* Based on internal estimates. The increase in market size in 2021 reflects underlying changes in market segment sizes, expansion of the addressable market as a result of product development and the impact of exchange movements.

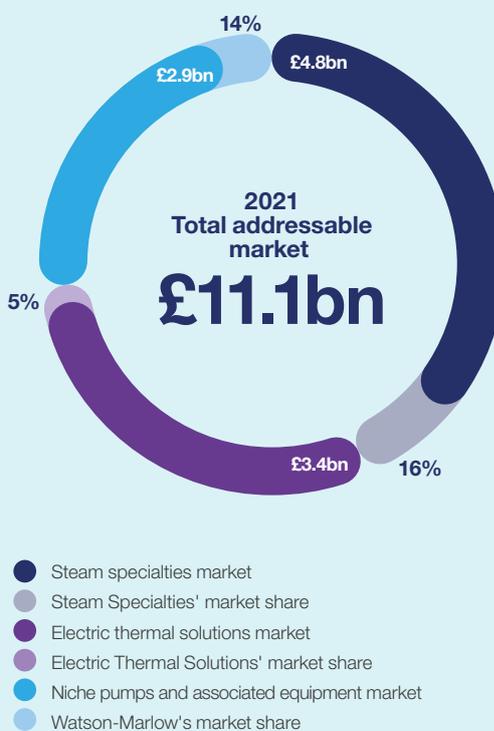
Our competitive landscape

As the global market leader in steam systems and peristaltic pumping and a significant player in the electric thermal solutions market, we have a strong competitive position in relatively fragmented markets.

Our competitors generally fall into two categories: system specialists that supply a wide range of products and services, and product specialists that compete on a small part of our product range. Most system specialists are relatively small, privately owned, regional players, while product specialists lack the whole system expertise and application knowledge offered by our direct sales force. Our broad product range, global presence, applications knowledge and direct sales business model give us a strong competitive advantage in our markets.

Why is this important?

Our long-term growth prospects are promising. Although we are the market leaders in steam specialties as well as pumps and fluid path technologies, we have a relatively small market share of these large addressable markets, at 16% and 14% for Watson-Marlow respectively and with just a 5% for Electric Thermal Solutions' share of the electric thermal solutions market we have good opportunities for growth. We can grow by targeting self-generated sales, extending our geographical reach and increasing the size of our addressable market through innovative product development. In addition, our addressable markets and sectors continue to demonstrate headroom for long-term growth.



10 year financial summary

Our financial performance demonstrates a strong trajectory of growth and shareholder value creation.

	2012 £m	2013 £m	2014 £m	2015 £m	2016 £m	2017 £m	2018 £m	2019 £m	2020 £m	2021 £m
Revenue	661.7	689.4	678.3	667.2	757.4	998.7	1,153.3	1,242.4	1,193.4	1,344.5
Operating profit	125.7	147.0	148.1	142.8	174.1	198.9	299.1	245.0	249.0	320.9
Adjusted operating profit*	136.2	151.6	153.0	152.4	180.6	235.5	264.9	282.7	270.4	340.3
Adjusted operating profit margin*	20.6%	22.0%	22.5%	22.8%	23.8%	23.6%	23.0%	22.8%	22.7%	25.3%
Profit before taxation	124.1	145.7	144.8	139.7	171.4	192.5	288.8	236.8	240.1	314.5
Adjusted profit before taxation*	134.9	151.1	151.1	151.1	177.9	229.1	254.6	274.5	261.5	333.9
Profit after taxation	87.6	102.3	100.6	96.7	121.3	157.9	223.4	167.0	173.9	234.9
Adjusted cash from operations	129.8	143.0	131.5	146.2	185.0	203.8	242.9	238.1	275.8	277.7
Cash conversion	95.3%	94.3%	85.9%	95.9%	102.4%	86.5%	91.7%	84.2%	102.0%	82.0%
Capital expenditure to sales ^{††}	5.2%	4.3%	5.0%	5.0%	5.7%	3.8%	3.8%	5.0%	4.2%	4.8%
Basic earnings per share	112.2p	133.4p	132.8p	129.9p	165.0p	214.4p	303.1p	226.2p	235.5p	318.3p
Adjusted earnings per share*	122.2p	138.8p	140.4p	142.6p	171.5p	220.5p	250.0p	265.7p	256.6p	338.9p
Dividends in respect of the year	119.5	44.5	139.9	50.6	55.8	64.4	73.6	81.1	87.0	100.2
Dividends in respect of the year (per share)	53.0p	59.0p	64.5p	69.0p	76.0p	87.5p	100.0p	110.0p	118.0p	136.0p
Special dividend (per share)	100.0p	–	120.0p	–	–	–	–	–	–	–
Net assets	436.5	403.5	441.9	398.3	524.4	609.5	766.9	826.3	852.3**	1,010.0
Return on capital employed [†]	37.6%	41.8%	41.4%	41.1%	44.8%	49.8%	51.6%	52.5%	48.9%**	59.3%
Return on invested capital [†]	24.8%	27.6%	27.4%	27.1%	28.7%	22.6%	19.3%	19.0%	17.8%**	22.9%

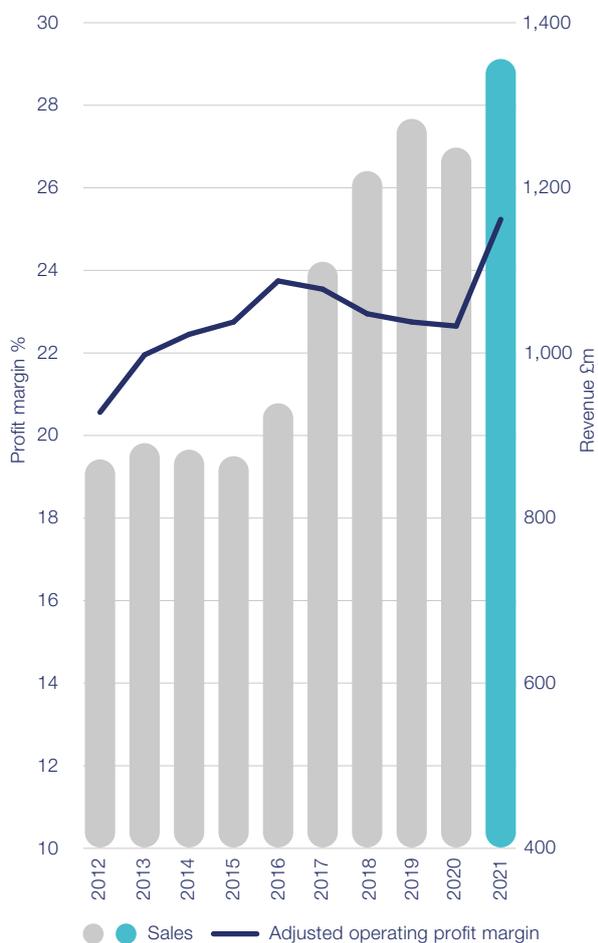
* All adjusted profit measures exclude certain items as set out and explained in the Financial Review and in Note 2 to the Financial Statements.

** 2020 has been restated following the IFRS Interpretations Committee agenda decision on configuration and customisation costs in cloud computing arrangements (Software as a Service (SaaS)), see Note 1 to the Financial Statements for further details.

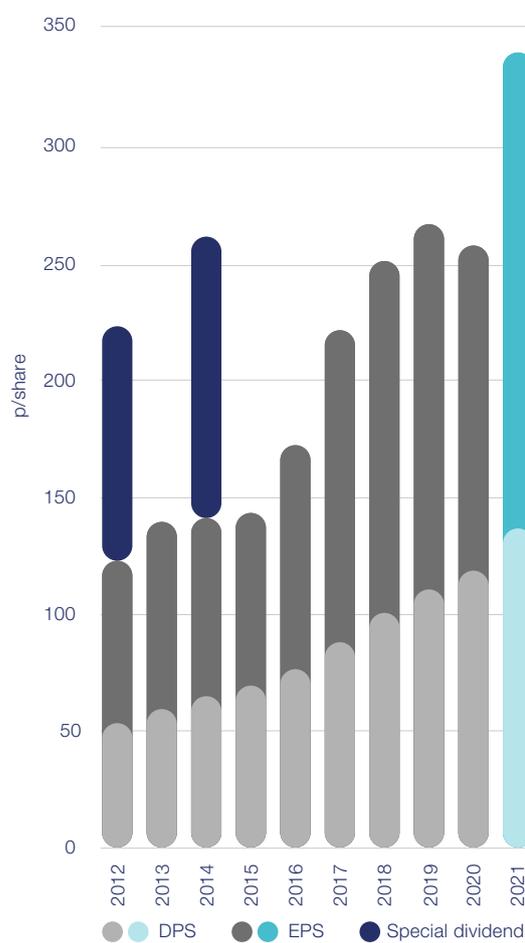
† The results for 2019 to 2021 exclude the impacts of IFRS 16, which was adopted in 2019.

†† Capital expenditure excludes IFRS 16 lease repayments.

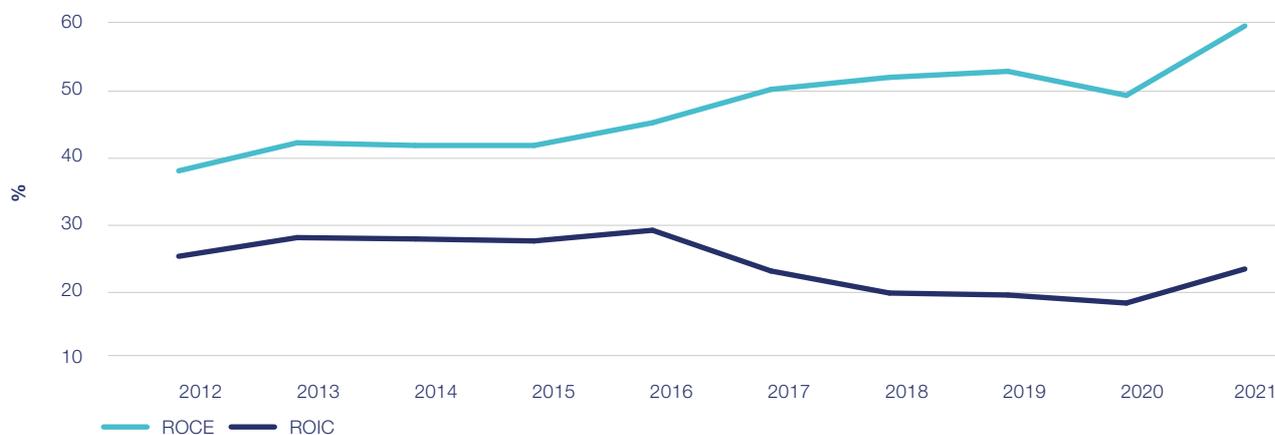
Revenue and adjusted operating profit margin £m / %



Dividends and adjusted earnings per share p



Return on capital employed and return on invested capital %



* All adjusted profit measures exclude certain items as set out and explained in the Financial Review and in Note 2 to the Financial Statements.

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† The results for 2019 to 2021 exclude the impacts of IFRS 16, which was adopted in 2019.

†† Capital expenditure excludes IFRS 16 lease repayments.

Strategic review



“Our excellent performance is testament to the strength of our organisation, business model and strategy.”

Nicholas Anderson
Group Chief Executive

Engineering with Purpose

Our Company Purpose supported by our strong culture and Values, robust business model and strategy continued to drive us forward in 2021. Against the backdrop of the disruptions caused by the ongoing global pandemic, the work we do to create a more efficient, safer and sustainable world has never been more important. Our teams have supported our customers across the globe, providing essential solutions which enable them to ramp-up their critical manufacturing and industrial processes to meet unprecedented demand growth.

This demand growth has been most significant in defensive sectors such as, Pharmaceutical & Biotechnology, Food & Beverage and Healthcare, which accounted for 50% of our Group sales in 2021. We remain a highly diversified Group selling into 12 core industry sectors, as well

as multiple secondary industry sectors. Consistent with 2020, our largest sectors in 2021 were Pharmaceutical & Biotechnology and Food & Beverage, accounting for 27% and 19% of Group sales respectively. We continue to serve a wide and diverse range of customers with no single customer accounting for more than 1.5% of Group sales.

Self-generating growth

In line with our Group Purpose, we have a long track record of helping our customers to meet their efficiency and sustainability goals, through our direct sales model and breadth of products and solutions. This means we are uniquely positioned to continue supporting our customers, as they address the dual trends of increasing energy prices and the decarbonisation of industrial processes, through reducing both their energy costs and greenhouse gas emissions.

Our direct sales business model is highly effective at uncovering opportunities to improve the efficiency and effectiveness of our customers' processes. Our engineers often identify unrecognised needs and design bespoke solutions to meet those needs by 'walking our customer sites'. Our work to accelerate the implementation of our Digital strategy, including the acquisition of Cotopaxi, enables us to provide a physical and digital connection which extends our capability beyond 'walking the plant' to 'walking the data'.

As these self-generated solutions generally have a short payback period for the customer and are typically paid for from customers' operating budgets, they remain attractive even during challenging economic times. In addition to this, our solutions, which evolve in response to global trends and are influenced by voice of customer activities, help our customers to reduce their environmental impacts,

improve product quality, provide safer working environments for their people and achieve regulatory compliance.

The total proportion of Group sales which are funded by our customer's operating budgets remains close to 85%, with the balance coming from customers' capital budgets. Our direct sales business model, diverse global and industry spread and our network of 2,000 sales and service engineers across 68 countries – unique in number and expertise amongst our competitors – has enabled our Group to continue outperforming during 2021.

We have six strategic themes designed to help us deliver self-generated growth that outperforms our markets. Our six strategic themes are:

- increase direct sales effectiveness through market sector focus
- develop the knowledge and skills of our expert sales and service teams
- broaden our global presence
- leverage research and development (R&D) investments
- optimise supply chain effectiveness
- operate sustainably and help improve our customers' sustainability

As we implement our strategy, we ensure that we have the right solutions, in the right places, at the right times and the highly skilled people with the expertise needed to provide industry-leading support to our customers.

Refreshing our strategies

Business strategies

All three Businesses leverage our common strategic framework and business model to develop and refresh their own strategies.

In June 2021, Steam Specialties launched its refreshed strategy, Customer first² (Customer first squared), to colleagues across the Business, which comprises the leading product brands of Spirax Sarco and Gestra. The refreshed strategy builds on the Customer first strategy that has been in place since 2014. The strategy maintains a focus on prioritising attractive growth sectors and value-based selling to deliver Total Customer Solutions. Building upon customer insights, Customer first² also further embeds sustainability and digital as well as innovation and inclusivity within its eight strategic initiatives. It completes a trio of Business strategy refreshes, with Watson-Marlow and Electric Thermal Solutions having undertaken similar exercises in 2020. You can read more about our progress against these strategies in our Operating Review which begins on page 69.

Sustainability strategy

Another key development was the launch, in June, of our refreshed Group Sustainability strategy, One Planet: Engineering with Purpose. It sets out our commitment to sustainability, as well as our roadmap to building a more sustainable future. Within the strategy, we have set ourselves some stretching targets to deliver climate and environmental action, customer sustainability, resilient supply chains and stronger communities. This includes achieving net zero in scope 1 and 2 greenhouse gas emissions by 2030 and net zero in scope 3 emissions by 2050. We have a clear roadmap to achieve our 2030 target, which includes sourcing or self-generating 100% of our electricity from renewable sources and converting our vehicle fleet to electric vehicles.

Inclusion, equity and wellbeing

During 2021, the Group has continued to attract, develop and retain the best talent in order to strengthen our organisational capabilities, enhancing our diversity through a focus on creating an inclusive and equitable working culture where all our colleagues can be themselves and achieve their full potential. The Group made 55 senior appointments during 2021, with just under half of those being internal movements or promotions. Women now account for 33% of our senior leadership roles and 40% of our Board members. We had a record 91% response rate to our third bi-annual employee engagement survey, with engagement scores up compared to previous years and above global benchmarks.

A highlight during 2021 was the development and subsequent launch of Everyone is Included, our Group plan for an inclusive, equitable and healthy organisation. The Plan includes ten Inclusion Commitments, which are a set of global minimum standards. Our Inclusion Commitments became effective on 1st February 2022 and include: a minimum of 16 weeks' paid leave for all new parents, whoever they are and however they become a parent; additional support for caregivers; support for colleagues who experience pregnancy loss; being a safe place for all lesbian, gay, bi, trans and queer or questioning people; proactively promoting better wellbeing and mental health as well as enabling our hybrid workforce to be at their best wherever they are working.

Enhancing organic growth through acquisitions

We remain committed to deliver organic growth through the disciplined

Strategy in Action

Mitigating global supply challenges

The Global Supply Chain team in Steam Specialties has been working closely with suppliers and logistics providers to mitigate the global disruption and maintain service levels throughout 2021.

The team implemented Short Interval Control (a frequent review process to improve efficiency) of its Inventory Quality Management (IQM) system to manage raw material holding levels in real time to buffer against material shortages and distribution disruption.

The team was also able to utilise raw material stocks that had been held in the UK in preparation for any disruption due to Brexit.

Where raw material shortages were identified the team partnered with its supplier network to identify alternative products or suppliers and flexibly leveraged its manufacturing footprint across our global sites to maintain the production levels required and meet our customers' needs.



implementation of our six strategic themes. Our Corporate (M&A) Strategy is designed to enhance our platform for continued organic growth through selected acquisitions that accelerate the implementation of our strategy. We continue to develop and assess a pipeline of potential acquisitions that expand our capabilities through new products, technologies and geographic coverage, while increasing our addressable market.

During 2021 we agreed the £12.8 million acquisition of Cotopaxi Limited, subsequently completed at the end of January 2022, which advances our journey of embedding digital enablement across the Group. This digitally-enabled, global energy consulting and optimisation specialist will accelerate Steam Specialties' objective to digitally enhance its customer bonding, generating further opportunities that support system uptime, reduce waste and increase efficiency.

Strategic review

Implementing our strategy

1

Increase direct sales effectiveness through market sector focus

By sectorising our sales and service engineers around key industries and developing our products and services in response to voice of customer activities, we increase our ability to self-generate growth and provide value to customers.

Progress in 2021

Across our three Businesses we have been implementing sector specific growth programmes to generate demand, including the launch of new solutions and targeted campaigns.

We also expanded our direct sales organisation, recruiting almost 200 sales and service engineers to support our global growth.

We continued to see the benefits of cross-selling initiatives between Electric Thermal Solutions (ETS) and Steam Specialties, particularly in North America, as existing customer relationships in Steam Specialties helped to deliver decarbonisation related orders for Chromalox.

Focus for 2022

- In Steam Specialties, we'll increase our focus on strategic account management, leveraging insights from global customers on areas such as sustainability and digital to align our solutions with their needs
- In ETS we will implement our refreshed 'go to market' strategy, which leverages existing Group frameworks, in EMEA and Asia Pacific
- In Watson-Marlow we're building 'blueprints' for operational excellence to drive global alignment across our Operating Companies

2

Develop the knowledge and skills of our expert sales and service teams

The knowledge of our sales and service engineers is a key differentiator. We invest extensively in the professional development of our people, building a level of expertise that is unrivalled.

Progress in 2021

We have continued to invest in the training and development of our sales and service engineers throughout 2021. Advanced training programmes were launched and adopted by engineers across our Businesses. We have been utilising our strength as a Group to advance our training offering, with Steam Specialties supporting ETS and Watson-Marlow with the development of their own Academy platforms.

During 2022, Steam Specialties will roll out a learning programme designed to support the effective integration of Cotopaxi's digital capability into our solutions selling organisation.

Focus for 2022

- Steam Specialties will extend its Sales Excellence to its other divisions
- Deploy the knowledge and skills needed across our Steam Specialties Operating Companies to embed the Cotopaxi offer
- ETS will migrate its materials across to the new Academy and launch a new programme focused on value-added solution selling
- Watson-Marlow will launch curricula which is sector specific to enhance its sales force knowledge

Strategy in Action

More efficient, safer and sustainable

Our strategic account management team at Steam Specialties gathers important insights into the impact of global mega trends, such as sustainability and digital, through regular dialogue and engagement with blue-chip, multi-national industrial customers operating within our prioritised sectors.

These customers look to us, as the experts in thermal energy management, to help them identify ways to solve their efficiency, safety and sustainability challenges across multiple manufacturing sites. As part of its sustainability commitment, a leading global petcare manufacturer required an engineering

design solution to eliminate steam losses while maintaining plant uptime.

By conducting an audit of the steam systems our team was able to propose and engineer a 'double block and bleed' configuration for the mains drainage steam traps, enabling safe isolation for replacement without the need for plant shutdown. This solution means steam traps can be changed out whenever required, reducing steam losses to an acceptable level, with improved worker safety and optimum plant efficiency. The same application is now being replicated across our customer's 12 European sites.



Strategy in Action

Increasing effectiveness with digital technologies

Audit Pro, is a new app developed by teams from Spirax Sarco, EMEA, which is part of Steam Specialties. The app enables engineers to capture self-generative growth opportunities in real time from a customer's site. It automatically generates the customer proposal and updates our CRM system, all while the engineers are with the customer. The faster response time as well as accuracy of the information leads to an enhanced customer experience. The app has also increased the effectiveness of our field engineers as they now only need to capture the information once.

Following a successful trial in the UK, plans are now being made to roll this out to all Steam Specialties' Operating Companies.



3

Broaden our global presence

Our strong global infrastructure enables us to branch into adjacent markets rapidly and leverage our existing infrastructure to establish our businesses and technologies in new markets.

Strategy in Action

Successful first year for new Operating Companies

Watson-Marlow Finland and Watson-Marlow Norway were established as new Operating Companies in July 2020. With a combined growth of 116%, they've had an impressive first year, set against the backdrop of the global pandemic.

With an already established presence in Denmark and Sweden, these two new Operating Companies completes Watson-Marlow's footprint in the Nordic

countries. This successful broadening of their geographic footprint has been enabled through collaboration across the region between the Watson-Marlow teams but also through leveraging the established footprint of the more mature Steam Specialties organisation. As a result, Watson-Marlow's teams in Finland and Norway are now on a growth path, selling solutions and providing knowledge to local customers.



Progress in 2021

The geographic expansion of our direct sales presence is a key element of our strategy, enabling us to increase our coverage and access to customers. In 2021, this has been achieved through a combination of increasing headcount in existing territories across all Businesses, expanding into new countries, as well as widening the geographic reach of ETS through investment in resources in Asia Pacific. We opened one new Operating Company for Gestra in France during 2021 and Watson-Marlow successfully started trading from its Operating Company in the Czech Republic.

Our investment in a new manufacturing facility in Massachusetts (USA) for Watson-Marlow is also broadening our regional manufacturing footprint as well as expanding our capacity. Once operations begin in late 2022, this state-of-the art manufacturing facility will better serve the needs of our customers in the Americas, across our portfolio of products and sectors.

Focus for 2022

- Steam Specialties will strengthen its Spirax Sarco product brand's direct sales presence in developing markets, including Middle East and Africa
- ETS will continue to expand geographically with a focus on EMEA and Asia Pacific
- Watson-Marlow will increase its direct sales presence in Asia and Latin America as well as open two new manufacturing facilities in the UK and USA

Strategic review continued

Implementing our strategy continued

4

Leverage our R&D investments

We leverage Research & Development (R&D) investments to meet changing customer requirements, improve our offering, respond to market trends, expand our addressable market and maintain our market-leading position in each of our business niches.

Progress in 2021

Despite the continued challenges of remote working our teams launched 37 new product, service, or solution offerings during the year across Steam Specialties, ETS and Watson-Marlow. Steam Specialties and ETS in particular have been instrumental in driving up the Group's Product Vitality, a measure which compares total revenues from new products, services or solutions introduced in the previous five years to overall Group revenue.

The Thermal Solutions Synergy project, which is a collaboration between Steam Specialties and ETS, is continuing to develop and test solutions for the decarbonisation of steam generation and other industrial processes. Encouraging progress was achieved during customer trials of our thermal energy storage system, as well as live testing of a retrofit system that decarbonises fossil-fuelled industrial steam boilers utilising electric solutions with both Low and Medium Voltage technology.

Focus for 2022

- Launch the developed technologies from the 'Thermal Solutions Synergy' team to deliver decarbonised solutions for industrial heating and steam generation (see case study on pages 16 to 19).
- Develop additional solutions for the decarbonisation of steam generation and digitally enabled service benefits within Steam Specialties
- Continue to develop projects across our Watson-Marlow product portfolio that will bring further sustainable benefits to our customers

Strategy in Action

Realising the benefits of new technologies

Watson-Marlow launched its Qdos Conveying Wave Technology (CWT) product range globally in 2021. This revolutionary pump features a patented pumping principle that includes all the benefits of a peristaltic pump, with a significantly longer service life and broader range of process chemicals. It also eliminates expensive ancillary equipment and better protects the pump operator from exposure to chemicals. In one recent customer application, the extended lifespan of the pump delivered a 250% improvement for a water purification plant company in France.



5

Optimise supply chain effectiveness

We have a global manufacturing footprint and focus on increasing supply chain agility and compressing lead times to enable greater responsiveness, reduce costs and improve customer service.

Progress in 2021

With strong demand growth experienced across our Group, combined with disruption to the global supply chain, our Businesses responded to mitigate the impact on our On-Time-To-Request (OTTR) customer service measure. While lower than prior year, the performance was pleasing in light of the challenges faced by the teams. We continue

to focus on increasing our supply chain agility to compress lead times and enable improved customer service.

In Steam Specialties, the reorganisation of our 11 global supply sites under common leadership has improved collaboration and opportunities for growth enablement working with our sales and business development teams. In 2021, despite the persistent economic and supply chain uncertainties generated by the global pandemic, we did not deviate from our planned investments to modernise our manufacturing equipment as part of our Future Factory initiative. These investments in equipment have resulted in greater flexibility, increased automation and higher output, which has better equipped the Business to respond to increased demand from customers.

During 2021, we also completed construction of three new manufacturing facilities. The team at Aflex Hose, which is part of Watson-Marlow, completed the move into their new offices and state-of-the-art 17,000m² factory in Yorkshire (UK), which increased their production capacity by 70%. In Normandy, (France), work was completed on the new Thermocoax 'One' manufacturing facility which combined four previous sites into one purpose-built, 13,000m² factory and associated offices. Construction work was also completed on the new BioPure facility for Watson-Marlow in Portsmouth (UK). When the internal fit out works are completed early in 2022, the production capacity of BioPure will increase significantly, allowing us to meet growth in demand.

Focus for 2022

- Increase focus on supplier performance in Steam Specialties, using improved data to accelerate improvements
- Further improve alignment between Steam Specialties' sales and supply companies, to reduce lead times and support OTTR improvements
- Continue with our planned investments to modernise our manufacturing equipment as part of our Steam Specialties Future Factory initiative
- Invest further in operational improvements to step up shipments from our Chromalox manufacturing facility in Ogden (USA)
- Complete construction of the new BioPure site at Dunsbury Park and continue construction of the new Watson-Marlow manufacturing facility in Massachusetts, USA

Strategy in Action

Delivering continuous improvements

Our Steam Specialties business has been embarking on a journey of embedding a continuous improvement culture for our global supply chain operation in the Americas.

Starting in 2020 and continuing throughout 2021, 22 Kaizen events (short term idea generation and implementation workshops undertaken by a cross-functional team with the goal of achieving rapid process improvements) have taken place across the world including in Argentina, Brazil, China, India, France, Mexico, the UK and the USA.

These events have addressed issues including reducing manual handling tasks and set up times, increasing throughput as well as improving colleague safety and productivity.

The results have been impressive. 1.2 miles of operator travel distance saved. 52 unsafe conditions eliminated. 283 days of lead time reduced. Sustainability mechanisms have been put in place to ensure these gains are not lost in time.



6

Operate sustainably and help improve our customers' sustainability

As we focus on improving our own sustainability and deliver innovative solutions that improve the sustainability of our customers' operations, we create value and drive growth.

Progress in 2021

Our products and solutions have always enabled our customers to operate both more efficiently and more sustainably. We calculated the environmental benefits of 12 Steam Specialties product ranges sold in the year, which we estimate resulted in savings per annum of 96.1 million m³ of water, 250 million GJ of energy and 18.2 million tonnes of CO₂ in 2021. During the year we completed Life Cycle Assessments on two of Watson-Marlow's product types, which will be extended to other product types in 2022. We also combined the technology capabilities from across our Group to develop innovative heating solutions for the decarbonisation of steam generation and other industrial processes.

We made significant progress in the implementation of our One Planet Sustainability strategy, including our journey towards net zero. At the end of the year more than 30% of our Group's energy was being sourced through green contracts and work began to decarbonise our largest Steam Specialties manufacturing facility. By the end of 2021, our market-based greenhouse gas (GHG) emissions (which take account of green energy contracts) were 16% lower than our 2019 baseline, consistent with our target of achieving a 50% reduction by 2025. This represents a 23% reduction over two years in our carbon emissions intensity, which is market-based carbon emissions relative to inflation adjusted sales at constant currency. We also signed up to two important initiatives, Race to Zero and Business Ambition 1.5°C, to guide our activities in line with climate science. The disclosure insight charity, CDP, formerly known as the Carbon Disclosure Project, increased our environmental score from B to A- which takes us into the leadership category.

To help meet our biodiversity offset target of five times our operational footprint by 2025, we partnered with the World Land Trust, making our first offset investment by contributing to a new nature reserve in Argentina.

We were very pleased to establish the Spirax-Sarco Engineering Group Education Fund in late 2021, contributing an initial £1 million donation as part of our commitment to remove barriers to education and improve diversity in Engineering. In the six months from launch to the end of 2021, One Planet has become very well embedded in our Group

and we are proud of the way in which our teams have embraced the strategy, with all of our Operating Companies having developed at least one community engagement project during 2021.

Focus for 2022

- Develop and deliver role-specific sustainability training to colleagues
- Complete the quantification of our scope 3 emissions
- Develop Life Cycle Assessments and expand our customer use-phase sustainability benefit model across our Businesses to quantify the benefits of select products (see case study on pages 12 to 15)

Strategy in Action

Every day Natural Technology

Steam is familiar in nature and part of life every day. Yet this extraordinary fluid is a high efficiency, mission-critical heating medium for diverse and important industries and increasingly relevant as part of our sustainable future.

In September 2021, Steam Specialties launched its 'Natural Technology' campaign. This campaign was born out of a Customer first² strategy project and is leading the conversation for the industry on the benefits and opportunities of steam.

More and more industries and organisations are recognising steam as the Natural Technology that fits with their sustainability agendas. With new steam generation technologies, we're on a path towards carbon-free steam generation for our customers. Including through our partnership with Electric Thermal Solutions, you can read more about how we're working together to solve tomorrow's challenges on pages 69-85.



Key performance indicators

Our key performance indicators are used to measure the successful implementation of our strategy.

1. Organic Revenue Growth[†] %



Definition

Organic revenue growth measures the change in revenue in the current year compared with the prior year from continuing Group operations. The effects of currency movements, acquisitions and disposals have been removed.

Progress in 2021

Organic sales increased by 12% in Steam Specialties, 7% in Electric Thermal Solutions and 32% in Watson-Marlow.

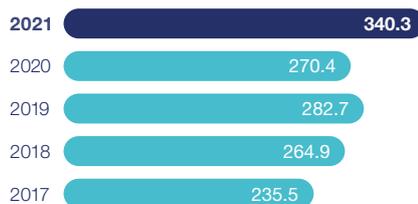
Link to remuneration

Revenue growth is a key driver of profit generation and a central element in the annual planning process. Bonus targets are driven off annual plans and therefore revenue growth drives a key measure of variable remuneration.

Link to risk



2. Adjusted operating profit* £m



Definition

Adjusted operating profit is the profit earned from our business operations before interest, taxes, the share of profit of Associate companies and certain other items.

Progress in 2021

Increased by 26%. The reported figure reflects a 31% organic increase and a 4% decline due to exchange.

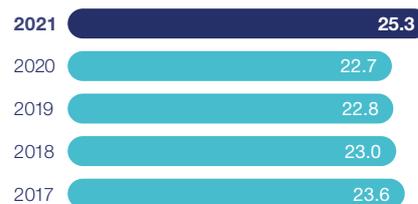
Link to remuneration

Executive Directors' variable remuneration is based on two financial components: adjusted operating profit and cash generation. Adjusted operating profit margin is a key driver of both bonus measures.

Link to risk



3. Adjusted operating profit margin* %



Definition

Adjusted operating profit margin is defined as adjusted operating profit expressed as a percentage of revenue.

Progress in 2021

Increased by 260 bps to 25.3%. On an organic basis the adjusted operating profit margin increased by 280 bps.

Link to remuneration

Executive Directors' variable remuneration is measured on two main indicators: profit and cash generation. Adjusted operating profit margin is a key driver of both.

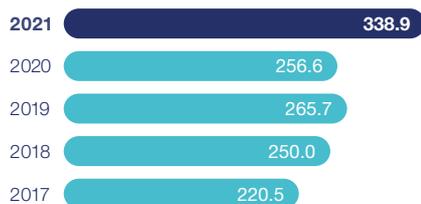
Link to risk



[†] Organic growth is at constant currency and excludes contributions from acquisitions and disposals, see Note 2 to the Financial Statements.

^{*} Based on adjusted operating profit. Adjusted operating profit excludes certain items as set out and explained in the Financial Review and in Note 2 to the Financial Statements.

4. Adjusted earnings per share (EPS)* p



Definition

Earnings per share is a measure of the profit performance of the Group, taking into account the equity structure. EPS is defined as the adjusted after-tax profit attributable to equity shareholders divided by the weighted average number of shares in issue.

Progress in 2021

Increased by 32% to 338.9 pence reflecting an increase in earnings together with a reduction in the Group's effective tax rate.

Link to remuneration

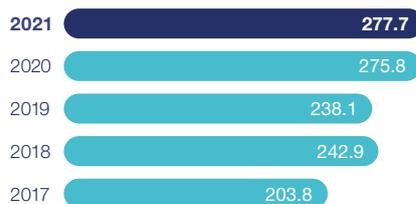
EPS measured over three-year periods is one of the two components of the Performance Share Plan.

Link to risk



● Direct link ○ Indirect link ○ No link

5. Cash generation* £m



Definition

Cash generation is adjusted operating profit after adding back depreciation and amortisation, less cash payments to pension schemes in excess of the charge to operating profit, equity settled share plans, net capital expenditure excluding acquired intangibles, working capital changes and repayment of principal under lease liabilities.

Progress in 2021

Cash generation increased by 1% as higher cash from operating activities was offset by increases in capital expenditure and investment in working capital to support revenue growth.

Link to remuneration

Cash generation is one of two financial measures on which Executive Directors' variable remuneration is based.

Link to risk



● Direct link ○ Indirect link ○ No link

Further reading

More information about remuneration.

+ See pages 131-160

6. H&S over three-day lost time injury rate per 1,000 employees



* 2018 rate increased due to the full-year effect of the Chromalox acquisition

Definition

The number of workplace injuries that resulted in over three days of absence per 1,000 employees. The workplace is any location in which an employee is present as a requirement of employment. Employees include all permanent and temporary staff and contractors. All injuries that occur in workplaces, regardless of cause, are included, as are road traffic accidents.

Progress in 2021

Our over three day lost time injury rate improved during 2021, falling from 2.9 per 1,000 employees in 2020 to 0.6 per 1,000 employees in 2021.

Link to remuneration

The safety of our employees is central to the sustainability of our business and has an impact on the financial success and profitability of the Group. Improving the health, safety and sustainability of our Group is one of the personal strategic objectives of each Executive Director, creating a direct link with remuneration.

Link to risk



● Direct link ○ Indirect link ○ No link

More information about our principal risks.

+ See pages 85 to 91

* Based on adjusted operating profit. Adjusted operating profit excludes certain items as set out and explained in the Financial Review and in Note 2 to the Financial Statements.

Financial review



“With organic sales growth 13% above pre-pandemic levels and record margins, we have demonstrated the resilience of our Group.”

Nimesh Patel
Chief Financial Officer

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 or our peers.

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, which includes a reconciliation of adjusted operating profit to statutory operating profit.

As a multi-national Group of companies, we trade in a large number of foreign 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 foreign 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.

Sales

Group sales were up 13% to £1,344.5 million (2020: £1,193.4 million) and 17% up on an organic basis, the difference being due to a negative foreign exchange impact of over 3%. Organic sales growth more than offset the 3% reduction experienced in 2020, with Group sales well above the pre-pandemic level of £1,242.4 million, demonstrating the resilience of our business model and strategies, as well as the quality of execution by our teams.

The Steam Specialties Business, which accounted for 56% of Group revenue in 2021, experienced strong growth in all regions,

	Adjusted operating profit 2021 £m	Adjusted operating profit margin 2021 %	Adjusted operating profit 2020 £m	Adjusted operating profit margin 2020 %
Steam Specialties	188.7	25.0%	154.3	22.2%
Electric Thermal Solutions	24.0	13.2%	24.6	13.8%
Watson-Marlow	150.0	36.7%	107.3	33.4%
Corporate expenses	(22.4)		(15.8)	
Adjusted operating profit	340.3	25.3%	270.4	22.7%
Post-retirement benefit plan in the UK & Canada being closed to future accrual	–		10.5	
Post-retirement benefit plan in Germany being closed to future accrual	2.0		–	
Restructuring costs	–		(4.3)	
Amortisation of acquisition-related intangible assets	(21.4)		(26.6)	
Reversal of acquisition-related fair value adjustments to inventory	–		(1.0)	
Statutory operating profit	320.9		249.0	

supported by a recovery of IP as customers resumed maintenance activity and capital expansion projects that were postponed in 2020. Sales of £754.9 million were up 9% and 12% up on an organic basis, with growth in demand outstripping sales growth and leading to an expansion of the order book carried forward into 2022.

The Electric Thermal Solutions (ETS) Business, which accounted for 14% of Group revenue in 2021, delivered sales of £181.3 million, up 2% or 7% up organically against 2020. Demand growth was ahead of Steam Specialties demand growth, after adjusting for the record US\$14 million order from the US Navy in 2020. Demand for Chromalox's decarbonisation-related solutions and from Thermocoax's customers in the Semiconductor sector was particularly strong. As demand growth was significantly ahead of sales growth, the Business ended the year with a record order book carried forward into 2022. Sales were impacted by disruptions in the global supply chain and delays in delivering operational improvements at two of our manufacturing facilities in Chromalox.

Watson-Marlow, which accounted for 30% of Group revenue in 2021, delivered record sales of £408.3 million, 27% above 2020 and 32% up on an organic basis. This growth was supported by exceptional demand from the Pharmaceutical & Biotechnology sector, which accounted for almost 60% of Watson-Marlow's sales in 2021, as well as growth strongly above IP in the Process Industries sector. Manufacturing capacity was ramped-up significantly during the year and would have been higher if not for the impact of global supply chain disruptions. Demand growth exceeded sales growth, leading to the largest expansion in order book of any of our Businesses.

Adjusted operating profit

Group adjusted operating profit was up 26% to £340.3 million and 31% up on an organic basis, the difference being due to a negative foreign exchange impact marginally above 4%.

In Steam Specialties, adjusted operating profit of £188.7 million was up 22% compared with 2020 and 27% up on an organic basis, with the benefits of operational gearing partially offset by a significant increase in revenue investments to support future growth.

ETS delivered an adjusted operating profit of £24.0 million, 3% up organically but 2% down on a reported basis, due to a strong currency headwind.

Watson-Marlow's adjusted operating profit was up 40%, and 46% up organically compared with 2020, notwithstanding continued revenue investments and expansion of manufacturing capacity.

Adjusted operating profit margin

The Group adjusted operating profit margin of 25.3% was up 260 bps, a record level for the Group. On an organic basis, the adjusted operating profit margin improved by 280 bps. Margin expansion was driven by strong growth in sales, with the benefit of operational gearing partially offset by the ramp-up of revenue investments to support growth, which mostly impacted the second half of the year. The adjusted operating profit in 2021 does not reflect a full-year cost of these investments. Had we incurred a full-year of cost, the Group's adjusted operating profit margin would have been lower by less than 200 bps.

Within Steam Specialties, the adjusted operating profit margin grew 280 bps to 25.0%, and 290 bps on an organic basis. For ETS, the adjusted operating profit margin was 13.2%, down 60 bps on both a reported and organic basis. Watson-Marlow's adjusted operating profit margin was up 330 bps to 36.7%, driven by a strong 340 bps organic margin expansion.

ETS adjusted operating profit margin was lower in 2021, due to lower than expected shipments from our manufacturing facility in Ogden (USA) and continued losses in our Soissons (France) manufacturing facility, as well as increased revenue investments and costs to support operational improvements. In the Americas, which represents over 75% of Chromalox sales and experienced the highest demand growth, the adjusted operating profit margin has reached 20%. Thermocoax's adjusted operating profit margin was higher in 2021, mostly as a result of continuing strong demand for semiconductors.

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 units. 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 known 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

Financial review continued

spread of geographic locations and through the natural hedge of having a high proportion of our overhead costs in the local currencies of our direct sales operating units.

Currency movements negatively impacted adjusted operating profit by over 4% with translational losses of £10.3 million and an additional transactional loss of £0.8 million. 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 is approximately £110 million.

Statutory operating profit and margin

Statutory operating profit of £320.9 million was up from £249.0 million in 2020 and the statutory operating profit margin of 23.9% was up 300 bps (2020: 20.9%). The drivers of the increase in statutory operating profit and statutory operating profit margin are as explained in the adjusted operating profit sections above, as well as the reduction in acquired intangible amortisation to £21.4 million (2020: £26.6 million) and the reduction in defined benefit pension credit to £2.0 million (2020: £10.5 million).

Finance costs

Net finance costs decreased to £6.4 million from £8.7 million in 2020. Net bank interest decreased to £4.0 million from £6.0 million in 2020, as a result of lower average net debt.

Net costs under IAS 19 in respect of the Group's defined benefit pension schemes decreased to £1.3 million (2020: £1.5 million). The IFRS 16 interest charge for the year was £1.1 million (2020: £1.2 million).

Profit before tax

Adjusted profit before tax was up 28% to £333.9 million (2020: £261.5 million) and up 33% on an organic basis.

On a statutory basis, profit before tax was £314.5 million (2020: £240.1 million), with the items listed below excluded from adjusted profit before tax:

- a charge of £21.4 million (2020: £26.6 million) for the amortisation of acquisition-related intangible assets; and
- a credit of £2.0 million resulting from the defined benefit retirement plan in Germany being closed to future accrual. In 2020, a credit of £10.5 million related to the UK and Canada defined benefit retirement plans being closed to future accrual.

Taxation

The tax charge on the adjusted profit before tax decreased by 240 bps to 25.1% (2020: 27.5%) which was predominantly driven by the claiming of additional innovation tax reliefs available in a number of countries in which the Group operates. The tax charge in the year benefitted from first-time claims being made on a retrospective basis to also cover previous years.

The Group's overall tax rate reflects the blended average of rates in tax jurisdictions around the world in which the Group trades and generates profit. The Group comprises in the region of 130 operating units, the majority of which are small, reflecting our local direct sales business model. On a statutory basis the Group's effective tax rate was 25.3% (2020: 27.5%).

For 2022, we currently anticipate that based on a forecast mix of profits, the Group effective tax rate will be approximately 26%.

In April 2019, the European Commission's investigation into the UK's Controlled Foreign Company regime concluded that certain aspects constituted State Aid, requiring the UK tax authority to recover the benefit from affected taxpayers. During 2021, the Group received and settled Charging Notices totalling £4.9 million for the benefit received in 2017 and 2018 and has recognised a receivable for this amount at the year end balance sheet date. The Group has not received a Charging Notice for the benefit received prior to 2017, which it estimates to be £2.8 million. Her Majesty's Customs & Excise has enquired into the benefit received during 2019, which the Group estimates to be £1.0 million. No provisions have been recognised at the yearend balance sheet date for these liabilities. Further details are included in Note 9 to the Financial Statements.

Earnings per share

Adjusted earnings per share increased by 32% to 338.9 pence (2020: 256.6 pence), ahead of the increase in adjusted operating profit due to a reduction in the effective tax rate. Statutory earnings per share were 318.3 pence (2020: 235.5 pence).

The statutory fully diluted earnings per share were not materially different to the statutory earnings per share in either year.

Dividends

The Group has a progressive dividend policy where 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 54-year record of dividend progress, with a compound annual increase of 11% over that period and an 11% per annum increase over the last 10 years. The Board is proposing a final dividend of 97.5 pence per share for 2021 (2020: 84.5 pence) payable on 20th May 2022 to shareholders on the register at 22nd April 2022. Together with the interim dividend of 38.5 pence per share (2020: 33.5 pence), the total Ordinary dividend for the year is 136.0 pence per share, an increase of 15% on the Ordinary dividend of 118.0 pence per share in 2020.

The total amount paid in dividends during the year was £91.0 million, 10% above the £82.5 million paid in 2020.

Total capital employed increased by 13% at reported exchange rates and 16% on a constant currency basis. This compares with organic sales growth of 17%.

Tangible fixed assets (PPE and IFRS 16 right-of-use-assets) increased by £42.7 million to £340.3 million, primarily as a result of an increase in right-of-use assets from the addition of new manufacturing facilities at Watson-Marlow BioPure in Portsmouth (UK) and Thermocoax in Normandy (France).

Total working capital increased by £39.5 million. The ratio of working capital to sales (on a constant currency basis) reduced by 40 bps to 20.8% (2020: 21.2%). Going forward, we anticipate maintaining a similar percentage of working capital to sales.

Capital employed

	2021 £m	2020 £m
Capital employed		
Property, plant and equipment	277.4	261.3
Right-of-use assets (IFRS 16)	62.9	36.3
Software & Development costs*	38.9	33.4
Inventories	201.3	180.1
Trade receivables	272.3	226.3
Prepayments and other current assets	61.7	41.3
Trade, other payables, current provisions and current tax	(255.3)	(194.9)
Capital employed	659.2	583.8
Acquired intangibles including goodwill	628.0	665.6
Investment in Associate	–	–
Post-retirement benefits	(44.7)	(98.6)
Net deferred tax	(35.7)	(28.5)
Non-current provisions and long-term payables	(6.2)	(7.1)
Lease liabilities	(60.1)	(34.1)
Net debt	(130.5)	(228.8)
Net assets	1,010.0	852.3
Adjusted operating profit	340.3	270.4
Adjusted operating profit (excluding IFRS 16)	339.2	269.3
Average capital employed	621.5	589.2
Average capital employed (excluding IFRS 16)	571.9	550.6
Return on capital employed	54.7%	45.9%
Return on capital employed (excluding IFRS 16)	59.3%	48.9%

* Restated following IFRS Interpretations Committee agenda decision on configuration and customisation costs in cloud computing arrangements (Software as a Service (SaaS)) – see Note 1 to the Financial Statements for further details.

Return on capital employed (ROCE)

ROCE measures effective management of fixed assets and working capital relative to the profitability of the business. ROCE increased by 880 bps to 54.7% (2020: 45.9%), primarily due to the 31% organic growth in adjusted operating profit, outpacing the growth in the Group's capital investment. Excluding the effect of IFRS 16, ROCE increased by 1,040 bps. On a constant currency basis and excluding the impacts of acquisitions, disposals and IFRS 16, ROCE increased by 1,170 bps. ROCE is defined in Note 2 to the Financial Statements.

Return on invested capital (ROIC)

ROIC measures the return on invested capital, both equity and debt, relative to the adjusted operating profit after tax. ROIC increased by 480 bps to 22.0% (2020: 17.2%). Excluding the effect of IFRS 16, ROIC grew by 510 bps. On a constant currency basis and excluding acquisitions, disposals and IFRS 16, ROIC grew by 570 bps. ROIC is defined in Note 2 to the Financial Statements.

Post-retirement benefits

The net post-retirement benefit liability under IAS 19 decreased to £44.7 million (2020: £98.6 million). Assets rose by £29.0 million (5%), reflecting greater than expected returns. Liabilities decreased by £24.9 million (4%), largely due to an increase in the AA corporate bond rates used to discount future cash flows.

The main UK schemes, which constitute 89% of assets, were closed to new members in 2001 and closed to future accrual with effect from 30th June 2020. These schemes continue to be managed under a dynamic de-risking strategy whereby asset and liability values are monitored on a daily basis by the asset manager and appropriate asset allocation decisions taken as the funding level improves against pre-agreed trigger points. During 2021 the defined benefit scheme in Germany was closed to future accrual, effective from 1st January 2021, resulting in a £2.0 million credit to the Income Statement (See Note 2 to the Financial Statements).

Financial review continued

Cash flow and treasury

Cash flow	2021 £m	2020 £m
Adjusted operating profit	340.3	270.4
Depreciation and amortisation (excluding IFRS 16)	35.7	36.7
Depreciation of leased assets	11.4	12.1
Cash payments to pension schemes more than the charge to adjusted operating profit	(5.6)	(3.9)
Equity settled share plans	9.2	7.0
Working capital changes	(39.5)	13.4
Repayments of principal under lease liabilities	(11.7)	(12.2)
Capital expenditure (including software and development)	(64.1)	(49.6)
Capital disposals	2.0	1.9
Adjusted cash from operations	277.7	275.8
Net interest	(5.1)	(7.2)
Income taxes paid	(78.1)	(71.9)
Free cash flow	194.5	196.7
Net dividends paid	(91.0)	(82.5)
Purchase of employee benefit trust shares/Proceeds from issue of shares	(24.6)	(12.5)
(Acquisitions)/Disposals of subsidiaries & restructuring costs	–	(9.4)
Cash flow for the year	78.9	92.3
Exchange movements	19.4	(25.9)
Opening net debt	(228.8)	(295.2)
Net debt at 31st December (excluding IFRS 16)	(130.5)	(228.8)
IFRS 16 lease liability	(60.1)	(34.1)
Net debt and lease liability at 31st December	(190.6)	(262.9)

Adjusted cash from operations is a measure of the cash flow generated from our companies which reflects the components within the control of local management. A reconciliation between this and statutory operating cash flow can be found in Note 2 to the Financial Statements.

Adjusted cash from operations improved by £1.9 million to £277.7 million (2020: £275.8 million) representing 82% cash conversion.

Movements in working capital are discussed in the Capital Employed section.

The capital intensity of our business is low, with capital expenditure typically between 4% and 6% of sales. During the year, our capital expenditure was a record £64.1 million, equivalent to 5% of sales. Capital expenditure increased by £14.5 million, principally as a result of expenditure on new manufacturing capacity for Watson-Marlow, including BioPure in Portsmouth (UK). The Group also continued to invest in other significant projects, including development of our digital capabilities.

We are targeting capital expenditure in 2022 to be between 6% and 7% of sales, above our typical range as we invest in new production facilities for Watson-Marlow.

Tax paid in the year increased by £6.2 million to £78.1 million as a result of the increase in profitability during 2021. Free cash flow for the year was £194.5 million (2020: £196.7 million).

Dividend payments were £91.0 million, including payments to minorities (2020: £82.5 million) and represent the final dividend for 2020 and the interim dividend for 2021.

The net of share purchases and new shares issued for the Group's various employee share schemes resulted in a cash outflow of £24.6 million (2020: £12.5 million) reflecting the move to acquire shares on the open market rather than issue new equity.

The fundamentals of our financial resilience

The strong operational and financial performance of the Group during 2021 continues to reflect the resilience of our business model. As the world continues to operate against the backdrop of the COVID-19 pandemic we have achieved a record year of financial performance. We have also continued to focus on investment to support our future growth, including in new manufacturing capacity, delivering on our sustainability goals and enhancing our digital capability. The Group's longstanding track record of increasing returns to shareholders has continued with a 15% year-on-year increase in Ordinary dividends.

Our products and solutions are used across a broad range of industries and geographical markets, which links our business performance to movements in global industrial production (IP). In 2021, global IP rebounded following the decline in 2020 due to the effects of COVID-19. As in previous years, our business model supported our outperformance against

global IP due to our ability to self-generate sales (accounting for 35% of sales) and a significant base business in maintenance and repair sales (accounting for 50% 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.

Strong focus on cash generation and liquidity

A key strength of the business is our ability to generate cash. Following the exceptional performance during 2020 of 102% cash conversion, we have delivered a more normalised 82% cash conversion in 2021 as a result of (i) a step up in capital expenditure as we have increased investment in expanding production capacity and (ii) working capital investment to support underlying business growth.

This performance allowed us to continue to strengthen our balance sheet, resulting in a year end net debt position, excluding leases, of £130.5 million (2020: £228.8 million) and a net debt to EBITDA ratio of 0.35 times (2020: 0.7 times). At the end of the year total committed and undrawn debt facilities amounted to £346 million alongside a net cash balance of £219 million. The average tenor of our debt is 26 months with the earliest contractual repayment in March 2022.

Resilience over the short, medium and long term

Our business model and the investments we have continued to make in our Group, combined with our high cash generation, position us well to adapt to economic cycles. Our Going Concern and Viability analysis gives us confidence in the robustness of our business and our capital structure, even under downside scenarios. We are monitoring developments in both Russia and Ukraine, which collectively account for just over 1% of Group sales.

We have undertaken scenario-based modelling of our key risks, which underpins our confidence in our short and medium-term resilience. The continued implementation of our strategy supports our longer-term resilience and we have continued to refresh this strategy, with a focus on the changing economic, environmental and social factors and their ability to 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 2021 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, which include the potential impact of the ongoing COVID-19 pandemic 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 further liquidity, and a view can be formed of the probability of those occurring.

Our financial position remains robust, with the earliest maturity of any facility due in March 2022 being €70 million due on the €160 million Term Loan, which is accounted for within the cash flow forecast. The debt facilities contain a leverage (net debt/EBITDA) covenant 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 regularly monitors its financial position to ensure that it remains within the terms of its banking covenants. At 31st December 2021 leverage (defined as net debt divided by adjusted earnings before interest, tax, depreciation and amortisation) was 0.35x (31st December 2020: 0.7x), showing a continued reduction since the prior period. Interest cover (defined as adjusted earnings before interest, tax, depreciation and amortisation divided by net bank interest) was 93x at 31st December 2021 (31st December 2020: 51x).

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 these covenants. In addition, the reverse stress test does not take into account any mitigating actions which the Group would implement in the event of a severe and extended revenue and profitability decline, which would increase the headroom further.

Having assessed the relevant business risks, including the impact of COVID-19 as discussed in our principal risks on pages 85 to 91, and considered the headroom available under several alternative scenarios as set out in the viability assessment on page 43, 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 in the Risk Management section on pages 85-91.

The Board has adopted a five-year viability assessment, which it believes to be appropriate as the 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 in alignment with the Group's proposed new principal financing facility duration. 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 a reasonable degree of confidence while still providing a 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 Company's ability to control them and the effectiveness of mitigating actions. 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.

Financial review continued

Scenarios modelled

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 on the Group of economic political instability on global Industrial Production output, material foreign 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 assumed to have been taken by the Group.

Despite these impacts the Group continued to trade profitably and remained comfortably within the financial covenants contained within our external financing facilities at all times.

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 2021 adjusted Group operating profit was assumed alongside a negative impact of 10% on sales resulting from the associated reputational damage.

Despite these impacts the Group continued to trade profitably and remained comfortably within the financial covenants contained within our external financing facilities at all times.

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 cybersecurity.

Despite these impacts the Group continued to trade profitably and remained comfortably within the financial covenants contained within our external financing facilities at all times.

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 covenants contained within our external financing facilities at all times.

An additional 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 banking 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 of 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 banking 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 165.

Links to principal risks

Risk 1: Economic and political instability

Risk 2: Significant exchange rate movement

Risk 4: Loss of manufacturing output at any Group factory

Risk 7: Inability to identify or respond to changes in customer needs

Risk 8: Loss of critical supplier

Risk 6: Breach of legal and regulatory requirements (including ABC laws)

Risk 3: Cybersecurity

Risk 5: Failure to realise acquisition objectives

Long-term resilience

The Group has a long track record, over 130 years, of consistently adapting to changing macro-economic, 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 recognise the need to anticipate and mitigate the impact of climate-related change, although it is not classed as a principal risk for our Group. In 2021 we launched our One Planet strategy covered in more detail on page 47. We believe that the focus on climate change will drive a positive impact for the business and our customers.

Steam remains the world's most efficient heat transfer medium with multiple on-site applications. We have a highly resilient business and strategy that will remain relevant across different climate-related scenarios, but we are not complacent and plan to conduct further scenario and risk analysis at a business level going forward. We continue to invest in research and development into solutions which will reduce our environmental impact and support our customers to reduce their energy use and carbon emissions. We are exploring synergies within our thermal energy management portfolio, which will enable us to combine core capabilities from our Steam Specialties and Electric Thermal Solutions businesses to develop our products and service capabilities for quantifiable sustainability benefits. This will enable us to support the evolving needs of our customers as they seek to mitigate the impact of their operations on the environment.

Capital structure

The Board keeps the capital requirements of the Group under regular review, maintaining a strong financial position to protect the business and provide flexibility of funding for 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 investment in the business to generate further good returns in the future, aligned with our strategy for growth and targeting improvement in our key performance indicators. Next, we prioritise finding suitable acquisitions that can expand our addressable market through increasing our geographic reach, deepening our market penetration, or broadening our product range. Acquisition targets need to exhibit a good strategic fit and meet 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. However, in the near term, we will look to reduce our financial leverage prior to considering new returns of capital to shareholders.

Audit Tender

Deloitte was appointed as the Group's external auditor in 2014, with the year ended 31st December 2014 being the first year Deloitte provided an audit opinion on the Group's Financial Statements.

In line with the Statutory Auditors and Third Country Auditors Regulations 2016, the Group is required to conduct a tender process for the external audit at least every 10 years. A tender process is therefore required to take place by 2023.

Due to a number of potential regulatory changes, primarily resulting from the proposals contained within the Department for Business, Energy and Industrial Strategy (BEIS) 'White Paper': Restoring trust in audit and corporate governance, issued during 2021, the Group will be conducting an external audit tender process one year early during 2022 in order to ensure continuity of external auditor during the likely multi-year period of implementation. It is currently expected that the tender process will take place in the first half of 2022 with the expectation that the selected auditor will be in place to review the Half Year results for the period ending 30th June 2023. Resolutions will be proposed at the 2023 AGM to appoint the proposed auditor.

One Planet: Engineering with Purpose

Our One Planet strategy is our commitment to sustainability and our roadmap for building a more sustainable future. It will guide our operations as we work with stakeholders to leave a better world for tomorrow.



“Building on our responsible business foundations, One Planet will accelerate our sustainability performance as we work with our customers, suppliers and communities to drive meaningful and positive change.”

Sarah Peers
Group Head of Sustainability

Operating sustainably is not only the right thing to do, it also makes good business sense for us and our customers. Our products and engineered solutions create sustainable value for our customers by reducing their environmental impacts and enabling them to operate more efficiently and safely.

This in turn creates sustainable value for our shareholders, enables us to manage risk and puts us on a path to leadership in industrial sustainability.

We have always been focused on sustainability. However, since our first Sustainability strategy was launched in 2015, we have changed and grown as an organisation and the business landscape has changed rapidly, particularly with regards to sustainability. In order to continue to deliver impactful and meaningful change, and to tackle the environmental challenges being faced, this year we launched our refreshed Sustainability strategy – One Planet: Engineering with Purpose.

The strategy is implemented at a Business level, with central oversight from the Group Executive Committee, for more information please see page 51.

Our strategy

One Planet outlines our commitment to becoming a global leader in industrial sustainability by operating responsibly and leveraging our expertise and influence to deliver solutions that address global sustainability challenges. In developing One Planet, we were informed by the Group Materiality Matrix completed in 2020, which can be found on our website www.spiraxsarcoengineering.com/sustainability/one-planet

The strategy will be delivered through six strategic initiatives, which are:

-  **1. Net zero carbon**
Achieve net zero greenhouse gas emissions
-  **2. Biodiversity net gain**
Deliver biodiversity net gain
-  **3. Environment improvements**
Implement environmental improvements in our operations
-  **4. Sustainable products**
Grow sales of products with quantified sustainability benefits
-  **5. Supply chain sustainability**
Embed sustainability criteria in supply chain management
-  **6. Community wellbeing**
Support the wellbeing of people in our communities

Additionally, the strategy is supported by two strategic projects that are critical to our ability to deliver the strategy and assess progress:

-  **1. Knowledge**
Develop our employees' sustainability knowledge
-  **2. Data**
Improve the availability and quality of sustainability data

These initiatives and projects provide a Group-wide framework for managing sustainability, to achieve significant and rapid improvements and to empower, align and establish accountability for sustainability across all of our Companies. With a strong focus on our customers and the ways in which our products and solutions can help them achieve their sustainability targets, we can deliver a better world for future generations, because we only have One Planet.

Watch our One Planet video: www.spiraxsarcoengineering.com



Responsible business foundations

Health and Safety

Safety is of the highest priority and is one of our Company Values. This focus is evident in the strong safety record we have maintained for another year with zero work-related fatalities among our colleagues or contractors and the lowest rate of lost time injuries since we began measuring. In 2021, we continued to see the effects of the pandemic globally and maintained our Group COVID-19 minimum standards, enhancing them in January and amending throughout the year in line with safety measures and global vaccination rollout. These measures have enabled us to continue to operate safely, without the need to shut down any facilities due to an outbreak.

Health & Safety (H&S) continues to be an important priority for the Group Chief Executive, Board of Directors and Executive management teams, with H&S being a standing agenda item at every Board meeting and Group Executive Committee meeting. We have robust H&S management systems across the Group and have continued to improve our processes over the year. At the time of publishing, 49 of our Group Companies are certified to ISO 45001, OHSAS 18001 or equivalent.

Certification to OHSAS 18001 has decreased in line with our transition to ISO 45001, therefore the total number of certifications has reduced since 2020 when there were a number of Group companies with both certifications in place.

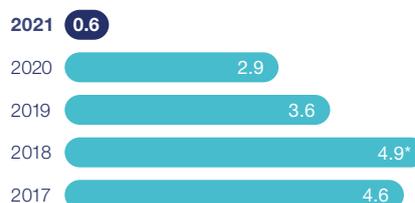
Progress

In 2021, we continued to invest in technology to aid the tracking and prevention of incidents. We implemented COMET, a new root cause analysis software tool and improved our process for identifying root cause and implementing corrective actions. Over 50 EHS Leaders attended a five-day training course on the use of the tool. We are now using the process and tool for reviewing all serious accidents and environmental incidents, looking at human

factors, barriers and change evaluation with the aim of identifying root cause and robust corrective actions to prevent reoccurrence. We have also invested in a new Environment, Health & Safety (EHS) platform. This replaces the in-house system and enables colleagues to raise concerns and to report near misses and accidents as well as to record Behavioural Based Safety (BBS) observations. The system will also track actions to reduce risk across the Group.

We continued to roll out training under the BBS programme, which has been successful, with a large increase in the number of safety observations being raised. Nearly 20,000 were raised across the Group (2020: 7,586). We have commenced phase one training of the BBS programme within Electric Thermal Solutions (ETS) and trained over 2,000 colleagues globally within Watson-Marlow on phase one and two. In January, we created a BBS roadmap which has been implemented in Steam Specialties and offers clear guidance for the General Managers, Divisional Directors, Supply and Sales Companies and for central functions. This ensures that at-risk behaviours are captured and our colleagues are engaged and having conversations with their peer groups. With the continued focus on training, recording of near misses, colleague concerns and tracking actions through to implementation, we have seen a drop in one to three-day lost time injuries per 1,000 employees. Lost time injuries are now at their lowest rate since we began measuring, with rates of 1.2 one to three-day injuries (2020: 1.3) and 0.6 over three-day injuries (2020: 2.9) per 1,000 employees in 2021. The Group achieved five months across the year without any lost time injuries. The number of safety concerns raised by our colleagues increased to 3,582 per 1,000 employees demonstrating an increasingly robust BBS culture (2020: 3,325) and near misses reported decreased to 343 per 1,000 employees (2020: 370).

Over three-day lost time injury rate per 1,000 employees



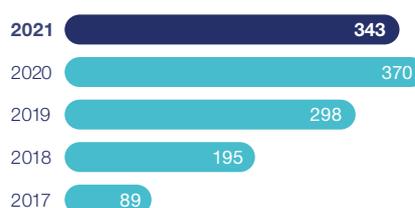
* 2018 rate increased due to the full-year effect of the Chromalox acquisition

One to three-day lost time injury rate per 1,000 employees

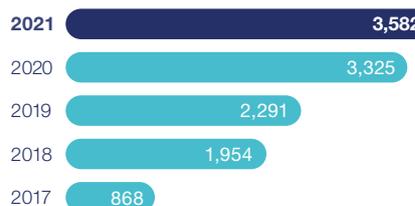


* 2018 rate increased due to the full-year effect of the Chromalox acquisition

Near misses per 1,000 employees



Health and Safety concerns raised per 1,000 employees



Notable Achievements

During 2021, we had a number of notable achievements across the Group. In the Steam Specialties Business, Spirax Sarco Limited, in the UK, received a Royal Society for the Prevention of Accidents (RoSPA) Gold Award, for the fourth year running, demonstrating our commitment to a high standard safety culture. A safety theme competition was run within the Business, focusing on hand safety, COVID-19 controls and burn and scald risks and a number of initiatives were undertaken to engage our colleagues and their families.

Our Spirax Sarco Mexico manufacturing facility achieved over five years without a lost time accident and Electric Thermal Solutions (ETS) continued to build upon the H&S culture, investing in new safer equipment as well as commencing phase one of the BBS programme rollout. More additional leading indicators were raised and corrective actions implemented.

BioPure, part of Watson-Marlow, commissioned the construction of a new factory within the UK. Over 330 inductions were given to contractors and as a result of tightly controlled safety programmes, there were zero lost time accidents reported.

Focus for 2022

- Fully deploy of the new EHS platform across the Group
- Fully implement BBS phase two and three within Watson-Marlow and deploy the BBS roadmap
- Fully implement the BBS phase one, two and three programme within Electric Thermal Solutions and commence observations
- Complete the H&S framework and undertake baseline audits

People and Wellbeing

Our Values of Safety, Excellence, Customer Focus, Integrity, Collaboration and Respect are the guiding principles that we use across the Group to underpin decision-making, guide our conduct and define our culture. These Values underpin our HR policies and employment practices as part of our commitment to creating a culture in which our colleagues feel included and safe to challenge. We have robust HR policies and systems that support us in protecting the rights of our colleagues and ensure their fair and equitable treatment.

Progress

In April, we ran our biennial global employee engagement survey. The survey was available for a three-week period and was offered online and via paper to ensure access for all of our colleagues. We were delighted to achieve a 91% participation rate and to see an increase in overall engagement since our 2019 survey.

We consider the survey just the beginning of a conversation with our colleagues. The themes raised have been further explored through a number of locally-led focus groups and action plans have been set at both a local and Group-wide level, in order to address and also celebrate the feedback. As a result of positive colleague feedback on the increased levels of communication during the COVID-19 pandemic, as well as feedback from the survey, we have established a Group Communications function with a significant focus on improving internal communications to ensure our globally diverse colleagues have equal and timely access to information and are able to give their feedback. This will be instrumental in ensuring we communicate the Group actions taken following the survey, which will be focused on explaining the purpose of our initiatives more comprehensively, embedding our Inclusion Plan, offering opportunity for personal growth and increasing our community engagement activities.

Colleague wellbeing

Our Company Value of Safety not only encompasses physical safety, but also the overall wellbeing of our colleagues. Our global Employee Assistance Programme (EAP), which benefits our colleagues and their dependants, remains in place and we have given more focus to mental wellbeing this year. Launched in April 2020, the EAP is available to all colleagues and their family members and is available in all of the Group's local languages. Anecdotal feedback has been positive. Usage is currently on or under external benchmarks in different regions. To encourage usage, we plan to further promote the resource and improve usage monitoring, while maintaining absolute confidentiality for users of the EAP.

In February, we undertook a colleague wellbeing check-in via a quick online survey. We wanted to understand how our colleagues were feeling during the ongoing COVID-19 restrictions, so we could offer support with particular challenges.

The feedback resulted in the launch of a wellbeing toolkit which was distributed globally in multiple languages. The toolkit offers practical tips and resources on topics such as loneliness, digital balance and managing stress.

Focus for 2022

- Develop a wider range of channels to support more effective communications, including for colleagues working in manufacturing locations
- Implement planned actions following the results of our biennial global engagement survey
- All colleagues to have an additional 'wellbeing day'

Responsible business foundations

Inclusion and Diversity

In 2021, we developed our first global Inclusion Plan ‘Everyone is Included’ based on a wide range of external research and engagement across our Group. Our Plan sets out how we will continue to create a truly inclusive and equitable working culture where all of our colleagues can be themselves and achieve their full potential.

We believe this is the right thing to do for our people and that it is vital to fulfilling our Group Purpose. A focus on inclusion, equity and wellbeing empowers high performance, attracts great talent and ensures we remain a responsible employer and solutions provider.

Our Inclusion Plan became effective on 1st February 2022. It has four priorities:

- Inclusive leadership
- Inclusive behaviours
- Inclusive processes
- Inclusive partnerships

As part of the Inclusion Plan, we developed and launched a set of ‘Group Inclusion Commitments’. These commitments are minimum standards, partnerships and pledges on key inclusion topics that will help make a tangible difference for our colleagues at work and home as well as supporting our ongoing inclusion journey. They cover topics as diverse as gender-neutral parental leave, caregivers’ leave, support on pregnancy loss, menopause-friendly workplaces, LGBTQ+ inclusion, hybrid working, support on domestic violence and abuse and more.

Our focus on inclusion, equity and wellbeing remains a priority for our global organisation. It supports the UN Sustainable Development Goals and forms part of the responsible business foundations that underpin our One Planet Sustainability strategy.

Our Diversity and Inclusion Policy outlines, amongst other things, a commitment to provide equality, fairness and respect for all colleagues, regardless of background; to oppose all forms of unlawful discrimination and a commitment to operate in accordance with the Equality Act 2010, avoiding discriminating on the basis of any protected characteristics.

Our recruitment policies ensure decisions are fair and made without bias and our remuneration policies are designed to recognise skills, experience and achievement.

Progress

In 2021, we contributed to the FTSE Women Leaders: Hampton-Alexander Review. We have appointed and promoted a number of women to leadership roles within our organisation. At the end of the year, 33% of the Executive Committee and their Direct Reports were female, an increase from 27% last year.

We continue to report on gender pay gap in the UK and our starting salaries are regularly analysed by our regional teams, using an in-house modelling system, to ensure parity at the time of hire.

We have launched three more colleague networks to join our already successful Women’s Career & Personal Development Network, which include our Working Families Forum, the Disability Network in Watson-Marlow and the LGBTQ+ and friends network that currently resides within the EMEA division of our Steam Specialties Business. These networks offer a place for peer-to-peer support across our global locations.

Our Employee Value Proposition, initially launched in 2020, has been used to further engage colleagues through a number of global colleague interactions and learning sessions with leadership teams across the Business. The Employee Value Proposition is now a cornerstone of our recruitment process. During 2021, we continued to invest in our Female Executive Mentoring Programme and celebrated a number of events such as International Women’s Day, International Women in Engineering Day, Pride, International Men’s Day and Black History Month to acknowledge the diversity of our organisation and the communities in which we operate.

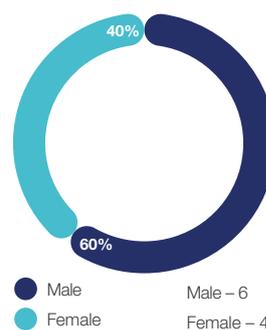


Watch our Everyone is Included video: www.spiraxsarcoengineering.com

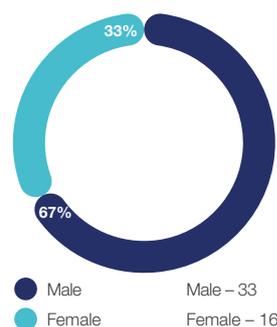
Focus for 2022

- Inclusion Plan launch and commitments to be embedded across our global organisation
- Gender targets to be set for graduate and commercial roles and targets on ethnicity to be explored

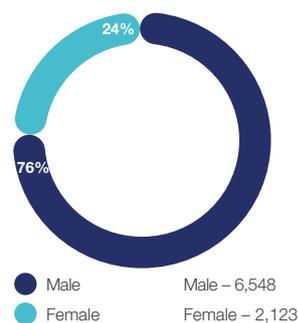
Gender – Board of Directors*



Gender – Senior Managers*



Gender – Total Workforce*



* At 31st December 2021

** Definition of senior managers updated to align with Hampton-Alexander Review in 2021

Ethical Business

Our strong Company Values and robust Group Policies instil a culture of ethical behaviour and provide a framework under which we operate to ensure that these high expectations are met by our colleagues in all parts of our global operations.

Progress

All colleagues with an email address are required to complete our Group Essentials training programme when joining the Company and annually thereafter. Some of the topics covered include Anti-Bribery and Corruption (ABC), Health & Safety at work and Our Values, which are mandatory for around 7,000 colleagues. In 2021 we created a new training course as an introduction to sustainability principles, as part of strategic project one of One Planet.

We are in the process of rolling out the Group Essentials programme to warehouse-based colleagues. By the end of the year this had been completed in the UK, France, Argentina, Brazil and Italy, equating to 459 additional users. In total 6,412 colleagues had completed ABC training by the end of the year and 5,848 completed Corporate Criminal Offence training.

Sustainability

In November, we began the rollout of our new Group Essentials Sustainability course to all colleagues who complete their training in English and we are in the process of translating it into another 16 Group languages. This training aims to build our colleagues' understanding of sustainability to enable them to contribute more meaningfully to our sustainability objectives, as well as prepare them for a global economy that will increasingly value and demand this knowledge. By the end of the year 1,978 of our colleagues had completed this essential training.

Whistle-blowing

Any colleague with a concern about potentially unethical behaviour is able to raise it confidentially through a local, independent third-party whistle-blowing hotline, hosted by Safecall. In 2021, 23 cases were raised globally via this hotline, an increase from 2020, which shows that our colleagues

are both aware of the hotline and finding it helpful for reporting purposes. All calls were investigated by senior management and action taken if necessary, with summaries of calls and related actions reviewed by the Audit Committee and the Board.

Governance

The One Planet strategy has central strategic oversight and sponsorship by the Group Executive Committee and day-to-day oversight by the Group Sustainability Management Committee (GSMC). Implementation is supported at a Group level through the six strategic initiatives and two strategic projects, which each have an Executive sponsor, an initiative lead, and a cross-business working group. The GSMC meets regularly to discuss the initiatives and support each other where required and in turn informs the Group Executive Committee on their progress. The Group Chief Executive is the overall Executive sponsor for the strategy.

Responsibility for implementing the strategy sits at a Business level, with the strategy embedded into the core Business strategies of Steam Specialties, Electric Thermal Solutions and Watson-Marlow.

Each Business and Operating Company is responsible for implementing the One

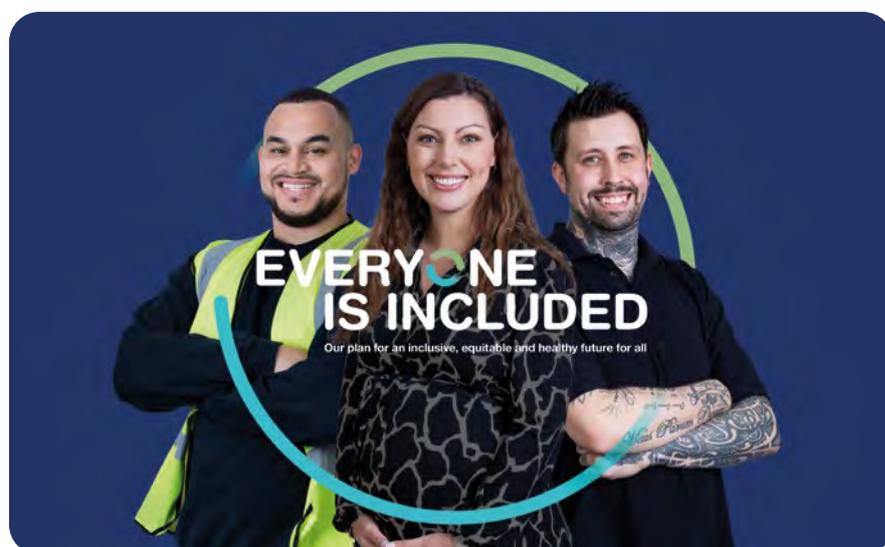
Planet strategy through their own Business strategy; ensuring that all colleagues have the opportunity to get involved; meeting and, where possible, exceeding minimum expectations; delivering timely and accurate data and collaborating to share learning across the Group.

The Board received an update at every Board meeting and the Group Executive Committee received monthly updates on progress during 2021, as well as holding quarterly Steering Committee meetings following the launch of the strategy, to receive reports on performance and review progress against the strategic initiatives and targets.

This combination of Board and Executive Committee oversight, ensures that the One Planet strategy is a key focus area for the Group.

Focus for 2022

- Continue the rollout of the Group Essentials Sustainability course to be available in all 17 Group languages
- Increase availability of all Group Essentials training to warehouse-based colleagues globally



Our journey to a more inclusive culture

Engineering

Shaping our culture

Doing the right thing for our people. Valuing difference as a strength. Empowering our colleagues to be their best. Creating opportunity for positive change.

These are the four foundations on which we've built our Group Inclusion Plan, because they matter to our colleagues. We are bringing this plan to life through a focus on inclusive leadership, inclusive behaviours, inclusive processes and inclusive partnerships – and by living our Values every day. As part of this, we've introduced ten new Group Inclusion Commitments. They are our way of supporting our colleagues through life's challenges and ensuring everyone is included wherever we work.





with Purpose

Including everyone

Across our Group, our goal is to create a truly inclusive and equitable working environment where ALL of our colleagues can be themselves and achieve their full potential.

Our culture is one where everyone feels safe, supported and able to bring their whole selves to work. It's shaped by our leaders, who bring diverse perspectives and are confident, authentic, active champions of inclusion. Our culture promotes fair and equitable treatment for all, as well as positive wellbeing and mental health. We collaborate with partners who help us to drive positive change at work, at home and in our local communities. In our culture Everyone is Included.



Net zero carbon

We previously committed to achieving net zero by 2040, however, during the development of our One Planet strategy we recognised that more stretching targets are needed to limit the existential threats arising from climate change. We assessed the technological and management challenges to credibly decarbonise and determined it is possible to credibly achieve net zero emissions for scopes 1 and 2 by 2030. As a result, we have brought forward our net zero target by a decade. In 2021, we also signed up to the Science Based Targets Initiative (SBTi) 'Business Ambition for 1.5°C' and, in addition to our 2030 net zero target (scopes 1 and 2), committed to an even more ambitious target to achieve net zero for scopes 1, 2 and 3 emissions by 2050.

In 2021, we commenced a scope 3 emissions assessment using third-party consultants to define the scope, boundary and a calculation methodology specific to our value chain. We are also making progress in measuring each category of emissions using the International Greenhouse Gas (GHG) Protocol guidance. In 2022, our assessment should be completed, which will allow us to subsequently develop scope 3 emissions reductions targets, aligned with science and – into 2023 – complete our application to SBTi, in support of our Business Ambition for 1.5°C commitment. To further support our value chain emissions plan we are recruiting additional resources and skills to enable the delivery of our 2050 targets.

2025 Targets

- 50% reduction in scope 1 and 2 GHG emissions (compared to 2019)
- 80% of electricity sourced or self-generated from renewable sources
- 30% reduction in Group energy use from plant, equipment and building assets (compared to 2019)
- 60% of our vehicle fleet to be electric and a 15% reduction in travel energy (scope 1)

2030 Targets

- Achieve net zero GHG emissions from our operations (scopes 1 and 2)
- 100% of electricity sourced or self-generated from renewable sources
- 100% of our vehicle fleet to be electric
- Scope 3 milestones to be established once data has been collected and methodology for measurement determined

Progress

Our roadmap for our scope 1 and 2 net zero transition will focus on four areas of our operations where the most difference can be made to our carbon footprint. 1) We will increase efficiency in our production processes, in order to reduce energy use from our internal operations; 2) we will utilise new technologies developed in Electric Thermal Solutions (ETS) in order to decarbonise our systems; 3) we will convert our vehicle fleet to electric vehicles where practically possible; and 4) we will

transition our electricity supplies to certified green contracts to remove the greenhouse gas emissions associated with purchased electricity. After we have made these changes, we will offset remaining emissions by credible means. It is currently expected that we will need to offset less than 10% of emissions against our baseline year (2019).

With the launch of our One Planet strategy and the new targets that have been established, we are restating our previously reported figures for 2019 and 2020. Previous figures included a small number of estimates, due to the availability of billed data at the time of reporting. Our new baseline and restated 2020 figures are based on actual data and therefore have a higher level of accuracy. In May 2019, we acquired Thermocoax and its subsidiaries. Previously, Thermocoax's energy and carbon emissions were only included in our 2020 data, in line with our reporting methodology, as this was the first full year in the Group for the Business. However, to ensure a representative baseline, we have included a full year of Thermocoax's energy use and emissions in our restated 2019 figures.

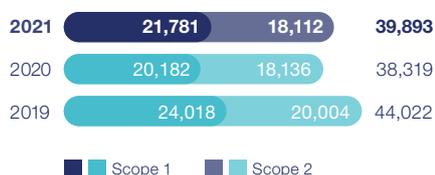
During 2021, we made good progress with transitioning our electricity supplies to green contracts, with over 30% of our electricity now sourced from certified renewable energy generation. Much of this progress has been made within our European operations where electricity from renewable sources is widely available. For the next phase of our green energy transition we will focus on our larger manufacturing facilities in the Americas and Asia. We're focusing on forming long-term relationships with suppliers and supporting an increase in the global renewable energy industry from both on and off-site generation.

In 2021, at a Group level, we invested in third-party energy efficiency audits at five of our larger manufacturing sites across Europe, the Americas and Asia Pacific (2020: zero). Through commissioning these audits, we have gained a deeper understanding of fuel use and developed roadmaps to reduce energy use from the most carbon intensive plant and equipment. In 2022, we will assess all of our manufacturing plants to ensure best practice energy reduction initiatives are integrated within the investment planning cycle.



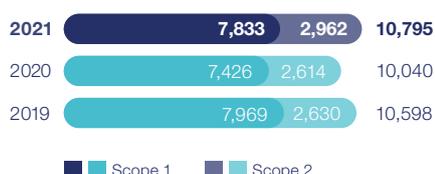
Group GHG emissions (scope 1 and 2)

tonnes CO₂e (location-based)



UK GHG emissions (scope 1 and 2)

tonnes CO₂e (location-based)



Group GHG intensity

tonnes CO₂e per £m of inflation adjusted sales at constant currency (location-based)



* From UK operations including inter-company sales, to reflect the fact that we manufacture in the UK for sale overseas into global markets

Greenhouse gas (GHG) emissions performance

The carbon footprint was verified by TÜV NORD CERT GmbH in accordance with DIN EN ISO 14064-3:2020 regarding its correctness and completeness for Spirax-Sarco Engineering plc, providing limited assurance as follows:

“Acting as an independent Certification Body TÜV NORD CERT GmbH has verified the carbon footprint, scope 1 and scope 2 (Location based) of the organisation for the reporting period 01.01.2021 - 31.12.2021 (inclusive) to be 39,893 tonnes CO₂e.

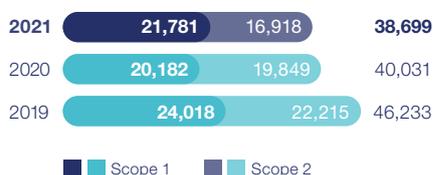
The level of assurance is limited. The carbon footprint covers direct and indirect emissions. The calculation of the carbon footprint comprises emissions arising from scope 1: Stationary and Mobile Combustion, Fugitive Emissions; scope 2: Electricity purchased (location and market based); scope 3: Well to Tank (WTT) and Transmission and Distribution (T&D).

On the basis of the verification, there is no evidence that the greenhouse gas statement is not materially correct and is not a fair representation of greenhouse data and information. Furthermore, no facts have become known that lead to the assumption that the greenhouse gas statement has not been prepared in accordance with the ISO 14064-1 and the GHG Protocol standard.

TÜV NORD CERT GmbH, February 2022.”

Group GHG emissions (scope 1 and 2)

tonnes CO₂e (market-based)



Group GHG emissions (partial scope 3)

tonnes CO₂e (well-to-tank and transmission and distribution)

10,927
2021

UK GHG intensity

tonnes CO₂e per £m of inflation adjusted sales at constant currency (location-based)*



In 2021, on a location-basis, absolute Group CO₂e emissions increased by 4% vs 2020, although they were 9% lower than our baseline of 2019. This increase in 2021 was due to an increase in production, as well as a bounce-back effect due to recovery from the pandemic. At 29.7 tonnes per million pounds of inflation adjusted sales at constant currency, on an intensity basis, our Group emissions fell by 7% compared with the prior year and were 17% lower than 2019, our new baseline year. This absolute fall compared to our baseline and fall in intensity is due in part to a drop in transport emissions and a higher proportion of electricity use as a proportion of the total energy use. Some of the decrease is also due to efforts across the Group to increase operational efficiency, helped by the new focus from One Planet but we expect this to have a larger affect in future years as the improvements are embedded across the Group.

On a location basis, the UK accounted for 27% of our GHG emissions in 2021, with 10,795 tonnes being generated in total and an intensity of 34 tonnes per million pounds of inflation adjusted UK sales at constant currency. These emissions are comprised of 7,833 tonnes of scope 1 and 2,962 tonnes of scope 2 calculated using location-based emission factors. Our emissions in the UK increased by 8% compared to 2020 due to the reasons outlined above for the Group as a whole.

GHG emissions performance: market-based

For the first time, we are disclosing a figure for our market-based scope 2 emissions. This means that our emissions are calculated using supplier-specific emission factors where available and allows us to take into account contracts that we have purposefully entered into in order to switch supply to green electricity sources. Using market-based factors means that we can disclose our impact in a way that is more representative of the choices we make as a Company and the true impact that our operations have.

Using market-based emissions factors, our Group scope 2 emissions were 16,918 tonnes in 2021. This is 1,194 tonnes lower than our reported location-based figure, reflecting a benefit from the green energy contracts entered during the year. Many of our green energy contracts did not come into force until the second half of 2021, meaning that we have not yet seen the full impact of these contracts on our total emissions. The full-year impact of these contracts, as well as any additional contracts entered, will further drive down our emissions in 2022.

Combining our scope 1 emissions with our market-based scope 2 emissions, we had total emissions of 38,699 tonnes in 2021, a 16% reduction on an absolute basis and a 23% reduction on an intensity basis against our 2019 market-based baseline.

Scope 3 emissions

Throughout 2021, we used a third-party to help us develop our scope 3 data and are now confident to report a partial scope 3 disclosure. In 2022, we will continue to refine our currently unreported categories and it is our intention to report our full scope 3 emissions as soon as we have confidence in the accuracy of the data.

For the purpose of this report, we are including emissions relating to well-to-tank and transmission and distribution losses, which have been verified by TÜV NORD CERT GmbH to a limited level of assurance.

Emission reduction initiatives

Our Steam Specialties manufacturing and R&D site in Cheltenham is the Group's largest consumer of fossil fuels, producing nearly 7,000 tonnes CO₂e per annum, or 30% of the Group's total scope 1 emissions in 2021. To reduce our carbon emissions from this site, we are embarking on a programme to decarbonise our steam system within this facility by electrifying the boilers and decommissioning the site's

Sustainability report continued

Net zero carbon

Group energy consumption MWh



UK energy consumption MWh



Group energy intensity MWh per £m of inflation-adjusted sales at constant currency



UK energy intensity MWh per £m of inflation-adjusted sales at constant currency*



* From UK operations including inter-company sales, to reflect the fact that we manufacture in the UK for sale overseas into global markets

Combined Heat and Power Plant, thus removing dependence on natural gas.

By using the Medium Voltage electrification technology we have within our Electric Thermal Solutions Business we will be able to convert our fossil fuel boilers to electricity with minimum disruption. In 2021, we completed a proposal and achieved approval from the Board of Directors for a multi-million pound investment for this critical decarbonisation project. Work is due to begin in the first quarter of 2022, with planned completion due for the end of 2023. We expect this significant investment to cut our Group CO₂ emissions by over 15%, as well as significantly improving site energy efficiency, reducing steam loss, water and chemical treatments needed.

Energy performance

In 2021, total Group energy use increased by 9% against 2020 to 163,474MWh, but decreased by 2% on an intensity basis to 121.6MWh per million pounds of inflation-adjusted sales at constant currency. Absolute Group energy use increased due to a rebound in production during the pandemic, while intensity decreased in part due to energy reduction initiatives, some of which are detailed below.

Energy use in the UK accounted for 34% of the Group's total usage in 2021, at 54,996MWh and increased by 13% compared with 2020. On an intensity basis, UK energy use decreased 6% year-on-year, to 173.2MWh per million pounds of inflation adjusted UK sales at constant currency.

Energy Management

We undertook a range of energy management activities in 2021. For example, Chromalox Ogden is one of the largest consumers of energy in ETS. Investments in the facility included upgrading interior lighting to LEDs with occupancy sensors and smart technology. Smart technology was also added to control cooling in the offices to align with normal working hours. Future energy reduction opportunities were identified, such as upgrading ventilation units, developing methods to capture and reuse process heat and to reduce fossil fuel use. Activities in 2021 built on those reported in 2020 in Argentina, France and the UK.

Scenario Analysis

Having completed a high-level scenario analysis in 2020, we wanted to build on this by assessing the risk of climate change in more detail in the individual Businesses. In Steam Specialties, we commissioned a third-party to produce a climate risk resilience report for all global manufacturing sites. Information was provided on physical risks related to flooding, storms, wildfires, sea level rise and water stress and how these risks may develop over time due to climate change, enabling the Business to be forward-thinking in mitigating any future risks. We have aligned our reporting with the recommendations of the Task Force on Climate-related Financial Disclosure and, in addition, we have provided more comprehensive disclosures in our annual submission to CDP, for which we received an A- score (Leadership band) in 2021.

Focus for 2022

- All manufacturing sites to complete net zero roadmaps, based on a GHG reduction priority hierarchy
- Commence the transition to electric vehicles with the launch of a UK-wide leasing contract
- Quantify scope 3 emissions and commence development of science-based reduction targets

Alignment with UN SDGs



Methodology statement

We employ an 'operational control' definition to outline our carbon footprint boundary. Included within that boundary are manufacturing facilities, administrative and sales offices where we have authority to implement our operating policies. For all entities we have measured and reported on our relevant scope 1, scope 2 and partial scope 3 emissions.

We have used the GHG Protocol Corporate Accounting and Reporting Standard and emission factors from the UK Government's GHG Conversion Factors for Company Reporting 2019, 2020 and 2021, data from The International Energy Agency 2019, 2020 and 2021, ISO 140064-1, and regionally specific Environmental Reporting Guidelines to calculate our total CO₂e emissions figures on a location-basis.

To report under the market-based method we have used the GHG Protocol data hierarchy, striving for the highest precision possible. For sites with green energy contracts, we have obtained emissions factors for the relevant tariff and/or supplier in the first instance, using the residual mix where supplier-specific emissions factors (SSEFs) are not available. For sites without green energy contracts, we follow the data hierarchy and apply location-based factors only where SSEFs or residual mix are not available. When entering new green contracts, we apply SSEFs (where available) from the start of the year and do not restate prior years with SSEFs. No certified green energy contracts are included in our market-based figures for 2019 or 2020.

Task Force on Climate-related Financial Disclosures (TCFD)

Governance

Describe the Board's oversight of climate-related risks and opportunities	<ul style="list-style-type: none"> Our Risk Management Committee, a principal committee of the Board, oversees the management of our climate-related risks and opportunities. During 2021, day-to-day management of the Group's climate change mitigation activities was overseen by the Group Executive Committee and the Group Sustainability Management Committee, utilising the management structure outlined on page 51.
Describe management's role in assessing and managing climate related risks and opportunities	<ul style="list-style-type: none"> The Board has collective responsibility for managing climate-related risks and opportunities. In particular, Maurizio Preziosa, Managing Director, Steam Specialties and Andy Robson, Group General Counsel and Company Secretary, had specific delegated responsibility for overseeing climate related risks, mitigation activities and performance in 2021. None of the below risks have been identified as a principal risk at the year end, please see principal risks on page 86.

Strategy

Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long-term	<ul style="list-style-type: none"> Short-term (0-5 years): customer carbon emission targets and increasing availability of green electricity could encourage a move towards electric heating solutions that have zero emissions at point of use. While some sales could be at risk in the Steam Specialties Business for applications where steam or electric heating solutions are equally viable, there is an opportunity for Electric Thermal Solutions and new technology arising from the Thermal Synergies project to decarbonise steam systems. Medium-term (5-10 years): growth in electric vehicles could cause a decline in the oil and gas industry, particularly refinery demand, but could present an opportunity for sales growth into the vehicle battery industry. Long-term (10+ years): large oil, coal and gas fired boilers could be replaced by banks of small electric generators reducing demand for boiler controls and boiler house products but potentially increasing opportunities for retrofit solutions from ETS. Increasing frequency of climate related extreme weather events.
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning	<ul style="list-style-type: none"> In the short to medium-term, growing awareness of climate change and customer sustainability targets will continue to provide an impetus for business growth as we provide products, services and solutions that increase efficiency and reduce customers' energy use and carbon emissions. To mitigate the risks outlined above, we have launched our refreshed One Planet Sustainability strategy that is informing our Business strategies and advancing the development of products and services that help our customers to achieve their carbon reduction targets. Our broad geographical presence and global manufacturing footprint reduce the risk of disruption caused by an extreme weather event and we have appropriate insurance cover in place to mitigate the effects of such events. During 2021, we established a new sustainability planning process, including financial planning for net zero investments within the Group.
Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	<ul style="list-style-type: none"> With customers in almost all industries worldwide and across 134 countries, steam remains the world's most efficient heat transfer medium with multiple onsite applications including the production of foods, beverages and medicines, the generation of power and the treatment of water and wastewater. Our steam solutions are complemented by our ETS product and service offering. We thus have a highly resilient business that will remain relevant across different climate-related scenarios. Building on the high-level Group-wide scenario analysis that was completed in 2020 including a 2°C or lower scenario, in 2021 Steam Specialties engaged a third-party to complete a more detailed climate risk resilience report for the manufacturing sites. Desktop assessments were completed for each site analysing how these sites might be affected by physical risks due to the changing climate in the future. These reports gave us comfort that our organisation is resilient to physical risks, however it did result in the identification of two manufacturing sites for a more detailed physical site risk assessment on-site in 2022.

Risk management

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	<ul style="list-style-type: none"> In alternate years, the Group engages in either a top-down or a bottom-up risk review and feeds its results to the Risk Management Committee. This includes sustainability/climate-related risks. The Risk Management Committee assesses the climate-related risks identified to understand their severity, identify controls or mitigation required and monitors such risks on its risk register. In 2021, the risk register was updated to include detail of risk management process in each Business strategy, with focus on opportunities identified for each Business.
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Metrics and targets

Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	<ul style="list-style-type: none"> We report various consumption and intensity metrics relating to energy, CO₂e, waste and water in our Sustainability Report, as well as customer carbon, energy and water saving metrics. Please see pages 54 to 56 and 63 to 65.
Disclose scope 1, scope 2, and, if appropriate, scope 3 greenhouse gas (GHG) emissions, and the related risks	<ul style="list-style-type: none"> Streamlined Energy and Carbon Reporting (SECR) disclosures can be found on pages 54 to 56. Throughout 2021, we used a third-party to help us develop our scope 3 data and are now confident to report a partial scope 3 disclosure. In 2022, we will continue to refine these data and it is our intention to report our full scope 3 emissions as soon as we have confidence in the accuracy of the data.
Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	<ul style="list-style-type: none"> In 2021, we developed a range of targets aligned to our net zero roadmap. Within Strategic Initiative 4 we are developing our ability to measure the environmental impacts of our products, with the intention of using this information to set targets related to increasing sales of products that are shown to have quantifiable sustainability benefits for our customers. Please see pages 54 to 56 and 63 to 65 for details of performance against targets.

Our journey to a more biodiverse world

Engineering

Offsetting our land use

We are doing all we can to leave a better world for tomorrow. That's why we're committed to creating a biodiversity net gain at all our new facilities as well as offsetting the equivalent of five times our operational footprint by 2025. We're working with teams around our Group to support the creation of biodiverse habitats at our workplaces and we've partnered with the World Land Trust (WLT) to help us achieve our offsetting goals. Our chosen project is in Argentina, where we have approximately 200 colleagues. Through the 'Buy an Acre' project we are providing a vital lifeline to a fragile community of species found nowhere else on Earth.





with Purpose

Protecting wildlife habitats

On the Somuncurá plateau in Argentinian Patagonia, our support will help to protect 10.5km² of a new nature reserve. Our aim is to protect this habitat from invasive species and unsustainable land use. Our support means fencing will be put in place in vulnerable sections of the reserve to enable the delicate ecosystem to recover. When we learnt of Somuncurá and its unique biodiversity, we knew WLT had found a special place. By partnering with WLT we have the chance to make a real difference in this remote corner of Patagonia. It is our hope that a host of endemic and threatened species will thrive once more on the reserve. Species like the El Rincon-stream Frog which features in the top 100 amphibians most at risk of extinction as compiled by the Zoological Society of London.

Sustainability report continued

Offsetting our impact

Aflex Hose is part of our Watson-Marlow Business. When the leading manufacturer of PTFE lined flexible hose products was designing its new 17,000m² UK manufacturing site in Huddersfield's Bradley Business Park, the team paid just as much attention to the external landscaping as they did to the internal fit out.

Construction was completed in 2020, which was before the Group published its biodiversity offset and net gain commitments within its One Planet: Engineering with Purpose Sustainability strategy.

With their passion for creating a safe haven for nature, the team at Aflex were unknowingly setting a benchmark for creating a truly biodiverse habitat around an industrial manufacturing setting. Hundreds of trees comprising multiple different species were planted across the grounds, together with hedges, shrubs, lawns, meadows and wildflowers. The result has created a wonderful green 'belt' around the perimeter of the site which is a haven that is attracting local wildlife and key pollinators.

Neil Hooper, who is the Managing Director of the Aflex Hose business and oversaw the biodiversity project together with his team, said; "Aflex's new facility is positioned in the local community and surrounded by ancient woodland used for leisure activities. Working with local authorities we felt it essential to minimise any ecological impact throughout the development and to create a safe environment where nature can thrive. Our team have found our biodiversity project extremely rewarding and we know our green space is something we can continue to nurture and improve upon moving forward."





**We are committed
to preserving biodiversity
to leave a better world
for tomorrow.**



Biodiversity net gain

Biodiversity is in decline, across the world. Many experts believe we are in the midst of a sixth mass extinction, with human factors leading to a dramatic decline in biodiversity. Changes in land use, such as deforestation, intensive mono-culture and urbanisation, direct exploitation such as hunting and over-fishing, the impact of climate change, pollution and introduction of invasive alien species all contribute to biodiversity loss. Business and industry can have significant impacts on biodiversity, both directly and indirectly, through use of land, natural resources, depletion of natural materials and the generation of emissions, discharges and waste.

In 2020, the Group made public commitments to identify and address any harmful direct impacts our organisation has on nature and biodiversity and to establish a 2030 biodiversity net gain target.

Having completed a biodiversity impact and dependencies assessment in 2020, we have now made more detailed commitments to protect and restore biodiversity and deliver a biodiversity net gain*. This means that our Company will aim to have a net positive impact on biodiversity and that biodiversity will benefit overall as a result of our direct operations.

* Quantification of net gain will be focused on large development projects, where locally-specific net gain methodologies will be applied, similar in approach to the UK's DEFRA methodology.

Targets

- Deliver a biodiversity offset equivalent to five times our global operational footprint by 2025
- Deliver biodiversity net gain of +10% for all new manufacturing sites and facilities
- Deliver at least one biodiversity improvement per Operating Company, on site or in the local community by 2025
- Manage our manufacturing operations to minimise risks to biodiversity, ensuring necessary controls are in place to mitigate risk

Progress

With the launch of the One Planet strategy in June we committed to deliver at least a 100% offset of our global operational footprint by 2025. During the second half of the year we completed a project to calculate our global operational footprint, which we determined to be 517 acres. Based on this figure we increased our target and have committed to a 500% offset, equivalent to our operating footprint each year up to 2025. Following comprehensive due diligence, the first investment in this offset was made in 2021, working in partnership with the World Land Trust to help to create a new nature

reserve in Argentinian Patagonia, detailed on page 59.

Additionally, we have developed and published Biodiversity Guidance for onsite and community initiatives, which has helped inspire our colleagues, with many of our Group Operating Companies committing to carry out a biodiversity initiative in 2022.

As a Group, we are investing significantly in infrastructure, with a number of major development projects currently underway. As part of these, we are formulating plans to increase the biodiversity on site or in the local community, in order to achieve at least a net 10% gain in biodiversity.

When we launched One Planet, we asked our colleagues to pledge their support for our new Sustainability strategy. Because of this, in partnership with registered charity, One Tree Planted, we funded the planting of 7,996 trees across six vital tree planting projects around the globe in Brazil, North America, India, Kenya, Denmark and Australia, as a 'thank you' to our colleagues who committed to support our One Planet strategy.

Focus for 2022

- Operating Companies to carry out biodiversity initiatives globally
- Complete another 1x operational footprint biodiversity offset through charitable partnership with the WLT
- Implement biodiversity net gain plans as part of our ongoing major projects

Alignment with UN SDGs





Environmental improvements

Water is one of the most precious natural resources. It is critical to all forms of life globally and is acutely sensitive to changes in global temperature. We have an obligation to manage how we use it now for the future.

Waste is generated by every person and company around the world and, if managed poorly, has the potential to cause irreversible pollution to air, water and land. We can control how much waste we generate in our facilities and how we dispose of our waste.

Some of the common chemicals used in our manufacturing process, such as in paint, have the potential to cause harm to our environment. We have an obligation to look at these chemicals and do what's right by eliminating them from our process, finding greener alternatives where we can and carefully managing them to ensure they don't become a source of environmental pollution where we can't.

Managing our organisation to ensure environmental compliance and conformance is a critical obligation, it can be complex at times and requires us to invest in and utilise appropriate management systems in order to support our Operating Companies and protect the environments where we live and work.

One Planet renews our focus on these areas with new, ambitious targets to lessen our impact on the environment with the ways in which we manage our natural resources.

2025 Targets

- Reduce water consumption by 15% (compared to 2019)
- Achieve zero waste to landfill
- Reduce waste generated by our sites by 10% (compared to 2019)
- Eliminate solvent-based paint (unless mandated by customer requirements and with Executive Committee approval)
- All manufacturing sites certified to ISO 14001 standard or equivalent

2030 Targets

- Reduce water consumption by 30% (compared to 2019)
- Reduce waste generated by our sites by 20% (compared to 2019)

Progress

Water

During 2021, we focused on ensuring the accuracy of water data, reviewing previously disclosed figures to more precisely define our 2019 baseline. The review included trend analysis to identify anomalies, reviewing site-level evidence and identifying sites where limited or no data are available. Where data are unavailable, water use has been estimated using an agreed methodology. Estimated figures account for approximately 2% of the total use in 2021. During this review, we identified a reporting

error in previously reported water use figures, which had resulted in over-reporting water use. As stated on page 54, 2019 data have previously not included water and waste use from Themocoax in line with our reporting methodology. To ensure a representative baseline, we have now included a full year of Themocoax's water use in our restated 2019 figures and have also restated 2020 to correct the error found.

In 2021, we appointed TÜV NORD CERT GmbH to conduct an audit of our water data for the first time, which has provided reasonable assurance.

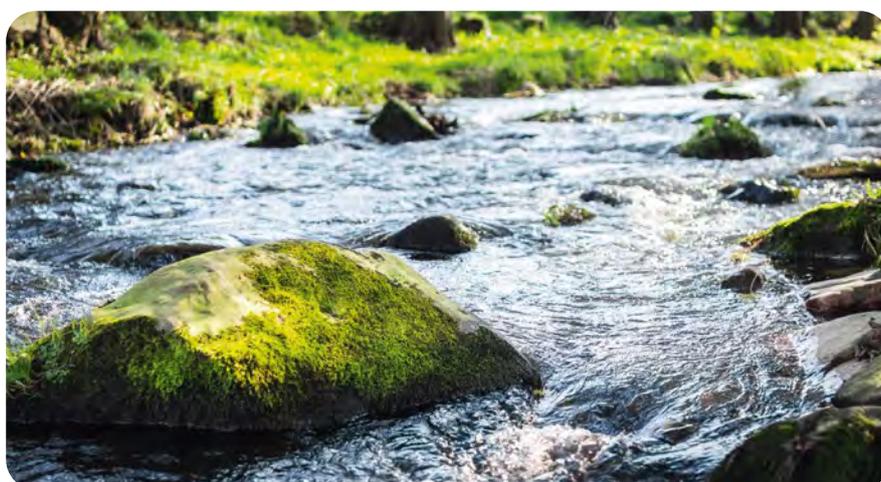
The water usage was verified in accordance with International Standard on Assurance Engagements 3000: 'Assurance engagements other than Audits or Review of Historical Financial Information' (ISAE 3000), regarding its correctness and completeness for Spirax-Sarco Engineering plc.

Acting as an independent Certification Body TÜV NORD CERT GmbH has verified the water usage of the organisation, for the reporting period 01.01.2021 - 31.12.2021 (inclusive) to be 168,742,102 litres (168,742 m³) and has provided the following statement:

"Based on the reasonable assurance procedures we have undertaken and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31st December 2021, is not materially correct and is not a fair representation of the Selected Information for the reporting period.

TÜV NORD CERT GmbH, February 2022."

During 2021, our water use from our global operations increased by 3% to 168,742m³. This increase in water use was due to an increase in production that drove up water use on some sites, being largely offset by the benefit of our Aflex Hose site consolidation and efficiency gains in a number of sites, as well as an ongoing pandemic impact of lower site occupancy after the introduction of hybrid working. Since 2019, absolute water use has fallen by 8%.



Environmental improvements

On an intensity basis, water use decreased by 8% compared with 2020, which means an overall reduction of 16% compared to our 2019 baseline. With the increased focus on this area coming from the Sustainability strategy, we expect to see further improvements in this area in the next few years.

In 2022, we plan to continue to build on the reductions that we have seen since 2019, with newly developed water and waste reduction action plan templates to be rolled out globally early in 2022. We have developed these water and waste reduction plan templates for our locations to customise and apply locally.

Waste

Similarly to water, we conducted an extensive review of our historic waste data in 2021. As a result of this review, we identified a number of gaps in our data particularly in small, shared-ownership sites and at sites where we have municipal waste collections only. We have applied a methodology to estimate missing data, based on an estimated per-capita waste figure. Estimated figures account for 4% of the total waste reported in 2021. We have restated our prior year figures, to include Thermocoax in 2019, and estimates where data is unavailable. Estimated data accounts for 9% of reported waste in 2019 and 6% in 2020.

Our global operations generated 6,248 tonnes of waste in 2021, which is an increase of 7% from the previous year. On an intensity basis, reduction in waste generated was 4% at 4.6 tonnes per million pounds of inflation-adjusted sales.

We have continued to increase the proportion of waste that is diverted from landfill globally, with 88% of our waste recovered, recycled or used to generate electricity in 2021 (2020: 83%).

Solvent-based paint

We have committed to eliminating solvent-based paints. During 2022 we completed a benchmarking exercise to understand current solvent-based-paint usage. Currently, half our manufacturing sites globally use solvent-based paints, while half have already phased out their use. We have formed a solvent-based paints central working group with the aim of identifying common paints and processes used, so that common solutions can be identified and implemented to eliminate solvent-based paints going forward.

Management

With the help of our One Planet strategy, we continued to focus on implementing improvements at our sites in 2021. In Electric Thermal Solutions (ETS) there has been a reduction of approximately 50% in water use across the Group since 2019, with a number of actions taken, including leak detection and fixing, reduction in hydro testing and efficiency projects at the Chromolox Ogden site.

At our Steam Specialties China manufacturing site, a new solution for condensate recycling from the chilling tower is saving an estimated 850 tonnes of water per year, with an associated 7% improvement in cooling efficiency. This site has been recognised as having a strong commitment to ISO 50001 from management and has been awarded a Green Plant Certificate as part of the development of Shanghai's green manufacturing sector.

We have begun a standardised implementation process for ISO 14001, to ensure that all sites are operating to the same high standards for their environmental management and process. Currently, 20 of our manufacturing sites are certified to ISO 14001 and we are confident in our ability to meet our target of 100% of manufacturing sites by 2025.

Focus for 2022

- Action Plans to be deployed to all locations providing best practice guidelines for water use and waste reduction
- Internal exploratory team focused on researching alternative painting and coating process to replace solvent-based paint

Total water use m³



Water intensity m³ of water per £m of inflation adjusted sales at constant currency



Total waste generation tonnes



Waste intensity tonnes of waste per £m of inflation adjusted sales at constant currency



Alignment with UN SDGs





Sustainable products

Delivering products and services that improve the sustainability of our customers' operations is central to our Company Purpose. Innovation is key to helping us unlock the solutions to the global challenges we all face as a result of climate change, now and in the future. We enable our customers to optimise operational efficiency through our knowledgeable people, solutions and services. We are a trusted partner, offering credible solutions to the challenges our customers face and enabling our customers to produce more with less. By sharpening our focus on the environmental impacts of our products and services and validating our products' environmental performance, we will continue to offer credible solutions that meet our customers' requirements now and in the future.

2025 Targets

- Quantify the whole life cycle carbon footprint and sustainability benefits of selected existing and new products
- Grow sales of products with quantifiable sustainability benefits to customers
- Eliminate all virgin, non-recyclable or non-biodegradable packaging by 2025 at the latest

Progress

During 2021, we continued to work with Ricardo Energy & Environment to further develop the methodology by which we calculate our customer environmental savings. The methodology we use currently has been in place in Steam Specialties since 2009 and we are now developing models which, in time, will enable us to significantly expand the scope of our reporting to include a variety of products we offer from across the Group as a whole.

We have undertaken a screening exercise of existing product categories to identify those with the greatest opportunity for sustainability benefits and savings for our customers, with the aim of conducting full Life Cycle Assessments (LCA) on these products. In 2021, Watson-Marlow continued its partnership with the University of Exeter Environment and Sustainability Institute by conducting two further LCAs on strategically important product category types. LCAs enable us to investigate our product sustainability performance across the entire life cycle in a standardised and transparent manner for communication across the value chain and throughout our organisation; supporting strategic decision making and product development and ensuring we deliver products that align with our and our customers' sustainability goals.

While it is important that we understand and quantify the impact of our existing products, we also recognise that products need to be designed with sustainability in mind. With the information learned in our LCAs, we are now developing common frameworks for integrating eco-design into our New Product Development (NPD) processes across the Group.

Packaging

In 2021, we initiated a pilot project in Spirax Sarco's UK manufacturing site to focus on the elimination of virgin, non-recyclable and non-biodegradable packaging. We identified 14 improvement areas and have started implementing major changes in our customer packaging and also the packaging that we use internally.

The outcomes of the pilot project are intended to be scalable with the intent of repeating the successes in the rest of our global manufacturing companies.

Focus for 2022

- Develop the customer savings model with Ricardo Energy & Environment to expand it to include a number of Watson-Marlow and Electric Thermal Solutions products, as well as a wider product range within Steam Specialties
- Increase integration of sustainability criteria into NPD processes and standardise this across the Group
- Each Group Business to carry out a number of LCAs including quantification of product benefits of existing products

Customer environment benefits

Annual estimated customer CO₂, energy and water savings from a select range of 12 Steam Specialties products sold in 2021:



18.2m
tonnes of CO₂
per year



250m
GJ per year
of energy



96.1m
m³ per year
of water

To put these savings into context, that is the equivalent of:



828m
Mature trees
absorbing CO₂



2.81m
People's annual
average energy
consumption
(UK)



38,500
Olympic-sized
swimming
pools of water

Alignment with UN SDGs





Sustainable supply chain

Our ambition is to become a leader in industrial sustainability; therefore, it is vital that we develop, educate and work closely with our supply chain in all aspects of sustainability, expanding on the minimum expectations as set out in our existing Supplier Sustainability Code and increasing monitoring of supplier standards.

We recognise the need to deliver a proactive and engaging supply chain sustainability strategy that meets both our own high standards and the growing expectations of our stakeholders. We intend to work with our suppliers to build mutually-beneficial, long-term partnerships, to ensure measurable, long-term sustainability improvements throughout our supply chain.

We have committed to implement more rigorous supply chain monitoring, combined with continuous improvement methodologies, with our suppliers to drive these changes, in order to deliver a robust, high-performing supply chain capable of meeting our future needs, that simultaneously delivers for the needs of the planet.

2025 targets (on or before)

- 80% of potential high-risk suppliers confirmed as meeting or exceeding our updated sustainability standards
- Embed sustainability criteria in all new supplier qualification by 2022 and all purchase contracts from 2023

2030 targets

- 25% reduction in category 1 and category 4 scope 3 GHG emissions
- 100% of potential high-risk and strategic suppliers to be confirmed as sustainability compliant

Progress

In 2021, we made good progress on creating the framework for our supply chain sustainability strategy. We have reviewed and re-defined our minimum standards for suppliers. Since the One Planet strategy was launched, we have completed a tender process to identify a third-party platform that we will begin to roll out in 2022 and which will be used for the on-going monitoring and assessment of suppliers to our new supplier minimum standards and a range of additional sustainability measures, including starting to track GHG emissions originating from our supply chain.

We have commenced development of a training plan for suppliers and our purchasing teams, which we will be rolling out in 2022. In combination with the new monitoring platform, this will help to increase engagement with suppliers on a broader range of sustainability topics and support training and education both internally and with suppliers.

Our Supplier Sustainability Code (Code) continues to form the backbone of our

ethical and sustainable sourcing strategy, by ensuring that we can embed sustainability into our purchasing processes and apply minimum standards to our supply chain around ethics, human rights, health and safety and environmental sustainability. In 2021, our focus for rolling out this code was on phase four (suppliers to Thermocoax) and by the end of the year, 86% of these suppliers had signed the code, thus falling slightly short of our target of 90%. Overall, 96% of the Group's direct material suppliers have now signed the Code. During 2021, we commenced the rollout of the Code to Chromalox Germany's suppliers and these have now been incorporated into the Group's totals. While progress was made, we failed to reach our phase four target for two main reasons. Firstly, the ongoing challenges posed by the COVID-19 pandemic and the need for purchasing teams to be actively managing the situation to ensure continuity of supply, which delayed the Code rollout. Secondly, throughout 2021, Thermocoax has completed the build of their new site and consolidated five smaller sites into this new facility, taking team focus. Further work will be done in 2022 to increase the number suppliers that have signed the Code.

Occasionally, it is necessary that we cease working with certain suppliers if they are unwilling to sign the Code, or whose standards fall short of those required. In 2021, we exited eight suppliers under these conditions.

Focus for 2022

- Trials and roll out of the supplier monitoring platform
- Audits of high-risk and strategic suppliers
- Delivery of supplier and internal communication and training plan

Alignment with UN SDGs





Support people in our communities

As a financially successful organisation we have the opportunity to support our local communities, strengthening their resilience to global sustainability challenges and advancing the UN's Sustainable Development Goals (UN SDGs). By combining strategic and philanthropic giving we can address both the immediate needs of local people and also support their longer-term economic wellbeing, for example through providing access to education, while securing a range of business benefits such as improved colleague engagement, retention and attraction, a stronger talent pipeline and improved relationships with our communities.

Targets

2025

- Deliver 150,000+ hours (cumulative) of colleague volunteering
- Over 90% of colleagues to complete at least one day of volunteering per year
- £2 million of cash or in-kind donations (cumulative) made by our Group Companies
- Establish a Spirax-Sarco Engineering educational fund and a mechanism for delivering it, to promote inclusive and equitable access to education

2030

- Donate £5 million to the Group Education Fund by 2030*

* Additional to existing Group Charitable Fund donations

Progress

Group Education Fund

In 2021, we established the Spirax-Sarco Engineering Group Education Fund

(Education Fund) and funded it with a £1 million donation. The Education Fund has the following four aims:

- To improve diversity in engineering
- To tackle poverty through education
- To remove barriers to education
- To improve female access to education

With these broad aims we will empower our Group Companies to identify local education needs and apply to the Education Fund for grants to support a wide range of proposals, which will then be administered locally. These grants will ensure that the Education Fund can fulfil its purpose, to promote inclusive and equitable access to education in the communities in which we operate.

Group Charitable donations

During 2021, the Group Charitable Fund donated £345,100 to charitable causes, an increase of 30% from 2020. Some of our donations included £35,000 to UNICEF VaccinAid to provide global access to vaccines, test and treatments £10,000 to Acorns Children's Hospice which provides care, support, fun and laughter for more than 1,000 families of life limited and life threatened children; and £2,000 to Gloucestershire Young Carers which provides a range of services for young carers and their families.

Operating Company charitable donations and volunteering

While volunteering was still affected by pandemic restrictions, more of our colleagues were able to participate in volunteering activities in 2021, with a focus on activities that could be completed outside or while adhering to social distancing guidelines. We achieved our highest number of volunteering hours

since we began reporting in 2017, as well as the highest levels of cash or in-kind donations and the highest level of Operating Company engagement. In 2021, 11,057 hours of working time were volunteered, £236,000 was donated to charitable causes and approximately £100,000 of in-kind (non-cash) donations were made. In addition, our colleagues donated approximately £47,000 of their own money in work-place organised fundraising activities.

Focus for 2022

- Increase volunteering hours and colleague participation
- Roll out a new Group-wide volunteering and charitable donations reporting system
- Develop an impact framework for the Group Education Fund, establish the application process and commence donations

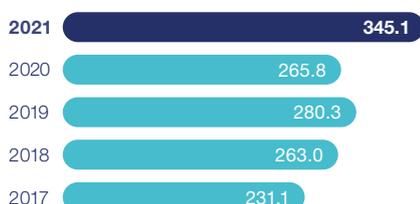
Alignment with UN SDGs



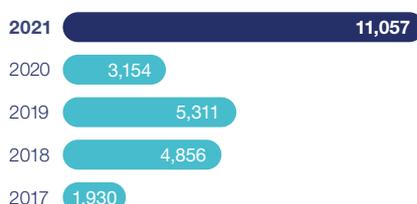
Find out about the winners of our 2021 Community Engagement Awards on our website www.spiraxsarcoengineering.com



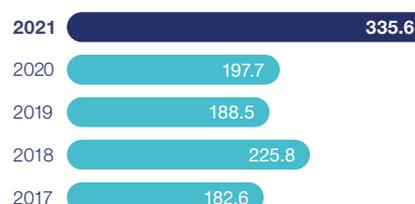
Group Charitable Fund donations £'000



Volunteering hours



Operating Company cash/in-kind donations £'000



Non-financial information statement 2021

This Annual Report and in particular the Sustainability Report, contains the information required to comply with the Companies, Partnerships and Groups (and Non-Financial Reporting) Regulations 2016, as contained in sections 414CA and 414CB of the Companies Act 2006. The table below provides key references to information that, in conjunction with the Sustainability Report, comprises the Non-Financial Information Statement for 2021.*

Reporting requirement	Group Policies that guide our approach	Information and risk management, with page references
Environmental matters	<ul style="list-style-type: none"> Group Environmental, Health, Safety, Energy and Sustainability Policy Group Management Code Supplier Sustainability Code 	Sustainability Report, pages 47 and 54 to 66 Principal risks, pages 85 to 118 Our business model, pages 24 to 25 Section 172 Statement, pages 10 and 101 Company Purpose, inside front cover and page 99
Employees	<ul style="list-style-type: none"> Group Diversity and Inclusion Policy Group Management Code Group Human Rights Policy Group Environmental, Health, Safety, Energy and Sustainability Policy 	Sustainability Report, pages 48 to 53 Our business model, pages 24 to 25 Employee Engagement Committee Report, pages 104-107 Section 172 Statement, pages 10 and 101 Company Purpose, inside front cover and page 99
Social matters	<ul style="list-style-type: none"> Group Human Rights Policy Group Charitable Donations Policy Group Employee Volunteering Policy Supplier Sustainability Code 	Sustainability Report, page 67 Our business model, pages 24 to 25 Section 172 Statement, pages 10 and 101 Company Purpose, inside front cover and page 99
Respect for human rights	<ul style="list-style-type: none"> Group Human Rights Policy Modern Slavery Statement Supplier Sustainability Code 	Sustainability Report, page 66 Principal risks, page 90
Anti-corruption and anti-bribery matters	<ul style="list-style-type: none"> Group Anti-Bribery and Corruption Policy Group Gifts, Entertainment and Hospitality Policy Group Competition Law Compliance Policy Group Whistle-Blowing Policy Supplier Sustainability Code 	Sustainability Report, page 51 Principal risks, page 90 Risk Management Committee Report, page 128
Description of the business model		Our business model, pages 24 to 25
Description of the principal risks in relation to the above matters, including business relationships, products and services likely to affect those areas of risk, and how the Company manages the risks		Risk management and principal risks, pages 85 to 91 Risk Management Committee Report, pages 127 to 130 Sustainability risk assessment, page 56 Climate change risk, page 57
Non-financial key performance indicators		Sustainability Report, pages 48, 50, 54 to 56 and 62 to 67 Key performance indicators, page 37

* The policies listed above can be found on our website: www.spiraxsarcoengineering.com/our-approach/corporate-governance/governance-documents. Compliance with our policies is monitored through the implementation of our Sustainability strategy, through our internal audit function and, locally, by our General Managers.

We have disclosed, to the fullest extent possible, against the requirements of the Industrial Machinery & Goods Standard of the Sustainability Accounting Standards Board (SASB), in respect of 2021, which can be found on our website www.spiraxsarcoengineering.com/investors/results-reports-and-presentations/year/2021.



Spirax-Sarco Engineering plc has been independently assessed according to the FTSE4Good criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series.



MSCI ESG Research provides MSCI ESG Ratings on global public and a few private companies on a scale of AAA (leader) to CCC (laggard), according to exposure to industry-specific ESG risks and the ability to manage those risks relative to peers.

The use by Spirax-Sarco Engineering plc of any MSCI ESG Research LLC or its affiliates (MSCI) data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of Spirax-Sarco Engineering plc by MSCI. MSCI services and data are the property of MSCI or its information providers and are provided "as-is" and without warranty. MSCI names and logos are trademarks or service marks of MSCI.

Operating Review

**All three
Businesses provide
essential services to
critical industrial processes.
Our teams stepped up to
meet exceptional growth
in demand across
the world.**

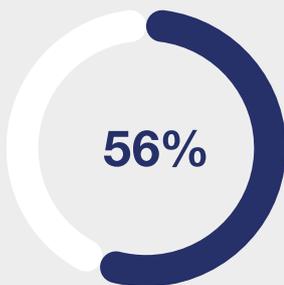
Operating review

At a glance

Steam Specialties

Spirax Sarco & Gestra

Revenue



£754.9m

Reported **+9%** Organic **+12%**

Statutory operating profit £m

£186.8m

Adjusted operating profit £m

£188.7m

Statutory operating margin %

24.7%

Adjusted operating margin %

25.0%

No. of operating units at year end

62

Key Industries



Electric Thermal Solutions

Chromalox & Thermocoax

Revenue



£181.3m

Reported **+2%** Organic **+7%**

Statutory operating profit £m

£11.1m

Adjusted operating profit £m

£24.0m

Statutory operating margin %

6.1%

Adjusted operating margin %

13.2%

No. of operating units at year end

25

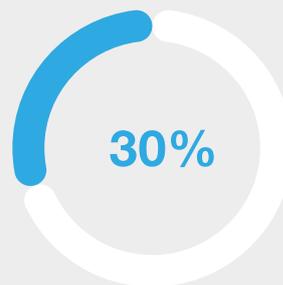
Key Industries



Watson-Marlow

Watson-Marlow

Revenue



£408.3m

Reported **+27%** Organic **+32%**

Statutory operating profit £m

£145.4m

Adjusted operating profit £m

£150.0m

Statutory operating margin %

35.6%

Adjusted operating margin %

36.7%

No. of operating units at year end

46

Key Industries



Operating review continued

What we do

Our Steam Specialties, Electric Thermal Solutions and Watson-Marlow Businesses all provide engineered products, services and solutions that play a vital role in industrial processes worldwide. We have remained an essential supplier throughout the global pandemic, as many of our customers operate in the critical industries of Pharmaceutical & Biotechnology, Healthcare, Food & Beverage and Power Generation.



Steam Specialties

Steam is an environmentally safe, clean, sterile and natural technology that is critical for today's industrial processes. It is relatively easy to control and is capable of transferring large energy loads in the form of heat. Steam is used across a broad range of industries, in all geographies and a wide range of applications including: heating, curing, cooking, drying, cleaning, sterilising, space heating, humidifying, vacuum packing and producing hot water on demand. The generation of steam can also be decarbonised and we're leading the way by combining technologies with our Electric Thermal Solutions Business, we've developed a range of sustainable first-fit and retrofit heating solutions, as well as thermal energy storage applications for more sustainable steam on demand.



Electric Thermal Solutions

Electrical heating solutions are a complementary medium to steam and there are synergies in terms of the broad industrial and geographical application. Our electrical process heating and temperature management solutions provide more efficient processes through improved thermal energy management and control systems. They are easy to incorporate, install, maintain and control and they omit zero emissions at point of use, making them a sustainable choice. Our solutions are particularly utilised in applications that require rapid 'on-off' control, higher temperatures and concentrated power loads as well as in an increasing range of sustainable applications where decarbonisation of industrial processes is a key driver.



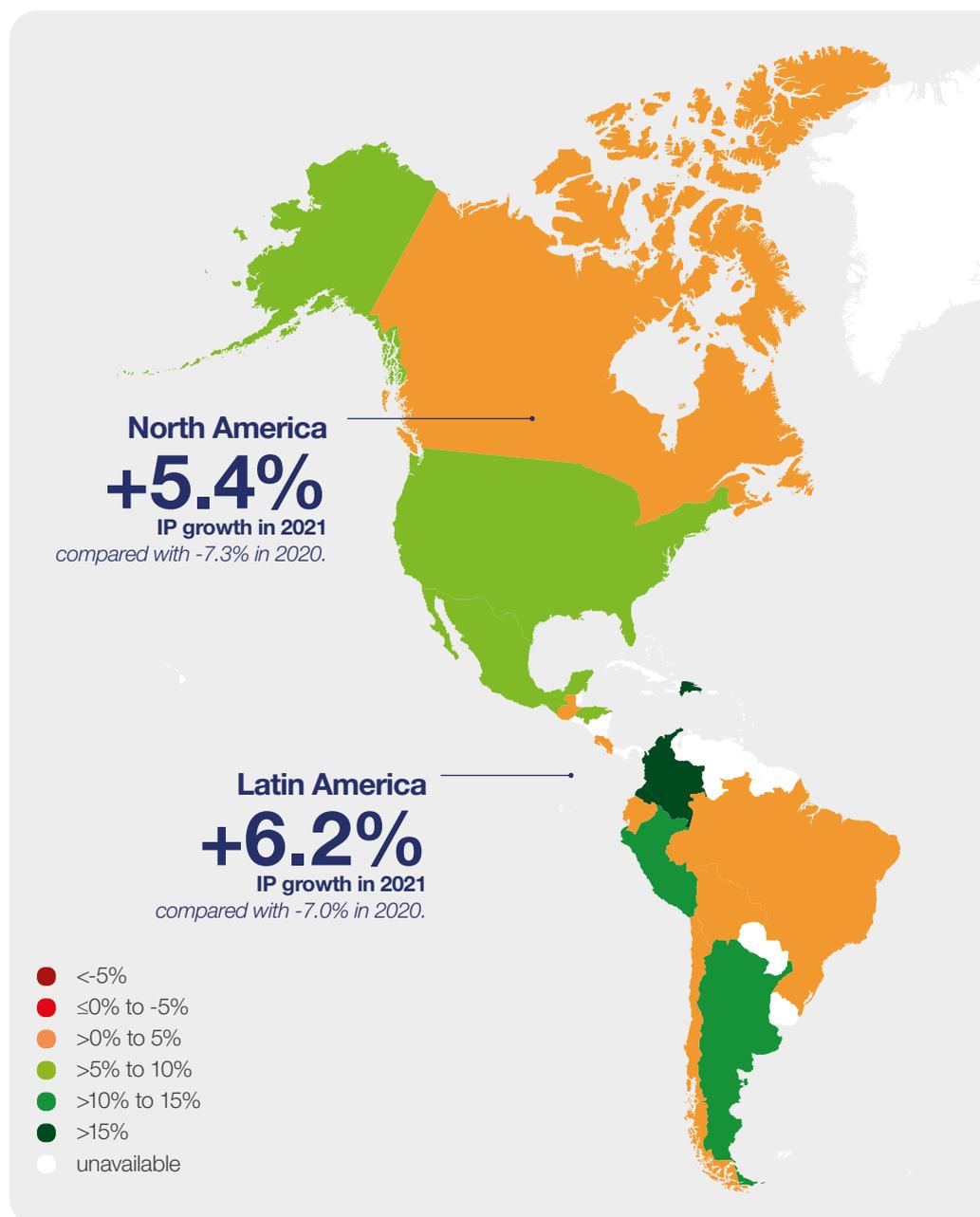
Watson-Marlow

Peristaltic and other niche pumps as well as associated fluid path components are widely used across an extensive range of industries to address mission critical or difficult pumping needs. Peristaltic pumps are particularly suitable for hygienic applications (as the fluid is contained within a tube and sterile tubing creates a sterile pump), precise metering or low-shear applications, as well as handling corrosive or abrasive materials that would otherwise damage the pump. They are often used in critical processes, such as found in Pharmaceutical & Biotechnology and Food & Beverage sectors, where accuracy, reliability and efficient transfer of fluids is paramount and are favoured for their low maintenance requirements.

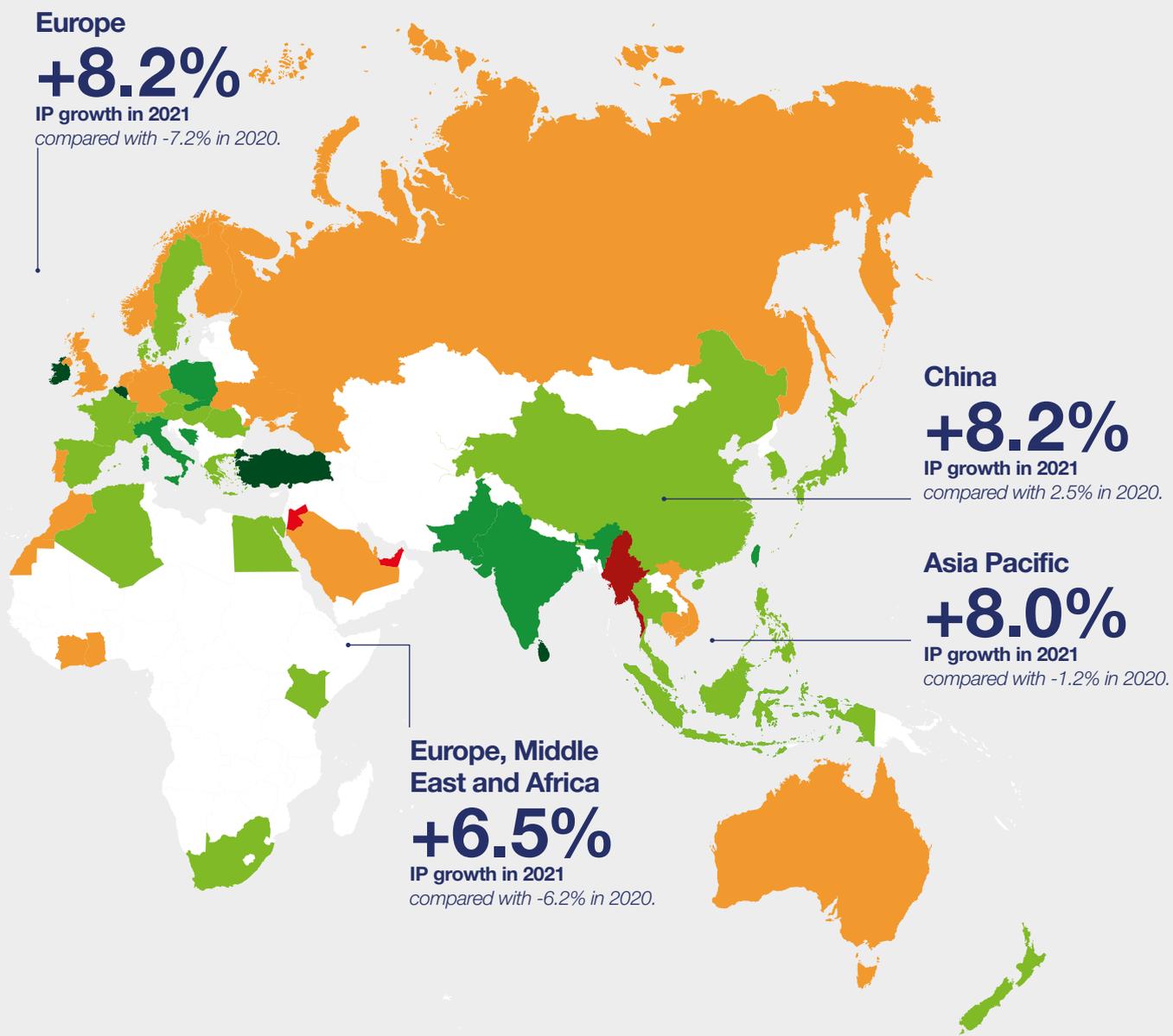
Operating review continued

Market Environment

Global industrial production growth¹ (IP) was 7.6% in 2021, compared to 4.1% contraction in 2020 and is now higher than the pre-COVID-19 pandemic level of 2019. While all regions recovered strongly, Asia Pacific was the only major region where IP in 2021 was materially above pre-pandemic levels, driven mostly by strong IP in China and Korea. IP for the Europe, Middle East & Africa region in 2021 closed marginally ahead of 2019, while IP in both North America and Latin America remained below pre-pandemic levels.



	2020	Exchange	Organic	Acc'n & disposal	2021	Organic	Reported
Revenue	£1,193.4m	(£41.0m)	£192.1m	–	£1,344.5m	+17%	+13%
Adjusted operating profit	£270.4m	(£11.1m)	£81.0m	–	£340.3m	+31%	+26%
Adjusted operating profit margin	22.7%				25.3%	+280 bps	+260 bps
Statutory operating profit	£249.0m				£320.9m		+29%
Statutory operating margin	20.9%				23.9%		+300 bps



IP was very strong in the first half at 11.5%, against a weak comparator in 2020 that reflected the worst of the economic impacts of the pandemic. The 4% growth in the second half was below earlier forecasts, with lower month-on-month sequential growth rates reflecting the impacts of global supply chain challenges on factory output.

In our largest sectors, Pharmaceutical & Biotechnology and Food & Beverage, which accounted for 46% of Group sales in 2021, IP was 13.6% and 4.0% respectively. In the Oil & Gas sector which accounted for 5% of Group sales, IP was 4.1% having contracted 6.7% in 2020.

Over the past three months, forecasts¹ for global industrial production growth (IP) in 2022 have ranged between 4.0% and 4.4%, reflecting the ongoing global supply chain disruptions but not yet the unfolding geopolitical tensions.

¹ Source for industrial production data: Oxford Economics, February 2022

Operating review continued

Summary of progress in 2021

Sales

Group sales were up 13% to £1,344.5 million (2020: £1,193.4 million) and 17% up on an organic basis, the difference being due to a negative foreign exchange impact of over 3%. Organic sales growth more than offset the 3% reduction experienced in 2020, with Group sales well above the pre-pandemic level of £1,242.4 million, demonstrating the resilience of our business model and strategies, as well as the quality of execution by our teams.

The Steam Specialties Business, which accounted for 56% of Group revenue in 2021, experienced strong growth in all regions, supported by a recovery of IP as customers resumed maintenance activity and capital expansion projects that were postponed in 2020. Sales of £754.9 million were up 9% and 12% up on an organic basis, with growth in demand outstripping sales and leading to an expansion of the order book carried forward into 2022.

The Electric Thermal Solutions (ETS) Business, which accounted for 14% of Group revenue in 2021, delivered sales of £181.3 million, up 2% or 7% up organically against 2020. Demand growth was ahead of Steam Specialties demand growth, after adjusting for the record US\$14 million order from the US Navy in 2020. Demand for Chromalox's decarbonisation-related solutions and from Thermocoax's customers in the Semiconductor sector was particularly strong. As demand growth was significantly ahead of sales growth, the Business ended the year with a record order book carried forward into 2022. Sales were impacted by disruptions in the global supply chain and delays in delivering operational improvements

at two of our manufacturing facilities in Chromalox.

Watson-Marlow, which accounted for 30% of Group revenue in 2021, delivered record sales of £408.3 million, 27% above 2020 and 32% up on an organic basis. This growth was supported by exceptional demand from the Pharmaceutical & Biotechnology sector, which accounted for almost 60% of Watson-Marlow's sales in 2021, as well as growth strongly above IP in the Process Industries sector. Manufacturing capacity was ramped-up significantly during the year and would have been higher if not for the impact of global supply chain disruptions. Demand growth exceeded sales, leading to the largest expansion in order book of any of our Businesses.

Adjusted operating profit

Group adjusted operating profit was up 26% to £340.3 million and 31% up on an organic basis, the difference being due to a negative foreign exchange impact marginally above 4%.

In Steam Specialties, adjusted operating profit of £188.7 million was up 22% compared with 2020 and 27% up on an organic basis, with the benefits of operational gearing partially offset by a significant increase in revenue investments to support future growth.

ETS delivered an adjusted operating profit of £24.0 million, up 3% on an organic basis but 2% down on a reported basis, due to a strong currency headwind.

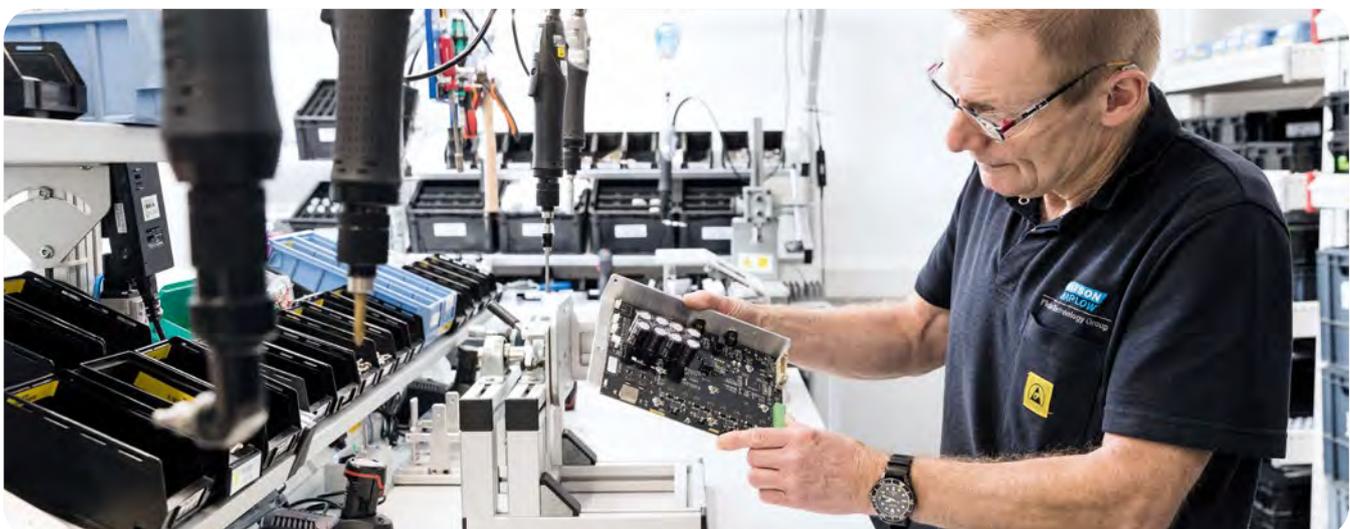
Watson-Marlow's adjusted operating profit was up 40%, and 46% up organically compared with 2020, notwithstanding continued revenue investments and expansion of manufacturing capacity.

Adjusted operating profit margin

The Group adjusted operating profit margin of 25.3% was up 260 bps, a record level for the Group. On an organic basis, the adjusted operating profit margin improved by 280 bps. Margin expansion was driven by strong growth in sales, with the benefit of operational gearing partially offset by the ramp-up of revenue investments to support future growth, which mostly impacted the second half of the year. The adjusted operating profit in 2021 does not reflect a full-year of cost of these investments. Had we incurred a full-year of cost, the Group's adjusted operating profit margin would have been lower by less than 200 bps.

Within Steam Specialties, the adjusted operating profit margin grew 280 bps to 25.0%, and 290 bps on an organic basis. For ETS, the adjusted operating profit margin was 13.2%, down 60 bps on both a reported and organic basis. Watson-Marlow's adjusted operating profit margin was up 330 bps to 36.7%, driven by a strong 340 bps organic margin expansion.

ETS adjusted operating profit margin was lower in 2021, due to lower than expected shipments from our manufacturing facility in Ogden (USA) and continued losses in our Soissons (France) manufacturing facility, as well as increased revenue investments and costs to support operational improvements. In the Americas, which represents over 75% of Chromalox sales and experienced the highest demand growth, the adjusted operating profit margin has reached 20%. Thermocoax's adjusted operating profit margin was higher in 2021, mostly as a result of continuing strong demand for semiconductors.





Statutory operating profit and margin

Statutory operating profit of £320.9 million was up from £249.0 million in 2020 and the statutory operating profit margin of 23.9% was up 300 bps (2020: 20.9%). The drivers of the increase in statutory operating profit and statutory operating profit margin are as explained in the adjusted operating profit sections above, as well as the reduction in acquired intangible amortisation to £21.4 million (2020: £26.6 million) and a lower defined benefit pension credit of £2.0 million (2020: £10.5 million).

Outlook

Our robust business model and disciplined execution of our strategies have underpinned the resilience of our performance throughout economic cycles, so we remain confident in our ability to navigate the growing uncertainties ahead. If exchange rates at the end of February were to prevail for the remainder of the year, there would be a less than 1% headwind impact on 2021 sales and adjusted operating profit, as reported. Movements in exchange rates are often volatile and unpredictable, especially given the current geopolitical uncertainties, therefore the actual impact could be significantly different.

Over the past three months, forecasts¹ for global industrial production growth (IP) in 2022 have ranged between 4.0% and 4.4%, reflecting the ongoing global supply chain disruptions but not yet the unfolding geopolitical tensions. Against these IP forecasts, for most of the Group's organic revenue streams we currently anticipate organic sales growth well above IP in 2022, supported by record order books in all three of our Businesses. In Watson-Marlow's Pharmaceutical & Biotechnology sector, which accounted for almost 60% of their sales in 2021, we anticipate very strong organic sales growth around 20%. Achieving these growth levels continues to be dependent on each Business expanding its manufacturing capacity and mitigating supply chain constraints.

During 2021, we accelerated our revenue investments to support future organic growth and improve our sustainability performance. However, these revenue investments had a lower impact on the first half performance, which drove the record adjusted operating profit margin of 2021. This is evidenced by the very high 51% drop-through from increased organic sales to adjusted operating profit in the first half, compared to a more typical 34% organic adjusted operating profit drop-through in the second half of the year. We estimate the full-year effect of these revenue investments would have reduced the Group's 2021 adjusted operating profit margin by less than 200 bps. While the full-year impact of these revenue investments will reduce the 2022 adjusted operating profit organic growth rate, we currently anticipate the adjusted operating profit margin in 2022 will remain comfortably above pre-pandemic levels.

We anticipate that cash conversion will be lower than our historical levels of around 90%, as we step up capital investments to between 6% and 7% of sales and increase working capital in line with revenue.

¹ Source for industrial production data: Oxford Economics, February 2022

Operating review continued
Steam Specialties

Steam Specialties



“We continued to invest significantly to support our future revenue growth, with an expansion in sales-related headcount, new product development, as well as digital and sustainability initiatives.”

Maurizio Preziosa
Managing Director, Steam Specialties

Market overview

Global Industrial Production growth (IP) was 7.6% in 2021, more than recovering the 4.1% contraction of 2020.

In Europe, Middle East and Africa, IP was 6.5% in 2021, compared to a 6.2% contraction during 2020. In Asia Pacific, IP was 8.0% in 2021, following a 1.2% contraction in 2020. North America was 5.4% and Latin America 6.2% in 2021, with IP in most countries across these regions failing to recover to pre-pandemic levels.

The Food & Beverage sector, representing 28% of Sales, grew at 4.0% in 2021. The OEM (19% of sales) and Pharmaceutical & Biotechnology (13% of sales) sectors grew at 15.3% and 13.6% respectively.

Progress in 2021

Steam Specialties, which comprises the two leading product brands of Spirax Sarco and Gestra, operates across the three geographic divisions: Europe, Middle East and Africa (EMEA), Asia Pacific and the Americas.

Steam Specialties' sales of £754.9 million were up 9% in 2021 or 12% up organically. The Business experienced strong demand growth across all regions, above the growth rate of sales. Demand growth was supported by a recovery of global IP with customers resuming maintenance activities and capacity expansion projects that were postponed in 2020.

The dual effect of the strong economic recovery and global supply chain shortages had an impact on the Business in 2021. This included labour shortages caused by COVID-19 isolation requirements, reduced availability of some materials and freight disruptions. The strong demand growth and the impact of these supply chain constraints was reflected in an expansion of the order book at the end of 2021, despite the ramp-up of activities at our manufacturing

facilities to meet the increased demand. As a consequence of these factors and despite the mitigating actions taken, Steam Specialties' customer service metric, On-Time-To-Request (OTTR), suffered a slight decline compared to 2020.

In EMEA, Steam Specialties achieved 10% organic sales growth, more than offsetting the 7% contraction experienced in 2020. Across the four main markets of the UK, Germany, France and Italy, which together account for over 55% of sales in EMEA, IP was relatively modest with the first three of those countries recovering almost half their 2020 IP decline. In this context, Steam Specialties performed strongly, growing sales between 6% and 11% across those four countries. Demand in most EMEA countries exceeded growth in sales, reflecting strong IP and the challenges of supply chain disruptions during the second half of 2021.

In Asia Pacific, 13% organic sales growth was driven by the excellent performance of China that grew 28%, supported by strong demand from the Pharmaceutical & Biotechnology sector and sales to customers who serve the growing battery production

	2020	Exchange	Organic	Acc'n & disposal	2021	Organic	Reported
Revenue	£694.1m	(£21.8m)	£82.6m	–	£754.9m	+12%	+9%
Adjusted operating profit	£154.3m	(£5.7m)	£40.1m	–	£188.7m	+27%	+22%
Adjusted operating profit margin	22.2%				25.0%	+290 bps	+280 bps
Statutory operating profit	£157.8m				£186.8m		+18%
Statutory operating margin	22.7%				24.7%		+200 bps

market. In Korea, our second largest market in the region, sales were down 12% compared to 2020 despite demand being flat. This was a reflection of the higher mix of larger projects shipped in 2020, which experienced a slower recovery than mid-size projects in 2021, especially in the Oil & Gas sector.

In the Americas, 17% organic sales growth represented a strong performance against a backdrop of regional IP that did not fully recover the contraction of 2020. In North America, which accounts for more than 60% of sales in the Americas, growth was particularly strong at 13%. Latin America was the fastest growing region of 2021, driven by outstanding mid-teens real terms sales growth in Brazil and Argentina, which account for over 60% of Steam Specialties' Latin American sales.

Adjusted operating profit of £188.7 million was up 22% or 27% up organically. At 25.0%, the adjusted operating profit margin was up 280 bps or 290 bps up organically. Statutory operating profit of £186.8 million was up 18% from £157.8 million in 2020.

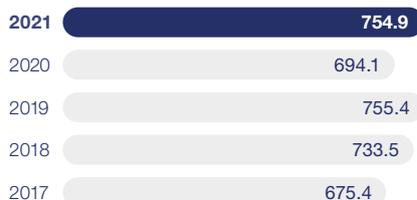
Steam Specialties adjusted operating profit margin expanded substantially in 2021, reflecting strong sales growth and the benefits of operational gearing. We continued to invest significantly to support our future revenue growth, with an expansion in sales-related headcount and new product development, as well as digital and sustainability initiatives. These investments were ramped-up during 2021 and more heavily weighted to the second half of the year. As a result, the adjusted operating profit in 2021 does not reflect the full-year impact of these investments. Had we incurred a full-year cost, Steam Specialties' adjusted operating profit margin would have been lower by around 200 bps.

Strong demand coupled with supply chain shortages also resulted in underlying input cost inflation, consistent with trends being experienced globally. The impact of these cost increases was mitigated through our proactive price management practices.

Revenue £m

£754.9m

2020: £694.1m



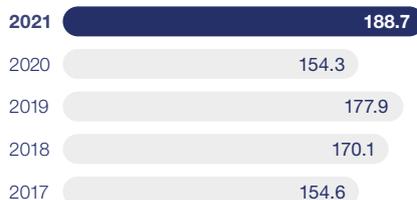
Reported
+9%

Organic
+12%

Adjusted operating profit £m

£188.7m

2020: £154.3m



Reported
+22%

Organic
+27%

Steam Specialties at a glance
(at year end)

62
operating units*

67
countries with a resident
direct sales presence

4,964
colleagues

Group revenue %

56%

2020: 58%



Adjusted operating margin %

25.0%

2020: 22.2%

Reported
+280bps Organic
+290bps

Key markets



* Operating units are business units that invoice locally.

Operating review continued

Steam Specialties continued

Business strategy update

In June 2021, Steam Specialties launched its refreshed strategy, Customer first² (Customer first squared). This refreshed strategy builds on the Customer first strategy that has been in place since 2014 and expands on key areas such as customer insight, sustainability, innovation, digital and inclusivity. The Business remains focused on the most attractive industries where we can deliver most value to customers and drive self-generated growth.

Following the acquisition of Gestra in 2017, Steam Specialties has pursued a sector-driven dual brand strategy, while implementing our business model and Customer first strategy within Gestra to drive higher growth and improved adjusted operating profit margins. Since 2019, Gestra's sales growth performance has remained in line with the Spirax Sarco brand, while adjusted operating profit margins continued improving in line with our acquisition plans and reaching the 20% threshold.

In January 2022, Steam Specialties completed the acquisition of Cotopaxi Limited a digitally-enabled global energy consulting and optimisation specialist, for £12.8 million, to further accelerate implementation of our Digital strategy. Cotopaxi will enhance 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 work closely with our customers to understand and support their sustainability goals. Recognising the critical role that steam plays in industrial processes globally, we launched the 'Natural Technology' campaign in 2021. This campaign reinforces the natural, clean properties of steam and demonstrates its importance to processes such as sterilisation, cooking, heating and cleaning. The ability to decarbonise the process of raising steam is critical to building a more sustainable future. Our 'Thermal Solutions Synergy' team, comprised of colleagues from Steam Specialties and Electric Thermal Solutions (ETS), have developed and are continuing to test innovative new solutions that use both Low Voltage and our patented Medium Voltage technologies to decarbonise the generation of steam with minimal impact to our customers' operations.

Alongside our drive to help customers meet their sustainability goals, we are also taking steps to meet our own ambitious target of achieving net zero scope 1 and 2 greenhouse gas emissions by 2030. Work has begun at our UK manufacturing site in Cheltenham, to deploy our innovative decarbonisation solutions for the electrification of our gas-fired boilers. Upon completion of this project in late 2023, we will reduce our site's scope 1 and scope 2 emissions, with our electricity needs being supplied via green energy contracts.

We continue to invest in new product development across Steam Specialties and released 19 new product offerings throughout 2021 to support the efficient use and control of steam. These included development of the next phase of our Boiler House control range, developed for Spirax Sarco using Gestra technology, as well as the M16i OEM Ball Valve range for the rapidly growing Original Equipment Manufacturing (OEM) market in China. Technology from our product brand Hiter, which is based in Brazil and was acquired by Steam Specialties in 2015, has been used for the first time in a global product range of Variable Area Desuperheaters, which helps customers with the efficient use and control of superheated steam.

We extended our range of clean steam products for Pharmaceutical & Biotechnology and Food & Beverage markets, including Clean Steam Generators, as well as launching a Steam Quality Training Programme for customers.

We also introduced a new range of control valve positioners, used widely in our solutions and packages across all sectors, as well as a controls system upgrade for the Spirax Sarco EasiHeat™ Compact Heat Transfer Solution, offering improved energy efficiency over previous product generations.

Against the backdrop of record demand for our products and solutions, we made improvements at a number of our manufacturing sites. These improvements included the consolidation of two manufacturing locations in Italy and outsourcing production of specific products as part of our Future Factory investment programme, which is an ongoing commitment to equipment modernisation in order to increase our manufacturing capacity and efficiency. This resulted in a better alignment of the combined operation

to future market demand, following the introduction of new innovations such as our sector-specific ranges of Clean Steam Generators.

In our UK and Brazilian manufacturing facilities, the introduction of new machines is driving increased flexibility and automation, enabling faster growth and improved response to changes in customer demand. The Future Factory programme continued throughout the pandemic and supported an increase in manufacturing capacity in 2021.

We also continued to invest in our direct sales capability and expanding our geographic reach, with Gestra France beginning trading in January 2021. Investment was approved to establish a stronger sales presence across Africa and the Middle East with a substantial step up in the recruitment of direct sales engineers across that region. Our self-generated sales capability is underpinned by a strong focus on training delivered through our Steam Academy. During the year, we expanded the training available to support our engineers with their technical development through programmes of learning with increasing degrees of difficulty.

Business outlook

Over the past three months global industrial production growth (IP) forecasts¹ for 2022 ranged between 4.0% and 4.4%, reflecting ongoing global supply chain disruptions but not yet the unfolding geopolitical tensions. We currently anticipate that Steam Specialties' organic sales will continue to grow ahead of global IP forecasts in 2022.

We also anticipate that in 2022, the adjusted operating profit organic growth rate will be lower than the sales organic growth rate, reducing the adjusted operating profit margin. The full-year impact of our revenue investments in 2021, which we estimate would have reduced Steam Specialties' 2021 adjusted operating profit margin by around 200 bps, will reduce our adjusted operating profit growth in 2022. While we expect the benefits of operational gearing from increased sales to be partially offset by the full-year impact of the 2021 revenue investments, we currently anticipate the 2022 adjusted operating profit margin will remain slightly above pre-pandemic levels.

¹ Source for industrial production data: Oxford Economics, February 2022

Operating review

Electric Thermal Solutions

Electric Thermal Solutions



“Our customers’ focus on the decarbonisation of their industrial processes and heating systems to reduce their own greenhouse gas emissions, continues to drive demand.”

Dominique Mallet
President, Electric Thermal Solutions

Market overview

The geographic footprint of the Electric Thermal Solutions (ETS) Business differs from Steam Specialties and Watson-Marlow, with over two-thirds of revenue generated in the Americas and less than 10% generated in Asia Pacific. ETS also has a greater weighting of sales to the Oil & Gas, Power Generation and Semiconductor sectors than Steam Specialties, plus a lower weighting to the Food & Beverage and Pharmaceutical & Biotechnology sectors.

Chromalox, which accounts for three-quarters of ETS revenues, generates over 75% of its revenue in North America and therefore has a higher exposure to the USA where IP was 5.5% in 2021. The Oil & Gas sector, which accounts for 14% of Chromalox sales grew at 4.1% during the year, while Buildings is the second largest sector at 13% of sales.

Our customers’ focus on the decarbonisation of their industrial processes and heating systems to reduce their own greenhouse gas emissions, continues to drive demand for Chromalox’s products and solutions. Cross-selling opportunities referred by Steam Specialties have also delivered additional demand for Chromalox,

particularly in municipal heating applications in North America.

Almost half of Thermocoax’s sales were in EMEA, where IP was 6.5%. The Semiconductor sector now accounts for over 40% of Thermocoax sales, having grown 7% during the year. The drive to 7nm and smaller architecture continues to create opportunities for our lithography and atomic layer deposition solutions.

Progress in 2021

ETS experienced strong overall demand growth, ahead of Steam Specialties demand growth, after adjusting for the record US\$14 million order from the US Navy, the largest order in our Group’s history.

ETS sales were up 2% to £181.3 million or 7% up on an organic basis, with the difference due to currency headwinds. ETS experienced demand growth significantly ahead of sales growth, which led the Business to end the year with a record order book carried forward into 2022. Sales were impacted by disruptions in the global supply chain, a tight labour market in the USA and delayed delivery of operational performance improvements in two of Chromalox’s manufacturing facilities.

Chromalox’s 12% sales growth in the Americas reflected strong demand for bespoke solutions supporting customers’ decarbonisation. Outside of the Americas, demand grew at a lower rate due to a slower recovery of larger projects in the Oil & Gas sector, which remains below pre-pandemic levels. Thermocoax’s sales, which grew in 2020 despite pandemic effects, continued to benefit from strong demand in the Semiconductor sector.

Adjusted operating profit of £24.0 million, was up 3% on an organic basis but 2% down on a reported basis due to a strong currency headwind. Statutory operating profit of £11.1 million was up 131% from £4.8 million in 2020.

ETS adjusted operating profit margin was 13.2%, down 60 bps on both a reported and organic basis. Chromalox’s adjusted operating profit margin was lower in 2021, partly driven by increased revenue investments in sustainability, new product development and to support operational improvements. Thermocoax’s adjusted operating profit margin was higher in 2021, supported by sales growth and the benefits of operational gearing.

	2020	Exchange	Organic	Acq'n & disposal	2021	Organic	Reported
Revenue	£178.0m	(£7.9m)	£11.2m	–	£181.3m	+7%	+2%
Adjusted operating profit	£24.6m	(£1.2m)	£0.6m	–	£24.0m	+3%	-2%
Adjusted operating profit margin	13.8%				13.2%	-60 bps	-60 bps
Statutory operating profit	£4.8m				£11.1m		+131%
Statutory operating margin	2.7%				6.1%		+340 bps

Operating review continued

Electric Thermal Solutions continued

Revenue £m

£181.3m

2020: £178.0m



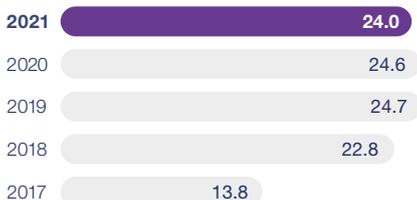
Reported
+2%

Organic
+7%

Adjusted operating profit £m

£24.0m

2020: £24.6m



Reported
-2%

Organic
+3%

Electric Thermal Solutions at a glance (at year end)

25
operating units*

19
countries with a resident direct sales presence

1,487
colleagues

Group revenue %

14%

2020: 15%



Adjusted operating margin %

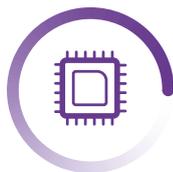
13.2%

2020: 13.8%

Reported
-60bps

Organic
-60bps

Key markets



In the Americas, which represents over 75% of Chromalox sales and experienced the highest demand growth, the adjusted operating profit margin reached 20%, reflecting the scale of the business in that region. In EMEA, which represents around 15% of Chromalox sales, the reorganisation of the Chromalox Soissons (France) manufacturing facility during 2020 delivered the expected increase in shipments to customers in 2021, albeit with continued losses. The Chromalox EMEA Sales Director retired at the end of the year and was succeeded by an experienced Sales Director from our Steam Specialties Business, who will focus on accelerating sales growth and improving EMEA price management practices in a manner consistent with the rest of our Group. As these price management practices become embedded, we will be able to better assess the adjusted operating profit margin outlook of the manufacturing operations at Soissons.

During 2021, shipments from our manufacturing facility in Ogden (Utah, USA) were slightly above 2020, but fell short of our expectations for the year. We estimate this sales shortfall impacted the ETS adjusted operating profit margin by over 200 bps. Ogden is currently capacity constrained as it transitions to focus on the manufacture of both Low Voltage and patented Medium Voltage technology industrial heating solutions, supporting the decarbonisation of buildings and industrial processes. This capability remains vital to delivering our strategy for ETS.

In order to step up our shipment levels at Ogden, we continue to invest in increased staffing and specialist skills, as well as further operational improvements which include the re-engineering of manufacturing processes to reflect the more complex and bespoke engineered solutions delivered by the plant, while relocating higher volume standard products to our manufacturing facility in Nuevo Laredo (Mexico).

Business strategy update

ETS carried out a strategy refresh during 2020, resulting in the launch of the Engineering Premium Solutions (EPS) strategy. An important component of this strategy is the drive towards 'Total Customer Solutions' and during 2021 we strengthened our business development function and increased our focus on new product innovation, with demonstrable technological advantages and quantified sustainability benefits.

* Operating units are business units that invoice locally.

ETS is evolving its solutions in electrification, decarbonisation and sustainability which remain important growth drivers for the Business as it builds a significant pipeline of opportunities. Chromalox is already the process heating technology partner for several large energy storage solutions providers and we are engineering a full-scale commercial thermal energy storage system for a major European renewable energy company, utilising more than 30MW of electric process heating.

Additionally, we are working with a leading power company in the USA to develop a 5MW molten salt storage system for a new type of highly efficient power cycle. Chromalox's patented DirectConnect Medium Voltage (MV) technology provides the innovative step necessary to enable a grid-scale thermal energy storage system to operate effectively. Our DirectConnect MV technology is part of a solution for McGill University in Canada, which has an energy requirement equivalent to 13,000 homes, helping them reduce scope 1 carbon emissions from their downtown powerhouse by an expected 30%.

By combining our core capabilities with Steam Specialties, we have been able to develop synergies within our thermal energy management portfolio. This has enabled the 'Thermal Solutions Synergy' team to design new industry-leading products that deliver significant sustainability benefits for customers. In 2021, the team successfully installed and started-up the first customer trial of a steam thermal energy storage system, with the second being installed for start-up in 2022. This solution is a dynamic and flexible thermal storage system that converts electrical energy into steam for use 'on demand'. When combined with a renewable energy source or via green energy contracts, it supports our customers' aspirations to decarbonise their steam

generation. Prototypes of different scales of the thermal energy storage systems have also been built and are being tested.

A retrofit boiler system that allows for the in-place conversion of fossil-fuel-fired industrial steam boilers into electric steam boilers with minimal disruption to the customer's processes has also been developed and tested. This system eliminates scope 1 carbon emissions from the steam generation process, as well as reducing scope 2 carbon emissions when coupled with renewable power generation sources, improving the sustainability of our customers' operations.

ETS delivered 11 new product introductions to the market in 2021. For Thermocoax, these included a new chuck for the Semiconductor market, a heating plate used during the process of atomic layer deposition, with three heating zones delivering thermal homogeneity, as well as a tantalum heating element for the Aerospace market that can withstand temperatures of up to 1600°C.

A project to consolidate Thermocoax's four existing manufacturing sites in Normandy (France) into a new purpose-built manufacturing and office facility was completed as planned in 2021. Completion and handover of the building took place in Q3 and a carefully planned and phased transition plan for the sites was implemented in Q4 with minimum disruption to operations and customers. Production of orders from the new site began in December 2021.

We have continued to identify opportunities within ETS to leverage its position as part of our Group by adopting best practice from other parts of the organisation. We have identified a new leader for Chromalox EMEA from within the Group and have adapted existing 'go-to-market' tools to support our organic growth and sector focus. In 2021,

we launched our revised go-to-market strategy in the Americas, optimising the number of accounts assigned to individual direct sales engineers in order to enable them to spend more time with existing and new customers, identifying their needs and customising solutions. We will be rolling out this approach in EMEA and Asia Pacific during 2022.

We are also investing in our self-generated sales capability by developing the skills and knowledge of our expert engineers through the ETS Academy. The Business is fully utilising the virtual and visual assets already available in the Steam Specialties Academy to provide a rich and immersive experience for our direct sales teams and end user customers.

Business outlook

Electric Thermal Solutions ended the year with a record order book that reflects the strong demand growth of 2021. In 2022, we anticipate Electric Thermal Solutions sales will increase at an organic growth rate above Steam Specialties, as we continue to address operational constraints and ramp-up our manufacturing capacity. As a result of the operational gearing from increased sales, we anticipate an increase in the adjusted operating profit margin in 2022.



Operating review continued Watson-Marlow

Watson-Marlow



“During 2021, we ramped up activity to meet demand despite disruption to global supply chains and shortages of some raw materials and key components.”

Andrew Mines
Managing Director, Watson-Marlow

Market overview

Watson-Marlow also benefitted from a recovery in global Industrial Production growth (IP), similar to Steam Specialties, albeit with a geographic footprint of sales that is more weighted to the Americas and less weighted to Asia Pacific.

The Pharmaceutical & Biotechnology industry, Watson-Marlow's largest sector, has historically grown at an annual rate between 12% and 14%, while Watson-Marlow's sales to this sector have historically grown close to 20% per annum. During 2021, the sector continued to experience exceptional growth given the industry's role in the development and production of COVID-19 vaccines. Watson-Marlow also benefitted from the strong recovery in IP through its sales to the Process Industries sector.

Progress in 2021

We have continued to see exceptional demand from our Pharmaceutical & Biotechnology customers, as well as strong demand growth in the Process Industries sectors, strongly above IP. Demand exceeded our ability to deliver shipments in some of our manufacturing

plants, despite our significant investments to expand capacity, leading to a record order book being carried forward into 2022.

Watson-Marlow sales were up 27% to £408.3 million on a reported basis and 32% up on an organic basis. Sales to the Pharmaceutical & Biotechnology sector grew 43% and the sector now accounts for almost 60% of Watson-Marlow's total sales, while sales to the Process Industries sector grew well ahead of global IP. During 2021, we ramped up activity to meet demand despite disruption to global supply chains and shortages of some raw materials and key components, increasing shipments from BioPure (UK) and Falmouth Pumps and Tubing (UK) by over 50% and 35%, respectively.

Watson-Marlow's adjusted operating profit was up 40% to a record £150.0 million, due to sales growth and the benefits of operational gearing. Organically, adjusted operating profit was up 46% due to a strong currency headwind, reflecting the strengthening of sterling and our significant manufacturing footprint in the UK. At 36.7%, the adjusted operating profit margin was up 330 bps, or 340 bps up on an organic

basis. Statutory operating profit was up 42% from £102.2 million in 2020 to £145.4 million in 2021.

During 2021, we continued to invest significantly to support our future revenue growth, with an expansion in manufacturing capacity, sales-related headcount, new product development, as well as digital and sustainability initiatives. Investments were ramped-up during 2021 and more heavily weighted to the second half of the year. As a result, the adjusted operating profit in 2021 does not reflect the full-year impact of these investments, which enhanced the adjusted operating profit margin by over 200 bps.

Business strategy update

Strategy25 is Watson-Marlow's five-year organic growth strategy, building momentum through ten strategic initiatives which are led and supported by team members across the Business. Through Strategy25 we are targeting sustainable growth that outperforms our markets.

We continued to invest in our Business to support future growth and better serve the needs of our customers, through the recruitment of almost 130 people in direct

	2020	Exchange	Organic	Acq'n & disposal	2021	Organic	Reported
Revenue	£321.3m	(£11.3m)	£98.3m	–	£408.3m	+32%	+27%
Adjusted operating profit	£107.3m	(£4.2m)	£46.9m	–	£150.0m	+46%	+40%
Adjusted operating profit margin	33.4%				36.7%	+340 bps	+330 bps
Statutory operating profit	£102.2m				£145.4m		+42%
Statutory operating margin	31.8%				35.6%		+380 bps

sales roles. Our newest operating company in the Czech Republic began trading at the start of 2021 and also serves Slovakia. We have developed a new Sales Engineer Training Curriculum that is sector specific and will encompass a 12-month training programme, supported by Sector Specific Training Hubs.

In response to exceptional demand from the Pharmaceutical & Biotechnology sector, we have increased both short and long-term capacity at our existing facilities, including BioPure, Falmouth Pumps and Tubing and Flexicon sites. A new building close to our UK manufacturing site in Falmouth was leased to relocate warehousing and new product development activities. This freed up space for manufacturing expansion within our current site to meet increased demand. During the third quarter, we installed a third tubing line and associated clean room for Falmouth Tubing, anticipating further customer demand in 2022. Manufacturing cell capacity for pump assembly was supported by the recruitment of additional staff.

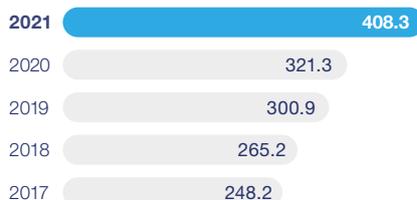
Construction of the new BioPure site at Dunsbury Park in Portsmouth (UK) has been completed and the internal fit out is progressing well. The project remains on schedule for first deliveries to customers by the end of the first quarter of 2022. In 2021, we increased the total project budget to £37 million to increase the number of moulding machines from 10 to 24 and increase cleanroom capacity, which will allow us to more than double the existing output and meet significant growth in demand.

In the USA, plans for our state-of-the-art greenfield manufacturing facility in Massachusetts are well advanced and running to schedule. The build phase of the 14,000m² facility began in October 2021, with first production due in late 2022. The site will incorporate a suite of eight ISO14644-1 Class 7 cleanrooms, warehousing and offices, with space for two further cleanrooms within the initial footprint. This new facility will deliver products from across our portfolio of Watson-Marlow brands and strengthen the support we provide to customers in the Americas and across all our sectors. As anticipated there has been an escalation in expenditure for this project due to the sharp inflation of raw materials and commodity costs within the construction sector.

Revenue £m

£408.3m

2020: £321.3m



Reported **+27%**

Organic **+32%**

Group revenue %

30%

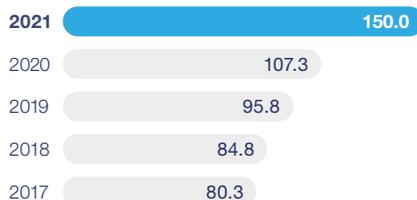
2020: 27%



Adjusted operating profit £m

£150.0m

2020: £107.3m



Reported **+40%**

Organic **+46%**

Adjusted operating margin %

36.7%

2020: 33.4%

Reported **+330bps** Organic **+340bps**

Watson-Marlow at a glance (at year end)

46 operating units*

43 countries with a resident direct sales presence

2,170 colleagues

Key markets



* Operating units are business units that invoice locally.

Operating review continued

Watson-Marlow



Watson-Marlow launched 7 new products in 2021. Following a soft launch in the first half of the year, the Qdos CWT was fully launched to the market in the second half. This product features a revolutionary new pumphead called the ReNu 30 CWT, which utilises Conveying Wave Technology (CWT) and fits onto our existing range of Watson-Marlow Qdos pumps. The patented technology pumphead delivers superior accuracy and chemical resistance for metering and dosing applications, establishing the next level of high performance for our industry. It is an evolution in long-life chemical metering and expands our addressable market downstream into sectors requiring higher flow, pressure and enhanced chemical resistance.

A new peristaltic filling machine, the Flexicon PF7+, designed for high accuracy aseptic filling in critical applications for zero waste was launched to the Pharmaceutical & Biotechnology market, as well as a new grade of BioPure tubing for transfer applications.

The Watson-Marlow Maxthane FDA and EC1935 food grade tubing and the MasoSine Certa Clean In Place (CIP)/Clean Out of Place (COP) pump were all launched for the Food & Beverage sector in 2021, while the thin-walled Watson-Marlow TPU tubing for handling Aliphatic hydrocarbons was also launched for the Industrial sector. The new MasoSine Certa pump design removes the operational requirement to repeatedly strip down pumps to clean, or prove cleanliness, between batch runs and has opened up additional applications for the product.

Business outlook

During 2021, Watson-Marlow experienced exceptional demand growth from customers in the Pharmaceutical & Biotechnology sector, ahead of sales growth, resulting in a record order book at the end of the year. Given the strong underlying demand and a larger opening order book, we anticipate around 20% organic sales growth to the Pharmaceutical & Biotechnology sector in 2022. Across Watson-Marlow's Process Industries, we currently anticipate organic sales growth to be well above global industrial production growth.

We also anticipate that in 2022, the adjusted operating profit organic growth rate will be lower than the sales organic growth rate, reducing the adjusted operating profit margin. The full-year impact of our revenue investments in 2021, which we estimate would have reduced Watson-Marlow's 2021 adjusted operating profit margin by more than 200 bps, will reduce our adjusted operating profit growth in 2022. While we expect the benefits of operational gearing from increased sales to be partially offset by the full-year impact of the 2021 revenue investments, we currently anticipate the 2022 adjusted operating profit margin will remain above 2020 levels.

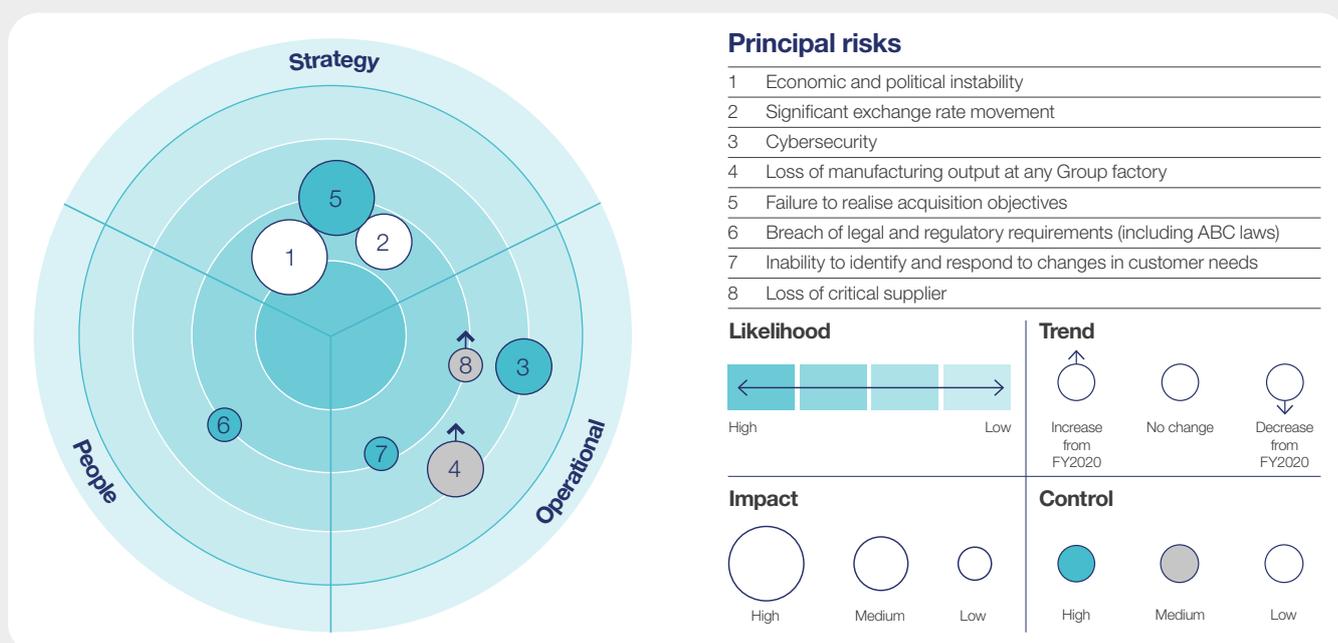
Risk management



“We continue to closely monitor existing and developing risks facing the Group. In light of the ongoing pandemic and global economic uncertainty, most of our principal risks have remained well managed and largely unchanged, but we recognise the pressures these factors have placed on our supply chain this year.”

Nicholas Anderson
Group Chief Executive

Risk likelihood, control and impact



Our approach and appetite for risk

Risk is an inherent part of our business operations and we approach it with the same deliberate, strategic consideration as other aspects of the business. The Risk Management Committee monitors our risks, in particular those identified as principal risks, on an ongoing basis, while the Board is responsible for the overall stewardship of risk management and internal control.

We hold annual reviews, either top-down or bottom-up reviews, that provide information and evaluations that the Committee uses alongside our principal risk appetite ratings to create an effective system for monitoring, planning and developing our Group-wide approach and culture regarding risk.

The General Managers of our operating units are directly involved in the risk assessment process and the evaluations of the Committee, including setting the appropriate

levels of risk that are communicated to all Group companies.

This ongoing monitoring and engagement contribute to the Group’s risk register and the way we manage our risks. As they are dynamic and fluid, both our risk register and principal risks reflect the current conditions across the Group and guide our ongoing monitoring and mitigation activities.

Further reading
Our principal risks
➕ See pages 87 - 91

Risk management continued



Key risk management actions during 2021

The following key actions were undertaken by the Group during 2021 in addition to the regular monitoring of existing and developing risks:

- **Bottom-up risk review:** the Committee received high quality input from its Group companies and determined that they have sufficiently robust measures in place to effectively mitigate the Group's principal risks
- **Risk register:** the bottom-up risk review informed the annual review, validation and update of the risk register
- **Fraud risk:** a number of fraud risks were identified at the fraud risk workshop held in February 2021 including payments fraud and financial misrepresentation. The Risk Management Committee approved a number of actions to mitigate such risks including the development of a Red Flag toolkit to help our leaders identify early warning signs that wrongdoing might be occurring

- **COVID-19 pandemic:** the key risks impacted by the COVID-19 pandemic were again reviewed and revised as the pandemic moved into a new phase during 2021
- **Enterprise risk management:** benchmarking the current risk management activity and process against a standard framework using a third party consultant was deliberated and approved
- **Board review of risk management:** the risk management process and substantive risk matters were discussed with the Board yielding a number of outcomes including definition of the distinction between strategic and operational risks
- **Risk Appetite Statement:** the Risk Management Committee confirmed the statement, which can be found on page 130

The Committee's analysis of the principal risks affecting the Group, before mitigation, is set out in the diagram on page 85.

Moving into a new phase of the COVID-19 pandemic

As the world emerged from the first year of COVID-19, we continued to closely monitor the ongoing impacts of the pandemic, particularly on our workforce, supply chain, and the availability of materials, components and other resources. The effect of the pandemic on the Group, the importance of critical suppliers, together with the need to control and mitigate the risk, meant diversifying supply for key components. This led to the Committee approving the elevation of Loss of Critical Supplier to a principal risk.

Review of risk management by the Board

The Board discussed the risks affecting the Group and determined a distinction between strategic risks which, if they materialise in the medium to long term, could have a material adverse effect on the growth and/or returns of the Group's business, from operational risks (including the principal risks) which, if they materialise in the short to medium term, could have a material adverse effect on the Group's business by impacting business performance. Whilst both risk types fall within the remit of the Board, the Board has delegated to the Risk Management Committee the management of the operational risks.

It was further determined that the Committee retain its assessment of top-down and bottom-up risk reviews on an alternating year review basis to maintain the quality of the returns.

The speed of change of each risk, Risk Velocity, was agreed to be deliberated in 2022 to assess its inclusion in the risk management process from 2022 onwards.

Enterprise risk management

Arising from the internal audit undertaken in 2021, the Risk Management Committee discussed the value in benchmarking the current risk management activity and process against a standard framework using a third party consultant. The value of such process was recognised and was deemed to be beneficial in further developing the Group's risk management process. It was determined that the exercise would be undertaken in the first quarter of 2022 prior to the finalisation of the report for the consideration of the Risk Management Committee.

Risk register review

Following the annual review of the risk register, principal risks and the responses from the bottom-up risk review, Loss of Manufacturing Output at any Group Factory was further elevated in priority as a principal risk in the risk register and Failure to Realise Acquisition Objectives was subsequently lowered in ranking. Loss of Critical Supplier was introduced as a new principal risk in the risk register to recognise the pressures our supply chains have faced over the last year.

The year-on-year trend for each principal risk was assessed and updated and risk appetite ratings validated or adjusted for each of the principal risks.

Climate risk

Climate risk is an emerging risk that we continue to closely monitor in light of national and global developments. We recognise the importance of considering climate risks and opportunities in our business decisions. Our climate risk is managed holistically by the Committee with regular updates to the Group Executive Committee and the Board. The risk remains on our risk register and a part of key strategy discussions at the Board. We also acknowledge the role of the Task-Force on Climate-related Financial Disclosures (TCFD) in supporting the transition to a low-carbon economy. Our disclosures, set out on page 57 of the Sustainability Report demonstrate how we are managing our climate impact and how our organisation is evolving in response to the risks and opportunities arising.

Emerging risks

We are monitoring the current conflict in Ukraine. Our business in the Ukraine is confined to Steam Specialties and is small. Sanctions apply to Russia where our Businesses account for close to 1% of Group revenue. Contingency plans are in place to respond to our announced suspension of trade with, or within, Russia.

The Risk Management Committee and the Board keep a watching brief on emerging risks and over-the-horizon risks. This included identifying future opportunities and risks that develop from changes in materials technology and nano technology.

We also consider technologies such as the industrial internet of things and digital technologies. It is vital that we keep our business current and able to use the latest know-how.

Committee focus for 2022

- Top-down risk review and annual review of risk register
- Continue in the first half of 2022 to undertake the remaining approved actions arising from the fraud risk workshop in 2021
- Consider and assess the inclusion of Risk Velocity as an additional metric in the risk management process
- Evaluate and assess the risk management framework in light of the Enterprise Risk Management process review and report to be produced in 2022
- Continue with accelerated sustainability implementation and digital capabilities and monitor the impacts of the same on our risks and risk management process

Further reading

Information on the Group's approach to risk, including risk appetite, along with the roles, responsibilities and actions of the Risk Management Committee.

See pages 127 to 130

Our Viability Statement

See page 130

Our Going Concern Statement

See pages 43

Principal risks

The following table sets out the Group's principal risks, as agreed at the most recent meeting of the Risk Management Committee and describes the links to strategy, the mitigation measures and the appetite for each risk. The trend column sets out the direction of change from 2020.

The table includes those risks that we have identified as currently most relevant to the Group.

Key Trend

-  Increased risk
-  No change to risk
-  Decreased risk

Link to strategy

-  Direct link
-  Indirect link
-  No link

Risk appetite ratings defined:

Very low	Following a marginal-risk, marginal-reward approach that represents the safest strategic route available.
Low	Seeking to integrate sufficient control and mitigation methods in order to accommodate a low level of risk, though this will also limit reward potential.
Balanced	An approach which brings a high chance for success, considering the risks, along with reasonable rewards, economic and otherwise.
High	Willing to consider bolder opportunities with higher levels of risk in exchange for increased business payoffs.
Very high	Pursuing high-risk, unproven options that carry with them the potential for high-level rewards.

Risk management continued

Principal risk and why it is relevant	Trend	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
<p>The Group operates worldwide and maintains operations in territories that have historically experienced economic or political instability. This type of instability, which includes the uncertainties of regime change, creates risks for our locally based direct sales operations and broader risks to credit, liquidity and currency.</p>		<ul style="list-style-type: none"> • Strong internal controls, including internal audit and appropriate insurance • Operating in line with the Group Treasury Policy, including currency exchange hedging and cashpooling arrangements • Externally-facilitated scenario planning exercises • Resilient business model, strengthened by regular strategic business reviews • Well spread business by geography and sector • Increased liquidity through more headroom on Group debt facilities <p>Executive sponsors: Group Chief Executive</p> <p>Change: No change.</p>	<ul style="list-style-type: none"> <input type="radio"/> Very high <input checked="" type="radio"/> High <input type="radio"/> Balanced <input type="radio"/> Low <input type="radio"/> Very low 	<p>We have the background and know-how to successfully manage the unique challenges in economically and politically volatile territories. We are willing to accept these challenges where opportunities for growth exceed the impact of this risk.</p>
<p>Link to strategy: 1 2 3 4 5 6</p>				
<h2>2. Significant exchange rate movement</h2>				
<p>The Group reports its results and pays dividends in sterling. Operating and manufacturing companies trade in local currency. With sales companies and manufacturing spread across the globe, the nature of the Group's business necessarily results in exposure to exchange rate volatility.</p>		<ul style="list-style-type: none"> • Maintain the spread of manufacturing across currency areas • Consideration of exchange rate exposures in the manufacturing strategy • Forward cover where appropriate and in line with the Group Treasury Policy on hedging currency exchange movements • Focus on reducing manufacturing cost, including sourcing materials from cheaper markets, and purchasing in the UK in foreign currency • Deployment of price management tools <p>Executive sponsors: Chief Financial Officer</p> <p>Change: No change</p>	<ul style="list-style-type: none"> <input type="radio"/> Very high <input type="radio"/> High <input checked="" type="radio"/> Balanced <input type="radio"/> Low <input type="radio"/> Very low 	<p>We take a balanced view of this risk as the risk arises as a direct result of our global presence, but our geographic spread means we are not wholly dependent on any one currency.</p>
<p>Link to strategy: 1 2 3 4 5 6</p>				

Principal risk and why it is relevant	Trend	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
<h3>3. Cybersecurity</h3> <p>Cybersecurity risks include risks from malware, accident, statutory and legislative requirements, malicious actions and other unauthorised access by third parties, including through our supply chain.</p>		<ul style="list-style-type: none"> • Global assessment of our IT environment against UK cyber essentials framework and prioritising actions for improvement • Deploying security tools to limit the impact and spread of ransomware • System access rights regularly reviewed and new MFA (Multi Factor Authentication) introduced • Further strengthening of security for centrally-managed systems for heightened protection and consistency • Cyber insurance cover for all Group companies • Mandatory cyber awareness training is delivered to all staff electronically each year <p>Executive sponsors: Group IS Director</p> <p>Change: No change</p>	<ul style="list-style-type: none"> <input type="radio"/> Very high <input type="radio"/> High <input type="radio"/> Balanced <input type="radio"/> Low <input checked="" type="radio"/> Very low 	<p>Concerns of potential impact on the business, in addition to the important considerations surrounding protection of personal data, reinforce our commitment to implement and maintain robust security measures across the Group.</p>
<p>Link to strategy: 1 2 3 4 5 6</p>				

4. Loss of manufacturing output at any Group factory

<p>The risk includes loss of output as a result of natural disasters, industrial action, accidents or any other cause. Loss of manufacturing output at any important plant risks serious disruption to sales operations.</p>		<ul style="list-style-type: none"> • New facility planned for Watson-Marlow in North America • Expansion of capacity planned for Thermocoax in France and BioPure in the UK • Capacity planning and holding stock in sales companies • Conducting audits/inspections • Annual risk assessments and business continuity planning • Reviewing and maintaining appropriate insurance cover • Continuing commitment to employee policies, ensuring satisfactory benefits and regular communication with all employees • Comprehensive manufacturing footprint project undertaken • Investment in new sites to open alternate lines of supply <p>Executive sponsors: Managing Directors of Steam Specialties, Electric Thermal Solutions and Watson-Marlow</p> <p>Change: There has been an increase in this risk taking account of COVID-19 infections among a skilled workforce. This risk has been controlled and mitigated by more Group factories coming on stream such as the expansion of existing capacity at Thermocoax in France and BioPure in the UK and the planned new Watson-Marlow facility in North America.</p>	<ul style="list-style-type: none"> <input type="radio"/> Very high <input type="radio"/> High <input type="radio"/> Balanced <input checked="" type="radio"/> Low <input type="radio"/> Very low 	<p>While we have mitigated this risk through a geographic spread of factories, calculated replication of capacity and management of stock, we have a low appetite for this risk due to the potential negative consequences to the Group and its customers.</p>
<p>Link to strategy: 1 2 3 4 5 6</p>				

Risk management continued

Principal risk and why it is relevant	Trend	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
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5. Failure to realise acquisition objectives

While the Group mitigates this risk in various ways, including through comprehensive due diligence, professional advisers and contractual protections, there are some variables that are uncontrollable or difficult to control, such as economic conditions, culture clashes and colleague movement, which could impact acquisition objectives.



- Regular review of acquisition criteria in line with strategic plan
- Board approval of integration plans for major acquisitions
- Scrutiny of targets and implementation plans by external advisers and internal key players
- Use of retainer/escrow to provide protection against warranty claims
- Use of insurance as protection against seller breach and non-disclosure
- Ensuring valuation models show a healthy return on investment
- Regular monitoring of performance by the Board against the approved investment case

Executive sponsors: Group Chief Executive

Change: No change

- Very high
- High
- Balanced
- Low
- Very low

Thorough planning and proper due diligence can mitigate many of the potentially risky aspects of an acquisition. Implementation plans must be well-developed and carefully pursued to achieve the full strategic and financial benefits.

Link to strategy: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#)

6. Breach of legal and regulatory requirements (including ABC laws)

We operate globally and must ensure we comply with laws and regulations wherever we do business. As we grow into new markets and territories, we must continually review and update our operations and procedures, and ensure our colleagues are fully informed and educated in all applicable legal requirements. This is particularly important with respect to anti-bribery and corruption (ABC) legislation. Breaching any of these laws or regulations could have serious consequences for the Group.



- Ongoing global monitoring of commercial arrangements and agreements, with appropriate professional advice
- Established procedures to maintain accreditations
- Annual Group-wide ABC training improved with a new programme
- Multi-lingual, multi-national secure whistle-blowing hotline
- Group Litigation Report and ongoing monitoring of cases
- Regular updates on Corporate Governance and Stock Exchange rules
- General Data Protection Regulation compliance plan in place
- Conducting supplier audits
- Engaging suppliers to commit to compliance with the principles of the Supplier Sustainability Code

Executive sponsors: Group General Counsel

Change: No change

- Very high
- High
- Balanced
- Low
- Very low

We respect the laws, rules and regulations of the jurisdictions in which we operate and believe we have a duty to comply with those requirements.

Link to strategy: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#)

Principal risk and why it is relevant	Trend	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
---------------------------------------	-------	---	----------------------	----------------------

7. Inability to identify and respond to changes in customer needs

This risk could lead to a loss of business because of a failure to respond rapidly to changes in the needs of customers or technology shifts.



- Stronger presence of sales engineers, compared with competitors, in the marketplace
- Watson-Marlow implemented a product development pipeline process which tracks trends and changes in each industry sector
- New product ideas generated by market development managers from close alignment with sales engineers and customers
- Sales and competitor analyses undertaken to identify any trends or technology shifts
- Digital strategies for Steam Specialties, Electric Thermal Solutions and Watson-Marlow are under preparation with longer term implications on investment, resource levels, new skills and need to develop external partnerships
- Appointed a Group digital director with the objective of developing a Group digital strategy

Executive sponsors: Managing Director, Steam Specialties

Change: No change

- Very high
- High
- Balanced
- Low
- Very low

The Group continues to focus on its market awareness, invests in technical and sales knowledge via the Spirax Sarco Academy and, through Customer first sectorisation, seeks to be more closely attuned to its customers. There is therefore a good level of control effectiveness, but a low appetite for this risk.

Link to strategy: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#)

8. Loss of critical supplier

This risk is concerned with the impact of the loss of a critical supplier that could lead to logistical difficulties and delayed deliveries



- Improved supplier risk assessments and actions to create supply chain alternatives
- Supplier selection processes have been improved with increased importance placed on product quality, product delivery, financial stability and supplier sustainability
- Supplier development and supplier management resources have been strengthened
- As part of our procurement strategy, we are securing more robust sources of supply
- Dual sourcing strategies for critical suppliers and critical parts give us greater flexibility in our supply chain
- Continued with global market assessment exercises to establish correct price points and mitigate price increases

Executive sponsors: Business Supply Heads

Change: The pandemic has highlighted the Group's awareness of the importance of its critical suppliers together with the need to control and mitigate the risk by diversifying supply for key components.

- Very high
- High
- Balanced
- Low
- Very low

Our expenditure with suppliers is not heavily concentrated in any one supplier or group of suppliers. Therefore, while the loss of a critical supplier would present logistical difficulties and would likely lead to delayed deliveries, the impact would be limited in terms of number of products and customers affected.

Link to strategy: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#)



Governance helps us to ensure our shareholders receive a good return on their investment and that we act with integrity, support our colleagues and customers, treat our suppliers and local communities properly and importantly, respect and protect the environment.

Approach to Governance

The Governance Report describes the responsibilities of the Board and its Committees, the key activities during 2021 and the focus for 2022.

We have summarised some of the key words from the UK Corporate Governance Code's (Code) Principles A-E as shown in the graphic and provided cross-references for further reading. This is our own interpretation and serves to direct our readers to narrative that explains how we have applied the Principles. In addition, we report on relevant provisions later within the scope of the Governance Report. With many relevant examples already covered in the Strategic Report, our aim is to reduce repetition and demonstrate the integrated spirit of the Code.

During 2021, the Board continued to ensure that our Purpose and culture satisfies our emphasis on sustainability, inclusion, diversity and wellbeing.

Key information

The ways in which we have aligned governance to strategy to ensure compliance with some of the key elements of the Code and our leadership on these matters are highlighted on the right.

In this section

1. Board leadership and Company Purpose	94	4. Audit, risk and internal control	118
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Leading an effective and entrepreneurial Board for long-term, sustainable success.

<p>Company Purpose See inside front cover</p>	<p>Culture and Values See pages 23 and 99</p>	<p>Business model See pages 24 to 25</p>
<p>Strategy See pages 30 to 35</p>	<p>Sustainable thinking See pages 12 to 23, 31, 35, 46 to 68 and 102 to 103</p>	<p>Workforce practices See pages 32 to 33, 48 to 51 and 104 to 107</p>
<p>Resource/capital allocation See pages 41 to 45</p>	<p>Effective controls and framework See pages 85 to 91 and 118 to 130</p>	<p>Stakeholder engagement See pages 101 to 103</p>

1. Board leadership and Company Purpose

Chair's introduction



“In 2021, we focused on culture, with the launch of our Group Inclusion Plan. New strategies for Digital and Sustainability as well as significant investment in our future growth will accelerate our performance and support our path towards achieving leadership in industrial sustainability.”

Jamie Pike
Chair

Board changes

Richard Gillingwater was appointed as an Independent Non-Executive Director on 9th March 2021 and became Senior Independent Director with effect from 1st August 2021, succeeding former Senior Independent Director Trudy Schoolenberg, who stepped down from the Board after completing nine years as a Director.

Board highlights

The Board met in-person twice during the year, with the remaining six meetings held virtually. We had the opportunity to speak with colleagues from around the Group through employee engagement forums and attendance at the Group's inaugural Leadership Conference. This engagement has informed key decisions, reflecting colleagues' views on topics such as hybrid-working and wellbeing, now incorporated within the Group's Inclusion Plan.

Good governance

To continue to enhance the Board's effectiveness, we reorganised membership of our Board Committees, better aligning the skills of individual Non-Executive Directors across our different Committees.

In respect of section 172(1) of the Companies Act 2006 (as amended by the Companies (Miscellaneous Reporting) Regulations 2018), the Directors have prepared a statement describing how they have had regard to the matters set out in section 172(1), when performing their duty to promote the success of the Company (see pages 96 to 101). The Board ensures that the Company practices good business

ethics by reviewing control mechanisms, such as the Anti-Bribery and Corruption procedure and whistle-blowing cases, in close association with the Audit Committee.

Board Effectiveness

During 2021, we undertook a Board effectiveness review in partnership with Egon Zehnder. Its goal was to examine how our highly functioning Board can work most effectively and how it can work best with the Group Executive Committee. Egon Zehnder conducted a comprehensive process including interviews with each individual Director and several follow-up meetings. The review considered the Board's strengths by looking at individual capabilities and contributions, what the Board does and the way in which the Board members work together. The key findings were then presented to the Board and actions agreed. The conclusions reflected positively on the diversity of the Board as well as the Non-Executive Directors' confidence in the Executive Directors. It also noted a consistent record of quality decision making as well as a broadening of risk awareness. The review did identify some areas for consideration, which included the Board members spending more time with each other and visiting the Group's sites when possible, having more separation in the reporting by the Group Chief Executive and Chief Financial Officer and more one-to-one contact between the Chair and the Non-Executive Directors.

Spirax-Sarco Engineering has developed into a very high performing and successful Company and there is a high degree of confidence in the organisation's ability to grow further and execute successfully.

The review emphasised the following strengths:

- Strong sense of team identity
- High levels of engagement and a positive team spirit
- Strong, trusted and respectful relationships
 - Very collegiate atmosphere
 - Refreshed with new members recently joining – accommodating, inclusive and supportive
 - Committed to their collective goals
 - Resilient – demonstrated its agility, responsiveness and ability to make fast decisions

Areas for consideration:

- Sufficient time on considering what may go wrong or where future threats may emerge
- An opportunity to allow for more strategic discussion and debate

Another change resulting from this review was to concentrate the right skills of our Non-Executive Directors on the different committees of the Board – Non-Executive Directors sit on different Committees whilst being free to attend all Committees if they wish. Please see the details in the Board of Directors section on pages 96 to 98.

Key Board activities 2021

Sustainability

The Board supported and approved our 'One Planet' Sustainability strategy which was launched Group-wide and externally in June 2021. With initiatives including steps to address biodiversity and carbon reduction, it commits the Group to achieving net zero greenhouse gas emissions in scopes 1 and 2 by 2030. The Board subsequently approved our commitment to achieve net zero in our scope 3 emissions by 2050 and supported investments to deliver on our net zero targets, through approving the project to decarbonise Steam Specialties' manufacturing facility in Cheltenham (UK), as well as continuing to invest in products and solutions to help our customers decarbonise their industrial processes. See pages 55 to 56 of the Sustainability Report for more details on these commitments.

Inclusion, equity and wellbeing

We developed our first Group Inclusion Plan, which sets out how we will create an inclusive and equitable working culture where all colleagues can be themselves and achieve their full potential. It supports the 17 United Nations' Sustainable Development Goals and applies to the whole Group. It includes ten Inclusion Commitments to our colleagues across the world in areas such as gender-neutral parental leave, paid leave for caregivers, support for pregnancy loss, creating workplaces that are safe spaces for everyone to be themselves as well as menopause-friendly and becoming a more gender balanced, ethnically diverse, faith-aware and disability confident employer. You can find more information on pages 50 and 52 to 53 of our Sustainability Report and on pages 115 to 116 of the Nominations Report.

Digital strategy

The Group Digital strategy was approved by the Board to enhance and accelerate performance of our respective Business strategies, while also preparing the Group for digital transformation in the next strategic cycle. We have built on the significant progress made with digitisation in Steam Specialties, including the recently announced acquisition of Cotopaxi and we are looking to further advance this strategy in our Watson-Marlow and Electric Thermal Solutions Businesses.

Expansion projects

During 2021, the Board has approved and supervised a significant programme of expansion across the Group, ensuring they are in accord with our sustainability approach and our obligations under section 172 of the Companies Act. As detailed on page 101 of this Report these important investments in our Group's manufacturing capacity and capabilities include the decision to accelerate the expansion of Watson-Marlow's BioPure facility in Portsmouth (UK), as well as our largest ever investment in a new manufacturing facility for Watson-Marlow in the US, which will enable us to better fulfil our customers' requirements in the Americas, through increased product volumes and faster delivery times.

Management changes

The Board oversaw the appointment of Armando Pazos, who succeeded Dominique Mallet as the President of our Electric Thermal Solutions Business.

External consultants

All external consultants have no conflict of interest and no connection with the Group or individual Directors.

Statement by the Directors on compliance with the Code

The Code applied to the Group for the financial year ended 31st December 2021. The Board considers that it has complied in full with the provisions of the Code other than provision 38 (Executive Directors' pension contributions) where, in line with the 2020 Remuneration Policy, all Executive Directors will move to the new level of 10% of base salary by the end of 2022. We detail our compliance, on a Code provision-by-provision basis, in the Corporate Governance section on our website, www.spiraxsarcoengineering.com.

Fair, balanced and understandable

In accordance with the Code, the Directors confirm that they consider the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's financial position, performance, business model and strategy.

Outcome of 2021

We consider that our performance was strong in 2021: our excellent financial performance was ahead of pre-pandemic performance in 2019 whilst we continued to make the significant investments in our future growth, as described.

Board Focus for 2022

- Investment in organic expansion
- Targeted acquisitions
- Implementation of our Sustainability, Group Inclusion and Digital strategies

I look forward to meeting our shareholders at our forthcoming AGM.

Jamie Pike
Chair

Further reading

- All governance-related policies and procedures are available to view and download: www.spiraxsarcoengineering.com

1. Board leadership and Company Purpose continued

Board of Directors

At year end 2021



Jamie Pike MBA, MA, MIMechE

Chair
Appointed to the Board

May 2014

Areas of experience

Engineering, international, senior management, M&A, strategy

Background

Jamie Pike joined Burmah Castrol in 1991 and was Chief Executive of Burmah Castrol Chemicals before leading the Foseco buy-out in 2001 and its subsequent flotation in 2005. Prior to joining Burmah, he was a partner at Bain & Company. Jamie was educated at Oxford, holds an MBA from INSEAD and is a Member of the Institute of Mechanical Engineers.

External appointments

Non-Executive Director and designate Chair of XP Power Limited.



Nicholas Anderson BSc Eng., MBA

Group Chief Executive
Appointed to the Board

March 2012. Appointed Chief Operating Officer in August 2013 and Group Chief Executive in January 2014

Areas of experience

Engineering, international, senior management, M&A, operational, strategy, sales and marketing, industrial

Background

Before joining the Group in 2011 as Director EMEA, Nicholas Anderson was Vice-President of John Crane Asia Pacific (part of Smiths Group plc), based in Singapore and President of John Crane Latin America, based in the USA. Previously, Nicholas held senior positions with Alcoa Aluminio in Argentina and Brazil, starting his career with the Foseco Minsep Group plc in Brazil.

External appointments

Non-Executive Director of BAE Systems plc.



Nimesh Patel BSc

Chief Financial Officer
Appointed to the Board

September 2020

Areas of experience

International, senior management, M&A, finance and accounting, industrial, pensions, tax and treasury

Background

Before joining the Group in 2020, Nimesh Patel was Chief Financial Officer of the De Beers Group. Prior to that he was Group Head of Corporate Finance at Anglo American plc, leading a team based in London and Johannesburg. Previously, Nimesh spent 14 years in investment banking at both JP Morgan and as a Managing Director at UBS.

External appointments

Trustee of the charity ReachOut.



Angela Archon MSc, BSc

Independent Non-Executive Director
Appointed to the Board

December 2020

Areas of experience

Engineering, operational, strategy

Background

Angela Archon held various senior executive positions while employed by IBM Corporation, including Vice President Transformation and Chief Operating Officer of the Watson Health Division. Angela represented IBM for eight years as Board Liaison for The National Action Council for Minorities in Engineering. She is a member of Tau Beta Pi, the Engineering Honour Society and earned a Professional Engineer's license.

External appointments

Board Director of Switch, CommonSpirit Health and the National Association of Corporate Directors – Texas TriCities Chapter.



Peter France

Independent Non-Executive Director
Appointed to the Board

March 2018

Areas of experience

Engineering, international, senior management, M&A, operational, strategy, sales and marketing, industrial, manufacturing

Background

Peter France was Chief Executive Officer of Rotork plc from 2008 to 2017. He also gained wide experience in a number of key roles at Rotork plc from 1989 to 2008 including acting as Chief Operating Officer and Director of Rotork South East Asia based in Singapore.

Peter is a Chartered Director of the Institute of Directors.

External appointments

Chief Executive Officer of ASCO Group Limited.



Caroline Johnstone BA, CA

Independent Non-Executive Director
Appointed to the Board

March 2019

Areas of experience

International, M&A, finance, people

Background

Caroline Johnstone has 40 years' experience working with large global organisations on mergers and acquisitions, culture change and cost optimisation. She was a partner in PricewaterhouseCoopers (PwC) and sat on the UK Assurance Board as people partner. Caroline is a member of the Institute of Chartered Accountants of Scotland.

External appointments

Chair of Synthomer plc, Non-Executive Director and Audit Committee Chair of Shepherd Group Ltd, a private company which owns Portakabin Limited and sits on the Governing Board of the University of Manchester.



Richard Gillingwater MA
Independent Non-Executive Director & Senior Independent Director
Appointed to the Board

March 2021

Areas of experience

International business, investment, finance and non-executive experience

Background

Richard Gillingwater has held a range of executive positions within global investment banks including Kleinwort Benson, Credit Suisse and Barclays de Zoete Wedd. Richard is qualified as a solicitor.

External appointments

Chair of Janus Henderson Group plc, Senior Independent Director of Whitbread plc and Governor of the Wellcome Trust.



Andy Robson LLB Law Barrister
Group General Counsel and Company Secretary
Appointed as Group General Counsel and Company Secretary

June 2012

Areas of experience

International law, corporate governance, international business development including M&A, business restructuring, information technology, contract negotiation

Background

Before joining the Group in 2012, Andy Robson was General Counsel and Company Secretary of RM plc, a role he held for 14 years. Prior to this, Andy was European General Counsel with Candant Corporation headquartered in Baltimore, USA.

Key

- Audit Committee
- Nomination Committee
- Employee Engagement Committee
- Remuneration Committee
- Risk Management Committee
- Denotes Committee Chair
- Executive
- Non-Executive
- Flag denotes country of citizenship

Further reading

Read about our Board diversity, composition, succession and evaluation. See pages 98 to 99.



Jane Kingston BA
Independent Non-Executive Director
Appointed to the Board

September 2016

Areas of experience

Engineering, international, senior management, operational, people, remuneration

Background

From 2006 until her retirement in December 2015, Jane Kingston served as Group Human Resources Director for Compass Group PLC. Prior to this, she served as Group Human Resources Director for BPB plc. Jane has worked in a variety of sectors, including roles with Blue Circle Industries plc, Enodis plc and Coats Viyella plc and has significant international experience.

External appointments

Non-Executive Director and Remuneration Committee Chair of Inchcape plc.



Olivia Qiu PhD, BSc
Independent Non-Executive Director
Appointed to the Board

December 2020

Areas of experience

Engineering, international, digital transformation, innovation

Background

Olivia Qiu has held a range of executive positions with large global organisations including Chief Executive Officer and Board Director of Alcatel-Lucent Shanghai Bell. Olivia was previously a Non-Executive Director of Renault Group and Saint Gobain.

External appointments

Chief Innovation Officer with Signify (formerly Philips Lighting).



Kevin Thompson BSc, FCA
Independent Non-Executive Director
Appointed to the Board

May 2019

Areas of experience

Engineering, international, senior management, M&A, strategy, finance, pensions, tax and treasury

Background

Kevin Thompson was Group Finance Director of Halma plc from 1998 to 2018, having joined Halma as Group Financial Controller in 1987. Kevin qualified as a Chartered Accountant with PricewaterhouseCoopers (PwC) and is a Fellow of the Institute of Chartered Accountants in England and Wales.

External appointments

Trustee of the Great Ormond Street Hospital Children's Charity.

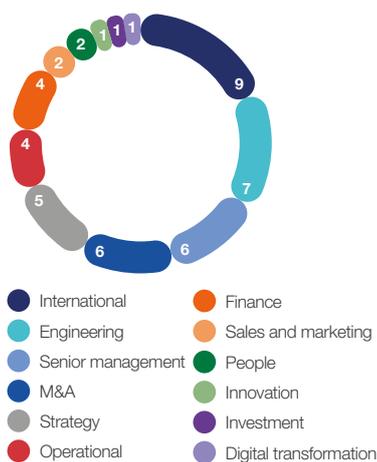
1. Board leadership and Company Purpose continued

The Board at a glance

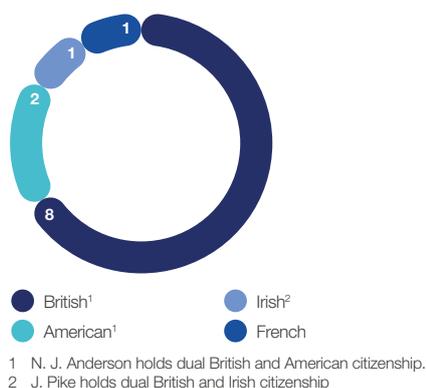
Composition and skills

Board overview

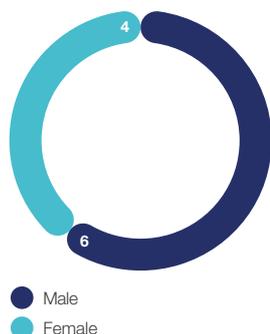
Core expertise



Nationality



Gender



Length of service



Board focus and attendance

How the Board spent its time %



	Board meetings								Attendance	
	Feb	Mar	Apr	May	June	Aug	Oct	Dec		
Jamie Pike	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Nicholas Anderson	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Trudy Schoolenberg¹	✓	✓	✓	✓	✓				5/5	100%
Richard Gillingwater²				✓	✓	✓	✓	✓	5/5	100%
Nimesh Patel	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Jane Kingston	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Kevin Thompson	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Caroline Johnstone	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Peter France	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Angela Archon	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%
Olivia Qiu	✓	✓	✓	✓	✓	✓	✓	✓	8/8	100%

1 Stepped down from the Board on 31st July 2021.
2 Richard Gillingwater was appointed to the Board in March 2021 and attended his first Board meeting in June.

1. Board leadership and Company Purpose continued

Purpose, culture, leadership and tone

Our Purpose

Our Purpose is to create sustainable value for all our stakeholders as we engineer a more efficient, safer and sustainable future. The way in which our Purpose serves each of our stakeholder groups is outlined on pages 101 to 103. Our Purpose helps our Group companies to stay relevant in a fast-changing world, it drives our direction and priorities and connects us with the communities of which we are part. It also provides our colleagues with the clarity needed to respond quickly and move as ONE Group.

Culture and Values

To achieve our Purpose, we rely on our common and established business model and most importantly, a strong and supportive culture. Our culture comes from colleagues living our Values (see page 23) to provide mission-critical solutions for our customers' essential industrial processes.

Our Values guide Board decision making too. We prioritise safety and through our engagement with each other and our Group colleagues we help improve Collaboration and Respect. We support Excellence and Customer Focus through an ongoing programme of investment - our decision making is supported by site visits and management presentations. We promote and support integrity through our transparent approach, as well as ensuring the Group has appropriate processes and controls which underpin strong corporate governance.

Our Group Inclusion Plan, including our minimum Inclusion Commitments has been launched to strengthen our ability to fulfil our Group Purpose. It will create the conditions to accelerate and celebrate our diversity, as well as enhance wellbeing. As a more inclusive Group we aim to unlock more of our creativity and innovation, drive superior performance as well as attract and retain our talent.

The Board monitors and assesses culture using the following mechanisms: turnover rates, training data, recruitment data, reward and promotion decisions, whistle-blowing cases, grievance as well as 'speak-up' data, health and safety data (including near misses), promptness of payments to suppliers, attitudes to regulators, internal audit reports, colleagues survey results, focus groups and exit interviews, together with information from the internal audit team on the impact of policies and processes.

Board composition

As illustrated in the Board biographies on pages 96 to 97 and the Board overview diagrams (at year end 2021) on the left, we are pleased to have exceeded:

- Sir John Parker's recommendation that our Board should have at least one ethnically diverse Director by 2021 – with effect from 1st January 2021 we have three such Directors that represent 30% of our Board
- our minimum target of 33% female representation on our Board – with effect from 1st January 2021 we had 50% female representation on our Board, which dropped to 45% when Richard Gillingwater was appointed in March 2021. At the end of December 2021 we have 40% female representation on the Board as a result of Trudy Schoolenberg stepping down as a Director in August.

Long-term sustainable success

The Board is focused on long-term corporate and strategic plans. It engaged in a review and assessment of medium-term plans for all three Businesses and in addition, reviewed our Corporate strategy.

Leading by example

The Board relies on the Group Executive Committee to run the business. The Board holds this team accountable against targets and standards. The Board ensures that we have strong and effective leadership in place to execute the strategic plan. Armando Pazos was appointed as the new President of our ETS Business effective 1st December 2021 to build on the foundations established by Dominique Mallet.

Effective and entrepreneurial

The Non-Executive Directors provide effective challenge and review, bringing wide experience, specific expertise and a fresh objective perspective to major decisions.

In 2021, they encouraged the Group to actively pursue its Digital strategy as well as accelerating investment in a collaboration project between the Group's Steam Specialties and Electric Thermal Solutions Businesses. The resulting Thermal Solutions Synergy project (see pages 34 and 81), brings the complementarity of these Businesses to the forefront, as they work together to develop and test solutions for the decarbonisation of steam generation and other industrial processes, which will play a role in the achievement of our own net zero goals as well as improving our customers' sustainability (see pages 12 to 15, 35 and 55 to 56).

The emphasis is on growth and on an entrepreneurial approach with a strong governance culture.



Coming together as ONE

“Our inaugural Group Leadership Conference was an important moment to bring our leaders together after two years of lockdown. It helped strengthen relationships as we focused on: how to achieve our sustainability roadmap, where to accelerate our Digital strategy and why leadership is so important to our culture built on Values, with inclusion and wellbeing at its core. We are even more aligned today than ever before. Coming together as ONE Group, helped us remember we are an essential business. And we are an inclusive and sustainable business. Even more well positioned to achieve our Purpose to create the more efficient, safer and sustainable world we all aspire to have.”

Nicholas Anderson
Group Chief Executive

1. Board leadership and Company Purpose continued

Engaging with our stakeholders

Our commitment to shareholder engagement

The Board recognises our shareholders as an important stakeholder group. We maintain an active dialogue with our principal investors, institutional shareholders, advisers and the investment community.

During 2021, we undertook the calendar of events as shown.

By providing regular forums for meeting and communicating with shareholders, their advisers and the investment community, we ensure that we understand the views and opinions of our investors and are kept informed of any concerns that may arise. We are also able to give updates on our results and developments within our Businesses.

We communicate using a variety of forums including regulatory news announcements, interviews, investor and analyst calls/emails, one-to-one meetings, roadshows, site tours, investor seminars and conferences. During 2021, Nicholas Anderson, Group Chief Executive and Nimesh Patel, Chief Financial Officer, held virtual shareholder roadshows across a number of key countries in Europe, Asia and North America. In May 2021, we held a three-hour Investor Seminar dedicated to providing a more in-depth understanding of our Watson-Marlow Business, covering strategy, markets, products, sectors and drivers of both demand and growth. This was attended by investors and analysts who were given the opportunity to ask questions of the Watson-Marlow management team as well as the Group Chief Executive and Chief Financial Officer. Materials from the seminar are available on the Group's website: www.spiraxsarcoengineering.com

Section 172 Statement

Engaging with our stakeholders and acting in a way that promotes the long-term success of the Company, while taking into account the impacts of our business decisions on our stakeholders, is central to our strategic thinking and our statutory duty in accordance with Section 172(1) of the Companies Act 2006 (s.172). The content on pages 101 to 103 constitutes our S172 Statement, as required under the Companies (Miscellaneous Reporting) Regulations 2018.

As a Board of Directors, our intention is to behave responsibly and ethically at all times, in line with our Values and to ensure that our management teams operate the Group in a responsible manner and to the highest standards of business conduct and good governance. We will contribute to the long-term success of the Company and continue to nurture our reputation as a responsible, successful Group that delivers stakeholder value, as outlined in our Company Purpose.

Mindful of its duties and obligations under Section 172 of the Companies Act 2006, we have set out below some examples of how the Board took into account the impact to the Company's shareholders, colleagues, communities and other stakeholders in making key decisions:

New BioPure facility at Dunsbury Park, UK

The new site was chosen, due to the proximity to the existing facility, to minimise any potential disruption to colleagues

impacted by the change of working location. The design of the building took into consideration the impact on the local community. The site landscaping has been developed in line with our One Planet Sustainability strategy in order to achieve a biodiversity net gain of at least +10%.

Acquisition of Cotopaxi, UK

The acquisition was made primarily to enhance our Digital strategy. Following the acquisition we immediately enhanced the salaries and benefits available to Cotopaxi colleagues in order to align with our wider Group policies. We have ensured that this business, which is a reasonable sized employer in Skelmersdale, has a long-term future as part of our Group.

We treat our shareholders fairly and equally, so they too may benefit from the successful delivery of our plan and the value we create. For more detail on how we engaged with our shareholders in 2021, see page 103.

2021 Shareholder engagement

January

- Berenberg IR Forum
- Investor and analyst calls/emails

February

- Investor and analyst calls/emails

March

- FY Results Announcement and shareholder roadshows (virtual)
- BofA Securities Global Industrial Conference (virtual)
- Berenberg – UK Corporate Conference (virtual)
- UBS: Virtual Nordic Investor Tour (virtual)
- Investor and analyst calls/emails

April

- Investor and analyst calls/emails

May

- AGM and Trading Update
- WM Investor Seminar (virtual)
- Investor and analyst calls/emails

June

- JP Morgan European Capital Goods Conference
- Investor Roadshow – APAC (virtual)
- Investor and analyst calls/emails

July

- Investor and analyst calls/emails

August

- Half Year Results Announcement and shareholder roadshows (virtual)
- Investor and analyst calls/email

September

- Morgan Stanley Industrial CEOs Unplugged Conference
- Investor and analyst calls/emails & Fireside Chats

October

- Investor Roadshow – US (virtual)
- Investor analyst calls/emails and Fireside Chat

November

- Trading Update
- Investor site visit to Cheltenham
- Goldman Sachs Industrials Conference, London
- Numis: North American Investor Conference (virtual)
- Investor and analyst calls/emails

December

- Berenberg European Conference, Surrey
- Investor and analyst calls/emails

1. Board leadership and Company Purpose

Engaging with our stakeholders



Our colleagues

Why it's important

Our success is testament to the knowledge, skills and dedication of our colleagues. We focus on the things that matter most to them such as their health, safety and wellbeing. We understand what's important through effective engagement directly with the Board and at all levels of the Group. We've invested in our Group Communications capabilities to help unify our colleagues around our Group Purpose and ensure our communications are more effective.

How we are engaging

- We communicate through a variety of mediums including meetings, conferences, videos, emails and campaigns
- We have developed a Group Communications Plan to strengthen internal communications and reach colleagues through a wider range of channels
- Through our global colleague survey we listened to the views of our colleagues and developed plans to address areas where colleagues told us we could do better
- Our Employee Engagement Committee ensures that the views and interests of colleagues are considered at Board level

Key issues and how we have responded

- Results from a wellbeing pulse survey resulted in the creation of a Wellbeing Toolkit in multiple languages
- Feedback from Board-led focus groups on hybrid working resulted in the adoption of a new global Hybrid Working Policy
- Significant engagement with various teams informed the details of our Group Inclusion Plan, Everyone is Included

+ Read more on pages 8 to 9, 30 to 35, 48 to 53 and 104 to 107



Our customers

Why it's important

We generate value for our stakeholders as we help our customers improve the efficiency, safety and sustainability of their operations. Meeting the needs of customers now and developing our offering so that we can continue to meet their needs into the future, requires a closeness to and engagement with customers.

How we are engaging

- Our direct sales business model facilitates effective customer engagement, allowing us to deeply understand their needs and requirements
- Regular 'Voice of the customer' (VoC) activities provide valuable feedback from customers who tell us what we are doing well and how we can improve
- Customer requirements are always taken into consideration during new product development, with customer needs driving the design and development of products

Key issues and how we have responded

- Through VoC engagement and understanding the increasing importance of sustainability to our customers we have:
 - Extended our product screening to identify more product categories that can offer quantified sustainability benefits
 - Accelerated our investment in the synergy solutions development project between Steam Specialties and ETS which is developing innovative heating solutions for the decarbonisation of steam generation and other industrial processes
 - Initiated a pilot project in the UK to focus on the elimination of virgin, non-recyclable and non-biodegradable packaging that has identified 14 improvement areas and is informing changes to our customer packaging

+ Read more on pages 12 to 21, 24 to 25, 30 to 35 and 63 to 66



Our environment

Why it's important

We live in a resource-constrained world where human impacts on the environment are increasingly being recognised as harmful not only to the natural world but also to the long-term sustainability of financial systems and societies. Not only is managing our environmental impacts the right thing to do, it also helps us to manage and mitigate risk.

How we are engaging

- We actively engage with customers to identify and implement engineered solutions to reduce their energy use, carbon emissions, water and waste
- We educate our colleagues and take steps to reduce our own environmental impacts
- We report transparently on our environmental performance and engage with international reporting frameworks such as the CDP (formerly known as Carbon Disclosure Project) and the Task Force on Climate-related Financial Disclosures (TCFD)

Key issues and how we have responded

- Our One Planet: Engineering with Purpose Sustainability strategy was refreshed following extensive engagement with more than 600 stakeholders. In One Planet we commit to:
 - Achieving net zero carbon in scopes 1 and 2 by 2030 and scope 3 by 2050
 - Reducing energy and water use
 - Eliminating solvent based paints
 - Achieving ISO 14001 at all our manufacturing sites by 2025
- The CDP increased our score from a B to an A-taking us into their environmental leadership band
- We signed up to two important initiatives, Race to Zero and Business Ambition 1.5°C, to guide our activities in line with climate science

+ Read more on pages 12 to 19, 25, 35 and 54 to 65



Our communities

Why it's important

As a financially successful business, we are well-placed to 'give something back' to our communities. We strive to be a force for good wherever we operate. While education, particularly in the sciences and engineering, is our priority focus, to maximise our positive impact we always seek to identify and respond to local needs.

How we are engaging

- We respond to requests for much needed charitable funding, making financial donations to a wide range of local, national and international charitable causes
- We provide all our colleagues with three day's paid volunteering leave so they can use their time and skills, during working hours, to support a range of worthwhile causes in their local community
- We work with schools, colleges and universities to raise aspirations, increase awareness of engineering and develop the talent of young engineers

Key issues and how we have responded

- Our colleagues recorded over 11,000 volunteering hours during the year with every Operating Company undertaking at least one community engagement project during 2021
- We launched the Spirax-Sarco Group Engineering Education Fund with an initial contribution of £1 million. The goal of the Education Fund is to support and promote inclusive and equitable access to education by beneficiaries in the communities in which Group Companies operate
- Including the first donation to our Group Education Fund, during the year we provided almost £2 million of financial and in-kind donations, as well as colleague time to support local good causes.

+ Read more on pages 25, 35 and 67



Our suppliers

Why it's important

Our purchasing decisions not only impact our suppliers, but their stakeholders too. We expect our suppliers to operate ethically, taking due consideration for the safety and wellbeing of their workers while minimising their environmental impacts. By setting high standards for our suppliers, we reduce operating and reputational risk and promote the long-term success of the Company. We are working with our key suppliers to overcome supply constraints as a result of the pandemic and aftermath.

How we are engaging

- We purchase from suppliers who adhere to our Supplier Sustainability Code
- We undertake supplier audits to oversee compliance with our standards
- We work with suppliers on a continuous improvement basis to raise standards
- We train colleagues on business ethics and encourage the use of the whistle-blowing hotline to raise concerns about anything in our end-to-end supply chain
- We pay our suppliers for properly completed work on 60-day terms in the UK and follow customary good pay practices in other countries

Key issues and how we have responded

- We have reviewed and re-defined our Minimum Standards for suppliers and commenced development of a training plan for suppliers and purchasing teams to be rolled out in 2022
- Worked collaboratively with existing and new suppliers to anticipate and mitigate the effects of global shortages of raw materials and components, increasing the number of meetings and site visits to help solve challenging issues such as freight delays

+ Read more on pages 25, 34 and 66



Our shareholders

Why it's important

- The Board recognises our shareholders as an important stakeholder group
- We maintain an active dialogue with our principal investors, institutional shareholders, advisers and the investment community
- We communicate through meetings, emails, conferences and seminars, virtually and face-to-face. We issue results and updates through the Regulatory News Service and hold dedicated Investor Seminars on specific topics from time-to-time

How we are engaging

- The Board receives regular updates from our Investor Relations team who engage with shareholders, analysts and other stakeholders. This team supports the Group Chief Executive and Chief Financial Officer to deliver an ongoing programme of meetings, presentations, calls and conferences ensuring allocation of time across every level of shareholding

Key issues and how we have responded

- In response to feedback from investors the Group held an Investor Seminar in May to provide insight into the Watson-Marlow Business including strategy, markets, sectors, products and progress
- We undertook around 240 investor meetings in 2021 and every shareholder request was accommodated
- We facilitated conversations with our Group Sustainability team to aide investor understanding of, as well as input to, our Sustainability strategy

+ Read more on page 101

1. Board leadership and Company Purpose continued

Employee Engagement Committee Report



“During 2021, despite ongoing travel restrictions, we spoke directly to a wide range of colleagues at all levels of the organisation. Board employee engagement activities are becoming embedded as part of the Group’s engagement approach, are complementary to the role of the Group Executive Committee and add real value to Board and executive thinking.”

Caroline Johnstone
Chair of Employee Engagement Committee

Members

Our Employee Engagement Committee comprises:

	Meetings attended			Attendance %
	Feb	June	Oct	
Caroline Johnstone (Chair)	✓	✓	✓	100%
Peter France	✓	✓	✓	100%
Jane Kingston	✓	✓	✓	100%
Angela Archon	✓	✓	✓	100%
Olivia Qiu	✓		✓	67%
Jamie Pike*	✓	✓	✓	100%
Kevin Thompson*	✓			33%
Trudy Schoolenberg*	✓			33%

* Following a review of Committee membership to improve the functional efficiency of the Board and Committees, we changed the composition of the Committee. J Pike, K Thompson and T Schoolenberg stepped down from the Committee after February 2021. Mr Pike now attends the Committee meetings in his capacity as Chair of the Board.

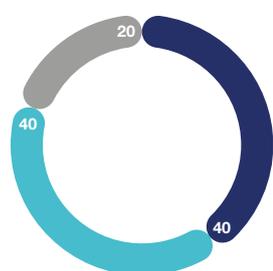
Our remit – A voice in the Board room: “What would our colleagues think?”

The principal remit of the Committee is to ensure that the voice of the workforce is considered in all aspects of the Board’s thinking and to understand and support colleague engagement activities across the Group. We regularly pose the question, “What would our colleagues think?” whenever we are making important decisions. During the year, Board discussions took account of colleague feedback when we discussed topics such as:

- Our One Planet Sustainability strategy and investment, including plans to decarbonise our manufacturing facility for Steam Specialties in Cheltenham (UK)
- Redevelopment of our UK Group Headquarters in Cheltenham and Innovation centre
- Investments in Watson-Marlow’s manufacturing capacity in the UK and USA

Separately, the Board also engaged with colleagues on how executive remuneration aligns with wider Company pay policies. This engagement was led and delivered by the Chair of the Remuneration Committee set out on page 133.

How the Committee spent its time %



- Current Engagement Practices and Survey Results
- Direct Colleague Engagement Follow-Up
- Committee Remit, Planning, and Approach to Engagement

This breakdown reflects topics addressed during Committee meetings, and does not include time spent during engagement events.

Our approach to colleague engagement

Our Employee Engagement Committee was introduced in 2019 to open up a more regular direct dialogue between the Board, including the Non-Executive members, and the workforce, providing insights and opportunities for two-way discussion and feedback. It has also added to our oversight of the culture across the Group. The Committee enables us to comply with Provision 5 of the UK Corporate Governance Code.

I have been Chair since the inception of the Committee, based on my previous people leadership roles in PwC and other businesses. During 2021, we welcomed some new members to the Committee who have brought a different perspective; we now have Committee members based in the Americas and in Europe.

Committee meetings and operation*

Following the Board Committee reorganisations in 2021, the Committee now includes four Non-Executive Directors (NED) in addition to myself. Our Board Chair, Group Chief Executive and Group Chief Financial Officer also attend each Committee meeting, which enables us to reflect and discuss employee engagement in its widest sense. Other members of the Board and Group Executive Committee (GEC) regularly attend the Committee. We meet three times a year and report back to the full Board after each meeting with key findings and actions arising.

Amanda Janulis, Group Corporate Counsel, is the secretary to the Committee. During 2021, the Committee worked with Amanda Janulis, Jim Devine, Group Human Resources Director, and Jenni Forrester, Head of Colleague Experience. The Committee remit and agenda would not have developed so well without the enthusiasm of Amanda, Jim and Jenni and I thank them for their support.

Chair's review of 2021

During the year, the Committee had a full agenda which included:

- Holding a number of focus group sessions with colleagues in different areas of the Group. This year, we had a mix of virtual and in-person meetings
- Members of the Committee and the Board also had the opportunity to interact with a number of colleagues through less formal events in particular. Following a very successful introduction in 2020, we extended our programme of 'coffee talks' to all members of the Committee and all NEDs in 2021. This is now a regular opportunity for us to speak to colleagues at all levels of the business one-to-one, to both understand their role and gain their feedback on the organisation and their experience working for the Company. Other examples are detailed below
- We invited leaders from our Electric Thermal Solutions (ETS) Business and Gestra Business to attend Committee meetings during 2021 to discuss employee engagement activities and progress across their Businesses
- Finally, the Committee oversaw the preparation for and reviewed results of the 2021 Employee Engagement Survey, which helped us to set Committee priorities for 2022

Colleague focus groups

We now have a clear programme and agenda for meeting self-selected groups of employees across the business, without management present:

- We have an agreed range of topics on which to ask employee views, including whether we are living up to our Values, but we ensure we leave space to hear what's on our colleagues' minds
- We commit that all comments are non-attributable and no members of management or local HR teams are present
- Following the focus group sessions, we summarise the key themes and have a formal debrief with the local and regional management. This has become a key meeting, resulting in action (see some examples below) and is sought after by the management teams who have found real insight for their Businesses
- At the next Committee meeting, we report the key themes for discussion with Committee members and with the Group Chief Executive and Chief Financial Officer
- We receive a formal response and actions agreed by local/regional management at subsequent meetings
- Any key matters are referred to in Board discussions and as we reflect on colleague views when taking key decisions for the Board

The focus groups are designed to ensure we get a balanced view across the Group, in terms of geography, role discipline and grades to get a good variety of colleagues. We speak with colleagues in areas where engagement scores are both higher and lower to understand what works well, what could be shared across the Group and where there is opportunity for improvement. My experience is that attendees in all sessions have been very open and engaged and don't hold back in sharing what they value in the Group and where there may be opportunities to do better. This participation makes the sessions very energising and also useful as a business tool.

Focus groups held in 2021:

Leadership development programme alumni:

those who had previously participated in the Group leadership programme

Group general managers:

a group of country and Business leaders from all parts of the world

Senior functional leaders:

mainly based at Steam Specialties UK in Cheltenham but also included representatives from ETS who were US-based, as well as Watson-Marlow leaders based in Falmouth

Aflex Hose:

members of the employee engagement forum of Aflex, based in North West England

Steam Business Development:

this was our second focus group with this area of the Business, with a different group of employees

We hear many consistent messages during the discussions, which have been supported by the staff survey results:

- Safety is always the first priority and our strongest Value, followed closely by customer service
- Our people felt that they had been exceptionally well supported and protected during the pandemic
- There is enormous pride that everyone has pulled together and focused on safety and supporting our customers
- People had genuine appreciation for and sense of security in being part of the Group
- Participants shared huge enthusiasm and interest in our developing programmes and strategies for sustainability and digitisation
- People have worked exceptionally hard in the last two years and appreciated the focus on wellbeing and also saw this an area for a watching eye from the Board

The most consistent opportunities for us seem to relate to making the most of our highly successful, diversified business model:

- We need to keep working on collaboration between Businesses and functions, to make sure we accelerate innovation opportunities
- Our people want to know how they can contribute to our Sustainability and Digital strategies
- We need to reflect on how we recognise long service combined with superior performance
- Our communications and employee engagement approach has developed hugely over the past three years – it is now a good moment to consider how we communicate and streamline some of this to make it easier for our people, particularly those who work in our manufacturing facilities

1. Board leadership and Company Purpose continued

Employee Engagement Committee Report continued

Specific comments arose in every focus group and we set out just a few examples of actions taken:

- Early in the year, one group felt the company's response to COVID-19 had been impeccable but noted some fatigue, with the extended lockdown and the complexities of Brexit. In response, the Group HR team expedited a planned colleague wellbeing survey. This resulted in our developing a Wellbeing Toolkit, which offers practical advice and signposts resources on a number of topics such as digital resilience, stress and isolation
- Participants in the senior management focus group believed there was growing collaboration across the Group but they did note that the opportunity to collaborate effectively on an ad-hoc basis was missed during the pandemic. To address this, the Group launched a Managers' Toolkit for hybrid working and explored options for collaboration, which helped identify the need to create space and time for more informal collaboration, something that is presently being developed
- One group indicated that they would welcome more education on ESG matters. In response, 'carbon training' has been made available as part of the Academy Group Essentials programme to ensure all colleagues have at least basic knowledge of sustainability, why it is important and common terminology
- Another group requested additional recycling bins on the site and asked for clarification on what happens to waste materials such as scrap metal, which we confirmed by return do get sold on and recycled

Other employee interactions with Board members

Women's network: following successful sessions in 2020, Olivia Qiu and Angela Archon met with members of the Women's Career & Personal Development Network, with a particular focus on STEM careers. As recent joiners, Olivia and Angela offered their perspectives on our organisation.

Most members of the Board attended the virtual graduate conference in April and took part in a question and answer discussion with small groups of participants.

Board and focus group site visits:

COVID-19 travel restrictions prevented some site-visits but the Committee continued to engage with colleagues remotely through the focus groups. In 2022, we hope to be able to visit more of our colleagues in person, starting with a trip to Aflex Hose at their new facility in the north of England, with USA and possibly Italy later in the year.

Coffee Talks: as indicated above, all NEDs are now paired with a different colleague every quarter and have an opportunity to introduce themselves, the Board and understand what life is like working for the Group. It adds to our picture of the culture across the Company.

Employee engagement survey

In April 2021, the Group carried out a biennial employee engagement survey, which achieved a 91% response rate. It showed an improvement in core engagement levels and strong loyalty, while highlighting a desire from colleagues for more collaboration across departments and geographies and more transparency over career opportunities within the Group. For more information please visit our Sustainability Report on page 49.

Evaluation of the Committee

We undertook a review of the Committee alongside the Board and other Committees in 2021. The feedback was very positive and I am pleased to report that the executive team find the feedback and activities of the Committee very valuable, evidenced by the keenness to hear feedback from focus groups and to take actions as appropriate, some of which are noted in the review of the year above.

Committee focus for 2022

Focus topics: the Committee will continue to monitor actions taken in response to the 2021 survey feedback. These will be around the four Group-wide action areas which include an **increased focus on being purpose-led, building inclusive workplaces, enabling personal growth and enhancing community engagement**. The Committee will continue to review and develop the principles behind our approach to employee engagement.

Focus groups: during 2022 the Committee has planned a number of focus groups across Business units in Asia Pacific, Europe and the US, as well as an 'early careers' focus group with graduates and apprentices.

Board interaction: all NEDs will continue to participate in quarterly 'coffee talks', described earlier. Employee Engagement Committee members will also take part in an International Women in Engineering Day event and engage in panel discussions with Employee Networks for women, people with disabilities and LGBTQ+ colleagues.

Actions: the Committee will work to find more ways to feed back on actions taken as a result of our focus groups and engagement activities.

I am looking forward to answering questions or taking feedback on our Committee activities at our AGM or any time.

Caroline Johnstone
Chair of Employee
Engagement Committee

A portrait of Mai Holm Møllekær, a woman with blonde hair, wearing a black blazer over a brown shirt. She is smiling and has her arms crossed. A large teal circle is overlaid on the bottom half of the image, containing text.

Launching our colleague focus groups

“I was pleased to take part in a leaders’ focus group with the Board, to share views on how the pandemic was impacting employee engagement as well as sharing the challenges our teams faced in navigating the uncharted path of hybrid working.

As a result of this ‘voice of the organisation’ exercise, hybrid working became the subject of a Group-wide colleague survey. We’ve now implemented a hybrid working policy that has flexibility and trust at its core and our teams can really see the value of the feedback process in action and know they have been listened to.”

Mai Holm Møllekær
Regional Director,
EMEA Watson-Marlow

2. Division of responsibilities

The Board is responsible for providing leadership to the Group. Together with the Group Executive Committee and Board Committees, the structure of the Board ensures controls and oversight, with a balanced approach to risk that is aligned with Spirax-Sarco Engineering's culture. The structure assists the Board with carrying out its responsibilities and is designed to ensure that the Board focuses on strategy, monitoring the performance of the Group and governance as well as risk and control issues.

The following diagram shows the role of the Board and its Committees and senior management:

The Board of Directors

The Board is collectively responsible for the long-term success of the Company. The business of the Company is managed by the Board who may exercise all of the powers of the Company. The Board has a formal schedule of matters reserved for the Board's decision-making which is available on the Group's website. Although the Board retains overall responsibility, it delegates certain matters to the Board Committees and the detailed implementation of matters approved by the Board and the day-to-day operational aspects of the business to the Group Executive Committee.

Board Committees

The Board Committees consist of Non-Executive Directors and each Committee Chair reports to the Board on matters discussed at Committee meetings and highlights any significant issues that require Board attention. The terms of reference for each Board Committee are reviewed annually and are available on the Group Website. The reports by each Board Committee are given in this Annual Report.

Employee Engagement Committee

The principal remit of the Committee is to ensure that the voice of the workforce is considered in all aspects of the Board's thinking.

Nomination Committee

The main role of the Nomination Committee is to recommend changes to the Board and consider succession planning for the future.

Risk Committee

The Committee oversees the management and control of significant operational risks affecting the Group. The Committee ensures that the Group has risk management policies and procedures, including those covering project governance, sanctions and embargoes, crisis management, human rights, business continuity and business management.

Audit Committee

The overall purpose of the Audit Committee is one of oversight and monitoring of the entire financial reporting and control process, to ensure the integrity of the Group's Financial Statements and assurance over them.

Remuneration Committee

The Committee determines the philosophy, principles and policy of Executive Director and senior manager remuneration having regard to the latest legislation, corporate governance, best practices and the FCA Listing Rules

Executive Leadership

There is a clear division of responsibilities between the leadership of the Board and our Executive leadership. Our Group Chief Executive's roles and responsibilities include: management of the Group's short, medium and long-term performance; stewardship of capital, technical and human resources; corporate and business strategy; internal risk management controls and organisational structure.

Non-Executive Directors

- Provide constructive challenge, strategic guidance and offer specialist advice
- Hold a prime role in appointing and removing Executive Directors
- Scrutinise and hold to account the performance of management and individual Executive Directors against agreed performance objectives
- Responsible for employee engagement

Chair

- Leads the Board
- Responsible for overall effectiveness in directing the Company
- Demonstrates objective judgement
- Promotes a culture of openness and debate
- Facilitates constructive Board relations
- Facilitates effective contribution of all Non-Executive Directors
- Ensures Directors receive accurate, timely information
- Holds meetings with Non-Executive Directors, without Executive Directors present

Senior Independent Director

- Provides a sounding board to the Chair
- Serves as an intermediary for the other Directors and shareholders
- Leads an annual meeting of Non-Executive Directors to appraise the Chair's performance

Group Chief Executive

- Responsible for the day-to-day running of the Group's business and performance and the implementation of strategy
- Leads the Executive Group
- Represents management on the Board

Group General Counsel

- Advises the Board on all governance matters
- Supports the Board to ensure that it has the policies, processes, information, time and resources it needs for the Board to function effectively and efficiently
- Advises the Board on important legal and regulatory matters

2. Division of responsibilities continued

The Chair

Independence

Jamie Pike has been a member of our Board since May 2014. We consider him to have retained his independent status.

Responsibility

Jamie's responsibilities are outlined in the table on page 109. In his tenure to date we consider him to have upheld the responsibility of the Chair as described in the Principle of the Code, such as his independence, ability to work well with others and leadership skills.

A balanced Board

During 2021, in compliance with the Code, the number of Non-Executive Directors was always more than the number of Executive Directors (excluding the Chair). At the time of publication, our Board comprises two Executive and seven Non-Executive Directors (excluding the Chair). This ensures that no one person or group of individuals dominates the Board's decision-making. All our Non-Executive Directors are considered independent.

Performance

The Chair confirms that, following a formal performance evaluation, each Director's performance continues to be effective and each Director demonstrates commitment to the role.

Senior Independent Director

Richard Gillingwater has taken over from Trudy Schoolenberg, who stepped down from the Board at the end of July 2021, as our Senior Independent Director.

Richard has strong investment, financial and non-executive experience, combined with international business experience. Richard brings competencies that will greatly assist the development of the Group. Richard conducted a review of the performance of the Chair as required by the Code and the review concluded that the Chair's performance was outstanding.

Non-Executive Directors

Our Non-Executive Directors provide independent challenge and review, bringing wide experience, specific expertise and a fresh objective perspective. The Board is confident that the Non-Executive Directors have sufficient time to meet their Board responsibilities.

Externally listed Company appointments

At year end Listed Plc Directorships	No. of other Non-Executive roles	No. of other Executive roles
Independent Non-Executive Directors		
Jamie Pike (Chair)	1	–
Trudy Schoolenberg	2	–
Jane Kingston	1	–
Kevin Thompson	–	–
Caroline Johnstone	1	–
Peter France	–	1
Angela Archon	1	–
Olivia Qiu	–	–
Richard Gillingwater	3	–
Full-time Executive Directors		
Nicholas Anderson	1	–
Nimesh Patel	–	–

External appointments held by our Non-Executive Directors and full-time Executive Directors are set out on pages 96 to 97 and a summary is provided in the table above.

External listed company appointments

Only external positions of listed companies or equivalents in other jurisdictions are counted in accordance with the provisions of the guidelines published by ISS and other proxy advisers.

Non-Executive Director meetings

As per best practice, our Non-Executive Directors met with the external auditor and Korn Ferry, independent remuneration consultants, separately from our Executive Directors. The Employee Engagement Committee meets with groups of colleagues separately from management.

Division of responsibilities

An overview of the division of responsibilities, as set out in the Code, is provided in the diagram on pages 108-109 and we comply with all Principles and provisions.

The responsibilities of the Chair, Group Chief Executive, Senior Independent Director, Board and Committees are set out in writing and agreed by the Board. A clear division is made between the leadership of the Board and Executive leadership.

Group General Counsel and Company Secretary and Assistant Secretaries

The Group General Counsel and Company Secretary and the Assistant Secretaries, support the Chair and the Committee Chairs in making sure members are equipped for informed decision-making and that they appropriately allocate their time to subjects. All Directors have access to the advice of the Group General Counsel, who is responsible for advising the Board on all governance matters. Both the appointment and removal of the Group General Counsel is a matter for the whole Board.

Board meetings

The Board meetings are as often as is necessary to discharge its duties. In 2021, the Board met eight times. All Directors are expected to attend all Board meetings and relevant Committee meetings unless prevented by prior commitments, illness or a conflict of interest. Directors unable to attend specific Board or Committee meetings are sent the relevant papers and asked to provide comments in advance of the meeting to the Chair of the Board or Committee.

In addition, all Board and Committee members receive the minutes of meetings as a matter of course.

Board attendance 2021

	No. of meetings attended/ total no. of meetings held								Attendance %
	Feb	Mar	Apr	May	June	Aug	Oct	Dec	
Jamie Pike	✓	✓	✓	✓	✓	✓	✓	✓	100%
Nicholas Anderson	✓	✓	✓	✓	✓	✓	✓	✓	100%
Nimesh Patel	✓	✓	✓	✓	✓	✓	✓	✓	100%
Trudy Schoolenberg ¹	✓	✓	✓	✓	✓				100%
Jane Kingston	✓	✓	✓	✓	✓	✓	✓	✓	100%
Kevin Thompson	✓	✓	✓	✓	✓	✓	✓	✓	100%
Caroline Johnstone	✓	✓	✓	✓	✓	✓	✓	✓	100%
Peter France	✓	✓	✓	✓	✓	✓	✓	✓	100%
Angela Archon	✓	✓	✓	✓	✓	✓	✓	✓	100%
Olivia Qiu	✓	✓	✓	✓	✓	✓	✓	✓	100%
Richard Gillingwater ²				✓	✓	✓	✓	✓	100%

¹ Trudy Schoolenberg stepped down from the Board on 31st July 2021.

² Richard Gillingwater was appointed to the Board in March 2021 and attended his first Board meeting in June.

Board focus for 2022

- Continue to support the Group Executive Committee and the three Businesses with their growth plans through the implementation of their medium-term plans. Key management presentations and discussions are planned in 2022 across all of our Businesses, including Business Digital strategies and Group Strategic risks
- Further consolidate our position through both organic and inorganic growth
- Focus on sustainability and climate change

Board activity 2021

The Board ensures good governance practices are embedded throughout the Group as they are an integral part of running a successful business. In the chart at the top of the page, we have set out how the Board spent its time during 2021.

The Board agendas are carefully planned to ensure focus on the Group's strategic priorities and key monitoring activities, as well as reviews of significant issues. During 2021, the Board devoted considerable time to ensuring that the Group could progress with increasing manufacturing footprint for Watson-Marlow in the USA and the UK (BioPure), strengthened our Group sustainability function and improved our health and safety performance across all three Businesses while at the same time sustaining excellent financial performance. The Board also ensured that the Group had strong and adequate financial facilities including drawdown of the Private Placement Shelf Facility, a cash pooling arrangement with Bank Mendes Gans, a foreign exchange risk management policy and a revolving credit facility provided by Barclays Bank plc and HSBC plc. The Group was able to perform exceptionally well without using COVID-19-specific state aid in any of our markets, whether in the form of government loans or utilising furlough schemes. The Board was delighted to approve both the 2020 final dividend and the 2021 interim dividend payments to shareholders.

We also reviewed the implementation of our strategic plan and had an update on our corporate strategy in June.

We monitored the significant investment we are making in Aflex Hose, Yorkshire (UK), where we have consolidated our four sites into a purpose-built facility that will streamline our processes and prepare us for the growth we anticipate in this Business. This site has now been completed and, due to COVID-19, the Board visit was delayed until 2022. In addition, in accordance with our Section 172 obligations, the Board also scrutinised the investments in Watson-Marlow in the USA and the UK (BioPure), together with the investment in our new Group headquarters in Cheltenham and the consolidation of all four of Thermocoax's operations in one site in Normandy (France), to address continued expansion of our Businesses.

Health and safety as well as sustainability are of fundamental importance to the Group and they are both considered at the top of the agenda at each Board meeting and each Group Executive Committee meeting.

The Board continued to engage with shareholders on governance, remuneration and trading during the period.

2. Division of responsibilities continued

Key Board activities in 2021, by meeting

Standing agenda items

- Health and safety as well as sustainability updates are the first two operational matters addressed by the Board at each meeting
- The Group Chief Executive and the Chief Financial Officer report on monthly, quarterly, bi-annual and annual trading, as appropriate
- Updates by Committee Chairs, where relevant, on Committee meetings held prior to each Board meeting
- The Group General Counsel and Company Secretary regularly updates the Board on all material legal matters and on our compliance programmes
- Company share performance and shareholder/analyst feedback is discussed at most Board meetings

February

- COVID-19 update
- Inclusion, equity and wellbeing
- Sustainability update
- Business review – Watson-Marlow
- Management presentations – Steam Specialties EMEA, Supply

March

- 2020 financial results
- Business review – Electric Thermal Solutions
- Approval of Group Sustainability strategy

May

- Business review – Steam Specialties
- New Group Headquarters
- Potential acquisitions
- AGM briefing

June

- Group Strategy and medium-term plan
- Electric Thermal Solutions strategy update
- Watson-Marlow strategy update
- Corporate strategy update
- Steam Specialties Business tour

August

- Sustainability update
- Approval of interim dividend
- Business review – Electric Thermal Solutions
- Senior management presentations – Asia Pacific (Steam Specialties), Gestra (Steam Specialties)
- Potential acquisitions
- Audit Committee report
- Report on Employee Engagement focus groups
- Group litigation report

October

- Business review - Steam Specialties
- Thermal Solutions Synergy Project
- Group Inclusion Plan
- Watson-Marlow EMEA

December

- Approved 2022 Plan
- Draft Annual Report and Circular to shareholders
- Updated Group Delegation of Authorities
- Acquisition update
- Risk Management update

3. Composition, succession and evaluation

Nomination Committee Report



“Through effective succession planning, we aim to maintain a strong and diverse Board and Group Executive team responsible for the operation of our Businesses, with a particular focus on diversity at senior executive levels.”

Jamie Pike
Chair of Nomination Committee

Members

Our Nomination Committee comprises:

	No. of meetings attended/ total no. of meetings held	Attendance %
Jamie Pike (Chair)¹	✓ ✓ ✓ ✓ ✓	100%
Trudy Schoolenberg²	✓ ✓ ✓	100%
Richard Gillingwater³	✓ ✓ ✓ ✓ ✓	100%
Jane Kingston	✓ ✓ ✓ ✓ ✓	100%
Kevin Thompson	✓ ✓ ✓ ✓ ✓	100%
Caroline Johnstone	✓ ✓ ✓ ✓ ✓	100%
Peter France	✓ ✓ ✓ ✓ ✓	100%
Angela Archon	✓ ✓ ✓ ✓ ✓	100%
Olivia Qiu	✓ ✓ ✓ ✓ ✓	100%

1 Jamie Pike was recused from the May meeting as the discussion concerned his own reappointment.
 2 Stepped down from the Board on 31st July 2021.
 3 Joined the Board on 9th March 2021 and became Senior Independent Director on 1st August 2021.

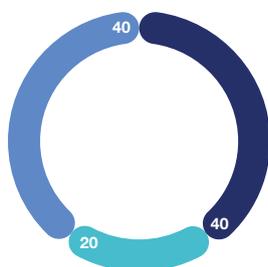
Committee role and responsibilities

The main role of the Nomination Committee is to recommend changes to the Board and consider succession planning for the future.

The Committee’s responsibilities include:

- making appropriate recommendations to the Board for the appointment, reappointment or replacement of Directors
- reviewing the structure and composition of the Board with regard to the overall balance of skills, knowledge and experience against current and perceived future requirements of the Group
- recommending any proposed changes to the Board
- considering succession planning arrangements for the Executive Directors and, more generally, senior executives

How the Committee spent its time %



- Executive succession
- Non-Executive succession
- Diversity and inclusion

3. Composition, succession and evaluation continued

Nomination Committee Report continued

Meetings

The Nomination Committee met five times in 2021. The Group Chief Executive and Chief Financial Officer were invited to meetings where appropriate. A summary of the Committee's activities throughout the year is set out below.

Key Nomination Committee activities in 2021

February

- Considered candidates for role of Senior Independent Director to succeed Trudy Schoolenberg
- Reappointment of Peter France as an Independent Non-Executive Director for a further three years

May

- Discussed and confirmed the nomination to the Board of the reappointment of Jamie Pike as Chair of the Board for a further three years

June

- Executive succession planning

October

- Executive succession planning

December

- With the help of leadership advisers Egon Zehnder, the Nomination Committee focused on making sure that the Company is well positioned with proper succession plans in place for senior leadership roles

Chair's review of 2021

Our focus in 2021 was on succession planning at Executive levels of the Group and promoting talent across the organisation.

Board changes

Having strengthened the Board in 2020 to reflect more international experience in line with evolving societal needs, the Board's composition was generally stable during 2021. The only change was the appointment of Richard Gillingwater as a successor to Trudy Schoolenberg for the role of Senior Independent Director.

Four high calibre candidates for the Senior Independent Director role were considered at the Committee's meeting in February 2021. One of the key competencies that the Board was looking for with this appointment was a strong understanding of what investors think of the Group.

Trudy Schoolenberg and Nicholas Anderson, acting as a sub-committee of the Nomination Committee, interviewed the four candidates. Following a final interview the full Committee selected Richard Gillingwater for formal approval by the Board.

Consequently, Richard Gillingwater was appointed as an Independent Non-Executive Director with effect from 9th March 2021 and as Senior Independent Director with effect from 1st August 2021, when Trudy Schoolenberg stepped down from the Board after serving her nine years as an Independent Director.

Details of the respective skills and experience of Richard Gillingwater and all Board members are set out on pages 96 to 97.

Reappointment of Jamie Pike as Chair of the Board

At its meeting in May, the Committee discussed the reappointment of Jamie Pike as Chair of the Board. The Chair was recused from this meeting due to the conflict of interest and the Senior Independent Director, Trudy Schoolenberg, chaired the meeting.

The Committee considered that the reappointment would be compliant with Provision 19 of the UK Corporate Governance Code 2018 ('the Code'), which allows for an extension beyond nine years' service, as Jamie Pike has been a Non-Executive Director since 2014, but was only appointed as Chair in 2018. The Code also specifies that the Chair should have considerable leadership, corporate and commercial skills and experience.

These qualities are important to the mix of the Board as a whole and assists with a diverse Board made up of people with a range of relevant skills and expertise, which will further the development of the Group.

Following a detailed discussion, the Committee confirmed the nomination to the Board of the reappointment of Jamie Pike for a further three years effective 13th May 2021 taking his total tenure to ten years.

Executive changes

When Dominique Mallet elected to leave the Group after six years with Thermocoax and over two years with Electric Thermal Solutions (ETS), we were delighted to appoint Armando Pazos as the new President of ETS on 1st December 2021. Armando is an experienced industrial leader who first joined ETS in March 2020 as Vice President Global Sales for Chromalox.

Inclusion, equity and wellbeing

We believe that the Board's perspective and approach is greatly enhanced by gender, age and cultural diversity and we consider overall Board balance and diversity when appointing new Directors. We also undertake reviews each year of the bench strength of all senior executives and make sure that diversity is considered in our succession planning across senior roles.

We are committed to improving inclusion and diversity across our Group. During 2021, we participated in the FTSE Women Leaders Review (Hampton Alexander). In addition to ending 2021 with 40% female representation on our Board, our progress includes a significant increase in senior female leaders to 33%, up from 27% in 2020 and 18% at the end of 2018, when we became part of the FTSE 100 Index. This supports us to further advance gender balance in our senior leadership, as we focus on creating the right inclusive environment in a sustainable way, to ensure changes are successful for the long-term.

We have a well established Women's network and successful female mentoring scheme. We have also achieved over 50% female representation in 2021 for our two-year global Graduate Programme.

We recognise we have more to do and in January 2022, we signed up to the United Nations' Women's Empowerment Principles and will use this framework to refresh our gender and add new ethnicity goals in 2022 for our leadership, graduate and commercial roles.

At the start of 2022 we also joined Women in Science and the Women's Engineering Society to continue to promote Science, Technology, Engineering and Mathematics (STEM) careers to attract more women into the Engineering industry and our Group.

To tackle this at a more fundamental, grass roots level in 2021, we established the Spirax-Sarco Engineering Group Education Fund, with an initial contribution of £1 million as part of our pledge to donate £5 million over five years, to help remove barriers to education and improve diversity in Engineering.

Detailed figures on our gender balance can be found on page 50 of our Sustainability Report.

In 2021, we embedded voluntary diversity demographic questions in to our global Employee Engagement Survey for the first time. Along with much wider research, this informed the development of our Global Inclusion Plan. We launched the Plan at our first Group Leadership Conference which took place in November 2021 with almost 60 of our Group's Leaders from our Businesses and Group functions. At the conference our leaders also heard about the challenges of the 'inclusion journey' from Daniel Danso, Global Diversity Manager for Linklaters LLP. Daniel talked about the global landscape for inclusion, equity and diversity and explained some of the leadership skills needed to sustain our workforce of the future. He also helped our leaders to think about how they could prepare themselves and support their peers throughout our inclusion journey.

The Group Inclusion Plan is about creating long-term value for all of our stakeholders by empowering an inclusive and equitable working culture where all of our colleagues can be themselves and achieve their full potential. It is built on four pillars – (i) Inclusive Behaviours, (ii) Inclusive Leadership, (iii) Inclusive Processes and (iv) Inclusive Partnerships. It has also been designed to support the United Nations' Sustainable Development Goals 3 (Good Health and Wellbeing), 5 (Gender Equality), 8 (Decent Work and Economic Growth), 10 (Reduced Inequalities) and 16 (Peace, Justice and Strong Institutions).

Within the Global Inclusion Plan, we have outlined our Group Inclusion Commitments to ensure that wherever we work in the world, we will make our difference for our colleagues:

EVERYONE IS INCLUDED



Ensuring the best start for new families by giving every colleague who becomes a parent a minimum of 16 weeks paid parental leave



Helping every colleague who is a caregiver to support their loved ones or take time for self-care



Supporting every colleague who experiences pregnancy loss of any kind



Standing up for colleagues who experience domestic violence or abuse



Becoming an increasingly gender-balanced, ethnically diverse, disability confident and faith-aware employer



Being a safe place for all lesbian, gay, bi, trans and queer or questioning (LGBTQ+) people, wherever we operate



Creating menopause-friendly workplaces



Proactively promoting better wellbeing, balance and mental health



Enabling our hybrid workforce to be at their best wherever and whenever they are working



Empowering our colleagues to grow their knowledge, skills and confidence as active advocates of inclusion and wellbeing

3. Composition, succession and evaluation continued

Nomination Committee Report

You can read more about the Plan and our commitments on page 50. We have put inclusion, equity and wellbeing at the heart of the culture we are continuing to build, including the following initiatives in 2021:

- Unconscious bias online training for all colleagues in multiple languages, which was completed by our colleagues
- Succession planning and talent development activities designed to ensure we continue to have a strong, diverse bench strength for the management and operation of our businesses, including a female executive mentoring programme and in-house leadership courses
- Our Global two-year Graduate Programme supporting our ability to hire the best graduates from all over the world who are often globally mobile and strive for leadership positions
- Sponsorship and promotion of multiple science, technology, engineering and mathematics (STEM) initiatives amongst schools in the communities in which we operate
- Ongoing commitment to undertaking a UK equal pay audit across all our UK Businesses
- Continuing expansion of our colleague networks, including our existing Women's Network and our new Working Families Forum, Mental Health First Aiders Network, Watson-Marlow Disability Forum and Steam Specialties EMEA LGBTQ+ and Friends Network.

Diversity and Inclusion Policy

Our Board fully complies with the principles of our Diversity and Inclusion Policy which can be found on the Group's website. During 2022 we will be updating our Diversity and Inclusion Policy, to better reflect the progress we have made in 2021. This will include a repositioning of the Policy to align with our Group's focus on Inclusion, equity and wellbeing. The new Policy document will reflect all of the principles of our Group Inclusion Plan, including the ten Inclusion Commitments. It will also include a refreshed set of gender goals as well as new ethnicity goals to be set during 2022 for our leadership, graduate and commercial roles.

Succession planning/ attracting talent

Egon Zehnder act as external advisers to the Nomination Committee, helping the Committee and the Board to make sure we are well positioned and have proper succession in place for all senior-level appointments across the Group. This on-going search for the best people includes both internal and external candidates.

Committee focus for 2022

In 2022, we will focus on Executive Succession at senior levels and the implementation of the Group Inclusion Plan.

Jamie Pike
Chair of Nomination Committee

Further reading

- **Our Diversity and Inclusion Policy** and our new **Group Inclusion Plan and Commitments** can be found on our website: www.spiraxsarcoengineering.com
- Watch our Everyone is Included video: www.spiraxsarcoengineering.com



3. Composition, succession and evaluation continued



Angela Archon's early reflections

On joining the Board, I had an excellent onboarding experience. I met individually (albeit virtually) with the senior leaders across the Group, each of whom was genuinely interested in helping me understand their part of the Business. It was evident that they were experts in their fields and took pride in their work and in the Group. I also had the opportunity to tour one of our largest manufacturing facilities and, most enjoyable, to meet with several customers to understand how the Group partners with them to improve the efficiency of their industrial processes.

As I integrated into the Group, I was inspired by its Values – Customer Focus, Excellence, Respect, Integrity, Safety and Collaboration – and the degree to which everyone ‘lives’ these Values by incorporating them into every aspect of running the business.

I have been impressed by the Group's commitment to sustainability. Many companies talk about its importance and then bury it under some functional area. The Group has demonstrated the importance of sustainability by creating a new position, reporting directly to the

Group Chief Executive and appointing a dedicated leader to develop and execute our Sustainability strategy, which contains some very aggressive goals. Inclusion, equity and wellbeing have also been a keen focus. We are acutely aware that inclusion is a business imperative and we must have diverse teams who represent all stakeholders and provide those varying perspectives.

One of the Group's key strengths and differentiators is consultative selling. The direct sales team of engineers has deep expertise and they integrate into their customers' businesses to provide value-add solutions, not just discrete products. In this way, the team truly partners with customers to enable them to be more successful.

In my role as a Board member and being a career technologist, I am personally focused on the Group's Digital strategy and the incorporation of technology, data insights and intelligence into its own processes, as well as into customer solutions. In the coming year, I will be looking for the Group to have more organic growth and to continue making significant strides on its sustainability journey.



Olivia Qiu's early reflections

My first impressions are of a Group with very strong financial performance, which means we are able to discuss strategic topics rather than focus on short-term challenges. It also has a unique, customer-focused business model and a customer-centric culture to deliver it. Each of the Group's three Business units has built a strategy around the customer and how to serve them better. There's also a strong management team throughout the Group.

Getting to know the Group has been a great experience. In the onboarding programme I got time with the Board and management team: discussing topics that were a good balance between short-term and medium-term priorities helped me to build a clear picture of the Group. Taking part in informal coffee talks and the Group's Women's Network have been very valuable ways for me to meet people and deepen my understanding of the organisation. Now, I'm looking forward to being able to travel, visit some of the Group's facilities and meet customers as well as colleagues in person.

I've seen that the Board and management team give a great deal of attention to sustainability and have developed a clear strategy and solid implementation plan for it – there's a good roadmap for what needs to be done and by when. The Group's achievement of a A- score with CDP, putting us in the environmental 'leadership' band for the first time shows this is already translating into results. There is a strong focus on inclusion, too, with a Board that's 40% female and features a strong diversity of culture, skills and backgrounds.

My next priorities are getting more engaged with the Businesses and colleagues around the world as the pandemic recedes, so I can get to know the Group even better. I'm also looking forward to making use of my background in digital to help the Group further develop its Digital strategy.

4. Audit, risk and internal control

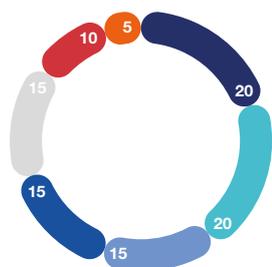
Audit Committee Report



“The Committee has spent significant time this year supporting management in considering topics raised by the BEIS Proposals including internal controls, assurance, fraud risks and the reporting of resilience. Management has made good progress in these areas.”

Kevin Thompson
Chair of Audit Committee

How the Committee spent its time %



- Risk management and internal controls (including focus on remote working)
- Internal Audit and fraud defences
- Results review and reporting
- Presentations by Divisional Finance Directors
- External Audit (including Audit tender) and Auditor effectiveness
- Corporate Governance and whistleblowing (including the BEIS Proposals)
- Financial resilience

Members

Our Audit Committee comprises:

	No. of meetings attended/ total no. of meetings held	Attendance %
Kevin Thompson (Chair)	✓ ✓ ✓ ✓ ✓ ✓	100%
Trudy Schoolenberg¹	✓ ✓ ✓ ✓	100%
Jane Kingston²	✓	100%
Caroline Johnstone	✓ ✓ ✓ ✓ ✓ ✓	100%
Peter France	✓ ✓ ✓ ✓ ✓ ✓	100%
Angela Archon²	✓	100%
Olivia Qiu	✓ ✓ ✓ ✓ ✓ ✓	100%
Richard Gillingwater³	✓ ✓ ✓ ✓ ✓	100%

- 1 Stepped down from the Committee (and Board) on 31st July 2021.
- 2 Stepped down on 31st March 2021 following Board-wide review of committee memberships.
- 3 Joined the Committee (and Board) on 9th March 2021.

Committee role and responsibilities

The overall purpose of the Audit Committee is to oversee and monitor the entire financial reporting and control process, to ensure the integrity of the Group’s published financial information and assurance over it. The Committee fulfils this remit by undertaking the following roles and responsibilities:

- monitoring the integrity of the Financial Statements of the Company and any formal announcements relating to the Company’s financial performance and reviewing significant financial reporting judgements contained in them
- providing advice (where requested by the Board) on whether the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders and wider stakeholders to assess the Company’s financial position, performance, business model and strategy
- in conjunction with the Risk Management Committee and the Board, reviewing the Company’s internal financial controls and internal control and risk management systems
- monitoring and reviewing the effectiveness of the Company’s internal audit function and making recommendations to the Board

- conducting the tender process and making recommendations to the Board about the appointment, re-appointment and removal of the External Auditor, and approving the remuneration and terms of engagement of the External Auditor
- reviewing and monitoring the External Auditor's independence and objectivity
- reviewing the effectiveness and quality of the external audit process, taking into consideration relevant UK professional and regulatory requirements
- developing and implementing policy on the engagement of the External Auditor to supply non-audit services, ensuring there is prior approval of non-audit services, considering the impact this may have on independence, taking into account the relevant regulations and ethical guidance in this regard and reporting to the Board on any improvement or action required
- reporting to the Board on how it has discharged its responsibilities

Meetings

The Committee met six times during 2021 – four of these were annual scheduled meetings, while two were extraordinary meetings held (in April and May) to consider and discuss the Group's response to the UK Governments' Department for Business, Energy and Industrial Strategy consultation on its white paper: Restoring trust in audit and corporate governance ("BEIS Proposals") (see pages 120 to 121) and the proposed External Auditor tender process (see pages 45 and 125 to 126). Relevant members of the Group's senior management were also in attendance at these meetings, including the Group Chief Executive (in his capacity as Group Chief Executive and not as a member of the Committee), the Chief Financial Officer, the Head of Internal Audit and the Director of Group Finance. Continuing the practice started in 2020, the Group's Business Finance Directors were each invited to attend and present to the Committee during the year.

During 2021, the Committee received reports from external and internal auditors on the major findings of their work and the progress of management follow-up by way of management reports. As a safeguard, the Committee holds separate meetings with the external and internal auditors without management present to discuss their respective areas and any issues arising from their audits.

Given the significant work being undertaken by the Group on important projects, the Committee is adding a new, annually

recurring, fifth (scheduled) Audit Committee meeting in 2022. This meeting will allow additional time for the Committee to undertake deep dives into key projects and adhoc areas of Committee focus and will create further opportunities for Committee training.

Key Audit Committee activities in 2021

March

- Reviewed the Annual Report including:
 - Significant financial reporting judgements and the application of accounting policies
 - Going Concern basis, Viability Statement and financial resilience
 - Ensuring fair, balanced and understandable presentation
 - Report of the External Auditor
- Reviewed External Auditor independence and effectiveness
- Reviewed operation of internal controls and management of fraud risk
- Received a whistle-blower update

April

- Reviewed the BEIS Proposals and response to the consultation

May (2 Meetings)

- Confirmation of External Auditor reappointment
- Consideration of External Auditor tender plan and process
- Update on planning for the half-year review including:
 - Significant financial reporting judgements
 - Application of accounting policies
- Preparation of Company response to the BEIS Proposals
- Reviewed operation of internal controls and management of fraud risk
- Received an update on the internal controls framework review
- Received presentations from Business Finance Directors

August

- Reviewed the half-year results including a change to disclosure
- Reviewed the interim report of the External Auditor
- Internal controls improvement project update
- Reviewed updates following a February 2021 fraud workshop
- Completed Audit Committee self-assessments and performance evaluation
- Received an update on compliance with mandatory contract practices

October

- External Audit planning for the full-year (including approval of audit scope and fees)
- Discussed changes to disclosures and assurance processes in response to the BEIS Proposals
- Reviewed an updated External Audit effectiveness review process
- Received an update on the internal controls framework review
- Approved the Internal Audit plan for 2022
- Received an update on defined benefit pension schemes
- Approved amendments to the Committee's Terms of Reference
- Approval of updated Treasury Policy
- Approval of updated Auditor Engagement Policy
- Received presentation from Business Finance Director

4. Audit, risk and internal control continued

Audit Committee Report continued

Committee competence and governance

The Audit Committee operates under Terms of Reference, which were formally reviewed and amended in October 2021. The Terms of Reference set out the membership and experience requirements of the Committee and can be found on the Group's website, www.spiraxsarcoengineering.com.

The Committee is comprised entirely of Non-Executive Directors and is considered by the Board to possess an appropriate level of independence and experience. The Board is satisfied that Kevin Thompson (Chair) and Caroline Johnstone have recent, extensive and relevant financial experience and the required competence in accounting. All members of the Committee have a depth of financial and commercial experience in various industries, as well as the industrial engineering sector in which the Group operates – expertise the Committee utilises, together with their independence, to provide robust challenge to management and the Internal and External Auditors to ensure their duties under the Terms of Reference are fulfilled.

During the year, Trudy Schoolenberg, Jane Kingston and Angela Archon stepped down from the Committee – Trudy on leaving the Board after nine years of service, and Jane and Angela as part of the Board Committee review that took place in March 2021 (see pages 95 to 97 for further details). Richard Gillingwater joined the Board and Committee, on 9 March 2021. Richard brings with him many years of strong financial and non-executive directorship experience and is a welcome addition to the Committee. Like all new Committee members, Richard has undertaken an induction programme and will continue to further his knowledge via on-going training, such as attendance at technical seminars and the receipt of regular topical updates from external audit firms.

A more detailed summary of the qualifications, skills and experience of each Committee member can be found on pages 96 to 97.

Chair's review of 2021

I am pleased to present the Audit Committee's report for the year ended 31st December 2021. While the Committee's overall aim and core duties remained the same during 2021, the ongoing effects of COVID-19 has meant that hybrid working has become well-established practice for the Committee. This is also true of the Internal Audit and External Audit teams, both of which have shown great flexibility and diligence to keep up their programme of scheduled audits and maintain the usual high standards the Committee expects of them.

As noted above, the Board Committee's composition underwent a review in early 2021. Angela Archon and Jane Kingston left the Committee following this restructuring and Trudy Schoolenberg left the Committee on retiring from the Board following nine years of service. I would like to take this opportunity to thank them all for their excellent service to the Committee over their respective tenures. I would also like to welcome Richard Gillingwater to the Committee, following his appointment to the Board in March 2021.

As well as its usual busy agenda, the Committee spent significant time this year supporting management in considering topics raised by the BEIS Proposals. This includes work on internal controls (being a cornerstone project to further strengthen Group-wide policy and processes), sources of assurance, identifying fraud risks and the reporting of resilience. Management has made good progress in systematically identifying areas of risk, revising policy and managing the roll out of improved control processes supported by effective communication and training tools.

During 2021, the Committee carried out a self-assessment exercise. The outcome of the exercise was considered at the August Committee meeting, with the vast majority of the responses and comments being positive and reflecting that the Committee continues to perform well. Some areas of focus/potential improvement were also discussed and it was agreed that: (i) meetings should be extended in length to allow sufficient time to deal with the increasing Committee agenda and deep dives into topics of interest including risk reviews (a meeting has also been added to the annual schedule for 2022); (ii) whilst self-learning training opportunities increased during the pandemic, formal (external) training had reduced, something the Committee wishes to address during 2022; and (iii) over the coming year the Committee will work closely with Group Sustainability to consider areas

where additional assurance can be sought over climate-related data and sustainability reporting. These areas have been reflected in the Committee's agenda for 2022.

The Committee has a high level of confidence in, and a good understanding of, the Group's risk management process undertaken by the Risk Management Committee. This has been further enhanced by a review of the current process, risk appetite and emerging risks in 2021 (see pages 128 to 130 of the Risk Management Committee Report).

2021 saw the retirement of the Group Financial Controller, John Senior. John enjoyed a long career with the Group and I would like to thank John, personally and on behalf of the Committee, for his great service to the Committee over the years. I would also like to formally welcome Phil Scott, the new Director of Group Finance. Phil has spent his career in FTSE 100 companies and brings a wealth of experience to the Group.

In addition to its ongoing core responsibilities of monitoring the integrity of the Group's Financial Statements and the effectiveness of its controls, there were a number of key areas of focus for the Audit Committee in 2021:

Adapting to the ongoing COVID-19 pandemic

During 2020, the pandemic tested the systems, controls and processes of all companies. Consequently, throughout 2021 the Committee maintained its attention on the controls and processes most likely to be impacted by the ongoing impacts of the pandemic, including internal controls relating to fraud and cybersecurity as well as key judgements. In the view of the Committee, the Group's colleagues and processes have adapted extremely well to cope with the unprecedented challenges we have all had to face over the last two years.

The Committee receives regular updates from management on the underlying performance of the business, the strength of the Group's liquidity and its operational and financial resilience and believes that the Group's control environment and operational efficiency has not been materially impacted by the COVID-19 pandemic. The Committee will continue to monitor the Group's response to risks posed by the pandemic into 2022 and possibly beyond.

The BEIS Proposals

As noted previously, in addition to the Committee's four scheduled meetings this year, it held two extraordinary meetings

(in April and May). The driver for the April meeting was to consider the BEIS Proposals. Regulations arising from consultation on these proposals are expected to have a significant impact on all larger UK businesses – with changes to audit committee practices and by making recommendations for Internal Controls over Financial Reporting (ICFR); as well as other topics impacting multiple governance functions. The Committee and management are aligned in their support for the intentions underlying the BEIS Proposals and are confident that they will deliver benefits, including maintaining the reputation of the UK's capital markets which are founded upon high quality and trusted audit and corporate governance. In its response to the BEIS Proposals, the Board highlighted its support, together with our view of the challenges Groups such as ours will face in implementing the proposals.

The Group has also invested significant time during the year on a 'no regrets' basis, supported by external advisors, to assess the potential impacts of the BEIS Proposals and to identify which controls, governance and audit frameworks will be most impacted. This work, led by the Chief Financial Officer, included undertaking a scoping exercise in order to identify the Group Operating Companies most likely to be impacted by the proposed Internal Control over Financial Reporting (ICFR) requirements. A sub-committee of the Audit Committee was established to work with management and provide input during the scoping phase. The output of this exercise was shared with the Committee and Deloitte in their capacity as the Group's External Auditor.

Governance and internal controls

The Board has overall responsibility for the effectiveness of the Group's internal controls and risk management frameworks. Oversight of the Group's risk management procedures and the operation of controls is undertaken by the Risk Management Committee and the Group Executive Committee and further detail on these processes can be found on page 128 to 130.

The Committee supports the Board and the Risk Management Committee by monitoring and assessing the effectiveness of the Group's internal controls processes. In this role, the Committee considers the effectiveness of all material controls, including financial, operational and compliance controls together with risk management systems. This assessment is based on internal audit reviews, the quality of Group-wide training programmes (including mandatory courses on Health & Safety, Anti-Bribery & Corruption and

Cybersecurity), alongside regular updates from management throughout the year and an annual management paper on how the Group monitors the effectiveness of the Group's internal control processes. During the year the Committee also received detailed reports and presentations from a number of specialist functional areas within the Group in order to assess the risks and effectiveness of the associated control environments, including treasury, tax, pensions, cybersecurity, financial reporting and sustainability. Additional detailed sessions were also held with each of the three Business Financial Directors to conduct deep dives into the Businesses' operations.

The Group has programmes underway to upgrade the core operational Information Systems in each of our three Businesses. Within Steam Specialties, Project OPAL began in 2019 and rollout continues to progress well, while projects in both Electric Thermal Solutions and Watson-Marlow are currently in the scoping and design phase. The Committee is conscious of the business imperative and magnitude of these projects and therefore continues to closely monitor progress against a series of identified critical success factors. The successful implementation of these platforms will facilitate standardised operating models within each of our Businesses and enhance the level of automation and efficiency of our internal controls. During 2021, as a further preparatory step in light of the BEIS Proposals, the Group commissioned an external consultant to review the business processes and associated internal controls contained within the Project OPAL systems against potential ICFR requirements.

Beginning in 2021, the Chief Financial Officer and newly constituted Finance Leadership Team (comprising the Heads of the functional teams within Finance and Business Finance Directors) led a programme to review the Group's internal control and governance environment. The Group Governance Guidelines (G3) programme adopted a risk-based approach to identifying and prioritising areas of focus to continually strengthen the completeness and effectiveness of our policy, processes and documentation. The G3 programme has also emphasised communication and engagement workstreams, being vital to effective change management.

The G3 process leveraged insight from Internal and External Audit reviews as well as the Risk & Control Self-Assessments completed annually by all the Group's operating companies, with further input provided by the Business Finance Directors.

Working teams were then established comprising diverse teams of finance professionals drawn from across our Businesses, regions and differing levels of management. These teams conducted reviews on specific areas of potential risk, proposing improvements to our policy framework and processes. These proposed improvements focus on the formality of the control documentation and the consistency of the control application across the Group's Businesses.

From the review of the effectiveness of the Group's internal control and governance frameworks several areas were identified in which the Group's policy and process could be further strengthened in line with our Value of pursuing Excellence. A clear set of tools were developed to support Group Operating Companies with the implementation of the necessary changes and included clearly explained policy, processes and documentation, a network of 'champions' to support implementation, online training videos and tools as well as a new online reporting portal to log compliance.

We anticipate that the G3 programme will continue throughout 2022 in line with our focus on enhancing our control and governance framework and as we prepare for implementation of the BEIS Proposals.

Assurance

In fulfilling its responsibility for reviewing the effectiveness of the Group's control systems, the Committee relies on a number of sources of assurance. These include external audit, internal audit and regular management updates, including those from the Business Finance Directors.

There are a range of other measures in place at local, Business and Group level that provide assurance that risks are being managed in line with the Group's appetite for risk. The key measures include: a strong corporate culture of doing the right thing, supported by a strong 'tone from the top'; the oversight of financial performance and operations by the Group Executive Committee and Business Executive teams; detailed control and governance processes and procedures and a dedicated Internal Audit function, which performs regular audits of all Group companies and manages an annual self-assessment process.

During 2021, the Group commenced an exercise to map our external disclosures alongside the current level of assurance obtained over each element. This will help us to consider if we wish to change the associated level of assurance in line with changes in market practice and increased

4. Audit, risk and internal control continued

Audit Committee Report continued

regulatory requirements; for example, in relation to reporting around climate change and sustainability. This work will continue into 2022 and will form the foundations of an Audit and Assurance Policy as set out in the BEIS Proposals.

Financial disclosures

In the year, the Committee reviewed a number of reporting changes, including (i) updates to the Group's presentation of the Steam Specialties Business within the Operating Review in the Annual Report, (ii) the updated financial reporting guidance around the configuration or customisation costs in a cloud computing arrangement (IAS 38 Intangible Assets), (iii) considering the use of Alternative Performance Measures (APMs), (iv) the examination of TCFD disclosures and (v) enhancements to the Group's Going Concern and Viability Statement disclosures. The disclosures made by management were considered by the Committee to be appropriate in each case.

Cybersecurity

The Board and the Audit Committee continued to receive updates on the implementation and maintenance of cybersecurity systems and the work undertaken to improve the Group's risk mitigation systems and processes. During 2021 the Group has continued to invest further in this area including achieving Cyber Essentials certification. The Group continues to review external developments and also looks to learn from external advisers and third-party cybersecurity cases.

Taxation & Treasury

The Group Taxation Strategy (reviewed during the year) can be found on the Group's website: www.spiraxsarcoengineering.com (under Governance documents). The Taxation Strategy sets out the Group's approach to tax risk management and governance, tax planning and relationships with the relevant tax authorities.

During 2021 the Group established a Tax Committee and a Treasury Committee to enhance governance in these areas. Both Committees comprise the Group Chief Financial Officer, the Director of Group Finance and a member of Group Legal alongside the Group Treasurer or Group Head of Tax. Each meeting is also attended by one of the three Business Finance Directors in order to maintain a close link between the Committees and the Group's Businesses. Both Committees formally report to the Audit Committee on an annual basis with the minutes of all meetings being made available to both the Board and Audit Committee.

The Group's Treasury Policy was reviewed during the year and an updated Policy was approved in October 2021 by the Audit Committee and Board. The Treasury Policy covers the Group's approach to: funding; maintaining adequate liquidity; managing interest rate and foreign exchange risk and managing banking relationships and counterparty credit risk. During the year the Group Tax and Treasury teams have delivered a number of internal training sessions designed to support and enhance knowledge of key Tax and Treasury related issues within the Group's Operating Companies and to further facilitate the sharing of best practice.

Going Concern, Viability Statement and financial resilience

While not considered a significant concern within the Group's Financial Statements, during 2021 (against the continued backdrop of the COVID-19 pandemic) the Committee remained focused on monitoring the Group's financial resilience and overall liquidity position. The Committee noted that the Group operated throughout 2021 comfortably within the leverage ratio covenants contained within its external financing arrangements.

In line with best practice the Group has enhanced its Viability Statement reporting to (i) extend the assessment period from three years to five years and (ii) provide additional detail around the underlying scenario modelling undertaken whilst also linking the scenarios directly to the Group's identified principal risks.

The Committee reviewed the 2021 Going Concern and Viability Statements and were satisfied that these represented accurate assessments of the Company's position at the date of the Statements. For further detail on the Going Concern and Viability Statements and for additional information on the financial resilience of the Group, please refer to pages 43 to 45.

Whistle-blowing

The Group's Safecall facility, a confidential colleague whistle-blowing hotline, continued to be used across the Group. The facility is advertised at all sites and allows any colleague to raise concerns, anonymously if needed, where they feel activity is being undertaken which conflicts with the Group Management Code or Values. Calls raised are investigated by the Group General Counsel and / or the Group Head of Internal Audit with the involvement of other senior colleagues as required. The Committee received updates on the use of Safecall at its meetings and noted that, on the whole, this

hotline continued to be used for its intended purpose by colleagues. The Committee assessed management's responses to the small number of reported cases and considered them to be appropriate and satisfactory.

Detection and prevention of fraud

Instances of fraudulent activity within the Group are extremely rare and there are control systems in place intended to detect and prevent such activity. A small number of breaches of the Group Management Code were identified during 2021. There was no material financial loss in any of these instances and prompt action was taken by the Group Executive Committee and relevant Business Managing Directors to address these breaches, including the issuance of 'lessons learned' notes to all Businesses of the Group. The Board will continue to identify ways to improve Group systems, to fulfil its responsibility for safeguarding the assets of the Company and for taking steps for the detection and prevention of fraud and other irregularities.

Following the output from the fraud risk workshop held by management in February 2021, the Committee has worked with management to build on our fraud risk assessment and reporting processes during 2021. Actions are underway to improve fraud risk mitigation measures including: (i) the rollout of standardised customer and supplier due diligence processes; (ii) continuation of Mandatory Contract Practices implementation across the Group; (iii) the Group Treasury policy refresh and (iv) implementation of Data Loss Prevention tools. Furthermore, the Group has created a 'Red Flags Toolkit' which was launched in February 2022. This toolkit provides all of the Group's General Managers with guidance on how they might identify wrongdoing within their Businesses and is accompanied by senior management communications and tailored online training.

Significant issues

The Committee is responsible for assessing whether suitable accounting policies have been adopted and whether management has made appropriate judgements and estimates when applying these policies.

During 2021, the Committee considered and addressed the significant issues listed below in relation to the Group's Financial Statements and disclosures. The Committee received regular reports from management on these significant issues. These reports were then discussed at the Committee meetings where the half-year and year-end reporting was considered, giving Committee

members the opportunity to directly question and discuss the reports with management. The Committee also received a detailed report on these issues from Deloitte.

(i) Revenue recognition

In view of the profile of revenue and profit recognition in the final quarter of the year (a period when, in some Group companies, a higher proportion of the annual external revenue is recognised compared to the rest of the year), the need to focus on any new significant contracts and revenue cut-off for certain businesses was highlighted to ensure the appropriate recognition of revenue for the year ended 31st December 2021.

How this was addressed

The Committee receives updates from management on new significant contracts and monitors the adequacy of the control environment for revenue recognition. In particular, the Committee reviewed adherence to the Group's policy to recognise revenue when performance obligations have been fulfilled which, in the majority of cases, is at time of dispatch or delivery to the customer. After considering the combined evidence, the Committee was able to conclude that revenue recognition was appropriate during 2021 and at the year end.

(ii) Pensions

The Group operates five main defined benefit pension schemes (three in the UK, one in Germany and one in the US). All of these five main schemes are now closed to future accrual with the German Scheme being the last to close in January 2021. There are judgements and estimates made in selecting appropriate assumptions in valuing the Group's defined benefit pension obligations, including discount rates, mortality and inflation (see note 23 on pages 208 to 214). These variables can have a material impact in calculating the quantum of the defined benefit pension liability.

How this was addressed

The Committee considered reports by the Group, including those from independent external specialists used to prepare pension valuations. Management's selection of assumptions was challenged, and key assumptions were examined against observable external benchmarks and market practices. Based on this review (including reports from the External Auditor) and consideration of the valuation methods applied, the Committee is comfortable that the key assumptions and accounting treatment are reasonable and appropriate.

(iii) Management override of controls

Internal controls are the safeguards put in place by the Group to protect its financial resources against external and potential internal fraud alongside ensuring the accuracy of reported financial information. Management is responsible for ensuring the internal controls are followed across the Group. As such, intervention by management in the handling of financial information, especially in relation to one-off or judgemental transactions and making decisions contrary to the internal control policy is a significant, if unlikely, risk.

How this was addressed

The Committee discussed the mitigation of control risks, with a particular focus on the level of management reviews taking place within the Businesses, with both management and the Business Finance Directors in their regular Committee presentations. The Committee also noted the high quality of response by management to any deviations from Group policies.

Regular cycles of internal and external audits by independent parties are in place to review financial information. The audits are objective reviews on compliance with the Group's accounting and internal control policies. The Group continued to provide additional resource to its Internal Audit function during 2021 and has invested in the increased use of data analytics in this area.

As detailed previously, management has commenced a programme to further review and enhance the internal financial control environment and the Committee receives regular updates on progress. The Committee remains satisfied with the Group's monitoring of the effectiveness of the Internal Control Systems and is supportive of the Group's continuous improvement journey.

(iv) Acquisitions and goodwill

There is a high level of judgement surrounding the valuation of goodwill and acquired intangibles and the risk of impairment in respect of major acquisitions.

As detailed in Note 15 to the Consolidated Financial Statements on page 203 the largest goodwill balance as at 31 December 2021 relates to the Electric Thermal Solutions cash-generating unit (£241.0m).

How this was addressed

The Committee received detailed reports from management outlining their valuation of goodwill for any potential impairments and the basis for key assumptions used within their valuation models.

The Committee focused on the key assumptions around the valuation of goodwill for the Electric Thermal Solutions Business, namely:

- the forecast operational performance in the business plan, in particular, sales and earnings before interest and tax (EBIT) growth and EBIT margin forecasts as well as cash generation assumptions
- the discount rates applied to the cashflows resulting from the business plan, specifically the determination of the input variables used to calculate the discount rate
- the modelling outcomes when sensitivities were applied in order to represent reasonably possible changes to key assumptions

The Committee concluded it was comfortable that key assumptions were reasonable and that the resulting value in use exceeded the reported carrying values which led to no impairment being required, including when sensitivities were applied.

Critical judgements and key sources of estimation uncertainty in the Financial Statements

After reviewing the presentations and reports from management and consulting with the External Auditor, the Committee is satisfied that the Financial Statements appropriately address the critical judgements and key sources of estimation uncertainty, both in respect of the amounts reported and the disclosures. The Committee is also satisfied that the significant assumptions used for determining the value of assets and liabilities have been appropriately scrutinised, challenged and are sufficiently robust, including those within the significant issues noted on pages 122 to 123. The Committee discussed the significant issues with Deloitte during the external audit planning process and at the finalisation of the year-end audit and is satisfied that the Committee's conclusions are in line with those drawn by the External Auditor in relation to these issues.

4. Audit, risk and internal control

Audit Committee Report continued

Ensuring a fair, balanced and understandable Annual Report

During 2021, the Committee considered many components of business performance to ensure it has a full understanding of the operations of the Group. Key matters considered by the Committee include:

- determining the position adopted in judgement and estimate areas for pensions
- risk areas set out in the Risk Management Committee Report
- receipt of regular strategy reports from the Group Chief Executive and operational reports from the Business Directors
- reviews of the budget and operational plan
- consideration of accounting judgements and estimates

Through all the above and its monitoring of the effectiveness of the Company's controls, internal audit and risk management, the Committee maintains a good understanding of business performance, key areas of judgement and decision-making processes within the Group.

One of the most important governance requirements of the Committee is for the Annual Report to be fair, balanced and understandable. The co-ordination and review of the Group-wide input into the Annual Report is a significant exercise performed within an exacting time frame, which runs alongside the formal audit process undertaken by the External Auditor.

The Directors acknowledge their responsibility for preparing the 2021 Annual Report. In accordance with the Code, the Directors confirm that they consider the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's financial position, performance, business model and strategy. An overview of the processes involved to achieve this are set alongside.

Audit Committee oversight of the Annual Report

- Assessed the consistency of the risks and judgements
- Reviewed the Board minutes to ensure issues of significance were given prominence
- Arrived at a position where initially the Committee and then the Board were satisfied with the overall fairness, balance and clarity of the Annual Report

Specific actions taken to achieve this included:

- comprehensive guidance for contributors at operational level
- verification process dealing with the factual content of the reports with an associated audit trail
- consideration of the appropriateness of alternative performance measures and how they are used throughout the Annual Report in line with external guidance
- comprehensive reviews undertaken at different levels in the Group that aim to ensure consistency and overall balance
- comprehensive review by the senior management team

Internal audit

Throughout 2021, the Committee assessed the effectiveness of the internal audit function ensuring that its approach was risk focussed. In addition to reviewing and approving the internal audit charter, the Committee reviewed the results of internal audits undertaken in 2021 and assessed the robustness of the mechanism in place to track and monitor progress in remedying any identified deficiencies. This review ensures that the Committee is able to give assurances that the Group has an effective and integrated risk management framework, in addition to the oversight provided by the Risk Management Committee.

The Committee also has oversight of the internal audit budget and resources available, and it has satisfied itself that the Internal Audit function has the appropriate level of resources and funds available to undertake its role. Additional resources are planned for 2022 in order to facilitate broader controls testing and analytics. The function has a good level of expertise and an active skills development programme with a continued focus on building technical and analytics skills.

During 2021, the Internal Audit team performed a total of 35 internal audits, the majority of which continued to be conducted remotely. The majority of the companies audited had an effective control environment. Where issues were found, remediation actions were agreed that are tracked to completion and validated before being closed. To the extent that any internal audit action items become overdue, the Business Finance Directors are notified to assist with ensuring they are closed as soon as possible. The Committee was satisfied that throughout 2021 management devoted significant resource to the resolution of any action items. The Committee receives regular reports on closure rates and will continue to monitor outstanding actions. During the year, open actions reduced by 20% and overdue actions by 40%, showing positive progress.

Since the Internal Audit department was established in 2017, steady progress had been made in improving the use of data analytics. The structured data analytics programme developed in 2020 has been further enhanced in 2021 and there is now data analytics aligned to every standard internal audit test undertaken (where this is possible). This has increased the level of assurance the Internal Audit team have been able to provide (with testing being undertaken on a full population rather than a sample basis) and created some efficiencies in the audit testing process. Analytics are used across the internal audit process including risk assessment, scoping, fieldwork testing and assessing the effectiveness of remediation actions implemented.

During 2021, internal audit performance metrics have been significantly enhanced and are regularly reported to the Committee. Metrics include timeliness of audit completion, stakeholder feedback, audit coverage, team skills development and closure of audit actions. These metrics show continued improvement and good engagement between Group Operating Companies and Internal Audit.

Internal Audit also reports thematic issues identified in their audits to bring broader benefit to the Group. In the year, this reporting has highlighted the progress made in areas such as customer and supplier contracting (in compliance with Mandatory Contract Practices requirements), on cybersecurity/IT controls (receiving central support via the Cyber Essentials work) and business continuity.

There are three mechanisms which are used to provide assurance on the quality of internal audit activity undertaken by the Internal Audit team:

- an External Quality Assessment is undertaken every five years by an appropriately qualified third party (see below)
- the view of the Audit Committee members is sought annually as part of the Performance review (undertaken in August 2021)
- the Head of Internal Audit conducting an annual self-assessment of the quality of the function

The 2021 self-assessment was conducted against the standards set by the Institute of Internal Auditors (such standards being aligned to the assessment criteria used in the 2017 External Quality Assessment). The function scored well across all categories identifying two areas for improvement: the sharing of information with other assurance providers and the need to conduct an Enterprise Risk Management review (an area scheduled for Internal Audit in 2022).

Following the last assessment undertaken in 2017, an external quality assessment of the Internal Audit function was carried out in December 2021. The assessment was undertaken by Protiviti. Overall, the function was considered to be performing strongly with all internal activities undertaken rated as 'Generally Conforms' to IIA Standards (the highest available rating). While there are established good practices, some opportunities were identified for further and ongoing improvement. Examples included continued development of data analytics capability, more detailed descriptions of certain internal audit activity in the Audit Manual, and re-starting the guest auditor programme (paused due to COVID-19 related travel restrictions).

External audit process and audit quality assessment

This is the eighth financial year in which the Annual Report and Financial Statements have been audited by Deloitte LLP, following their appointment as the Company's External Auditor from 20th May 2014.

One of the primary responsibilities of the Committee is to assess the robustness of the external audit process and make recommendations to the Board in relation to the appointment, re-appointment or removal of the External Auditor. The Committee took a number of factors into account when evaluating the effectiveness of the external audit and as noted below these processes have been updated during the year. Actions included:

- a review of the content of the Financial Reporting Council's (FRC) 2021 Audit Quality Inspection Report on Deloitte

- considering evidence gathered first-hand by the Committee about the performance of the External Auditor, in particular (i) the quality and scope of the planning of the audit which is provided and presented to the Committee early in the audit cycle (in October 2021 for the 2021 audit) with clear initial judgements on materiality and (ii) presentations from the audit partner and his team at the Committee meetings, in which they clearly and efficiently highlight key matters arising and any areas on which they have challenged management
- examining feedback from all audited companies within the Group, the respective Group Finance teams, Management and Directors on the audit process and the quality and experience of the audit partners engaged in the audit by way of completion of a post-audit questionnaire (such feedback indicating that overall Deloitte performed all audits well)

Ahead of the 2021 financial year end reporting, the Group (and Committee) has enhanced its focus on audit quality. The internal processes used to capture feedback around external audit effectiveness has been refined around four thematic pillars, namely; planning, execution, reporting and challenge and insight, as well as the consideration of the audit team itself. The Committee ensures that it considers the professional scepticism and challenge provided by the External Auditor. In addition, alongside the External Auditor, we are also participating in the Financial Reporting Council pilot project in relation to Audit Quality Indicators.

Based on this evidence, the Committee was able to conclude positively on the external audit quality and the performance of Deloitte. The Independent Auditor's Report on pages 167 to 175 contains a summary of their audit approach.

Andrew Bond continued as audit partner for a third year, having taken over the position in 2019 (in line with the requirements to rotate the audit partner at least every five years).

The Group has complied with the provisions of the Competition and Market Authority (CMA) Order, issued by the CMA in September 2014, for "The Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities)".

4. Audit, risk and internal control continued

Audit Committee Report continued

Safeguarding auditor independence and objectivity

The Committee recognises that the independence of the External Auditor is an essential part of the audit framework and has adopted a policy for determining whether it is appropriate to engage the Group's auditor for non-audit services. The Auditor Engagement Policy was reviewed and updated during the year, so as to align with the FRC's revised Ethical Standard which became effective in March 2020. A copy of the Auditor Engagement Policy can be found on the Group's website, www.spiraxsarcoengineering.com (under Governance documents).

To safeguard independence and objectivity, the policy sets out that the maximum period of an audit engagement is to be ten years (calculated from the date of the first financial year covered by the audit engagement letter). Further and in line with the Ethical Standard, the policy details the non-audit services that the auditor can undertake and which of those services are subject to the non-audit services cap.

On non-audit service caps and approvals, the policy states that any expenditure with the Group's auditor on non-audit fees should not exceed 70% of the average audit fees charged in the last three-year period. Furthermore, (i) where the fees for any individual engagement in relation to the non-audit services are in excess of £100,000, pre-approval is required from the Committee and (ii) a cumulative annual cap of £300,000 is set in respect of non-audit services provided by the auditor, above which all individual engagements must be pre-approved by the Committee.

In addition to the Group's policy, the auditor runs its own independence and compliance checks, prior to accepting any engagement, to ensure that all non-audit work is compliant with the FRC's Ethical Standard in force and that there is no conflict of interest.

During the year, the Group spent £0.2 million on non-audit services provided by Deloitte LLP, which included work undertaken on the interim review. These non-audit fees equate to 5% of the average of Group audit fees charged over the past three years. Further details can be found in Note 7 on page 195.

Audit fees for 2021 and 2022 planned tender process

During 2021, the Committee reviewed and approved the proposed audit fees and terms of engagement for the 2022 audit and recommended to the Board that it proposes to shareholders that Deloitte LLP be re-appointed as the Group's External Auditor for 2022 at the AGM to be held on 11th May 2022.

Whilst it is not required under EU Audit Regulations, as it has only been eight years since the last tender process was undertaken, in light of the significant schedule of work to be undertaken over the forthcoming year (in line with the BEIS Proposals for continuing improvements to internal controls and other areas of assurance which impact future external audit work), the Audit Committee has decided to invite audit firms to tender for the audit of the Group during 2022. The tender process is underway and is expected to complete during 2022. Our intention is that the selected audit firm will be proposed to shareholders at the 2023 AGM and will commence work on the half-yearly review in 2023 and complete the full-year audit for 2023.

Committee focus for 2022

In addition to on-going monitoring of risks, internal audit reviews, the quality of the Financial Statements and reporting and governance, the Committee's focus for 2022 will include:

- completing a tender process for the appointment of the Group's External Auditor
- monitoring and supporting the Group's continued work on its controls framework, processes and policies
- further deep dives into areas of Group risk and enhancement of fraud risk defences
- monitoring and supporting the Group's implementation of planned new Information Systems
- reviewing sources of assurance and development of an Audit and Assurance policy
- continuing Committee training and development
- overseeing the review of the Group's non-financial information reporting (including sustainability data and reporting)

I am keen to develop stakeholder engagement over the course of 2022. I will also be attending the Company's AGM on 11th May and will be happy to answer any questions on this report or the activities of the Committee.

Kevin Thompson
Chair of Audit Committee

Further reading:
Our Resilience Statement
See pages 42 to 44

4. Audit, risk and internal control

Risk Management Committee Report



“As an organisation we are risk aware, but not risk averse. The Risk Management Committee oversees and assesses the risks facing the Group and evaluates our ability to control them and mitigate their effects.”

Nicholas Anderson
Chair of Risk Management Committee

Members

Our Risk Management Committee comprises:

	No. of meetings attended/total no. of meetings held	Attendance %
Nicholas Anderson (Chair)	✓ ✓ ✓	100%
Jim Devine*	✓ ✓	66%
Dan Harvey	✓ ✓ ✓	100%
Dominique Mallet	✓ ✓ ✓	100%
Andrew Mines	✓ ✓ ✓	100%
Nimesh Patel	✓ ✓ ✓	100%
Maurizio Preziosa*	✓ ✓	66%
Andy Robson	✓ ✓ ✓	100%

*Absence on account of business commitments

Committee role and responsibilities

The purpose of the Committee is to oversee the management and control of significant risks affecting the Group. The Committee ensures that the Group has robust risk management policies and procedures in place, covering all key areas of risk, such as project governance, sanctions and embargoes, crisis management, human rights, business continuity and business management.

The Committee’s responsibilities include:

- using top-down and bottom-up reviews to understand the risks facing the Group, including all workforce-related risks
- determining the Group’s appetite for risk
- monitoring any emerging risks on the horizon
- accepting and managing within the Businesses those risks which our colleagues have the skills and expertise to understand and leverage
- identifying appropriate risk mitigation techniques and countermeasures

Meetings

The Committee met three times in 2021. A summary of the Committee’s activities throughout the year is set out on page 128.

How the Committee spent its time %



4. Audit, risk and internal control continued

Risk Management Committee Report continued

Key Risk Management Committee activities in 2021

May

- Review of the risks identified at the fraud risk workshop held in February 2021 and approval of the proposed actions to address and further mitigate such risks
- Enterprise risk management process discussed and approved

August

- Bottom-up risk review and consideration of responses to the review
- Review of Enterprise Risk Management (ERM) process scheduled for Q1 of 2022

December

- Update on discussions between the Committee and the Board on risk management process including review of Group risks against a list of generic business risks provided by Deloitte and discussion of the concept of Risk Velocity
- Discussion of results of risk scoring and changes in year-on-year trend principally resulting in Loss of Critical Supplier being elevated to principal risk 8
- Review of and agreement on preliminary updates to the risk register arising from the bottom-up review

Chair's review of 2021

Summary of key focus areas

A particular focus of the Committee this year has been to assess its risk management processes with the Board. The review has revealed further areas for development in the Group's risk management framework.

Further in line with the risk management review, the Committee also deliberated and approved the undertaking of an enterprise risk management process to benchmark the Group's risk processes against a standard framework with the support of a third party consultant.

The Committee also completed its biennial bottom-up review of risks and updated the Group risk register accordingly.

A key area of consideration for the Committee this year has been on the risks associated with lifting many of the restrictions imposed during the pandemic and the longer-term consequences of the COVID-19 pandemic such as the introduction of hybrid working and the realignment of the Group's approach to its supply chain to place itself in a stronger position if faced with a similar public health emergency in future.

Anti-Bribery and Corruption (ABC)

The Group has continued to reinforce the message of zero tolerance for bribery and corruption within its Businesses. Our ABC training, which is hosted by the Steam Academy as part of the Group Essentials training module is available in 16 key languages and around 6,412 per sustainability report colleagues (including Directors) worldwide have now taken part in the training.

The Group uses an independent, third-party whistle-blowing hotline to enable colleagues to anonymously report any suspected unethical, illegal or otherwise concerning conduct.

In line with our Gifts, Entertainment and Hospitality Policy, we also maintain an online gift register, where colleagues are expected to record gifts, to ensure our conduct is in keeping with the highest ethical expectations and always within the law.

Further updates on whistle-blowing and ABC can be found in our Sustainability Report on page 51.

Modern Slavery Statement

The Group's Modern Slavery Statement 2021 reflects the Group's Values and the interplay between those Values and our commitment to the mission behind the UK Modern Slavery Act. It explains how we operate to the highest ethical standards across our global Businesses. We respect and protect human rights and will not tolerate modern slavery or human trafficking in any of our business operations, including our supply chain. The Statement can be found on the Group's website, at www.spiraxsarcoengineering.com/sustainability/supply-chain.

Identifying emerging and principal risks

We have a robust risk management process in place through which we identify, evaluate and manage the principal risks and emerging risks that could impact the Group's performance.

During 2021, we reviewed the Group's exposure to risk using a bottom-up approach, where the Group companies inform the Committee of the risks they consider affect their businesses to ensure new or emerging risks are not missed. Following this process, the Committee reviewed and confirmed the robustness of the countermeasures that Group companies have in place to mitigate the principal risks in the Group risk register. In addition, we continued to closely monitor certain changing emerging risks such as the rising cost of inflation and took appropriate mitigating actions through our price management tools including Effective Price Increases and Weighted Average Cost Inflation.

Our principal risks and the results of the 2021 review are set out in the Strategic Report on pages 85 to 87.

Group Fraud Risk

A fraud risk workshop was held with senior managers in February 2021, identifying a number of key fraud risks for the Group, including payments fraud and financial misrepresentation. The Committee deliberated on and approved actions for 2021 and first half of 2022 to address and further mitigate these risks. A 'Red Flag toolkit' was developed to enable management to identify wrongdoing has been a welcome addition to the mitigating actions.

Climate risk

Climate risk is an emerging risk that we continue to closely monitor in light of national and global developments. We recognise the importance of considering climate risks and opportunities in our business decisions. Our climate risk is managed holistically by the Committee with regular updates to the Group Executive Committee and the Board. The risk remains on our risk register and a part of key strategy discussions at the Board. We also acknowledge the role of the Task-Force on Climate-related Financial Disclosures (TCFD) in supporting the transition to a low-carbon economy. Our disclosures, set out on pages page 57 of the Sustainability Report, demonstrate how we are managing our climate impact and how our organisation is evolving in response to the risks and opportunities arising.

Monitoring effectiveness

(i) Risk management systems

The Committee is responsible for reporting to the Board the risks facing the Group and the counter-measures related to those risks. To fulfil that responsibility, the Committee oversees the Group's risk management processes and procedures, with reliance on the Audit Committee for oversight of the Group companies.

The Committee is also charged with the on going monitoring of sufficient and effective mitigation plans for relevant risks at each Group Operating Company and Business.

Each Operating Company is required to undertake a formal review, at least once a year, of the risks which impact, or have the potential to impact, its business. This includes all risks related to that company's workforce. The reviews are consolidated into Group-wide risk reports which are maintained and reviewed by the Committee on a regular basis. Additionally, the risk management processes are monitored on an on-going basis via internal and external audits of Group companies. Senior managers have full accountability of the risk management within their businesses.

The governance structure provides three lines of defence in the Group's risk management, as illustrated below.

Three lines of defence:

First line of defence

The business is responsible for the identification, control and management of its own risks.

Second line of defence

The Risk Management Committee, with the Audit Committee, ensures that the risk and compliance framework is effective, so as to facilitate the monitoring of risk management with on going challenge and review of the risk profile in the business.

Third line of defence

Internal audits provide independent testing and verification of compliance with policies and procedures and monitoring of follow-up actions where required.

(ii) Internal control framework

The Group's internal controls framework is structured as follows:



Oversight of the Group's risk management frameworks and operation of controls is undertaken by the Risk Management and Group Executive Committees. The Risk Management Committee regularly reviews the Group's principal risks, including emerging risks and defines appropriate risk appetite. The Group Executive Committee is responsible for the operation of controls to mitigate both the principal risks and broader business risks.

Underpinning the Group's control environment is our culture and the 'Tone At The Top' of the organisation, which sets the principles under which all Group business is conducted. These principles are captured in the six Values of the Group that have been communicated to all colleagues. These principles are also documented and reinforced through the Group Management Code and through annual mandatory training through the online Group Essentials programme. Employee engagement surveys are also undertaken to validate organisational alignment to our Values.

The Group's documented policies and procedures, which are periodically reviewed and refreshed, set out our clear expectations of Operating Companies for the operation of controls. This includes the Group's Delegation of Authorities that has been approved by the Board and cascaded to our Business Executive teams and Operating Companies.

Reviews over the effectiveness of the controls environment are performed through an annual Risk and Control Self-Assessment process and reviews of Operating Companies' activities undertaken by Group functions, including Internal Audit. Where appropriate, such as when reviewing specialist functions, independent reviews are sought from third parties and various regulatory and certification audits are also undertaken across the Group each year. Findings identified from these processes and reviews give rise to documented action items, which are tracked to completion.

Oversight of the financial and operational performance of our Operating Companies is provided at regional, Business and Group levels and includes detailed quarterly financial reviews, reviews of monthly management accounts and weekly flash reporting. Key business decisions are approved by the Group Executive Committee, which meets monthly to review financial performance and receives reports on activity to manage our principal risks. Senior leaders, Executives and the Board visit Group operations and regional and Business leaders also present directly to the Board. Various Business and Functional conferences are held during the year to engage our global teams and help communicate Group expectations.

An established whistle-blower helpline is managed by the Group General Counsel and is advertised at all sites. The helpline allows colleagues to raise concerns, including anonymously, if they become aware of any activity that is inconsistent with our principles. Concerns are investigated by the Group General Counsel or another senior manager as appropriate.

4. Audit, risk and internal control continued

Risk Management Committee Report continued

(iii) Internal audit

The Group's standard policy regarding internal auditing is that each Operating Company is audited at least once every five years (most more frequently). Operating Companies located in higher risk territories are audited more frequently, and businesses acquired by the Group are subject to internal audit within six months of acquisition.

The internal audit system is a crucial part of the risk management process. Internal audits are conducted by our Internal Audit team led by Dan Harvey, Head of Internal Audit, who has more than 20 years of professional experience.

Audit reports are made to the Audit Committee and the Board as a whole. The Committee has ensured compliance with centrally documented control procedures on such matters as capital expenditure, information and technology security and legal and regulatory compliance.

(iv) Fraud risk assessment

Attended by the Chief Financial Officer, Group General Counsel, Audit Committee Chair and senior managers from across the divisions and Group functions, the fraud risk workshop held in February 2021 identified six key fraud risk areas. These were considered as part of a fraud risk assessment completed during the first half of 2021. The assessment was carried out by the Head of Internal Audit and areas identified for improvement as part of the Group's fraud countermeasures were remediated during the latter part of 2021 and to be continued in the first half of 2022.

Risk Appetite Statement

Risk is an inherent part of business and in order to achieve our business aims, we must accept certain risks. We seek to implement a balanced approach to risk, ensuring that our resources are protected while still pursuing opportunities to accelerate and deliver growth.

The decision to take opportunity-based risks should, to the greatest extent possible, be deliberate and calculated:

- we aim to confirm that the level of risk is commensurate with the strategic and economic benefits the risk might bring
- we evaluate our ability to control the risk or mitigate its effects, should that risk materialise
- we always assess the potential ethical considerations arising from knowingly accepting some level of risk

An informed and well-considered process is crucial to any decision to accept risk. The Committee has undertaken a thorough evaluation process to determine an appropriate risk appetite rating for each principal risk. These are set out in detail in the Risk management section of the Strategic Report which starts on page 85.

The Group has a very low appetite for risks that could lead to violations of health, safety and environmental legislation, breaches of legal and regulatory requirements and climate change that might affect its operations.

In contrast, the Group has a high risk appetite in relation to economic and political instability. With decades of experience in successfully managing operations in volatile markets, we have the control procedures in place to handle the challenges that come with those risks and we appreciate that without taking risks in new, sometimes unstable, territories we would miss out on valuable opportunities for growth.

As an organisation we are risk aware, but not risk averse. We continually monitor and assess the risks facing the Group and evaluate our ability to control them and mitigate their effects. Focusing on our strategic objectives, we evaluate our risk appetite and decisions to accept risk in a way that will ensure the on-going financial health of the Group.

Viability Statement

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, along with our mitigation measures, in our Risk Management section of the Strategic Report which begins on page 85.

Based on this assessment, the Board confirms that it has a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the five-year period to 31st December 2026.

The Viability Statement is set out in full in our Financial review on page 44.

Committee focus for 2022

- Top-down risk review and annual review of risk register
- Continue in the first half of 2022 with completing the actions arising from the fraud risk workshop held in 2021
- Continue to closely monitor the on going impacts of COVID-19, particularly on our workforce and supply chain including the lifting of any restrictions and the availability of raw materials and components
- Evaluate and assess the risk management framework in light of the Enterprise Risk Management process review and report to be produced in 2022
- Assess emerging risks, including climate change and the rising costs of inflation, with a focus on risk appetite in light of existing and new countermeasures
- Continue with accelerated sustainability implementation and digital capabilities and monitor the impacts of the same on our risks and risk management process
- Consider the concept of Risk Velocity and its potential benefits and drawbacks in including it in our risk management framework

Nicholas Anderson
Chair of Risk Management Committee

Further reading:
Risk management and principal risks
See pages 85 to 91

5. Remuneration

Remuneration Committee Report



“Remuneration in 2021 reflected a strong return to growth, whilst navigating COVID-19 related challenges.

We were pleased to engage with our colleagues across the Group as well as shareholders on remuneration topics.”

Jane Kingston
Chair of Remuneration Committee

Members

Our Remuneration Committee comprises:

	No. of meetings attended/total no. of meetings held	Attendance %
Jane Kingston (Chair)	✓ ✓ ✓ ✓	100%
Trudy Schoolenberg ¹	✓ ✓	100%
Richard Gillingwater ²	✓ ✓	100%
Kevin Thompson	✓ ✓ ✓ ✓	100%
Angela Archon	✓ ✓ ✓ ✓	100%
Caroline Johnstone ³	✓ ✓	100%
Peter France ³	✓ ✓	100%
Olivia Qiu ³	✓ ✓	100%

- G.E. Schoolenberg stepped down on 31st July 2021.
- R. Gillingwater appointed on 9th March 2021.
- Following a review of Committee membership to improve the functional efficiency of the Board and committees, we changed the composition of the Committee. As a result, C. Johnstone, P. France and O. Qiu stepped down from the Committee on 31st March 2021.

November

- CEO's proposed 2022/2023 remuneration arrangements
- Shareholder consultation letter and process

December

- Executive remuneration landscape update
- Pay and benefits landscape
- Forecast performance against AIP and LTIP
- 2022 LTIP targets
- 2022 remuneration recommendations
- Review of Chair of Board fees
- Shareholder consultation update

Committee role and responsibilities

The Committee determines the philosophy, principles and policy of Executive and senior manager remuneration having regard to the latest legislation, corporate governance, best practice and the Financial Conduct Authority (FCA) Listing Rules. The Committee takes account of workforce remuneration and related policies and the alignment of incentives and rewards with our Group culture. The Committee's role has expanded under the UK Corporate Governance Code. The Committee now reviews remuneration policy and practices that apply to the Executive Directors, the Group Executive Committee and senior managers. The main role of the Committee is to determine Executive remuneration policies, how they are applied and set targets for the short and long-term incentive schemes. It also monitors compliance with the presiding Remuneration Policy.

How the Committee spent its time %



Key Remuneration Committee activities 2021

February and March

- Statement of Committee Chair
- Annual Report on Remuneration 2020
- Annual bonus – 2020 outcome/2021 targets
- 2021 personal strategic objectives
- LTIP – 2018 outcome/2021 targets
- 2020 cash generation explained
- 2020 gender pay gap overview
- Reimbursement of COVID-19 senior leaders voluntary cost contribution
- Market update

5. Remuneration continued

Remuneration Committee Report continued

Focus on remuneration

Our remuneration principles are to maintain a competitive remuneration package that promotes the long-term success of the business, avoids excessive or inappropriate risk taking and aligns management's interests with those of shareholders.

Below is how remuneration is aligned with the principles of the Code.

Clarity - Our remuneration framework is structured to support the financial and strategic objectives of the Company, aligning the interests of our Executive Directors with those of our shareholders. We are committed to transparent communication with all our stakeholders, including our shareholders.

Predictability - The long-term PSP has a range of reward and performance outcomes to align with our business model.

Simplicity - We operate a simple but effective remuneration framework which is applied on a consistent basis for all employees. The annual bonus rewards performance against key performance indicators, while the LTIP provides long-term sustainable alignment with our shareholders. There is clear line of sight for management and shareholders.

Risk - Our incentives are structured to align with the Company's risk management framework. Having no release of PSP awards until five years from the date of award creates long-term alignment, as do our in- and post-employment shareholding requirements. The annual bonus and PSP also incorporate malus and clawback provisions, and there is overarching Committee discretion to adjust formulaic outcomes.

Proportionality - There is clear alignment between the performance of the Company, the business strategy, and the reward paid to Executive Directors. We endeavour to ensure that our target total compensation levels are set competitively compared to other companies of similar size and complexity to ensure we can attract and retain the executives needed to deliver the business strategy.

Alignment to culture - When considering performance, the Committee takes account of the Group values. The Committee receives regular updates on pay conditions across the Group, and colleagues provide feedback to the Board via the Remuneration Committee and the Employee Engagement Committee.

Statement by the Committee Chair

Dear shareholder on behalf of the Board, I am pleased to present the Directors' Report on Remuneration for the year ended 31st December 2021. In common with many others, the impacts of COVID-19 on our Group presented continuing challenges, as successive waves affected almost all of the geographies in which we operate at one time or another. Once again due to the dedication of our colleagues and innovation in digital communication, all of our Businesses continued to operate as planned. Indeed, markets recovered quickly and robustly and sales grew significantly and in spite of supply chain challenges our priorities turned towards accelerating capacity expansion to meet demand.

Once again, our primary concern has been to ensure the health, safety and wellbeing of our people, who adapted to new ways of working in the field, created COVID-19 safe manufacturing environments and continued to serve our customers around the world. The Committee, together with the Board, would like to thank all of our colleagues who have demonstrated personal commitment, courage and resilience throughout the year.

The financial performance of the Group was impressive. The Group was able to perform exceptionally well without using state aid in any of our markets, whether in the form of government loans or utilising furlough

schemes. The Board was delighted to approve dividend payments to shareholders.

Throughout 2021, the Committee monitored remuneration and employment decisions taken across the Group. We considered all decisions on Executive Director and senior management pay during 2021 in this context and assessed the impact of our decisions on our stakeholders, including shareholders and the wider communities where we operate.

This Report has been prepared in accordance with Provisions 40 and 41 of the UK Corporate Governance Code and sets out the performance criteria for 2022. The key points are also set out in the table above.

2021 performance-based rewards

The Group's performance in 2021 was strong. Group revenues grew organically by 16.7% when compared with 2020 in spite of supply chain and capacity constraints, with Group operating profit increased by 31.2%. Trading margin of 25.3% was 280bps ahead of 2020 organically, the highest the Group has recorded. In determining outcomes, the Committee carefully considered the impact of COVID-19 on our colleagues and all other stakeholders together with the strong financial results. We determined that payments to senior managers and Executive Directors, under both our short and long-term incentive plans, were appropriate in this context. We did not adjust our targets. These outcomes are fully detailed

in the pages that follow with the highlights noted below.

Annual Incentive Plan (AIP)

Operating profit targets set in January 2021 were exceeded at Group level and in the Watson-Marlow and Steam Specialties Businesses. Executives and senior managers achieved the maximum payout for these elements accounting for between 60% and 70% of the opportunity (ranges remain the same as pre-COVID-19 plans).

The Group's cash generation target (20% of the opportunity) was exceeded with a 100% pay-out. We were satisfied that not only were our strategic projects protected, but the list was expanded by including new investments such as the Watson-Marlow manufacturing site in the USA.

Finally, strong progress has been made against personal strategic objectives (10% of the opportunity).

Performance Share Plan (PSP) January 2019 – December 2021

During the three-year performance period ending 31st December 2021 earnings per share grew by 35.6% over the vesting period resulting in a 100% vesting for this element. The Group also delivered a total shareholder return (TSR) of 154.8% over this period (as determined under our PSP), placing us second in the ranking of our TSR comparator group and thus qualifying participants for 100% vesting of this element of the 2019 PSP.

The Group's resilient performance has delivered results in line with external expectations and our challenging internal goals. The Committee is especially pleased that progress has been made on the Group's key strategic projects for future growth. None of the targets for our PSP awards have been altered.

Resulting performance outcomes

Our Remuneration Policy is designed to ensure that a percentage of Executive Director pay is based on the achievement of demanding performance targets and is therefore at risk of not being paid. Maximum pay-out under the AIP and PSP is only possible as a result of out-performance of demanding goals. The Committee has made a robust and full assessment of both financial and non-financial measures and payments under the AIP to Executive Directors range from 125% – 147% of salary and I am pleased to confirm 100% vesting of the 2019 PSP award.

The Committee is satisfied that the total remuneration received by Executive Directors for 2021 appropriately reflects the Group's performance over the year, is in line with the Policy and is consistent with the approach taken for other colleagues. It is also satisfied that the approach to setting remuneration underpins the effective and proper management of risk by rewarding fairly for sustainable profit growth and long-term return for shareholders. The Committee considers that the remuneration paid to Executive Directors in 2021 (given as a single figure for each Director on page 136) reflects progress made during 2021, as well as over the past three years.

Plans and targets for 2022

The maximum AIP opportunity will remain unchanged at 150% and 125% of base salary for the Group Chief Executive Officer (CEO) and Group Chief Financial Officer (CFO) respectively, the maximum LTIP opportunity will be 250% (for the 2022 award only) for the CEO and will remain unchanged at 175% of base salary for the CFO. AIP measures, weightings and ranges are unchanged and will continue to be operating profit (70%), cash generation (20%) and personal strategic objectives (10%). The AIP targets and achievement will be published retrospectively.

Reflecting the central importance of the Group-wide One Planet Sustainability strategy to all of our forward-looking plans, the measures for the 2022 PSP will change to include a sustainability measure accounting for 20% of the 2022 PSP opportunity. The Committee decided that

both the TSR and EPS measure weightings should be reduced by 10% (now will be 30% and 50% respectively) to allow for a 20% weighting for the additional measure. During our shareholder consultation we had positive feedback on this development.

The EPS performance range for the 2022 PSP grant will remain at IP+2% for threshold vesting to IP+8% for maximum vesting. However, two changes will be made compared to previous years.

These are outlined in more detail on page 150.

2022 salary review

The Committee considers salary review arrangements planned across the Group and receives an update on broader remuneration arrangements as context for its decisions at the more senior levels. In January 2021 a 2.0% salary increase was awarded to the Executive Directors. For 2022 the country norm for the UK is 2.7%, which is the level of increase applied to the base salaries of the CEO and CFO. The Committee considered an increase was appropriate in the light of 2021 Company performance.

The Committee also reviews and approves any increase to the plc Chair's fee. Over the past three years this has been in line with the UK workforce average increase. Having reviewed Chair fees across FTSE 70 to 150 companies as a relevant comparator group, we recognised the current fee of £226,810 is significantly below this group. An increase of 32% to £300,000 was approved by the Committee to position the fee closer to the market median. The Committee considered a one off readjustment was more appropriate than a staged approach to this necessary correction.

Workforce engagement on remuneration

We welcome feedback from employees in one-to-one performance reviews, Works Council meetings in countries where they operate as a collective voice, engagement surveys, through line manager dialogue and up through the HR function to the Group Executive Committee and Remuneration Committee in our open culture.

Whilst we continue to develop our Group-wide engagement and inclusivity framework including via the Employee Engagement Committee, in the last year we held two focus groups to discuss Executive and Employee Reward arrangements. Colleagues drawn from different Businesses, geographies, functions and jobs came

together to hear more about how our Executives and senior managers are rewarded to learn more about the role of the plc board and Remuneration Committee. We discussed the wider framework for pay and benefits across the group. We gained some valuable insights including the importance of continuing to develop our understanding of gender and ethnicity data on pay, and the importance of holding more regular surgeries to help colleagues understand benefits options open to them and give better insight into grading systems and the need to think creatively about long term retention tools. We were also pleased to have feedback on how our reward frameworks could better reflect our values and to receive feedback on our emerging group reward principles.

We will continue the reward focus groups for input and feedback as we prepare for our 2023 Policy update.

Shareholder consultation

On behalf of the Committee, Jamie Pike and I have had the opportunity to speak with a number of our key shareholders in the last few months as we consulted on how we intend to operate our Remuneration Policy during 2022 and 2023. Since we last consulted in 2019 (a remuneration review and then the 2020 Policy) there have been a number of changes. In the past three years we have integrated Gestra, Chromalox and Thermocoax, generated strong organic growth and the Group now employs more than 8,700 people in 68 countries. In this time, our market capitalisation has trebled to a high of £12 billion ranking us 45 in the FTSE (three years ago we were on the cusp of the FTSE 100). Our business strategy is now centred around what we can do for our customer base under the One Planet strategy. It is against this context that we have been debating a remuneration issue that we feel it is in all stakeholders' interests to resolve.

In 2019 shareholders strongly supported increases in Executive Directors' pay to bring packages to a below median but above lower quartile level. This was a significant reset and we undertook not to increase Executive Directors' salaries again (other than for annual inflationary increases) until 1st January 2023, unless there was a significant change in the scale of the Group. Since then, three Executive Directors have retired and the package to recruit externally our new CFO required a salary 26% higher than his predecessor with a 25% of salary increase in annual bonus opportunity. This exercise brought into sharp focus that our long

5. Remuneration continued

Remuneration Committee Report continued

servicing CEO's package had drifted materially below market levels and was creating an inequitable position that challenges our values and creates unacceptable levels of risk. In such circumstances, our policy requires us to act.

Looking at the FTSE 31 to 100 industrial/manufacturing/engineering companies, at the end of the year, our CEO's target pay was circa 25% below the lower quartile driven by a 2021 base salary of £614,000 that was 20% below the lower quartile for these companies. The Committee does not believe in slavishly following benchmarking and has never sought to position salaries at the median level, but we are now very concerned that we have fallen so far below the wider market for our very experienced and high performing CEO.

FTSE 31 to 100 industrial, manufacturing & engineering

	Salary (£'000)	Total target remuneration (£'000)
Lower quartile	771	2,726
Median	859	3,132
Upper quartile	954	3,408

The current situation is unfair on the current incumbent, is out of line with the principles of equity we apply across the group, will in time make any succession planning for high calibre candidates difficult and sends the wrong message about whether we value our most senior executives.

We have reviewed the market data and concluded that a fully experienced proven CEO's salary should be circa £750,000 in 2023. Ideally we should realign our CEO's salary sooner rather than later, but the Board felt it was important for us to hold to the commitment we gave our shareholders three years ago that we would not make any such change until 2023. However, we don't feel we should leave the Company exposed for another year and so we have been consulting with our largest shareholders on the following two proposals:

- To be able to give Nicholas Anderson an expectation that we intend to uplift his salary to £750,000 on 1st January 2023 subject to satisfactory business and personal performance

- In the meantime, during 2022, to grant him a PSP award at the maximum under the policy of 250% of base salary. This is 50% of salary higher than his normal annual grant and is intended to apply as a one-off only as we will not address salary until 2023. This award will better align his interests with those of shareholders' and bridge the gap until we can address the base salary level

Spirax Sarco CEO

	Salary (£'000)	LTIP grant % of salary	Total target remuneration (£'000)
2021	614	200%	2,020
2022	630	250%	2,189
2023 (proposed)	750	200%	2,428

We have engaged with our 20 largest shareholders and proxy agencies and received feedback and advice from over half of them, representing 45% of our issued share capital.

They understood our situation, recognised a genuine need to address it, indicated support for our two-step approach and appreciated the Committee honouring its commitment not to materially increase salaries before 2023.

One shareholder questioned whether we had considered further changes to variable pay to better address the situation. The Committee did consider variable pay but concluded that current variable pay schemes remain appropriate, and that this route would require an increase in either LTIP or bonus of 125% of salary to address the situation. We concluded this would create a significantly leveraged package out of line with the market and other Executives and leave the salary unaddressed.

Executive pensions

A plan to achieve pension equity across the Group was accelerated in 2021, with Nicholas Anderson agreeing to reduce his pension allowance from circa 24% of salary to the UK new joiner's rate of 10% of salary by the end of 2022. This is a year earlier than had been envisaged. Nimesh Patel, CFO, was appointed in 2020 with a 10% pension allowance.

Looking forward

The Executive Directors, our Group Executive Committee, along with all of our colleagues across the world have worked tirelessly to meet stronger than anticipated market demand for our products and services across most sectors and to increase capacity accordingly. The Committee is committed to ensuring the remuneration arrangements continue to support the efforts of the workforce and the objectives of the strategy, whilst aligning pay with strong performance. The Group Executive Committee made a commitment to its One Planet Sustainability strategy we are already reflecting that in our Executive and senior manager reward framework which will continue to develop.

Committee focus for 2022

- Implementing changes to the CEO's remuneration arrangements
- Continuing to reflect sustainability, diversity, inclusion, and equity in reward arrangements
- Develop further colleague engagement on remuneration issues
- Prepare for the 2023 Policy update

Jane Kingston
Chair of Remuneration Committee
9th March 2022

Remuneration at a glance 2021

Remuneration key performance indicator	2021 actual	2021 threshold	2021 target	2021 maximum	Remuneration measure
Group operating profit (£m)	340.3	268.5	282.6	296.8	Annual Incentive Plan
Group cash generation (£m)	278.5 ¹	216.6	228.0	239.4	Annual Incentive Plan
2019–2021 EPS (%)	35.6	8.0	N/A	29.0	Performance Share Plan
2019–2021 relative TSR (percentile TSR)	2nd	50th	N/A	25th	Performance Share Plan

¹ This figure includes £0.8m of transactional FX (£277.7m+£0.8m).

Executive Directors' remuneration and shareholdings

The Executive team has consistently delivered top quartile performance for shareholders and this is reflected in the results of both the annual bonus and LTIP. The Committee is pleased with the work of the Executive team and is confident that this year's remuneration outcome is reflective of the value delivered by the Company.



¹ N.B. Patel joined the Company on 27th July 2020.

Overview of the Executive Directors' Remuneration Policy

Base salary	Benefits	Pension	Annual bonus award	Performance Share Plan (PSP)
To enable the Group to attract, retain and motivate high-performing Executive Directors of the calibre required to meet the Group's strategic objectives.	To provide market competitive benefits, and to enable the Executive Directors to undertake their roles through ensuring their wellbeing and security.	To offer appropriate levels of pension and to attract and retain individuals with the personal attributes, skills and experience required to deliver Group strategy.	To incentivise and reward performance against selected KPIs which are directly linked to Business strategy, while ensuring a significant proportion of Executive Director remuneration is directly linked to Company performance.	To incentivise and reward Executive Directors for delivering against long-term Group performance, to align Executive Directors' interests to those of shareholders and to retain key Executive talent.

Changes at a glance 2021

Executive Directors	2021 Base salary	Change from 2020	Non-Executive Directors	2021 Fee	Change from 2020*
Nicholas Anderson	£614,000	2.0%	Jamie Pike	£226,810	2.0%
Nimesh Patel	£489,600	2.0%	Trudy Schoolenberg ¹	£64,330	2.0%
			Jane Kingston	£64,330	2.0%
			Kevin Thompson	£64,330	2.0%
			Caroline Johnstone	£64,330	2.0%
			Richard Gillingwater ²	£64,330	N/A
			Peter France	£54,330	2.0%
			Angela Archon	£54,330	2.0%
			Olivia Qiu	£54,330	2.0%

¹ G.E. Schoolenberg stepped down on 31st July 2021.

² R. Gillingwater appointed 9th March 2021.

* The 2.0% increase applies to base fee. Committee Chair and Senior Independent Director fees of £10,000 each were unchanged.

5. Remuneration continued

Annual Report on Remuneration 2021

Strategic alignment

The Committee ensures that the remuneration paid to the Executive Directors, and the Group Executive Committee, is closely aligned with and reinforces the Group strategy. At their meeting in June 2021 the Board reviewed the strategic plan.

This alignment is achieved by using the strategic plan to set financial and individual strategic objectives for the Executive Directors, and the Group Executives. From this, bonus targets are agreed and approved by the Committee. This process forms part of the annual Board calendar, with the bonus targets approved in the early part of the financial year. The Group's strategic themes are set out on pages 31 to 35.

1.0 Annual Report on Remuneration 2021

This section sets out the Directors' remuneration for the financial year ended 31st December 2021.

1.1 Single total figure of remuneration (audited)

Executive Directors

	N.J. Anderson		N.B. Patel	
	2020	2021	2020 ¹	2021
Salary	£602,000	£614,000	£209,231	£489,600
Pension	£150,500	£150,500	£20,923	£48,960
Benefits ²	£26,871	£27,401	£86,707	£26,894
Total fixed pay	£779,371	£791,901	£316,861	£565,454
Annual bonus	£270,900	£902,580	£75,000	£612,000
PSP ³	£1,166,935	£1,628,456	£975,159	£1,390,578
ESOP ⁴	£2,558	£2,362	N/A	£2,362
Total variable pay	£1,440,393	£2,533,398	£1,050,159	£2,004,940
Single total figure	£2,219,764	£3,325,299	£1,367,020	£2,570,394

Chair and Non-Executive Directors

	J. Pike		G.E. Schoolenberg		J.S. Kingston		K.J. Thompson	
	2020	2021	2020	2021 ⁵	2020	2021	2020	2021
Fees	£222,360	£226,810	£63,260	£37,536	£63,260	£64,330	£63,260	£64,330
Single total figure	£222,360	£226,810	£63,260	£37,536	£63,260	£64,330	£63,260	£64,330

	C.A. Johnstone		P. France		A. Archon		O. Qiu		R. Gillingwater	
	2020	2021	2020	2021	2020 ⁶	2021	2020 ⁶	2021	2020	2021 ⁷
Fees	£63,260	£64,330	£53,260	£54,330	£4,438	£54,330	£4,438	£54,330	N/A	£48,466
Single total figure	£63,260	£64,330	£53,260	£54,330	£4,438	£54,330	£4,438	£54,330	N/A	£48,466

The 2020 column relates to the vesting of the 2018 PSP award valued at 10780.0p. (See footnote 5 on page 123 of the Annual Report 2020 for further details.)

1 N.B. Patel joined the Company on 27th July 2020 and was appointed to the Board on 11th September 2020.

2 The 2021 benefits are set out in the table on page 137.

3 The 2021 column relates to the vesting of the 2019 PSP award on 7th March 2022. (See pages 141 to 142 and 145 for further details on the vesting of these PSP awards and the interests of Executive Directors in the PSP and page 139 for N.B. Patel's recruitment awards.)

Executive Directors	Date of grant of PSP award	Grant share price	No. of vested shares	Vesting share price	Amount attributable to growth in share price
N.J. Anderson	15.05.19	8161.3p	14,335	11360.0p	£458,534
N.B. Patel	27.07.20	7842.0p	12,241	11360.0p	£430,638

The 2020 column relates to the vesting of the 2018 PSP award valued at 10780.0p. (See footnote 5 on page 123 of the Annual Report 2020 for further details.)

4 Matching shares awarded during the year based on the mid-market price of the shares on the date of award; 14765.0p for 2021 and 11120.0p for 2020. (See page 145 for further details on the 2021 award and page 133 of the Annual Report 2020 for further details on the 2020 award.)

5 G.E. Schoolenberg stepped down on 31st July 2021.

6 A. Archon and O. Qiu were appointed on 1st December 2020.

7 R. Gillingwater was appointed to the Board on 9th March 2021 and appointed Senior Independent Director on 1st August 2021.

Salary/fees

The following table sets out the 2021 base salary with effect from 1st January 2021 for each Executive Director, compared to 2020.

Executive Directors	2020	2021	Increase
N.J. Anderson	£602,000	£614,000	2.0%
N.B. Patel	£480,000	£489,600	2.0%

The 2021 base salaries increased by 2.0% in line with the relevant workforce average, with above average increases available for top performers in accordance with internal guidelines. The increases for Executive Directors, like those of the broader UK employee population, took account of both individual performance and market data.

The following table sets out the Policy fees for the Chair and Non-Executive Directors for 2021. Actual fees received, based on role and date of appointment, are set out in the Single Total Figure of Remuneration table on page 136. Pay for the Chair and Non-Executive Directors does not vary with performance. Fees for Non-Executive Directors are reviewed annually. The Chair and Non-Executive Directors did not receive any taxable benefits.

Chair and Non-Executive Directors	Basic fees	Additional fees	2021 Total fees
J. Pike	£226,810	N/A	£226,810
G.E. Schoolenberg ^{1,3}	£54,330	£10,000	£64,330
J.S. Kingston ²	£54,330	£10,000	£64,330
K.J. Thompson ²	£54,330	£10,000	£64,330
C.A. Johnstone ²	£54,330	£10,000	£64,330
R. Gillingwater ³	£54,330	£10,000	£64,330
P. France	£54,330	N/A	£54,330
A. Archon	£54,330	N/A	£54,330
O. Qiu	£54,330	N/A	£54,330

1 G.E. Schoolenberg stepped down on 31st July 2021.

2 J.S. Kingston, K.J. Thompson and C.A. Johnstone each received £10,000 in respect of their role as Remuneration Committee Chair, Audit Committee Chair and Employee Engagement Committee Chair respectively.

3 R. Gillingwater appointed to the Board on 9th March 2021 and as Senior Independent Director on 1st August 2021. In respect of their duties as Senior Independent Director, G.E. Schoolenberg received £5,833 prorated to 31st July 2021 and R. Gillingwater received £4,167 prorated from 1st August 2021.

The Chair and Non-Executive Director fees were reviewed at the end of 2020 and were increased by 2.0%, consistent with the average rate of increase in the UK. The fee for the Senior Independent Director and Committee Chairs remained at £10,000, the benchmarked median.

Benefits (excluding pension)

Benefits	N.J. Anderson	N.B. Patel
Company car and associated running costs or cash alternative allowance	£26,996	£17,055
Private health insurance	£405	£405
Mobility-related benefit – relocation allowance	–	£9,434

Pension

Full details of the pension benefits are set out at section 1.2 on pages 142.

Annual bonus

Executive Directors participate in the annual bonus plan, which rewards them for financial and non-financial performance of the Group. Targets are reviewed annually to ensure continuing alignment with strategy and are agreed at the start of the year. Resulting awards are determined following the end of the financial year by the Committee, based on performance against these targets.

For the Group Chief Executive, achievement of target performance results in a bonus of 90% of salary, increasing to 150% of salary for maximum performance. For the Chief Financial Officer, achievement of target performance results in a bonus of 75% of salary, increasing to 125% of salary for maximum performance.

Bonus payments are subject to a contractual right for the Company to clawback or apply malus for up to three years following payment. Circumstances that may result in a clawback or malus include financial misstatement, erroneous calculations determining bonus payments, gross misconduct, corporate failure or reputational damage.

In accordance with Policy, Executive Directors must use any bonus earned over 80% of maximum opportunity net of tax, if they have met their shareholding requirement, or any bonus earned over 60% of maximum opportunity, net of tax, if they have not met their shareholding requirement, to purchase shares in the Company until their shareholding guideline has been met. The shares must be held for two years. No further performance conditions apply during this period. This is, in effect, a bonus deferral mechanism.

The majority of each Executive Director's bonus opportunity (90%) is based on the achievement of stretching financial performance targets in areas that directly align with our areas of strategic focus. The remaining 10% is based on the achievement of individual strategic objectives, tailored to each Director's areas of responsibility. Performance standards are agreed and communicated at the start of the year. Financial measures have an established threshold, target and maximum with a sliding scale between each. Individual strategic measures are subject to three possible achievement levels: fully achieved, partially achieved and not achieved.

5. Remuneration continued

Annual Report on Remuneration 2021 continued

The table below sets out the performance measures that each of the Executive Directors' bonus awards were subject to.

2021 Measures (% of bonus)	Achieved (% of bonus)	
	N.J. Anderson	N.B. Patel
Group operating profit (70%)	70%	70%
Group cash generation (20%)	20%	20%
Personal strategic objectives (10%)	8%	10%

The performance measured is adjusted to reflect certain items including the amortisation of acquisition-related intangible assets and exceptional reorganisational costs and to exclude any profit contribution and other impacts such as major acquisitions during the period as these were not included within the targets when set by the Committee.

2021 was a strong year for the Group, the annual bonus payments for Executive Directors ranged between 125% and 147% of salary.

The table below summarises the achieved performance in 2021 in respect of each of the measures used in the determination of annual bonus, together with an indication of actual performance relative to target.

2021 Measures	Actual performance ¹	Achieved (% of target)	Threshold	Target	Maximum
Group operating profit	£340.3m	120.4%	£268.5m	£282.6m	£296.8m
Group cash generation	£278.5m ²	122.1%	£216.6m	£228.0m	£239.4m

1 To comply with the annual bonus plan rules these metrics use, as a base, the actual adjusted operating profit of £340.3 million for segmental operating profit performance.

2 This figure includes £0.8m of transactional FX (£277.7m+£0.8m).

Personal strategic objective assessment

The Executive Directors were each obliged to complete a self-assessed appraisal on their performance against each personal strategic objective. The Group Chief Executive reviewed this self-assessment with the Chief Financial Officer and made his own assessment. In the case of the Group Chief Executive, the Chair of the Board conducted the assessment. A report was submitted to the Committee and at its February 2022 meeting, the Committee reviewed the recommendations and approved a final decision.

The personal strategic objectives for 2021 are detailed on pages 138 to 140.

Personal strategic objective 2021	Description	Achievement
Nicholas Anderson		
Health, Safety and Sustainability (HS&S) • Achieved	Improve the Group's Health, Safety & Sustainability performance: ensure improved Health & Safety performance across the Group's Finance function, strengthening EH&S awareness and culture. Support the implementation of the Group's Sustainability programme.	The Group's EHS performance continued improving in Q4 2021 with the lowest number of LTAs per quarter on record (2) and both lagging and leading indicators making progress on the Q4 2020 and the 2020 year end position. Very pleasingly, the number of LTAs fell by 55% to 15 in 2021, compared to 33 in 2020, 39 in 2019 and 52 in 2018. Importantly, the Group had zero LTA in five months of 2021. Steam Specialties, Watson-Marlow and ETS had zero LTAs in 8, 7 and 9 months respectively. The Group accident rates (per 100,000 work hours) fell by 57% in 2021 to 0.10 for LTA (0.23 in 2020) and by 24% to 2.22 for All Accidents (2.62 in 2020).
Strategy implementation • Achieved	Refresh the Steam Specialties' Business Strategy and initiate implementation in H2 2021	The Steam Specialties strategy review kicked off in early January with full engagement of the Steam Executive (SEC) and senior leadership teams. The approach was to build upon the successes achieved through the Customer first strategy (2014-2020), while accelerating initiatives related to Digital, Sustainability and Inclusion & Diversity. The refreshed strategy was presented to the Board and launched globally in June through a week-long series of virtual meetings. Implementation progressed at pace during H2, establishing the execution teams and targets for all eight Strategic Initiatives.

Personal strategic objective 2021	Description	Achievement
Strategy implementation • Achieved	Refresh the Group's Sustainability Strategy and initiate implementation in H2 2021	The Group's Sustainability Strategy review was initiated in October 2020, following the creation of a Group Sustainability function in Q3 2020, with the Group Executive Committee (GEC) acting as the Steering Committee. In March 2021, the GEC approved the new Group Sustainability Strategy and Sustainability goals, which include achieving Net Zero carbon emissions for scope 1 & 2 by 2030 (10 years earlier than originally committed) and Net Zero carbon emissions for scope 3 by 2050, as well as specific targets for the next five years to 2025. The Strategy was approved by the Board at the May 11th meeting and launched globally in early June through a series of videos and virtual meetings. Initial resources required for pursuing those 2025 goals were approved (24 new positions), with c.70% of positions filled by year end. CDP, the leading global reporting system on Climate Change published their latest report in December 2021, with our Group's score improving from B to A-, which for the first time places us in the "Leadership" band.
Strategy implementation • Not achieved	Ensure an effective implementation of the Watson Marlow and ETS Business Strategies launched in Q4 2020. Improve Chromalox financial performance by H2 2021	Good strategy implementation activities deployed globally by both Watson-Marlow and ETS leadership teams during 2021, with the refreshed strategic direction clearly reflected in local initiatives. Despite positive evidence of underlying performance improvements across multiple Chromalox operations they have not yet managed to reduce their overdue order book or increase their shipment levels, denying the benefits of positive operational gearing from higher sales. The overall Chromalox trading profit margin did not improve in 2021, so this objective was not achieved.
Employee engagement • Achieved	Progress the Group's Inclusion, Diversity and Employee Engagement plans	Significant progress made during 2021 developing the Group's Inclusion, Diversity & Wellbeing (ID&W) plan, which was finalised in Q3 and successfully pre-launched at the Group Leadership Conference in November 2021. During 2021, initiatives included running ID&W sessions and Race Equity discussions at multiple leadership forums across the Group, publicly announcing our support for the "Change the Race Ratio" campaign, initiating work to launch a UK ethnicity pay gap report in 2022, establishing a Working Families Forum on MS Teams, supporting the Group Women's Network and WMFTG's Global Disability Network. In December 2021, 33% of senior leadership positions are occupied by women, up from 21% of senior female leaders in December 2019. During Q2 2021 we completed the Group's third bi-annual Employee Engagement survey with a record 91% response rate and increased engagement scores compared to the 2019 and 2017 survey our Group scores are consistently above the respective country benchmarks (medians) with a few Operating Companies achieving upper quartile performance, which becomes our global objective for the 2023 survey.

5. Remuneration continued

Annual Report on Remuneration 2021 continued

Personal strategic objective 2021	Description	Achievement
Nimesh Patel		
Health & Safety (H&S) • Achieved	Actively support the improvement of the Group's Health & Safety performance, strengthening the H&S awareness and culture.	Participation through GEC in review and discussion around our Group safety performance. Introduction of Safety and Wellbeing "moments" at the beginning of Finance Leadership Team meetings and Global Finance Forums. "Visible Felt Leadership" on safety during site visits to operations by engaging our people and asking safety-based questions
Sustainability • Achieved	Actively support the development and implementation of the Group's Sustainability Strategy, including an acceleration of Community Engagement projects.	Participation through GEC in the formulation of the One Planet strategy. Sponsorship of the Net Zero initiative, including developing a roadmap to meet our Scope 1 and 2 targets and advancing our project to decarbonise manufacturing facilities. Defining our Scope 3 framework, including engaging with the Science Based Targets Initiative. Working with Head of Sustainability, Group Communications and Group IR to assess and prioritise external sustainability reporting frameworks and improve our data collation and integrity
Information Technology and Systems • Achieved	Advance the Group's global Cyber security infrastructure, processes and responsiveness. Support the development of global ERPs, CRM & BI across our three Businesses and the implementation of our Digital Strategy.	Completion of Cyber Essentials and further improvements to network access integrity and monitoring for malicious activity. Recruitment of new Head of Cyber Security. Development of roadmap for further Cyber Security improvements, targeting adoption of ISO27001 framework. Working with our Businesses to develop proposals for new ERP, CRM and BI (including impact of revised guidance for IAS38)
Talent management • Achieved	Strengthen the talent assessment and development processes within the Group Finance organisation and ensure necessary appointments into key roles.	Appointments into key roles, including: Director of Group Finance, Group Heads of Investor Relations and Corporate Communications and ETS FD; strengthening our talent bench. Completion of talent assessment down to GEC – 2 level including deep-dives with the Finance Leadership Team. Introduction of "Manager-Once-Removed" meetings to focus on development plans and support career progression for all members of the global finance team. Championed signing-up to "Change the Race Ratio" and acted as an ambassador through social media
Continuous improvement of controls • Achieved	Review and improvement of governance and control structures, including embedding changes in the policy framework and control processes. Development of Fraud prevention frameworks. Preparation for implementation of UK equivalent of US Sarbanes-Oxley controls over financial reporting.	Reviewed Group control environment, identifying key gaps to be addressed; leading to design and launch of revised policy, processes, training and a documentation portal. Conducted a fraud risk workshop and review of a prevention measures resulting in updates to our "red-flag toolkit" and training. Completed an exercise to scope the implementation of UK SOx across the Group, conducted seven pilot reviews to identify the challenges to implementation and developed a resource plan. Revised Treasury Policy and delegation of Authority rolled-out. Analysis and preparation of response to BEIS proposals on behalf of the BoD.

The personal strategic objective achievement levels are set out below.

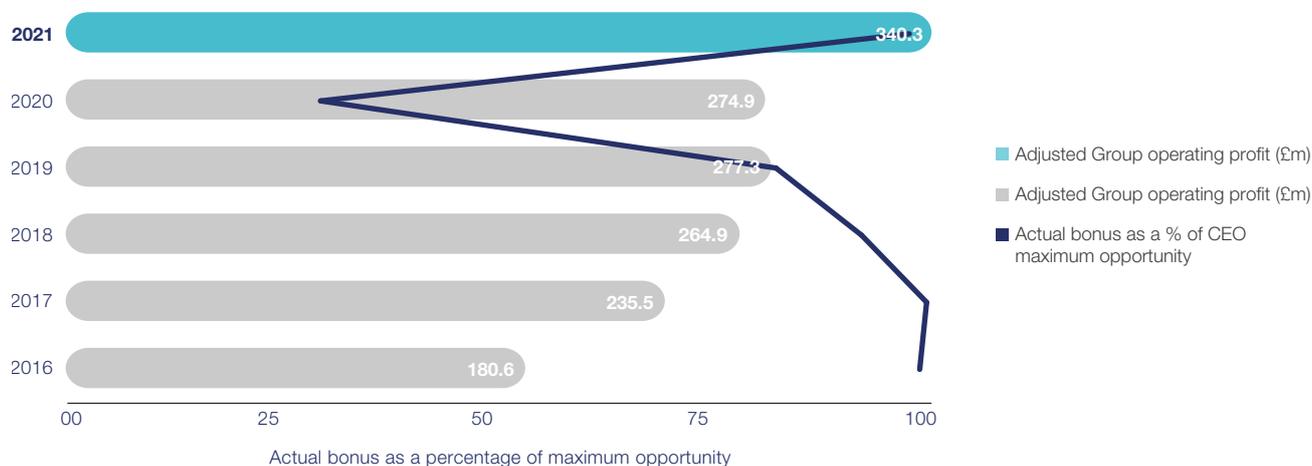
	Performance targets			% of bonus achieved
	Fully achieved	Partly achieved	Not achieved	
N.J. Anderson	4	0	1	8%
N.B. Patel	5	0	0	10%

The Committee is of the view that these outcomes accurately reflect the performance of the Company. As a result, no discretion was exercised by the Committee.

As a result of this performance in 2021, the following bonuses were achieved:

Executive Directors	Bonus achieved	Bonus (% of salary)
N.J. Anderson	£902,580	147%
N.B. Patel	£612,000	125%

The following graph provides a six-year summary of bonus outcomes for the Group Chief Executive against the performance of adjusted Group operating profit. This illustrates the strong historical alignment between pay and performance.



Spirax Sarco Performance Share Plan (PSP)

The Committee makes an annual conditional award of shares to each Executive Director under the PSP. Prior to award, the Committee reviews the performance targets for each measure to ensure they remain sufficiently stretching. For EPS this includes a review of analysts' forecasts.

PSP awards are subject to malus (reduction in the amount of deferred and as yet unpaid remuneration) and/or clawback (reimbursement of remuneration that has already been paid) for up to three years following the award and can be applied during a holding period. Circumstances that may result in a clawback or malus adjustment include financial misstatement, erroneous calculations determining bonus payments, gross misconduct, corporate failure or reputational damage.

Vesting is based on two performance conditions measured over a three-year period, which have been chosen as they are aligned with our strategy:

Performance measure	Weight	Threshold requirement	Maximum requirement
EPS growth	60%	Global IP +2% pa ¹	Global IP +8% pa
Relative TSR	40%	Median TSR	Upper quartile TSR

¹ The Global Industrial Production (IP) data source is the CHR Metals Global IP Index, providing data that incorporates over 90% of global industrial output.

For awards made in 2019 onwards, the Committee has reduced the value that can be earned for threshold performance from 25% of the award to 18%. Vesting between threshold and maximum is calculated on a straight-line basis for 2019, 2020 and 2021.

The EPS element of the PSP is based on growth in excess of global industrial production growth rates, often referred to in our industry as "Global IP", rather than UK RPI. Global IP is a measure that the Board and management have used for some time as there is well documented evidence that it is the best predictor of the global and industrial markets within which the Group operates. For these reasons, Global IP was used in the formulation of the long-term strategic plan and targets for EPS growth approved by the Board. In setting the initial performance range in 2017, which was intended to be long-term in nature, the Committee reviewed the historical and projected data (2008 to 2021), including the Group's performance, market benchmarks and analysts' consensus. The Committee remains confident that this range remains sufficiently challenging across various market environments. Adjustments are made to reflect businesses acquired and sold.

The TSR element of the PSP assesses TSR performance relative to a comparator group of companies that comprises the constituents of the FTSE 350 Industrial Goods and Services Supersector at the start of the performance period. This is the same sector classification as Spirax-Sarco Engineering and was selected as it objectively provides a sufficiently robust number of companies to compare performance against, that also operate in the industrial goods and services arena. While the exact number of companies varies from year-to-year, the comparator group is approximately 50 companies.

PSP awards vesting over 2019-2021

In 2019 the Executive Directors received share awards under the PSP, with vesting subject to EPS growth and relative TSR performance. The diagrams on page 142 set out details of the performance measures and targets that applied, along with the actual performance during the period 1st January 2019 to 31st December 2021.

Relative TSR performance (40% of PSP award)

Over the three-year period to 31st December 2021, the Company delivered a TSR of 154.8%. This ranked in the top decile TSR of the comparator group significantly above the level required for full vesting. The comparator group, comprising 48 companies, for the purpose of measuring relative TSR performance was the FTSE 350 Industrial Goods and Services Supersector constituents at the start of the performance period.

5. Remuneration continued

Annual Report on Remuneration 2021 continued



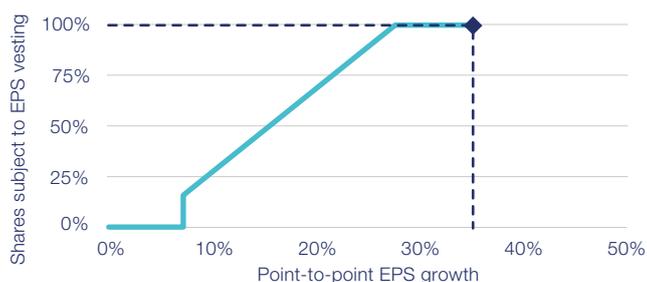
	Target	TSR	Vesting
Threshold	Median TSR	31.8%	18.0%
Maximum	Upper quartile TSR or above	80.8%	100.0%
Actual		154.8%	100.0%

--- Actual performance

* Vesting is calculated based on Spirax Sarco's TSR relative to the median and upper quartile TSR of the peer group.

EPS growth (60% of PSP award)

Over the three-year period to 31st December 2021, the Company delivered adjusted EPS growth of 35.6%. This equated to compound annual growth of approximately 10.7% per annum over the three years. EPS is derived from the audited Annual Report for the relevant financial year but adjusted to exclude the items shown separately on the face of the Consolidated Income Statement. EPS was adjusted following the acquisitions of Gestra and Chromalox (see page 141).



	Performance (over 3 years)	Vesting
Threshold	8.0%	18%
Maximum	29.0%	100.0%
Actual	35.6%	100.0%

--- Actual performance

As a result of the strong Company performance, as measured by relative TSR and EPS growth, 100% of the shares awarded under the 2019 PSP vested for Nicholas Anderson and Nimesh Patel. The Committee considers that this result reflects holistic performance and a very positive return for shareholders, therefore no discretion was exercised.

Executive Directors	Award ¹	Vested	Lapsed	Value on vesting ²
N.J. Anderson	14,335	14,335	–	£1,628,456
N.B. Patel	12,241	12,241	–	£1,390,578

1 As set out on page 143, N.B. Patel received a recruitment PSP award upon joining 27th July 2020, to replace existing arrangements with his former employer. Usual performance conditions applied.

2 Based on share price at date of vesting; 7th March 2022 (11360.0p).

1.2 Pension (audited)

In line with the 2020 Policy which states incumbent Executive Directors' maximum pension is to be, by 31st December 2022, the current blended average in the market in which the Executive Director is based, Nicholas Anderson's pension has been frozen from 2020 and at the year ended 31st December 2021, he received £150,500.

Further to the above, a plan to achieve pension equity across the Group was accelerated in 2020. This included the closure of the UK final salary scheme during the year. The Committee reviewed the impact of this decision on the blended workforce average in the UK and remains committed that serving Executive Directors will achieve this rate which is 10% of salary by the close of 2022, and the maximum rate for all the Executive Directors will now be the new joiners' rate of 10% of salary.

Under the 2020 Policy, the maximum pension contribution for new Executive Directors is the same as what the majority of newly appointed employees receive in the market in which the Executive Director is based. Therefore, Nimesh Patel receives 10% of his basic salary in cash which, in the year ended 31st December 2021, amounted to £48,960.

1.3 Scheme interests awarded during the financial year (audited)

Spirax Sarco Performance Share Plan (PSP)

The awards were granted under the PSP as a contingent right to receive shares, with the face value calculated as a percentage (200% for the Group Chief Executive and 175% for the Chief Financial Officer) of base salary, using the share price at date of award. Awards were made on 5th May 2021.

For awards made in 2021, vesting is based on two performance conditions measured over a three-year period, which have been chosen as they are aligned with our strategy. In addition to the three-year vesting period, a two-year holding period applies. These performance conditions are explained further on page 141.

Executive Directors	PSP award	Face value ¹	Last day of the performance period	Vesting at threshold performance
N.J. Anderson	10,433 shares	£1,227,964	31.12.23	18%
N.B. Patel	7,279 shares	£856,738	31.12.23	18%

¹ Based on share price at award (11770.0p).

Recruitment awards - Nimesh Patel

Awards were granted to Nimesh Patel to compensate him for remuneration forfeited with his previous employer. These include a share award on joining, which will lapse should he be a bad leaver within two years of appointment, together with PSP awards vesting in 2021 and 2022 with the same performance conditions as PSP awards granted under the Spirax Sarco Performance Share Plan that have performance periods ending on the same date. These performance conditions are explained further on page 141. The share price on 1st April 2020 (7842.0p), the date of Nimesh's service agreement, was used and the awards were made on 27th July 2020, his date of appointment. These awards are not subject to a holding period.

Executive Director	Type of award	Award	Face value	Last day of the performance period	Vesting at threshold performance
N.B. Patel ¹	Nil cost option	3,835 shares	£300,741	N/A	N/A
N.B. Patel ²	PSP	12,241 shares	£959,939	31.12.20	25%
N.B. Patel	PSP	12,241 shares	£959,939	31.12.21	18%

¹ Award will lapse if N.B. Patel is a bad leaver within two years of date of appointment.

² See page 130 of the Annual Report 2020 for vesting of this award.

Spirax-Sarco Engineering plc Employee Share Ownership Plan (ESOP)

Executive Directors are eligible to participate in an HMRC approved Share Incentive Plan known as the ESOP.

During the year ended 31st December 2021, Nicholas Anderson and Nimesh Patel each purchased 16 partnership shares and were each awarded 16 matching shares. Further information is set out in the table on page 145.

The maximum annual investment in shares is £1,800 (the HMRC limit) for Executive Directors (and eligible UK employees). This can be matched by the Company on a one-for-one basis for each share that is purchased. Dividends paid can be reinvested as shares.

Shares acquired under the ESOP are not subject to performance measures as the aim of the ESOP is to encourage increased shareholding in the Company by all eligible UK employees. In 2021, 75.09% of eligible UK employees purchased partnership shares and were awarded matching shares under the ESOP.

1.4 Payments to past Directors (audited)

There were no payments made to past Directors during the year ending 31st December 2021. However the 2019 LTIP award held by Neil Daws vests in the same proportion as other LTIP award holders at 100% resulting in vesting of 5,283 shares with a value of £600,149 based on the share price at the date of vesting; 7th March 2022 (11360.0p). These shares have a two-year holding period (net of sale to pay taxes).

1.5 Payments for loss of office (audited)

There were no payments made to Directors for loss of office during the year ended 31st December 2021.

5. Remuneration continued

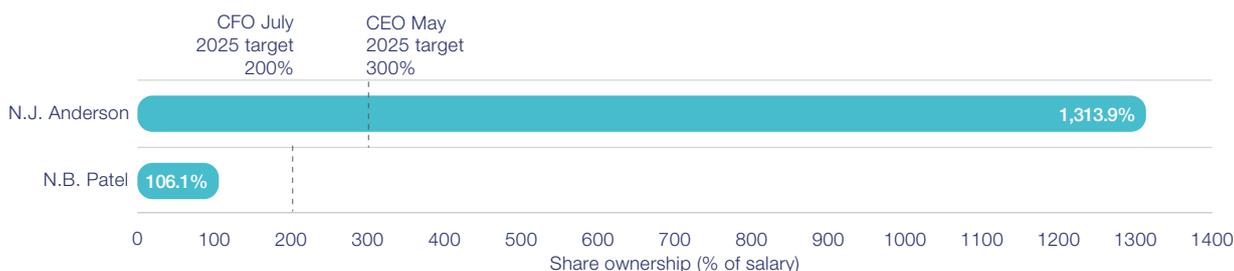
Annual Report on Remuneration 2021 continued

1.6 Statement of Directors' shareholding and share interests (audited)

Progress towards share ownership guideline

The Executive Directors' share ownership guidelines are 300% of base salary for the Group Chief Executive and 200% of base salary for other Executive Directors.

The share ownership guidelines have been met by the Group Chief Executive. The Chief Financial Officer, who joined the Company on 27th July 2020, is making good progress towards his target of 200% of base salary by July 2025. The value of the shareholding is taken at 31st December 2021 as a percentage of 2021 base salary. The share price on 31st December 2021 was 16050.0p.



Outstanding share interests

The following table summarises the total interests of the Directors in shares of the Company as at 31st December 2021 or, as in Trudy Schoolenberg's case, date of leaving. These cover beneficial and conditional interests. No Director had any dealing in the shares of the Company between 31st December 2021 and 9th March 2022.

	Beneficial ¹	PSP awards ²	Nil-cost options ³	ESOP shares ⁴	Total 31.12.21 (or date of leaving if earlier)	Total 09.03.22
J. Pike	9,946	N/A	N/A	N/A	9,946	9,946
N.J. Anderson	49,496	40,253	0	769	90,518	90,518
N.B. Patel	3,204	30,231	7,105	32	40,572	40,572
R. Gillingwater ⁵	600	N/A	N/A	N/A	600	600
G.E. Schoolenberg ⁶	2,754	N/A	N/A	N/A	2,754	–
J.S. Kingston	3,900	N/A	N/A	N/A	3,900	3,900
K.J. Thompson	3,800	N/A	N/A	N/A	3,800	3,800
C.A. Johnstone	447	N/A	N/A	N/A	447	447
P. France	980	N/A	N/A	N/A	980	980
A. Archon	0	N/A	N/A	N/A	0	0
O. Qiu	0	N/A	N/A	N/A	0	0

1 Shares include any owned by connected persons.

2 Subject to the performance measures as set out on pages 141 to 142.

3 Explained in the table on page 143 and in note 1 under the PSP table on page 145.

4 Not subject to performance measures.

5 R. Gillingwater was appointed to the Board on 9th March 2021.

6 G.E. Schoolenberg stepped down on 31st July 2021.

Spirax-Sarco Engineering plc Share Option Schemes (Option Schemes)

No Directors had interests under the Option Schemes.

Spirax Sarco Performance Share Plan (PSP)

The interests of Executive Directors in the PSP are set out below.

	Date of award			Balance 01.01.21	Vested 05.03.21 ¹	Lapsed 05.03.21 ¹	Awarded 05.05.21 ⁴	Balance 31.12.21
	04.04.18/ 27.07.20 ¹	15.05.19/ 27.07.20 ²	13.03.20/ 27.07.20 ³					
N.J. Anderson	14,649	14,335	15,485	44,469	10,825	3,824	10,433	40,253
N.B. Patel	12,241	12,241	10,711	35,193	9,046	3,195	7,279	30,231

- The mid-market prices of the shares on 4th April 2018 and 1st April 2020 were 5560.0p and 7842.0p respectively. These were applied in determining the number of shares subject to the PSP awards granted on 4th April 2018 and 27th July 2020 to N.J. Anderson and N.B. Patel respectively. During the performance period 1st January 2018 to 31st December 2020, the TSR and EPS performance of the Company resulted in 100.0% and 56.4% vesting respectively, amounting to a total of 73.9% of the PSP awards vesting. The shares vested on 5th March 2021 and the mid-market price of the shares on this date was 10780.0p. N.J. Anderson's award vested in the form of whole shares; 63.85% of N.B. Patel's award vested in the form of whole shares and 36.15% vested in the form of a nil cost option exercisable from March 2023. A two-year post-vesting holding period applies to N.J. Anderson's award. The two-year post-vesting holding period does not apply to N.B. Patel's recruitment PSP award. Further detail on this recruitment PSP award is set out on page 143.
- The average mid-market price of the shares from 9th May to 14th May 2019 was 8161.3p and the mid-market price of the shares on 1st April 2020 was 7842.0p. These were applied in determining the number of shares subject to the PSP awards granted on 15th May 2019 and 27th July 2020 to N.J. Anderson and N.B. Patel respectively. The period over which performance measures are calculated is 1st January 2019 to 31st December 2021. Details of the performance measures attached to these PSP awards are set out on pages 141 to 142 and details of the vesting of this award are set out on page 142. A two-year post-vesting holding period applies to N.J. Anderson's award. The two-year post-vesting holding period does not apply to N.B. Patel's recruitment PSP award. Further detail on this recruitment PSP award is set out on page 143.
- The mid-market prices of the shares on 12th March 2020 and 1st April 2020 were 7775.0p and 7842.0p respectively. These were applied in determining the number of shares subject to the PSP awards granted on 13th March 2020 and 27th July 2020 to N.J. Anderson and N.B. Patel respectively. The period over which performance measures are calculated is 1st January 2020 to 31st December 2022. There are two performance measures governing vesting of this PSP award: 40% of the PSP award is subject to a TSR performance measure which requires the Company to rank at median relative to a comparator group of the constituents of the FTSE 350 Industrial Goods and Services Supersector for 18% of this portion of the PSP award to vest, increasing to full vesting for ranking at the upper quartile; 60% of the PSP award is subject to an EPS performance measure which requires growth of Global IP +2% per annum for 18% of this portion of the PSP award to vest, increasing to full vesting for growth of Global IP +8% per annum. A two-year post-vesting holding period applies to these awards.
- The mid-market price of the shares on 4th May 2021 was 11770.0p. This was applied in determining the number of shares subject to the PSP awards granted on 5th May 2021. The period over which performance measures are calculated is 1st January 2021 to 31st December 2023. Details of the performance measures attached to these PSP awards are set out on pages 141 to 142. A two-year post-vesting holding period applies to these awards.

Spirax-Sarco Engineering plc Employee Share Ownership Plan (ESOP)

The interests of eligible Executive Directors are set out below.

	Balance 01.01.21	Partnership shares purchased ¹	Matching shares awarded ¹	Dividend shares ²	Balance 31.12.21	Period of qualifying conditions ³
N.J. Anderson	737	16	16	0	769	3 years
N.B. Patel	0	16	16	0	32	3 years

- Partnership shares were purchased, at a price of 11045.0 p, and matching shares were awarded on 1st October 2021. The mid-market price of the shares on that date was 14765.0p.
- No dividend shares were received during 2021.
- Partnership shares are not subject to qualifying conditions. No matching shares or dividend shares were released from the ESOP or forfeited during the year ended 31st December 2021.

1.7 Directors' service agreements and letters of appointment

Chair and Non-Executive Directors

The Chair and Non-Executive Directors have letters of appointment with the Company for a period of three years, subject to annual re-election at the AGM. Appointments may be terminated by the Company or individual with one month's notice. The appointment letters for the Chair and Non-Executive Directors provide that no compensation is payable on termination, other than accrued fees and expenses.

Directors' terms of service

The table on page 146. sets out the dates on which each Director was initially appointed, their latest service agreement or letter of appointment and their notice period. All Directors are subject to election or re-election (as the case may be) at the AGM.

5. Remuneration continued

Annual Report on Remuneration 2021 continued

Executive Directors	Original appointment date	Current agreement/appointment/re-appointment letter ¹	Expiry date	Notice period
N.J. Anderson	15.03.12	13.12.13	N/A	12 months
N.B. Patel	27.07.20	01.04.20	N/A	12 months
Chair and Non-Executive Directors				
J. Pike	01.05.14	12.05.21	11.05.24	1 month
A. Archon	01.12.20	30.10.20	30.11.23	1 month
P. France	06.03.18	04.03.21	05.03.24	1 month
R. Gillingwater	09.03.21	01.03.21	08.03.24	1 month
C.A. Johnstone	05.03.19	04.03.22	04.03.25	1 month
J.S. Kingston	01.09.16	05.08.19	31.08.22	1 month
O. Qiu	01.12.20	27.10.20	30.11.23	1 month
K.J. Thompson	15.05.19	15.05.19	14.05.22	1 month

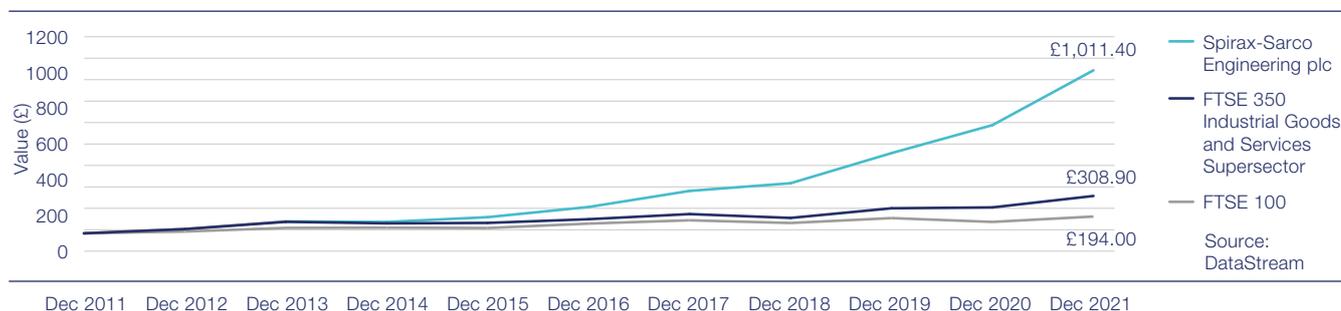
¹ All letters of appointment and service agreements are available for inspection at the Group's headquarters in Cheltenham, UK.

1.8 External Directorships

Nicholas Anderson served as a Non-Executive Director at BAE Systems plc during 2021, for which he received and retained total fees of £85,000.

1.9 TSR performance graph

This graph demonstrates the growth in value of a £100 investment in the Company compared to the FTSE 350 Industrial Goods and Services Supersector from December 2011 to December 2021. This comparison is chosen as it is the supersector within which the Company is classified and it is a broad equity market index including companies of a similar size, complexity and sector. The graph also includes a comparison to the FTSE 100 as this is the Index within which Spirax Sarco is currently placed, and it shows a similar level of out-performance.



The table below shows the historic levels of the Group Chief Executive's pay (single figure of total remuneration) and annual variable and PSP awards as a percentage of maximum.

Executive Directors	Single figure of annual remuneration	Annual variable pay as % of maximum	Vested PSP awards value as % of maximum
2021	£3,325,299	98.00%	100.00%
2020	£2,219,764	30.00%	73.90%
2019	£2,788,251	82.60%	100.00%
2018	£2,323,478	92.48%	100.00%
2017	£2,172,620	100.00%	100.00%
2016	£1,610,891	99.20%	40.00%
2015	£1,191,137	61.39%	80.33%
2014 (N.J. Anderson appointed Group Chief Executive in January 2014)	£1,000,115	55.76%	33.06%
2013	£1,593,150	95.24%	29.93%
2012	£1,402,668	31.69%	74.60%

Group Chief Executive pay ratio

The table below details the ratio of the Group Chief Executive's single figure of total remuneration to the median, 25th and 75th percentile total remuneration of the Group's full-time equivalent UK employees. Option B has been chosen for these calculations as the data used is consistent with that collected to inform the Group's UK gender pay gap report.

Financial year	25th percentile pay ratio	50th median pay ratio	75th percentile pay ratio
2021	111:1	83:1	62:1
2020	76:1	66:1	45:1
2019	110:1	74:1	46:1

Single figure total remuneration	CEO	25th (lower quartile)	50th (median)	75th (upper quartile)
Salary	£614,000	£26,643	£35,804	£40,667
Benefits	£27,401	£405	£405	£6,780
Bonus	£902,580	–	–	£1,200
PSP	£1,628,456	–	–	–
Pension	£150,500	£1,757	£2,328	£4,067
ESOP	£2,362	£1,034	£1,477	£1,329
Total pay	£3,325,299	£29,839	£40,014	£54,043

Year-on-year commentary

Our median CEO to Employee Pay Ratio in 2020 decreased due to CEO pay being impacted by the trading environment of 2020. 2020 presented a year when the Group had not met its planned profit targets and EPS growth had performed to a lesser extent, therefore incentives were lower.

Group performance recovered in 2021 and this is reflected in the higher pay ratio figure.

Pay Policy

The reward policies and practices for our workforce as a whole follow those set for the Executive Directors, as detailed on page 136.

The Committee has responsibility for setting and making any changes in remuneration for the senior management. This includes the reviewing of policies and practices for our workforce and consideration of shareholders and other stakeholder views as part of designing the Remuneration Policy and its operation for the Executive Directors. On this basis, the Committee is satisfied that the median pay ratio is consistent with the pay, reward and progression policies across all of the Company's employees.

The Committee will review any changes in the ratio over the forthcoming year and will provide an analysis of any changes in the Annual Report 2022.

1.10 Percentage change in remuneration of the Directors

The following table provides a summary of the 2021 and 2020 increases in base salary, benefits and bonus for the Directors compared to the average increase for the general UK employee population across the Group in the same period. The general UK employee population comparator group has been used because the parent company, Spirax-Sarco Engineering plc, only employs a very small number of people.

	2021 change			2020 change		
	Base salary/fee	Benefits	Bonus	Base salary/fee	Benefits	Bonus
General UK employee population	2.0%	2.0%	120.7%	2.9%	2.9%	-32.1%
N.J. Anderson	2.0%	2.0%	233.2%	2.9%	2.9%	-62.6%
N.B. Patel ¹	2.0%	2.0%	240.0%	N/A	N/A	N/A
J. Pike	2.0%	N/A	N/A	2.9%	N/A	N/A
G.E. Schoolenberg ²	2.0%	N/A	N/A	2.9%	N/A	N/A
J.S. Kingston	2.0%	N/A	N/A	2.9%	N/A	N/A
K.J. Thompson	2.0%	N/A	N/A	2.9%	N/A	N/A
C.A. Johnstone	2.0%	N/A	N/A	2.9%	N/A	N/A
P. France	2.0%	N/A	N/A	2.9%	N/A	N/A
A. Archon ³	2.0%	N/A	N/A	N/A	N/A	N/A
O. Qiu ³	2.0%	N/A	N/A	N/A	N/A	N/A
R. Gillingwater ⁴	N/A	N/A	N/A	N/A	N/A	N/A

1 N.B. Patel joined the Company on 27th July 2020. Percentage of bonus increase has been calculated using the full year bonus figure for consistency purposes. Actual bonus for 2020 was pro-rated for five months' service.

2 G.E. Schoolenberg stepped down on 31st July 2020.

3 A. Archon and O. Qiu were appointed on 1st December 2020.

4 R. Gillingwater was appointed on 9th March 2021.

5. Remuneration continued

Annual Report on Remuneration 2021 continued

UK gender pay gap

A detailed narrative relating to the UK gender pay gap can be found on our website: www.spiraxsarcoengineering.com.

1.11 Relative importance of spend on pay

The table below demonstrates the relative importance of total pay spend relative to total employee numbers, profit before tax (selected as the best measure of efficiency) and dividends payable in respect of the year.

	2021	2020	Change
Total pay spend	£481.2m	£433.7m	10.94%
Group average headcount	8,202	7,891	3.94%
Adjusted profit before tax	£333.9m	£261.5m	27.70%
Dividends payable	£100.2m	£87.0m	15.2%

1.12 Operation of Policy for 2022

Rationale for changes to the CEO's remuneration in 2022 and 2023

Further to recent shareholder consultation, the Committee has decided to adjust the CEO's pay arrangements in two steps in 2022 and in 2023 as described earlier on pages 133 to 134. Since the last reset in 2019 (details on pages 133 to 134) the Group has integrated new acquisitions and continued to deliver very strong organic growth. Significantly in this time the Group's market capitalisation has trebled to a high of £12 billion moving us from a ranking of circa 100 to 45 in the FTSE. External CFO recruitment in 2020 brought into sharp relief that our CEO's package had drifted materially below market levels with a target pay some 26% below lower quartile market data. The Committee views this as an unfair position that challenges our values and as per our current Policy would require us to act.

As explained in the Statement by the Committee Chair on pages 132 to 134 the Committee has been reviewing the CEO's remuneration and proposes to make an LTIP grant in 2022 of 250% of base salary, which is 50% of base salary higher than in recent years. In doing so, the Committee is cognisant that the EPS and TSR targets being set for the 2022 award are likely to be more stretching than those set in 2021 for the following reasons:

- (1) Continuing to achieve double digit EPS growth in successive years becomes harder as a business grows in size;
- (2) Corporate tax rates are increasing both in the UK and globally; and
- (3) Achieving an upper quartile TSR level also becomes harder having done so in previous three-year performance periods.

Benchmarking and market data

The Committee does not believe in slavishly following benchmarking but does believe that comparative market data and references are helpful. To this end the Committee has been informed by the FTSE 31 to 100 industrial/engineering/manufacturing companies as a relevant data set.

FTSE 31 to 100 industrial, manufacturing & engineering

	Salary (£'000)	Total target remuneration (£'000)
Lower quartile	771	2,726
Median	859	3,132
Upper quartile	954	3,408

Spirax Sarco CEO

	Salary (£'000)	LTIP grant % of salary	Total target remuneration (£'000)
2021	614	200%	2,020
2022	630	250%	2,189
2023 (proposed)	750	200%	2,428

This shows the CEO's total target pay is 26% below the lower quartile driven by his 2021 salary of £614,000 that was 20% below the lower quartile of these constituent companies.

Shareholder consultation

As a result since Q4 2021 we have been consulting with our 20 largest shareholders and proxy agencies for advice and support to take two steps:

- Give an expectation to our CEO that his base salary will be increased to £750,000 with effect from January 2023 subject to satisfactory business and personal performance. Ideally we should do this sooner, but in 2019 the Committee made a commitment not to increase Executives base pay by more than the workforce norm before 2023 (given the range of changes made at that time). We feel it is important to honour; and
- In the meantime, likely to be Q2 2022, our CEO should be granted the maximum LTIP award allowed under our current policy of 250% (his normal award being 200%) as a one off in 2022 given the delay to the base salary adjustment.

As noted in the Statement by the Committee Chair (pages 133 to 134) we have had constructive feedback from many of our top 20 shareholders who have indicated they have understood the rationale, recognised a genuine need to address the issue and appreciated the Committee honouring its 2019 commitment.

The table below summarises how we will implement each element of remuneration under the Policy in 2022.

Element of remuneration	How we will implement the Policy in 2022								
Salary	<p>The Executive Directors will receive salary increases of 2.7% in line with the wider UK workforce increase. The salaries effective 1st January 2022 are therefore:</p> <ul style="list-style-type: none"> • Group Chief Executive: £630,500 • Chief Financial Officer: £502,800 								
Pension	<p>Pension contributions for the Executive Directors will be:</p> <ul style="list-style-type: none"> • Group Chief Executive: 23.9% of salary (frozen at 2021 contribution of £150,500) • Chief Financial Officer: 10% of salary <p>The pension rate for the Group Chief Executive will be aligned to the pension contribution rate available to the UK workforce by the end of 2022 of 10% of salary.</p>								
Annual bonus	<p>The annual bonus opportunities for the Executive Directors will be:</p> <ul style="list-style-type: none"> • Group Chief Executive: 150% of salary • Chief Financial Officer: 125% of salary <p>The performance measures will be unchanged from 2021:</p> <table border="1"> <thead> <tr> <th>Performance measure</th> <th>Weighting (% of bonus)</th> </tr> </thead> <tbody> <tr> <td>Group operating profit</td> <td>70%</td> </tr> <tr> <td>Cash generation</td> <td>20%</td> </tr> <tr> <td>Personal strategic objectives</td> <td>10%</td> </tr> </tbody> </table> <p>The targets for the performance measures are considered to be commercially sensitive and therefore will be disclosed in next year's Directors' Remuneration Report.</p> <p>The Committee has discretion to adjust the formulaic outcome if it is not representative of the performance delivered.</p> <p>Executive Directors will be required to use the net of tax amount of any bonus earned above 80%, if they have met their shareholding requirement, or above 60% if they have not, to purchase shares in the Company which must be held for two years.</p>	Performance measure	Weighting (% of bonus)	Group operating profit	70%	Cash generation	20%	Personal strategic objectives	10%
Performance measure	Weighting (% of bonus)								
Group operating profit	70%								
Cash generation	20%								
Personal strategic objectives	10%								

5. Remuneration continued

Annual Report on Remuneration 2021 continued

Element of remuneration	How we will implement the Policy in 2022																
Performance Share Plan awards	<p>The 2022 PSP award levels are expected to be:</p> <ul style="list-style-type: none"> Group Chief Executive: 250% of base salary. This is higher than the normal annual grant and reflects consultation with shareholders regarding compensation Chief Financial Officer: 175% of base salary <p>The performance conditions will include 20% weighting on sustainability measure:</p> <table border="1"> <thead> <tr> <th>Performance measure</th> <th>Weight</th> <th>Threshold requirement (18% vests)</th> <th>Maximum requirement (100% vests)</th> </tr> </thead> <tbody> <tr> <td>EPS growth</td> <td>50%</td> <td>Global IP +2% pa</td> <td>Global IP +8% pa</td> </tr> <tr> <td>Relative TSR</td> <td>30%</td> <td>Median TSR</td> <td>Upper quartile TSR</td> </tr> <tr> <td>Green House Gas intensity emissions 2024 v 2021</td> <td>20%</td> <td>24% reduction</td> <td>31% reduction</td> </tr> </tbody> </table> <p>The sustainability measure has been chosen to align as strongly as possible with our One Planet Sustainability strategy objectives. The Remuneration Committee felt that this measure would have the greatest impact if the associated targets can be achieved. The stretch has been built into the target range to incentivise management to achieve our goals faster. Performance will be measured relative to £m of sales at 2021 prices to ensure that efficiency savings are not distorted by inflation. As an underpin and consistent with 2030 net zero scope 1 and 2 emission targets, the Committee requires an absolute reduction of emissions over the next three years. Performance will be assessed externally and independently and fully disclosed in future Remuneration Reports.</p> <p>The EPS performance range for the 2022 PSP grant will remain at IP+2% for threshold vesting to IP+8% for maximum vesting. However, two changes will be made compared to previous years:</p> <ol style="list-style-type: none"> (1) The base year's EPS for 2021 will be set at the level that was required for maximum vesting of the 2019 LTIP award of 322.5p, rather than the higher actual outcome. This equates to £16 million of adjusted operating profit and is what the Committee feels is a fair adjustment to recognise that 2021 was an exceptionally high performance with an adjusted operating profit margin of 25.3% (the Group's highest ever). This margin expansion was driven by strong revenue growth with the benefit of operational gearing only partly offset by revenue investments to support future growth over the course of the Group's medium term plan. The ramp up in revenue investments lagged growth in revenue, resulting in a higher adjusted operating profit margin which does not reflect a full year of the cost of these investments. (2) A slightly steeper vesting curve will apply from the threshold through to the middle of the range, recognising that analyst consensus EPS was at the bottom of the range when the Committee set the target range. <p>Assuming IP averages 2.6% pa, the resultant 2024 EPS vesting range corresponds to 369.1 to 436.3 pence per share.</p> <p>The Committee has discretion to adjust the formulaic outcome if it is not representative of the Company performance delivered.</p> <p>A two-year post-vesting holding period will apply to the awards.</p>	Performance measure	Weight	Threshold requirement (18% vests)	Maximum requirement (100% vests)	EPS growth	50%	Global IP +2% pa	Global IP +8% pa	Relative TSR	30%	Median TSR	Upper quartile TSR	Green House Gas intensity emissions 2024 v 2021	20%	24% reduction	31% reduction
Performance measure	Weight	Threshold requirement (18% vests)	Maximum requirement (100% vests)														
EPS growth	50%	Global IP +2% pa	Global IP +8% pa														
Relative TSR	30%	Median TSR	Upper quartile TSR														
Green House Gas intensity emissions 2024 v 2021	20%	24% reduction	31% reduction														
Non-Executive Director fees	<p>Effective from 1st January 2022, the Non-Executive Director basic fee was increased by 10.4%. This was to reflect the larger companies we are now benchmarking ourselves against and the personal time commitment relating to the role. The Committee Chair and Senior Independent Director's fees were increased to £15,000. The Chair's fee increased by 32.3%, again reflecting the larger companies we are benchmarking against and the personal time commitment relating to the role.</p>																

1.13 Consideration by the Directors of matters relating to Directors' remuneration

Operation of the Remuneration Committee in 2021

Membership and attendance

Each Committee member is an independent Non-Executive Director and thus brings independence to all aspects of Board remuneration and the application of professional advice to matters relating to remuneration.

During 2021, the Committee was chaired by Jane Kingston and the members comprised: Trudy Schoolenberg (up to 31st July 2021, when Trudy stepped down from the Board), Richard Gillingwater (with effect from 9th March 2021, when Richard was appointed to the Board) Kevin Thompson and Angela Archon. Caroline Johnstone, Peter France and Olivia Qiu were Committee members up to 31st March 2021 when to improve the functional efficiency of the Board and Committees, we changed the composition of the Committee.

In 2021, the Committee met four times. All members attended each meeting relative to their Committee membership. On his appointment to Chair of the Board in May 2018, Jamie Pike ceased being a formal member of the Committee, but continued to attend meetings at the invitation of the Committee Chair.

Advisers to the Committee

During 2021, the Committee sought advice and information from Jamie Pike, the Chair; Nicholas Anderson, the Group Chief Executive; Nimesh Patel, the Chief Financial Officer; and Jim Devine, the Group Human Resources Director. None of the invitees participated in any discussions regarding their own remuneration or fees. The General Counsel and Company Secretary acts as Secretary to the Committee.

In addition, the Committee received external advice from Korn Ferry, who were appointed by the Committee in 2019 and provided material advice to the Committee on various matters such as Executive remuneration levels and structure, performance updates in respect of the PSP, the Remuneration Report and attendance at Committee meetings. In 2021, on a time and materials basis, Korn Ferry's fees in respect of these services totalled £106,959. In addition, Korn Ferry work with management on other matters relating to remuneration with the approval of the Committee. The Committee is of the opinion that the advice received is objective and independent, given that Korn Ferry are a signatory to the Remuneration Consultants Group Code of Conduct, the manner in which advice is delivered and the separate teams that advise management more generally.

In 2021, Baker & McKenzie LLP and Lewis Silkin LLP provided legal advice to the Company (which was available to the Committee). Legal fees relate to advice provided to the Company and not the Committee, and are charged on a time-cost basis.

1.14 Statement of voting at general meeting

At the AGM in 2020, shareholders approved the Remuneration Policy 2020 (mandatory) and at the AGM in 2021, shareholders approved the Annual Report on Remuneration 2020 (advisory). The table below shows the results which required a simple majority (i.e. 50%) of the votes cast to be in favour for the resolutions to be passed.

	Votes for	%	Votes against	%	Votes withheld
Remuneration Policy 2020 (2020 AGM)	60,088,522	95.71	2,690,784	4.29	378,510
Annual Report on Remuneration 2020 (2021 AGM)	58,524,531	95.93	2,482,214	4.07	1,076,282

This Annual Report on Remuneration 2021 has been approved by the Board of Directors of Spirax-Sarco Engineering plc and signed on its behalf by:

Jane Kingston

Chair of Remuneration Committee

9th March 2022

5. Remuneration continued

Remuneration Policy 2020

Remuneration Policy 2020

Please note that the Remuneration Policy Report 2020 was published in the Annual Report 2019 and was approved by shareholders at the 2020 AGM. Therefore, as the content remains the same, the page numbers, examples and illustrations are necessarily historical.

2.0 Remuneration Policy

The table below summarises the Remuneration Policy which will take effect, if approved, from the AGM to be held on 13th May 2020.

Fixed elements of Executive Director remuneration

Purpose and link to strategy	Operation	Performance measures	Maximum potential value
Base salary			
To enable the Group to attract, retain and motivate high performing Executive Directors of the calibre required to meet the Group's strategic objectives.	<p>Reviewed annually by the Committee, taking into account:</p> <ul style="list-style-type: none"> scale, scope and complexity of the role; skills and experience of the individual; wider workforce comparisons; and market benchmarking, within defined external comparator groups. The Committee uses this information with caution, given the limited number of direct comparators and to avoid remuneration inflation as a result of benchmarking exercises with no corresponding improvement in performance. <p>The Committee considers the impact of any base salary increase on the total remuneration package.</p>	Reviews take into account Company and individual performance.	<p>Ordinarily, salary increases will not exceed the average increase awarded to other Group employees from the same country/region.</p> <p>A salary increase may be higher than the average increase awarded to employees in circumstances such as (i) where a new recruit or promoted Executive Director's salary has been set lower than the market level for such a role; (ii) where there is a significant increase in the size and responsibilities of the Executive Director's role; or (iii) where the salary level has fallen below the lower quartile level against market benchmarks.</p>

Fixed elements of Executive Director remuneration

Purpose and link to strategy	Operation	Performance measures	Maximum potential value
Pension			
To offer appropriate levels of pension and benefit.	For eligible Executive Directors who joined the UK Company before 2001 the Company provides a UK defined benefits pension scheme (DB scheme) or cash alternative allowance.	N/A	The maximum pension contribution for new Executive Directors will be the same basis as the majority of newly appointed employees receive in the market in which the Executive Director is based.
To attract and retain individuals with the personal attributes, skills and experience required to deliver Group strategy.	<p>For UK nationals who joined the UK Company after 2001 the Company provides a defined contribution pension arrangement (DC plan) and/or contributions to a private pension and/or a cash allowance.</p> <p>Executive Directors who have transferred internally from overseas may continue to participate in home country pension arrangements and/or receive a cash allowance.</p>		<p>Incumbent Executive Directors' maximum pension to be, by 31st December 2022, the current blended average in the market in which the Executive Director is based (17% of salary in the UK), reducing to the new Executive Director level by 2025.</p> <p>No element other than base salary is pensionable.</p>

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Fixed elements of Executive Director remuneration

Common Benefits

To provide market competitive benefits.	The Company provides common benefits including:	N/A	The aggregate maximum cash cost of providing all common benefits will not exceed 20% of base salary.
To enable the Executive Directors to undertake their roles through ensuring their wellbeing and security.	<ul style="list-style-type: none"> • Company car and associated running costs or cash alternative allowance; • private health insurance; telecommunications and computer equipment; • life assurance; and • long-term disability insurance. 		

Mobility-related benefits

To ensure that Executive Directors who have relocated nationally or internationally are compensated for costs incurred.	<p>The Company will pay all reasonable expenses and applicable tax due for the Executive Director and his/her family to relocate on appointment and for repatriation to the original home country at the end of their assignment and/or employment.</p> <p>Executive Directors are personally responsible for all taxes and social charges incurred in the home and host locations as a result of their appointment. The Company will pay for reasonable tax advice and filing support in relation to work related income for international Executive Directors.</p> <p>Executive Directors are reimbursed under a Tax Treaty Adjustment for any double tax they might be liable for as a result of being subject to home country and host country taxation typically for days worked in the home location.</p> <p>Executive Directors are not entitled to tax equalisation.</p>	N/A	<p>Based on individual circumstances and subject to written agreement.</p> <p>Maximum values will not exceed the normal market practice of companies of a similar size and nature at the time of relocation.</p>
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Variable elements of Executive Director remuneration

Purpose and link to strategy	Operation	Performance measures	Maximum potential value
Annual bonus			
To incentivise and reward performance against selected KPIs which are directly linked to business strategy.	Measures, targets and their relative weightings are reviewed regularly by the Committee to ensure continuing alignment with strategic objectives and will be detailed in the relevant Annual Report on Remuneration.	Any measure can be incorporated at the Committee's discretion provided it is clearly aligned to the Group's strategic objectives. At least 70% of the bonus opportunity will be governed by financial performance measures.	150% of salary.
To recognise performance through variable remuneration and enable the Company to flexibly control its cost base and react to events and market circumstances.	Bonus is based largely or entirely on the achievement of challenging financial performance measures, which have been selected to ensure the Company is focused on its strategic objectives.		No more than 60% of the bonus opportunity can be earned for target performance in any year.
To ensure a significant proportion of Executive Director remuneration is directly linked to business performance.	Bonus is delivered in cash. However, Executive Directors must use the net of tax amount of any bonus they earn above 80% of the maximum opportunity to increase the level of shareholding they have and to hold for a further two years. Where a Director has not met their shareholding requirement, the bonus deferred increases to any bonus they earn above 60% of the maximum opportunity.		
	Bonus is subject to clawback and/or malus for up to three years following payment. Circumstances include financial misstatement, erroneous calculations determining bonus payments, gross misconduct, corporate failure and reputational damage.		
	The Committee can adjust some performance targets to reflect certain non-operating items and retains the ability to adjust the amount of a bonus if the formulaic outcome is not reflective of the business performance.		

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5. Remuneration continued

Remuneration Policy 2020 continued

Variable elements of Executive Director remuneration

Performance Share Plan (PSP)

To incentivise and reward Executive Directors for delivery against long-term Group performance.	The Committee makes conditional awards of shares to each Executive Director. Annual participation is subject to Committee approval.	Vesting is currently based on two performance measures, which have been chosen as they are clearly aligned with our strategic objectives:	250% of the annual rate of salary at the time of award.
To align Executive Directors' interests to those of shareholders.	Measures, targets and their relative weightings are reviewed regularly by the Committee to ensure continuing alignment with strategic objectives and will be detailed in the relevant Annual Report on Remuneration.	<ul style="list-style-type: none"> • TSR; and • EPS growth. 	Currently the maximum award level is 200% of salary (for the CEO). Any increase beyond this level will only take place following consultation with leading shareholders.
To drive sustainable Company performance.	Performance is measured over a three-year period, normally starting at the beginning of the financial year in which awards are granted.	To ensure continued alignment with the Company's strategic priorities, the Committee may, at its discretion, vary the measures and their weightings for future grants from time-to-time including the consideration of financial and non-financial measures.	
To retain key executive talent.	An additional two-year post-vesting holding period will apply. Awards can vest in the form of shares, a nil-cost option or, exceptionally, cash. Share awards made from 2012 are subject to clawback and/or malus for up to three years following award. Circumstances include financial misstatement, erroneous calculations determining bonus payments, gross misconduct, corporate failure and reputational damage. PSP awards accrue dividends between grant and vesting. The Committee retains the ability to adjust awards if the formulaic outcome is not reflective of the business performance. The Committee will be able to add dividend equivalents accrued during a vesting period to any award granted under this Policy.	The Committee reserves the right to adjust targets, for example for the effects of divestments or major acquisitions, to ensure that those results are in line with the principles that supported the targets when they were originally set.	

Variable elements of Executive Director remuneration

Purpose and link to strategy	Operation	Performance measures	Maximum potential value
Employee Share Ownership Plan (ESOP)			
To offer all eligible UK-based employees the opportunity to build a shareholding in a tax-efficient way.	Eligible UK Executive Directors are entitled to participate in an HMRC approved Share Incentive Plan known as the ESOP.	N/A	Executive Directors will be subject to the same limitations as all other participants.
To align Executive Director interests to those of shareholders	Whilst not currently operated, if in the future employee share plans are offered outside the UK, or if alternative or additional plans are operated within the UK, eligible Executive Directors will be entitled to participate on the same basis as all other eligible employees. Awards granted under the ESOP are not subject to clawback or malus. The ESOP operates over a five-year period.		

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Other

Purpose and link to strategy	Operation	Performance measures	Maximum potential value
Share ownership guidelines			
To provide alignment with shareholder interests.	Executive Directors are required to accumulate through retaining at least half of the shares acquired (after sales to meet tax due) from PSP awards and the investment of bonus, a shareholding in the Company worth a minimum of 200% (300% for the CEO) of their annual salary. Subject to the level of PSP awards that vest and of bonus invested, it is anticipated that this will be achieved within five years of appointment. In addition, on departure as an Executive Director, the required shareholding (or level of holding achieved by the date of departure), normally has to be retained for two years. If an Executive Director purchases shares from his/her own resources then he/she can deem those shares as not counting towards the share ownership guidelines and therefore also the two year post-cessation requirement. This retention policy applies to all Executive Directors not under notice at the time the Policy is approved by shareholders.	N/A	N/A

Chair and Non-Executive Directors

Purpose and link to strategy	Operation	Performance measures	Maximum potential value
Fees			
To attract and retain high calibre individuals, with appropriate experience or industry related skills, by offering market competitive fee levels.	<p>The Chair is paid a single fee for all responsibilities.</p> <p>The Non-Executive Directors are paid a basic fee. The Chairs of the main Board Committees, the Senior Independent Director and any individual with other separate responsibilities are paid an additional fee to reflect their extra responsibilities.</p> <p>Fees for the Chair and the Non-Executive Directors are reviewed annually by the Board, with reference to any change in the time commitment required, UK market levels and the average base salary increase across the wider workforce.</p> <p>The Chair and the Non-Executive Directors do not participate in any annual bonus or incentive plans, pension schemes, healthcare arrangements, the Company's PSP or ESOP.</p> <p>The Company repays the reasonable expenses (including any tax due thereon) that the Chair and the Non-Executive Directors incur in carrying out their duties as Directors.</p>	N/A	The aggregate value of fees paid to the Chair and Non-Executive Directors will not exceed the amount set out in the Articles of Association.

2.1 Notes to the Policy table

Changes to the Remuneration Policy

The main proposed changes to the Remuneration Policy are as follows:

- AIP award: introduce deferral of bonus;
- PSP award: increase potential maximum award from 200% of salary to 250% of salary (subject to shareholder consultation) and dividend equivalents to apply;
- pensions: set the level of pension benefit for newly appointed Executive Directors to no higher than the level available to the workforce and incumbent Directors to move, by 31st December 2022, to the current blended average for all employees in the market in which the Executive Director is based (17% in the UK), reducing to the new Executive Director level by 2025;
- enhancement of the clawback/malus arrangements;
- share ownership requirements: increase guideline levels to 300% for the CEO and 200% for other Executive Directors and introduce post-cessation shareholding requirements for the two-year period following an Executive Director's departure; and
- permit minor changes to be made to the Policy without shareholder approval in a General Meeting.

Additional details and an explanation of the changes can be found in the Statement by Committee Chair on pages 104 to 105.

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5. Remuneration continued

Remuneration Policy 2020 continued

Outstanding incentive awards

Details of outstanding incentive awards granted to Executive Directors prior to the Policy coming into force, including awards granted in 2019, and details of the performance targets are set out on pages 108 to 114.

All incentive awards granted prior to this Policy coming into force will continue on their existing terms including the exercise of discretion to amend such awards.

Remuneration policy for other employees

The Company's approach to annual salary reviews is consistent across the Group, with consideration given to the scope of the role, level of experience, responsibility, individual performance and market pay levels. The most senior managers in the business (approximately 150 people globally) participate in bonus arrangements with similar targets, measures and relative weightings to the Executive Directors. Target and maximum potential values are lower and determined by the grade of the manager's role. Performance targets are based on an appropriate combination of Group, divisional and local operating company financial measures, in addition to personal strategic objectives. Contractual terms and benefits for the wider workforce are subject to local employment legislation and best practice.

Measure selection and the target setting process

Measures are selected taking into account the key strategic priorities of the Company, shareholder expectations and factors that sit within an individual's span of control.

Targets are set with reference to internal and external forecasts to ensure that they are realistic, yet sufficiently stretching. An appropriate mix of long- and short-term targets will be used, informed by the nature of the measure.

The Committee may make minor amendments to the Policy set out in this Policy Report (for regulatory, exchange control, tax or administrative purposes or to take account of a change in legislation) without obtaining shareholder approval for that amendment.

2.2 External directorships

Directors are permitted to hold external directorships in order to broaden their experience, to the benefit of the Company. Such appointments are subject to approval by the Board and the Director may retain any fees paid in respect of such directorships. The Board ensures compliance by Directors with Code provision B.3.

2.3 Approach to recruitment and promotion remuneration

When appointing external hires, promoting executives, or an Executive Director internally, the Committee will continue to act in the best interests of shareholders when determining remuneration, in line with the stated Policy. The main elements of the Remuneration Policy for Executive Director appointments are:

- base salary will be set on appointment taking into account the factors set out in the Policy table, but also the individual's experience. Depending on an individual's prior experience, the Committee may set salary below market norms, with the intention that it is realigned over time, typically two to three years, subject to performance in the role;
- pension benefits will not exceed the rate applicable to the relevant country's workforce, as determined by the Committee;
- mobility related benefits may include the payment of some or all of an individual's tax on relocation expenses incurred within 12 months of joining;
- on-going annual incentive pay opportunity will not exceed 400% of salary, in line with the maximums stated in the Policy table (up to 150% of salary for annual bonus and an award of up to 250% of salary under the PSP). In the year of appointment an off-cycle award under the PSP and different annual bonus conditions may be made by the Committee to ensure an immediate alignment of individual interests;
- in addition to the standard elements of remuneration, on the appointment of an external candidate, the Committee reserves the right to buy-out incentives that the individual has foregone by accepting the appointment, if appropriate. The terms of such awards would be informed by the amounts being forfeited and the associated terms (for example the extent to which the outstanding awards were subject to performance, the vehicles and the associated time horizons). Awards would be made either through the existing share plans or in accordance with the relevant provisions contained within the Listing Rules; and
- when an internal appointment to the Board is made, any pre-existing obligations may be honoured by the Committee and payment will be permitted under this Remuneration Policy.

Details of the remuneration for any new Chair or Executive Director appointed to the Board will be disclosed on the Group's website, www.spiraxsarcoengineering.com.

2.4 Service agreements and termination policy

The Company's policy on service agreements and termination arrangements for Executive Directors is set out below. Service agreements are designed to reflect the interests of the Company, as well as the individual concerned. Executive Directors' service agreements are kept at the Company's headquarters in Cheltenham.

In accordance with the Code and guidelines issued by institutional investors, Executive Directors have service agreements that are terminable by either the Company or the Executive Director on 12 months' notice. In the event of termination or resignation, and subject to business reasons, the Company would not necessarily hold the Executive Director to his or her full notice period. All Directors are subject to election (if newly appointed in the year) or re-election at the AGM.

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Service agreements set out restrictions on the ability of the Executive Director to participate in businesses competing with those of the Group or to entice or solicit away from the Group any senior employees or to solicit/deal with clients of the Group or interfere with supply, in the 12 months following the cessation of employment.

Salary, pension and benefits are included in the agreements and are treated as described in the policy table on pages 122 to 127. There is no contractual entitlement to payment of an annual bonus or granting of an award under the PSP, until individual participation, level of award, measures and targets have been set for a particular year.

The Chair and Non-Executive Directors do not have service agreements but serve the Company under letters of appointment, for an initial period of three years, subject to annual re-election at the AGM. Appointments may be terminated by the Company or individual with one month's notice.

Group Chief Executive and new appointments from 1st January 2013

The details of the service agreements of the Group Chief Executive and for new appointments to the Board are outlined below and comply with best practice. In the event of a material change in role, function or responsibilities, Executive Directors' agreements will be reviewed and will be expected to be updated to meet the requirements outlined below.

Notice period	12 months by the Executive Director and 12 months by the Company
Termination	<p>No payment if Executive Director commits a repudiatory breach of the service agreement or for gross misconduct or in certain circumstances.</p> <p>No additional termination payment if notice worked.</p> <p>If notice only part worked/part on garden leave, payment in respect of unexpired period of notice, otherwise 12 months' base salary only.</p> <p>Company discretion to pay in lieu of notice in lump sum or monthly except within 12 months of a change of control, when a lump sum will be paid.</p> <p>If paid monthly, payment will be reduced by the value of any salary, fees and benefits, excluding long-term incentives, earned in new paid employment in that period (mitigation clause).</p> <p>No automatic entitlement to payments under the annual bonus or PSP. See pages 130 to 131.</p> <p>Payment of reasonable legal fees and any legally enforceable entitlements.</p> <p>Garden leave clause.</p> <p>Robust post-termination restrictions on confidentiality, non-compete, non-solicitation and non-interference with customers or suppliers.</p> <p>Service agreements may be terminated without notice and without payment of compensation on the occurrence of certain events, such as gross misconduct or financial misstatement.</p>
Clawback or malus	<p>Bonus payments and PSP awards are subject to clawback or malus until the third anniversary of bonus payment and PSP vesting respectively. Circumstances include financial misstatement, erroneous calculations determining bonus payment, gross misconduct, reputational damage and corporate failure.</p>

Executive Directors' legacy agreements (appointments before 2013)

Within the legacy agreements of Executive Directors, termination of agreements is subject to a 12 month notice period. Where payment is made in lieu of notice on termination, the payment of a sum in respect of lost future bonus opportunity (based on an average of the preceding three years' bonus payments) is subject to the Committee's discretion. The Committee has the power to reduce the amount to reflect performance on the part of the Executive Director that is considered by the Committee to be unsatisfactory. On termination of such an Executive Director's service agreement, the Committee will take into account the departing Executive Director's need to mitigate his or her loss when determining the amount of bonus. Payment will only be made at the discretion of the Committee after taking into account individual performance in order to ensure that there will be no "payments for failure". In any event, payments will be subject to clawback or malus provisions.

Executive Directors' service agreements may be terminated without notice and without payment of compensation on the occurrence of certain events, such as termination for gross misconduct or financial misstatement.

While the Executive Directors' service agreements include a provision to deal with termination on a change of control, in the event of an offer being made, shareholders have discretion to accept the offer or not. The decision to recommend acceptance, or not, is a matter for the Board, and the Committee is of the clear view that the change of control provision within the Executive Directors' service agreements would have no influence on the voting pattern of those Executive Directors. Executive Directors' legacy agreements are summarised in the table below.

5. Remuneration continued

Remuneration Policy 2020 continued

Notice period 12 months by the Executive Director and 12 months by the Company

Termination	<p>No payment if Executive Director commits a repudiatory breach of the service agreement or for gross misconduct or in certain circumstances.</p> <p>No additional termination payment if notice worked.</p> <p>If notice only part worked/part on garden leave, payment in respect of unexpired period of notice.</p> <p>Otherwise 12 months' base salary, the value of other benefits, plus the cost of pension credits or contributions for the period plus the average of the prior three years' annual bonus payments, with Committee discretion to reduce the amount of the bonus that would otherwise be calculated, to reflect performance on the part of the Executive Director that is considered by the Committee to be below the required standards, provided that termination by the Company does not occur within 12 months of a change of control.</p> <p>Committee discretion to pay in lump sum or monthly except within 12 months of a change of control when a lump sum will be paid.</p> <p>If paid monthly, payment will be reduced by the value of any salary, fees and benefits excluding long-term incentives, earned in new paid employment in that period.</p> <p>No automatic entitlement to payments under the current annual bonus or PSP. See pages 130 to 131.</p> <p>Garden leave clause.</p> <p>Robust post-termination restrictions on confidentiality, non-compete, non-solicitation and non-interference with customers or suppliers.</p>
Clawback or malus	<p>Bonus payments and PSP awards are subject to clawback or malus for up to three years following award. Circumstances include financial misstatement, erroneous calculations determining bonus payments, reputational damage or gross misconduct.</p>

Treatment of leavers under the incentive plans

Whilst it is not an entitlement, it is expected that where an Executive Director is a "good leaver" (ie where the cessation of employment is due to death, disability, redundancy, retirement or the company business in which he/she works being disposed of or where the ending of employment is instigated by the Company and is not for cause), payments will be made under the annual bonus plan if performance targets are met subject to, and in accordance with, the plan rules. If the Executive Director is not a "good leaver" it is expected that no bonus will be paid.

The treatment of leavers under the PSP is determined in accordance with the shareholder approved PSP rules. Any awards granted within six months prior to termination (or the giving or receiving of notice) will lapse. Any awards granted six months or longer prior to termination of employment (but prior to the end of the performance period) will lapse unless the Executive Director is considered to be a "good leaver".

In the case of such a "good leaver" the award will vest on the termination date, or the normal vesting date, at the Committee's discretion. This is subject to the satisfaction of the performance targets at that date and a pro-rata reduction in the number of shares to take account of the shortening of the performance period. For awards granted after the 2020 AGM, the award will vest on the normal vesting date.

If the Executive Director is a "good leaver" where the ending of employment is not for cause, the number of shares vested may be reduced (including to zero) by the Committee in its absolute discretion.

Where an Executive Director ceases employment (or notice is given) on or after the end of the performance period but prior to the date on which the Committee has determined the extent to which the award has vested, if the Executive Director is a "good leaver", his/her award will be preserved and will be treated in the same way as if his/her employment had continued, whereas if the Executive Director is not a "good leaver", his/her award will lapse on the earlier of his/her cessation of employment and the giving of notice.

In relation to the ESOP, as an HMRC approved plan, where an Executive Director leaves the treatment will be in line with the approved plan rules and HMRC guidance.

Change of control

Bonus: if termination occurs within 12 months following a change of control, the Executive Director is entitled to (i) a lump sum payment in lieu of notice and (ii) receive a full bonus payment calculated by reference to the average of the preceding three years' bonus payments (without any reduction for performance).

PSP: the rules provide that in the event of a change of control, outstanding share-based awards will vest to the extent that performance targets are met at the date of the event. Any such vesting would generally be on a time prorated basis. The Committee may, at its discretion, increase the level of vesting if it believes that exceptional circumstances warrant such treatment.

2.5 Illustrations of application of the Remuneration Policy

Under the Remuneration Policy, a significant portion of remuneration is variable and depends on the Company's performance. Below we illustrate how the total pay opportunity for the Executive Directors varies under three performance scenarios: maximum, on target, and below threshold.

The scenarios for 2020, informed by the current application of our pay policy, are as follows:

Element

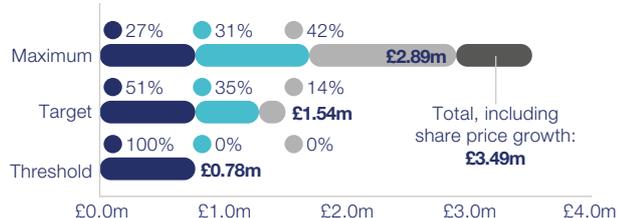
Fixed pay, benefits and ESOP Fixed pay and ESOP does not vary with performance and comprises:

- base salary effective 1st January 2020;
- benefits value based on 2019 disclosure;
- pension value (DB 2019: cash allowance: rate applied to 2020 salary); and
- ESOP participation of up to £1,800 1:1 matching shares for eligible Executive Directors.

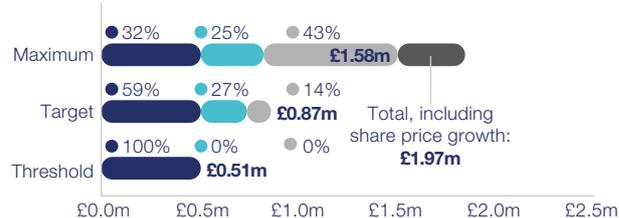
	Percentage of base salary		
	Below threshold	On target	Maximum
Annual bonus (% of salary)	0%	90% CEO 60% ED	150% CEO 100% ED
PSP ¹ (% of salary at award)	0%	36.0% CEO 31.5% ED	200% CEO 175% ED

¹ A level of 18% vesting for "on target" performance is equivalent to threshold performance under the PSP, which the Committee believes to be a fair assumption for on target performance given the approach taken to setting performance targets.

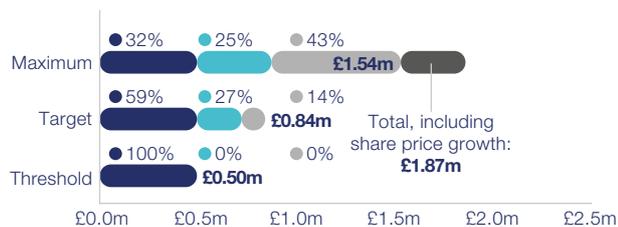
Nicholas Anderson (Group Chief Executive)



Kevin Boyd (Chief Financial Officer)



Neil Daws (Managing Director, Steam Specialties)



● Fixed ● Annual bonus ● PSP ● PSP value with 50% share price growth

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5. Remuneration continued

Remuneration Policy 2020 continued

2.6 Statement of consideration of employment conditions elsewhere in the Group

When determining the remuneration of Executive Directors, the Committee considers the pay of employees across the Group. When conducting the annual salary review, the average base salary increase awarded to the UK workforce and senior managers across the Group provides a key reference point when determining levels of increase for Executive Director remuneration. The Remuneration Policy was drawn up by the Committee without the need for any consultation with employees.

The Committee also determines the principles and policy of remuneration which shall apply to the Group's senior managers. The responsibility for determining precise compensation packages that meet local practice and performance targets lies with the Group Chief Executive and the responsible Executive Director.

To ensure consistency in Remuneration Policy across the Group and to encourage a performance culture, senior managers participate in the PSP. The Board believes that share ownership is an effective way of aligning the interests of managers and shareholders and to strengthen the development of the business.

2.7 Statement of consideration of shareholder views

In developing and reviewing the Company's Remuneration Policy for Executive Directors and other senior executives, the Committee seeks and takes into account the range of views of shareholders and institutional shareholder advisers. The Committee Chair actively engages with major shareholders and institutional shareholder advisers when appropriate and takes into account their views when reviewing and implementing the Company's Remuneration Policy.

The Committee considers shareholder feedback received in relation to the AGM each year and guidance from institutional shareholder advisers more generally. This feedback, plus any additional feedback received during the year at meetings with shareholders, is considered as part of the Company's annual Remuneration Policy review. At the AGMs in 2021 and 2020, the advisory votes on the 2020 and 2019 Annual Reports on Remuneration received 95.93% and 95.971% in favour respectively. At the AGM in 2017 the Remuneration Policy received 95.06% in favour.

Regulatory disclosures



“High standards of governance and compliance remain important as the world emerges from COVID-19.”

Andy Robson
Group General Counsel

Principal activities

Spirax-Sarco Engineering plc is a multi-national industrial engineering Group that is domiciled and incorporated in the UK under registration number 596337.

A thermal energy management and niche pumping specialist, the Group. 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 electrical process heating products, engineered packages, site services and systems expertise for a diverse range of industrial and institutional customers. Both Businesses help their end users to improve production efficiency, meet their 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.

An overview of our principal activities, by Business, is given on page 2 and 11 to 37 of the Strategic Report.

Future development

An indication of likely future developments in the Group is given in the Strategic Report.

Strategic Report

This is set out on the inside front cover to page 3 of the Annual Report.

Risk management and principal risks

Descriptions of our risk management and the principal risks facing the Company are on pages 85 to 91 and 127 to 130.

Constructive use of AGM

The Notice of Meeting convening the AGM, to be held on Wednesday, 11th May 2022 and an explanation of the resolutions sought, is set out in the Circular posted on our website and sent to shareholders in the format selected by them.

COVID-19

This year we are pleased to be able to hold a physical meeting and welcome our shareholders to the AGM in person. We need to make sure that we take the correct and proper precautions so that, in light of the continuing pandemic, everyone attending is safe. We will therefore adopt the following COVID-19 controls for personal attendance at the meeting:

- Proof of all vaccinations including booster doses
- A recent negative lateral flow or PCR test.

The second change is that we will hold the meeting at Spirax Sarco Limited, Runnings Road, Kingsditch Trading Estate, Cheltenham, Gloucestershire, GL51 9NQ because our Group Headquarters at Charlton House, Cheltenham, UK is temporarily closed as we upgrade it for the future in accordance with our sustainability and business requirements.

We appreciate your understanding. For up-to-date information, please refer to our website: <https://www.spiraxsarcoengineering.com/investors/shareholder-information/agm-notices>.

While we are always delighted to meet with our shareholders at our AGMs, all shareholders are still able to vote by submitting a Form of Proxy, in line with the instructions set out in the Circular. In 2021, 92.60% of the proxy votes received were lodged electronically through the CREST system.

The results of the votes will be announced to the London Stock Exchange and posted on the Group's website, www.spiraxsarcoengineering.com, shortly after the conclusion of the meeting.

Results

The Group's results for the year have been prepared in accordance with the International Financial Reporting Standards. They are set out in the Consolidated Income Statement, which appears on page 177.

Dividend

The Directors are proposing the payment of a final dividend of 97.5p (2020: 84.5p) which, together with the interim dividend of 38.5p (2020: 33.5p), makes a total distribution for the year of 136.0p (2020: 118.0p). If approved at the AGM, the final dividend will be paid on 20th May 2022 to shareholders on the register at the close of business on 22nd April 2022.

Directors' interests

The interests of the Directors in the share capital of Spirax-Sarco Engineering plc as at 31st December 2021 are set out on pages 144 to 145.

Subsequent to the signing and approval of the Annual Report, the venue for the AGM has changed to our Group Headquarters at Charlton House, Cirencester Road, Cheltenham, Gloucestershire, GL53 8ER, UK.

Regulatory disclosures continued

Directors' and Officers' Insurance

The Company provides Directors' and Officers' Insurance for Board members, Directors of the Group's Operating Companies and senior officers.

The Company has also provided each Director with an indemnity to the extent permitted by law in respect of the liabilities incurred as a result of their holding office as a Director of the Company.

Appointment and replacement of Directors

The appointment and replacement of Directors is governed by the Company's Articles of Association, the Code, the Companies Act 2006 and related legislation.

All current Directors will seek re-election at the AGM.

The Directors stand for election or re-election on an annual basis at each AGM, in accordance with the Code. The Board considers that all Directors standing for re-election continue to perform effectively and demonstrate commitment to their roles. In addition, the Board considers that all Directors have the necessary skills and experience, as set out in their biographies on pages 96 to 97.

Conflicts of interest

Under the Companies Act 2006 and the provisions of the Company's Articles of Association, the Board is required to consider potential conflicts of interest. The Company has established formal procedures for the disclosure and review of any conflicts, or potential conflicts, of interest which the Directors may have and for the authorisation of such matters of conflict by the Board. To this end the Board considers and if appropriate, authorises any conflicts, or potential conflicts, of interest as they arise and reviews any such authorisation annually.

New Directors are required to declare any conflicts, or potential conflicts, of interest to the Board at the first Board meeting after their appointment. The Board believes that the procedures established to deal with conflicts of interest are operating effectively.

Share capital

As at 28th February 2022 there were no treasury shares held by the Company. Details of shares issued during the year are set out in Note 21 on page 207.

As at 31st December 2021 the Company's share capital was made up of Ordinary shares which each carry one vote at general meetings of the Company. Except as set out in the Articles of Association or in applicable legislation, there are no restrictions on the transfer of shares in the Company and there are no restrictions on the voting rights in the Company's shares.

The Company is not aware of any agreements entered into between any shareholders in the Company which restrict the transfer of shares or the exercise of any voting rights attached to the shares.

Substantial shareholdings

The voting rights in the table below have been determined in accordance with the requirements of the UK Listing Authority's Disclosure and Transparency Rules DTR 5 and represent 3% or more of the voting rights attached to issued shares in the Company as at 19th February 2022 and 31st December 2021. There are no Controlling Founder Shareholders.

Powers of the Directors and purchase of own shares

Subject to the provisions of the Articles of Association, the Directors may exercise all the powers of the Company.

A shareholder's authority for the purchase by the Company of a maximum of 10% of its own shares was in existence during the year. However, the Company did not purchase any of its shares during that time.

This authority expires at the forthcoming AGM and it is proposed that a similar authority be approved. The total number of shares in issue as at 31st December 2021 was 73,776,048.

PSP and Employee Benefit Trust (EBT)

The number of shares held in the EBT at 31st December 2021 was 149,331 for the purpose of satisfying the vesting of awards and options granted to employees under the various Company schemes. Dividends on shares in the EBT are waived.

Articles of Association

The Company's Articles of Association are available from Companies House in the UK or by writing to the General Counsel at the Group's registered office in Cheltenham. They are also available on the Company's website. Amendments to the Articles of Association can only be made by means of a special resolution at a general meeting of the shareholders of the Company.

Substantial shareholdings	As at 31.12.21		As at 28.02.22	
	Number of Ordinary shares	% of issued share capital	Number of Ordinary shares	% of issued share capital
BlackRock, Inc.	6,101,821	8.3%	6,282,874	8.5%
The Capital Group Companies, Inc.	5,849,574	7.9%	5,874,628	8.0%
Fiera Capital Corporation	3,985,626	5.4%	4,008,863	5.4%
Sun Life Financial, Inc.	3,674,076	5.0%	3,443,969	4.7%
APG Groep N.V.	4,050,685	5.5%	4,049,518	5.5%
The Vanguard Group, Inc.	2,924,299	4.0%	2,992,169	4.1%

Significant contracts

The Company is not a party to any significant agreements that take effect, alter, or terminate upon a change of control of the Company following a takeover bid.

There are provisions in the Executive Directors' service agreements which state that following a takeover or change of control, if the Executive Director's employment is terminated then both salary/benefits and a sum in respect of lost future bonus opportunity become payable as a lump sum.

The Strategic Report contains all the information required to comply with Section 414(c) of the Companies Act 2006 and there are no contractual arrangements that need to be disclosed which are essential to the business of the Group.

Disclosure of information to the auditor

As at the date of the approval of this Annual Report, as far as each Director is aware, there is no relevant audit information of which the Company's auditor is unaware. Each Director has taken all such steps as he or she ought to have taken as a Director to make himself/herself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of Section 418 of the Companies Act 2006.

Auditor

The Company's auditor throughout the period of this Annual Report was Deloitte LLP, having been appointed on 20th May 2014.

Deloitte LLP has expressed its willingness to continue in office as auditor and a resolution to re-appoint Deloitte LLP will be proposed at the forthcoming AGM.

Research and development (R&D)

The Group continues to devote significant resources to the research and development and the updating and expansion of its range of products to remain at the forefront of its world markets.

The R&D functions in Cheltenham (Spirax Sarco, Steam Specialties), Falmouth (Watson-Marlow), Huddersfield (Aflex Hose), Bremen (Gestra), Normandy (Thermocoax) and the Product Development function in Pittsburgh and Utah (Chromalox) are tasked with improving the Group's pipeline of new products, decreasing the time to launch, expanding the Group's addressable market and realising additional sales. Further information on the expenditure on R&D is contained in Note 7 on page 195. The amount of R&D expenditure capitalised, and the amount amortised, in the year, are given in Note 15 on page 201.

Relationships with suppliers and customers

Our relationship with our customers is explained throughout the Report, including page 102 (Our customers). Our relationship with our suppliers is specifically addressed on page 103 (Our supply chain) and 103 (Our suppliers).

Treasury and foreign exchange

The Group has in place appropriate treasury policies and procedures, which are approved by the Board. The treasury function manages interest rates for both borrowings and cash deposits for the Group. It is also responsible for ensuring there is sufficient headroom against any banking covenants contained within its credit facilities and for ensuring there are appropriate facilities available to meet the Group's strategic plans. The Group's treasury policy was reviewed during the year and an updated policy was approved in October 2021 by the Audit Committee and the Board.

To mitigate and manage exchange rate risk, the Group routinely enters into forward contracts and continues to monitor exchange rate risk in respect of foreign currency exposures.

All these treasury policies and procedures are regularly monitored and reviewed. It is the Group's policy not to undertake speculative transactions which create additional exposures over and above those arising from normal trading activity.

Political donations

The Group has a policy of not making political donations and no political donations were made during the year (2020: nil).

Greenhouse gas emissions

Details of our greenhouse gas emissions can be found on page 55.

Going concern

Our Going Concern Statement is set out on page 43.

Scope of the reporting in this Annual Report

The Board has prepared a Strategic Report (including the Chair's Statement, the Strategic Review and the Operating Review) which provides an overview of the development and performance of the Group's business in the year ended 31st December 2021 and its position at the end of that year, which covers likely future developments in the business of the Company and the Group.

For the purposes of compliance with DTR 4.1.5 R(2) and DTR 4.1.8 R, the required content of the management report can be found in the Strategic Report and these Regulatory disclosures, including the sections of the Annual Report incorporated by reference.

The Strategic Report and the Directors' Report were approved by the Board on 9th March 2022. Pages 161 to 163 form the Directors' Report for the purposes of the Companies Act 2006.

The Annual Report contains the information required for compliance with the Companies, Partnerships and Groups (and Non-Financial Reporting) Regulations 2016.

For the purposes of LR 9.8.4C R, the information required to be disclosed by LR 9.8.4 R is set out in the table set out on the following page.

Regulatory disclosures continued

For the purposes of LR 9.8.4C R, the information required to be disclosed by LR 9.8.4 R is set out in the following table.

Topic	Section	Location
(1)	Interest capitalised	Not applicable
(2)	Publication of unaudited financial information	Not applicable
(4)	Details of long-term incentive schemes	Remuneration Report, pages 141 to 142
(5)	Waiver of emoluments by a Director	Not applicable
(6)	Waiver of future emoluments by a Director	Not applicable
(7)	Non pre-emptive issues of equity for cash	Not applicable
(8)	Item (7) in relation to major subsidiary undertakings	Not applicable
(9)	Parent participation in a placing by a listed subsidiary	Not applicable
(10)	Contracts of significance	Regulatory Disclosures, page 163
(11)	Provision of services by a controlling shareholder	Not applicable
(12)	Shareholder waivers of dividends	Regulatory Disclosures, page 162
(13)	Shareholder waivers of future dividends	Not applicable
(14)	Agreements with controlling shareholders	Not applicable

Andy Robson

Group General Counsel and Company Secretary

9th March 2022

Spirax-Sarco Engineering plc

Registered no. 596337

Statement of Directors' responsibilities



“The Group’s strong financial position underpins our stability and viability, while supporting investments to secure our future.”

Nimesh Patel
Chief Financial Officer

Board of Directors

The Directors are responsible for preparing the Annual Report and the Financial Statements in accordance with applicable laws and regulations.

Company law requires the Directors to prepare consolidated Group Financial Statements for each financial year in accordance with IFRS as adopted by the UK. Parent Company Financial Statements are prepared under FRS 101.

In addition, by law the Directors must not approve the Financial Statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Parent Company and of their profit or loss for that period. In preparing these Financial Statements, the Directors are required to:

- properly select and apply accounting policies
- present information, including accounting policies, in a manner which is relevant, reliable, comparable and understandable
- provide additional disclosures when compliance with the specific requirements in IFRS are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity’s financial position and financial performance
- make an assessment of the Company’s ability to continue as a going concern

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company’s transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that its Financial Statements comply with the Companies Act 2006.

They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group’s website, www.spiraxsarcoengineering.com. Legislation in the UK governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

Cautionary statement

All statements other than statements of historical fact included in this document, including those regarding the financial condition, results, operations and Businesses of Spirax-Sarco Engineering plc (its strategy, plans and objectives), are forward-looking statements.

These forward-looking statements reflect management’s assumptions made based on information available at this time. They involve known and unknown risks, uncertainties and other important factors which could cause the actual results, performance or achievements of Spirax-Sarco Engineering plc 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.

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. Schedule 10A contains limits on the liability of the Directors of Spirax-Sarco Engineering plc and their liability is solely to Spirax-Sarco Engineering plc.

Responsibility statement

We confirm that to the best of our knowledge:

- the Financial Statements, prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole
- the Strategic Report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face
- the Annual Report 2021 taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company’s financial position, performance, business model and strategy

This responsibility statement was approved by the Board of Directors on 9th March 2022 and is signed on its behalf by:

Nimesh Patel
Chief Financial Officer
9th March 2022

Financial Statements

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Independent Auditor's Report

To the members of Spirax-Sarco Engineering plc

Report on the audit of the Financial Statements

1. Opinion

In our opinion:

- the Financial Statements of Spirax-Sarco Engineering plc (the 'Parent Company') and its subsidiaries (the 'Group') give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2021 and of the Group's profit for the year then ended;
- the Group Financial Statements have been properly prepared in accordance with United Kingdom adopted international accounting standards;
- the Parent Company Financial Statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 101 "Reduced Disclosure Framework"; and
- the Financial Statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the Financial Statements which comprise:

- the Consolidated and Parent Company Statements of Financial Position;
- the Consolidated Income Statement;
- the Consolidated Statement of Comprehensive Income;
- the Consolidated and Parent Company Statements of Changes in Equity;
- the Consolidated Statement of Cash Flows;
- the related notes 1 to 27 to the Consolidated Financial Statements and 1 to 11 for the Parent Company Financial Statements.

The financial reporting framework that has been applied in the preparation of the Group Financial Statements is applicable law and United Kingdom adopted international accounting standards. The financial reporting framework that has been applied in the preparation of the Parent Company Financial Statements is applicable law and United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

2. Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the Financial Statements section of our report.

We are independent of the Group and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the Financial Statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. The non-audit services provided to the Group and Parent Company for the year are disclosed in note 7 to the Financial Statements. We confirm that we have not provided any non-audit services prohibited by the FRC's Ethical Standard to the Group or the Parent Company.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

3. Summary of our audit approach

Key audit matters	<p>The key audit matters that we identified in the current year were:</p> <ul style="list-style-type: none"> • revenue recognition in relation to cut off for certain components; • defined benefit pension liability valuation focusing on the judgements and assumptions made by management in determining the discount rate, mortality assumption and inflation rate; and • goodwill impairment review for the Electric Thermal Solutions (ETS) cash generating unit (CGU). <p>Within this report, key audit matters identified have remained at a similar level of risk to the prior year.</p>
Materiality	<p>The materiality that we used for the Group Financial Statements was £15.0m (2020: £11.4m) which represents 4.8% of statutory profit before tax adjusted for a one-off gain of £2.0m from the closure of the pension scheme in Germany to future accruals.</p>
Scoping	<p>We focused our Group audit scope primarily on the audit work at 24 (2020: 25) components. These components represent the principal business units and account for 86% (2020: 73%) of Group's net assets, 75% (2020: 74%) of Group's revenue and 73% (2020: 73%) of Group's profit before tax.</p>
Significant changes in our approach	<p>There were no significant changes in our approach.</p>

Independent Auditor's Report continued

4. Conclusions relating to going concern

In auditing the Financial Statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the Financial Statements is appropriate.

Our evaluation of the Directors' assessment of the Group's and Parent Company's ability to continue to adopt the going concern basis of accounting included:

- evaluated the financing facilities available to the Group including nature of facilities, repayment terms and covenants;
- considered the business model and principal risks and uncertainties;
- challenged the assumptions used in the forecasts through assessing the accuracy of historical budgeting and by reference to market data;
- recalculated and assessed the amount of headroom in the forecasts (cash and covenants); and
- performed a sensitivity analysis to consider specific scenarios including a reverse stress test.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and Parent Company's ability to continue as a going concern for a period of at least twelve months from when the Financial Statements are authorised for issue.

In relation to the reporting on how the Group has applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the Directors' statement in the Financial Statements about whether the Directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

5. Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

5.1. Revenue Recognition

Key audit matter description	<p>The Group policy is to recognise revenue when performance obligations have been fulfilled which, in the majority of cases, is at time of dispatch ('ex works') or at time of delivery ('FOB'). We have identified a key audit matter relating to a risk of material misstatement, whether due to fraud or error, in relation to cut off for revenue recognition.</p> <p>In particular, we pinpointed the risk to the potential overstatement of revenue in components where external revenue recognised in December 2021 is both above the component's materiality and contributes a higher proportion (10% or more) of annual external revenue compared to the rest of the year. The risk for these components focuses on the recognition of revenue by reference to the contracted shipping terms and meeting the performance obligations for product despatches and deliveries spanning year end.</p> <p>Refer to Note 1 for the Group's revenue recognition policy and the significant issues section of the Audit Committee Report on pages 122 to 123.</p>
How the scope of our audit responded to the key audit matter	<p>In response to the key audit matter described above, we performed a risk assessment across the Group to identify specific areas of risk, focusing our testing accordingly. Our audit response at the relevant components consisted of several procedures including:</p> <ul style="list-style-type: none"> • performance of walkthroughs to obtain an understanding of the relevant controls relating to the revenue cycle; and • review of the product despatch cycle and revenue recognition profile across the year-end period and testing of a sample of items by assessing whether the performance obligation was met in line with the revenue recognition date in accordance with the terms of trade with customers.
Key observations	<p>From the work performed above we are satisfied that there are no material cut-off errors.</p>

5.2. Defined benefit pension liability valuation

Key audit matter description	<p>At 31st December 2021 the gross retirement benefit liability recognised in the Consolidated Statement of Financial Position was £605.5m (2020: £630.3m). There is a risk of material misstatement relating to the judgements made by management in valuing the defined benefit pension liabilities including the use of key model input assumptions specifically the discount rates, mortality assumptions and inflation rates over the four main schemes (three in the UK and one in the USA). These variables can have a material impact in calculating the quantum of the retirement benefit liability.</p> <p>Refer to Note 1 for the Group's policy on defined benefit plans and post-retirement benefit key sources of estimation uncertainty, Note 23 for the financial disclosure including the key estimates and assumptions used in the defined benefit pension plan valuation and the significant issues section of the Audit Committee Report on pages 122 to 123.</p>
How the scope of our audit responded to the key audit matter	<p>Working with our internal actuarial specialists we assessed the key assumptions applied in determining the pension obligations for the four main pension schemes, and determined whether the key assumptions are reasonable. Testing covered 95.5% (2020: 94.3%) of defined benefit pension liabilities.</p> <p>For each of the four schemes, we challenged management's key assumptions by reference to illustrative benchmark rates, sensitising any difference between management's rates and the illustrative benchmark rates. Additionally we benchmarked the key assumptions against other listed companies to check for any outliers in the data used.</p> <p>We also evaluated management's expert and reviewed their reports considering compliance with IAS 19 and IFRIC 14.</p>
Key observations	<p>From the work performed above we are satisfied that the key assumptions applied in respect of the valuation of the schemes' liabilities are appropriate.</p>

5.3 Goodwill impairment review for the Electric Thermal Solutions CGU

Key audit matter description	<p>The group holds £411.2m (2020: £422.4m) of goodwill arising from business combinations in prior years. There is judgement surrounding the valuation of goodwill and the risk of impairment. Key judgements include assumptions in estimating future revenue and earnings before interest and tax (EBIT) margins to determine whether assets are impaired, alongside setting an appropriate discount rate.</p> <p>ETS has historically performed behind management's forecasts, primarily due to operational matters and the impact of COVID-19. Therefore we have identified a key audit matter relating to the impairment of goodwill and intangibles for the ETS CGU, pinpointed to Chromalox's short- to medium-term (2022-2026) revenue and EBIT margin assumptions as well as the discount rate. The value of goodwill for the ETS CGU as at the balance sheet date was £241.0m (2020: £243.7m).</p> <p>The Audit Committee Report on page 123 refers to impairment of goodwill and other intangibles as an area considered by the Audit Committee. Note 1 to the Consolidated Financial Statements sets out the Group's accounting policy for testing of goodwill and intangibles for impairment. The basis for the impairment reviews is outlined in Note 15 to the Consolidated Financial Statements, including details of the discount rates and growth rates used. Note 15 to the Consolidated Financial Statements also includes details of the extent to which the CGUs to which the goodwill and other intangible assets are allocated are sensitive to changes in the key inputs.</p>
How the scope of our audit responded to the key audit matter	<p>In response to the key audit matter identified, we performed the following procedures to challenge management's assumptions and assessment:</p> <ul style="list-style-type: none"> • obtained an understanding of the relevant controls relating to the impairment review process, including assumption setting for future cash flows, discount rates and an overarching review by the CFO of the impairment models; • assessed the integrity of management's impairment model through testing of the mechanical accuracy and verifying the application of the input assumptions; • to assess the revenue and EBIT growth assumptions, held meetings with finance and commercial management and visited the Ogden facility to challenge and understand their bridge from 2021 actual results to 2026 forecasts. In addition, we understood the actions being taken to improve the operational performance of the facility; • considered external evidence, such as forecast IP and GDP growth, market reports and order intake, to assess accuracy and reasonableness of management's forecasts; • compared the change in model assumptions from 2020 and understood the driver of any variances; • evaluated historical forecasting accuracy by comparing prior year plans to actual results achieved; • challenged the discount rate used with input from our internal valuations specialists, utilising their knowledge and expertise; • ran sensitivities on the assumptions within the model; and • completed a stand back review by evaluating the reasonableness of the assumptions in aggregate, by comparing the EBIT multiple of ETS to the EBIT multiple of the Group and enterprise value to the value in use.
Key observations	<p>From the work performed above we are satisfied that the value in use supports the carrying value. This was on the basis that the key assumptions applied, when taken in aggregate, are within our acceptable range.</p>

Independent Auditor's Report continued

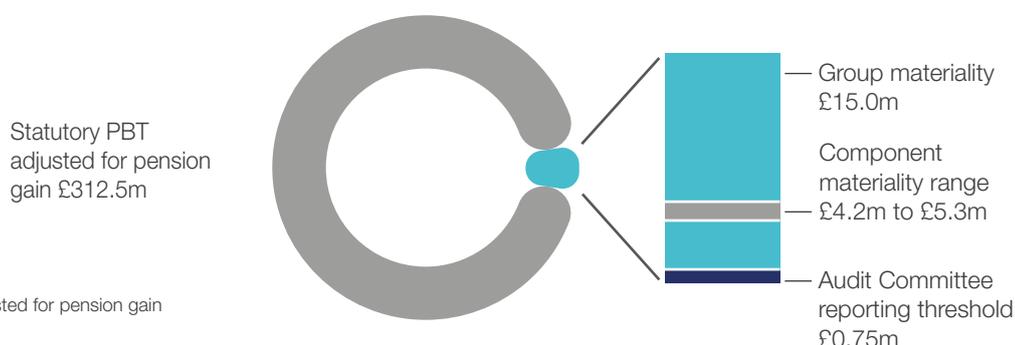
6. Our application of materiality

6.1. Materiality

We define materiality as the magnitude of misstatement in the Financial Statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the Financial Statements as a whole as follows:

	Group Financial Statements	Parent Company Financial Statements
Materiality	£15.0m (2020: £11.4m)	£5.3m (2020: £5.1m)
Basis for determining materiality	We determined materiality on the basis of 5% of forecast statutory profit before tax adjusted to remove a one-off gain of £2m in relation to the closure of the German defined benefit pension schemes to future accruals. Final materiality represents 4.8% of the adjusted statutory profit before tax. (2020: 5% of statutory profit before tax adjusted to remove a one-off gain of £10.5m in relation to the closure of the UK and Canada defined benefit pension schemes to future accruals).	Parent Company materiality is set at 3% of net assets, which is capped at £5.3m (2020: £5.1m).
Rationale for the benchmark applied	We have used statutory profit before tax adjusted for a one-off gain for determining materiality. This is considered to be a key benchmark as this metric is important to the users of the Financial Statements (investors and analysts being the key users for a listed entity) because it portrays the performance of the business and hence its ability to pay a return on investment to the investors.	We have considered net assets as the appropriate measure given the Parent Company is primarily a holding Company for the Group. We then capped materiality at £5.3m.



6.2. Performance materiality

We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the Financial Statements as a whole.

	Group Financial Statements	Parent Company Financial Statements
Materiality	70% (2020: 70%) of Group materiality	70% (2020: 70%) of Parent Company materiality
Basis and rationale for determining performance materiality	In determining performance materiality we considered our risk assessment, including our assessment of the Group's overall control environment and the level of misstatements identified in previous audits. We have also considered changes in key management personnel of the Group.	

Error reporting threshold

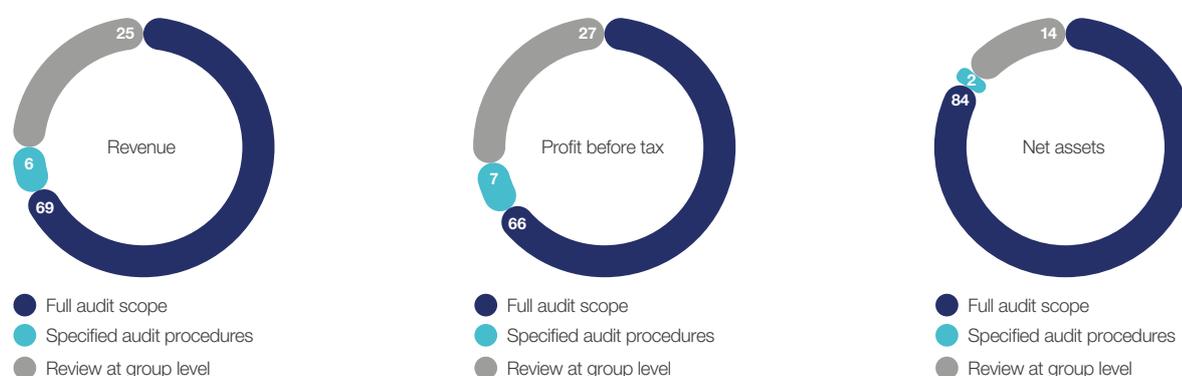
We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £750,000 (2020: £570,000), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the Financial Statements.

7. An overview of the scope of our audit

7.1. Identification and scoping of components

Our Group audit was scoped by obtaining an understanding of the Group and its environment, including Group-wide controls, and assessing the risks of material misstatement at the Group level. Based on that assessment, we focused our Group audit scope primarily on the audit work at 24 (2020: 25) components. 18 (2020: 17) of these were subject to a full audit, whilst the remaining six components (2020: eight components) were subject to specified audit procedures where the extent of our testing was based on our assessment of the risks of material misstatement and of the materiality of the Group's operations at those components. These components represent the principal business units and account for 86% (2020: 73%) of the Group's net assets, 75% (2020: 74%) of the Group's revenue and 73% (2020: 73%) of the Group's profit before tax. They were also selected to provide an appropriate basis for undertaking audit work to address the risks of material misstatement identified above. Our audit work at the components was executed at levels of materiality applicable to each individual entity which were lower than Group materiality and ranged from £4.2m to £5.3m (2020: £2.8m to £3.6m). We have tailored our scoping to ensure sufficient coverage not only at a Consolidated Group level, but also across the three CGUs (Steam, Watson Marlow and Electric Thermal Solutions), as well as across all geographies (EMEA, APAC and Americas).

At the Parent Company level, we also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement of the aggregated financial information of the remaining components not subject to audit or audit of specified account balances



7.2. Our consideration of the control environment

The Group operates a range of IT systems and controls which underpin the financial reporting processes. These can vary by geography and/or operating company. Given the disaggregated nature of the Group and the ongoing review of internal controls (see below), we continue to adopt a largely substantive audit approach. Where control improvements are identified these are reported to management and the Audit Committee as appropriate. Management determines their response to these observations and continues to monitor their resolution with reporting to and oversight from the Audit Committee.

As outlined in the Audit Committee Report on pages 120 to 121 of the Annual Report, as a further preparatory step in light of the BEIS proposals, the Group engaged an external consultant to assist reviewing the business processes and associated internal controls within the Project OPAL systems. In addition to this, the Chief Financial Officer led a programme to review the Group's internal control and governance structure (G3). Following on from these the Group has developed a programme of actions to develop the control environment in 2022. As management develops and completes this programme of work in future years, we expect our audit approach to evolve alongside these developments in the internal control environment.

7.3. Our consideration of climate-related risks

In planning our audit, we have considered the potential impact of climate change on the Group's business and its financial statements.

The Group has assessed the risk and opportunities relevant to climate change which has been included as an emerging risk across the group. This risk has also been considered and embedded into the businesses as explained in the Strategic Report on pages 13 to 21.

As a part of our audit procedures, we have obtained management's risk register and held discussions with those charged with governance to understand the process of identifying climate-related risks, the determination of mitigating actions and the impact on the Group's financial statements. While management has acknowledged that the transition and physical risks posed by climate change have the potential to impact the medium to long term success of the business, they have assessed that there is no material impact arising from climate change on the judgements and estimates made in the financial statements as at 31 December 2021 as explained in note 1 on page 181.

We performed our own qualitative risk assessment of the potential impact of climate change on the Group's account balances and classes of transaction, and did not identify any additional risks of material misstatement. Our procedures included reading disclosures included in the Strategic Report to consider whether they are materially consistent with the financial statements and our knowledge obtained in the audit.

Independent Auditor's Report continued

7.4. Working with other auditors

The Group audit was conducted exclusively by a global network of Deloitte member firms under the direction and supervision of the UK Group audit team. Dedicated members of the Group audit team were assigned to each component to facilitate an effective and consistent approach to component oversight.

We reviewed the work performed by component teams and discussed the results with them. In response to the COVID-19 pandemic, which limited our ability to make component visits, more frequent calls were held between the Group and component teams and remote access to relevant documents was provided. Given the pandemic, the majority of our audit was performed under a remote working environment. Throughout this time, we increased the frequency of our meetings with the audit teams and with management. We were able to perform our procedures without needing to make substantial changes to our planned approach.

8. Other information

The other information comprises the information included in the Annual Report, other than the Financial Statements and our auditor's report thereon. The Directors are responsible for the other information contained within the Annual Report.

Our opinion on the Financial Statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Financial Statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the Financial Statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

9. Responsibilities of directors

As explained more fully in the Directors' responsibilities statement, the Directors are responsible for the preparation of the Financial Statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, the Directors are responsible for assessing the Group's and the Parent Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

10. Auditor's responsibilities for the audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Financial Statements.

A further description of our responsibilities for the audit of the Financial Statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

11. Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

11.1. Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the Group's remuneration policies, key drivers for Directors' remuneration, bonus levels and performance targets;
- results of our enquiries of management, internal audit, and the Audit Committee about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the Group's documentation of their policies and procedures relating to:
 - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
 - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
 - the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations;
- the matters discussed among the audit engagement team including significant component audit teams and relevant internal specialists, including tax, valuations, pensions, and IT specialists, regarding how and where fraud might occur in the Financial Statements and any potential indicators of fraud.

As a result of these procedures, we considered the opportunities and incentives that may exist within the organisation for fraud and identified the greatest potential for fraud in the following areas: revenue recognition in relation to cut-off for certain components. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory frameworks that the Group operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the Financial Statements. The key laws and regulations we considered in this context included the UK Companies Act, Listing Rules, pensions legislation and tax legislation.

In addition, we considered provisions of other laws and regulations that do not have a direct effect on the Financial Statements but compliance with which may be fundamental to the Group's ability to operate or to avoid a material penalty.

11.2. Audit response to risks identified

As a result of performing the above, we identified revenue recognition in relation to cut-off for certain components as a key audit matter related to the potential risk of fraud. The key audit matters section of our report explains the matter in more detail and also describes the specific procedures we performed in response to that key audit matter.

In addition to the above, our procedures to respond to risks identified included the following:

- reviewing the Financial Statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the Financial Statements;
- enquiring of management, the Audit Committee and in-house legal counsel concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with HMRC; and
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members including internal specialists and significant component audit teams, and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Independent Auditor's Report continued

Report on other legal and regulatory requirements

12. Opinions on other matters prescribed by the Companies Act 2006

In our opinion the part of the Directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the Financial Statements are prepared is consistent with the Financial Statements; and
- the strategic report and the Directors' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Group and the Parent Company and their environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the Directors' report.

13. Corporate Governance Statement

The Listing Rules require us to review the Directors' statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the Group's compliance with the provisions of the UK Corporate Governance Code specified for our review.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the Financial Statements and our knowledge obtained during the audit:

- the Directors' statement with regards to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified set out on page 165;
- the Directors' explanation as to its assessment of the Group's prospects, the period this assessment covers and why the period is appropriate set out on page 43;
- the Directors' statement on fair, balanced and understandable set out on page 95;
- the Board's confirmation that it has carried out a robust assessment of the emerging and principal risks set out on page 128;
- the section of the Annual Report that describes the review of effectiveness of risk management and internal control systems set out on pages 129 to 130; and
- the section describing the work of the Audit Committee set out on page 119.

14. Matters on which we are required to report by exception

14.1. Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company Financial Statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

14.2. Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of Directors' remuneration have not been made or the part of the Directors' remuneration report to be audited is not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

15. Other matters which we are required to address

15.1. Auditor tenure

Following the recommendation of the Audit Committee, we were appointed by the Directors and subsequently at the Annual General Meeting on 11 May 2014 to audit the Financial Statements for the year ending 31 December 2014 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm is eight years, covering the years ending 31 December 2014 to 31 December 2021.

15.2. Consistency of the audit report with the additional report to the Audit Committee

Our audit opinion is consistent with the additional report to the Audit Committee we are required to provide in accordance with ISAs (UK).

16. Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006.

Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

As required by the Financial Conduct Authority (FCA) Disclosure Guidance and Transparency Rule (DTR) 4.1.14R, these Financial Statements form part of the European Single Electronic Format (ESEF) prepared Annual Financial Report filed on the National Storage Mechanism of the UK FCA in accordance with the ESEF Regulatory Technical Standard ('ESEF RTS'). We have been engaged to provide assurance on whether the annual financial report has been prepared using the single electronic format specified in the ESEF RTS and will report separately to the members on this.

Andrew Bond, FCA

(Senior statutory auditor)

For and on behalf of Deloitte LLP

Statutory Auditor

London, United Kingdom

9 March 2022

Consolidated Statement of Financial Position

at 31st December 2021

	Notes	2021 £m	2020* £m
Assets			
Non-current assets			
Property, plant and equipment	13	277.4	261.3
Right-of-use assets	14	62.9	36.3
Goodwill	15	411.2	422.4
Other intangible assets*	15	255.7	276.6
Prepayments		1.3	1.4
Investment in Associate	12	–	–
Taxation recoverable		4.9	–
Deferred tax assets	16	46.1	50.9
		1,059.5	1,048.9
Current assets			
Inventories	17	201.3	180.1
Trade receivables	27	272.3	226.3
Other current assets	18	44.7	31.8
Taxation recoverable		10.8	8.1
Cash and cash equivalents	24	274.6	246.2
		803.7	692.5
Total assets		1,863.2	1,741.4
Equity and liabilities			
Current liabilities			
Trade and other payables	19	217.0	160.2
Provisions	20	5.2	6.1
Bank overdrafts	24	55.6	22.2
Current portion of long-term borrowings	24	59.6	0.6
Short-term lease liabilities	24	11.2	10.3
Current tax payable		33.1	28.6
		381.7	228.0
Net current assets		422.0	464.5
Non-current liabilities			
Long-term borrowings	24	289.9	452.2
Long-term lease liabilities	24	48.9	23.8
Deferred tax liabilities	16	81.8	79.4
Post-retirement benefits	23	44.7	98.6
Provisions	20	1.5	2.0
Long-term payables		4.7	5.1
		471.5	661.1
Total liabilities		853.2	889.1
Net assets	2, 3	1,010.0	852.3
Equity			
Share capital	21	19.8	19.8
Share premium account		86.3	84.8
Other reserves	21	(58.2)	(36.1)
Retained earnings*		961.1	782.8
Equity shareholders' funds		1,009.0	851.3
Non-controlling interest		1.0	1.0
Total equity		1,010.0	852.3
Total equity and liabilities		1,863.2	1,741.4

* The prior period comparatives for Other intangible assets and Retained earnings have been restated following the IFRS Interpretations Committee agenda decision on configuration and customisation costs in cloud computing arrangements (Software as a Service (SaaS)), see Note 1 for further details. Due to the immaterial nature of the adjustment, no additional Statement of Financial Position as at the beginning of the prior year has been presented.

These Financial Statements of Spirax-Sarco Engineering plc, company number 00596337, were approved by the Board of Directors and authorised for issue on 9th March 2022 and signed on its behalf by:

N.J. Anderson N.B. Patel Directors

Consolidated Income Statement

for the year ended 31st December 2021

	Notes	Adjusted 2021 £m	Adjustments 2021 £m	Total 2021 £m	Adjusted 2020 £m	Adjustments 2020 £m	Total 2020 £m
Revenue	3	1,344.5	–	1,344.5	1,193.4	–	1,193.4
Operating costs	4	(1,004.2)	(19.4)	(1,023.6)	(923.0)	(21.4)	(944.4)
Operating profit	2, 3	340.3	(19.4)	320.9	270.4	(21.4)	249.0
Financial expenses		(9.8)	–	(9.8)	(10.1)	–	(10.1)
Financial income		3.4	–	3.4	1.4	–	1.4
Net financing expense	3, 6	(6.4)	–	(6.4)	(8.7)	–	(8.7)
Share of loss of Associate	12	–	–	–	(0.2)	–	(0.2)
Profit before taxation	7	333.9	(19.4)	314.5	261.5	(21.4)	240.1
Taxation	9	(83.9)	4.3	(79.6)	(72.0)	5.8	(66.2)
Profit for the period		250.0	(15.1)	234.9	189.5	(15.6)	173.9
Attributable to:							
Equity shareholders		249.7	(15.1)	234.6	189.2	(15.6)	173.6
Non-controlling interest		0.3	–	0.3	0.3	–	0.3
Profit for the period		250.0	(15.1)	234.9	189.5	(15.6)	173.9
Earnings per share	2, 10						
Basic earnings per share		338.9p		318.3p	256.6p		235.5p
Diluted earnings per share		338.0p		317.5p	255.8p		234.8p
Dividends	11						
Dividends per share				136.0p			118.0p
Dividends paid during the year (per share)				123.0p			111.5p

Adjusted figures exclude certain items, as set out and explained in the Financial Review and as detailed in Notes 2 and 3. All amounts relate to continuing operations.

The Notes on pages 181 to 221 form an integral part of the Financial Statements.

Consolidated Statement of Comprehensive Income

for the year ended 31st December 2021

	Notes	2021 £m	2020 £m
Profit for the year		234.9	173.9
Items that will not be reclassified to profit or loss:			
Remeasurement gain/(loss) on post-retirement benefits	23	46.3	(40.2)
Deferred tax on remeasurement (gain)/loss on post-retirement benefits	23	(8.9)	8.2
		37.4	(32.0)
Items that may be reclassified subsequently to profit or loss:			
Foreign exchange translation differences and net investment hedges	21	(6.8)	(24.5)
Loss on cash flow hedges net of tax	21, 27	(2.8)	(0.7)
		(9.6)	(25.2)
Total comprehensive income for the year		262.7	116.7
Attributable to:			
Equity shareholders		262.4	116.4
Non-controlling interest		0.3	0.3
Total comprehensive income for the year		262.7	116.7

Consolidated Statement of Changes in Equity

for the year ended 31st December 2021

	Notes	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Equity shareholders' funds £m	Non-controlling interest £m	Total equity £m
Balance at 1st January 2021 (restated)*		19.8	84.8	(36.1)	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								
	21	-	-	(6.8)	-	(6.8)	-	(6.8)
Remeasurement gain on post-retirement benefits								
	23	-	-	-	46.3	46.3	-	46.3
Deferred tax on remeasurement gain on post-retirement benefits								
	16, 23	-	-	-	(8.9)	(8.9)	-	(8.9)
Cash flow hedges								
	21, 27	-	-	(2.8)	-	(2.8)	-	(2.8)
Total other comprehensive (expense)/income for the year		-	-	(9.6)	37.4	27.8	-	27.8
Total comprehensive (expense)/income for the year		-	-	(9.6)	272.0	262.4	0.3	262.7
Contributions by and distributions to owners of the Company:								
Dividends paid								
	11	-	-	-	(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								
	21	-	1.5	-	-	1.5	-	1.5
Employee Benefit Trust shares								
	21	-	-	(12.5)	-	(12.5)	-	(12.5)
Balance at 31st December 2021		19.8	86.3	(58.2)	961.1	1,009.0	1.0	1,010.0

* As a result of the IFRS Interpretation Committee agenda decision released during 2021, the Group have reassessed the accounting treatment in relation to cloud based software. This has resulted in an adjustment to opening reserves of £3.7m which represents the net book value at 1st January 2020 of previously capitalised costs which are now deemed to be operating expenditure. See Note 1 for further details.

Other reserves represent the Group's translation, net investment hedge, cash flow hedges, capital redemption and Employee Benefit Trust reserves (see Note 21). 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 2020

	Notes	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Equity shareholders' funds £m	Non-controlling interest £m	Total equity £m
Balance at 1st January 2020		19.8	81.0	(10.6)	735.1	825.3	1.0	826.3
Restatement for SaaS arrangements		–	–	–	(3.7)	(3.7)	–	(3.7)
Balance at 1st January 2020 (restated)*		19.8	81.0	(10.6)	731.4	821.6	1.0	822.6
Profit for the year		–	–	–	173.6	173.6	0.3	173.9
Other comprehensive (expense)/income:								
Foreign exchange translation differences and net investment hedges	21	–	–	(24.5)	–	(24.5)	–	(24.5)
Remeasurement loss on post-retirement benefits	23	–	–	–	(40.2)	(40.2)	–	(40.2)
Deferred tax on remeasurement loss on post-retirement benefits	16, 23	–	–	–	8.2	8.2	–	8.2
Cash flow hedges	21, 27	–	–	(0.7)	–	(0.7)	–	(0.7)
Total other comprehensive expense for the year		–	–	(25.2)	(32.0)	(57.2)	–	(57.2)
Total comprehensive (expense)/income for the year		–	–	(25.2)	141.6	116.4	0.3	116.7
Contributions by and distributions to owners of the Company:								
Dividends paid	11	–	–	–	(82.2)	(82.2)	(0.3)	(82.5)
Equity settled share plans net of tax		–	–	–	(8.0)	(8.0)	–	(8.0)
Issue of share capital	21	–	3.8	–	–	3.8	–	3.8
Employee Benefit Trust shares	21	–	–	(0.3)	–	(0.3)	–	(0.3)
Balance at 31st December 2020		19.8	84.8	(36.1)	782.8	851.3	1.0	852.3

* As a result of the IFRS Interpretation Committee agenda decision released during 2021, the Group have reassessed the accounting treatment in relation to cloud based software. This has resulted in an adjustment to opening reserves of £3.7m which represents the net book value at 1st January 2020 of previously capitalised costs which are now deemed to be operating expenditure. See Note 1 for further details.

Consolidated Statement of Cash Flows

for the year ended 31st December 2021

	Notes	2021 £m	2020 £m
Cash flows from operating activities			
Profit before taxation		314.5	240.1
Depreciation, amortisation and impairment	3, 4	69.0	75.4
Profit on disposal of fixed assets	7	(0.5)	(0.3)
Disposal of subsidiary	26	–	0.4
Reversal of acquisition-related fair value adjustments to inventory	2	–	1.0
Cash payments to the pension schemes greater than the charge to operating profit	23	(7.6)	(14.7)
Equity settled share plans	23	9.2	7.0
Net financing expense	6	6.4	8.7
Operating cash flow before changes in working capital and provisions		391.0	317.6
(Increase)/decrease in trade and other receivables		(71.3)	15.1
(Increase)/decrease in inventories		(26.7)	3.8
(Decrease)/increase in provisions		(1.0)	3.3
Increase/(decrease) in trade and other payables		59.5	(8.7)
Cash generated from operations		351.5	331.1
Income taxes paid		(78.1)	(71.9)
Net cash from operating activities		273.4	259.2
Cash flows from investing activities			
Purchase of property, plant and equipment	13	(52.8)	(42.0)
Proceeds from sale of property, plant and equipment		2.0	2.2
Purchase of software and other intangibles	15	(8.1)	(4.9)
Development expenditure capitalised	15	(3.2)	(2.7)
Disposal of subsidiary		–	(0.3)
Acquisition of businesses net of cash acquired	26	–	(4.8)
Interest received		3.4	1.4
Net cash used in investing activities		(58.7)	(51.1)
Cash flows from financing activities			
Proceeds from issue of share capital	21	1.5	2.0
Employee Benefit Trust share purchase		(26.1)	(14.5)
Repaid borrowings	24	(77.5)	(175.0)
New borrowings	24	–	138.3
Interest paid including interest on lease liabilities		(8.5)	(8.6)
Repayment of lease liabilities	24	(11.7)	(12.2)
Dividends paid (including minorities)		(91.0)	(82.5)
Net cash used in financing activities		(213.3)	(152.5)
Net change in cash and cash equivalents			
Net cash and cash equivalents at beginning of period	24	224.0	168.3
Exchange movement	24	(6.4)	0.1
Net cash and cash equivalents at end of period	24	219.0	224.0
Borrowings	24	(349.5)	(452.8)
Net debt at end of period	24	(130.5)	(228.8)
Lease liabilities	24	(60.1)	(34.1)
Net debt and lease liabilities at end of period	24	(190.6)	(262.9)

Notes to the Consolidated Financial Statements

1 Accounting policies

Basis of preparation

The Consolidated Financial Statements have been prepared on a historical cost basis except for items that are required by International Financial Reporting Standards (IFRS) to be measured at fair value, principally certain financial instruments. The Consolidated Financial Statements have been prepared in accordance with IFRS which includes the standards and interpretations issued by the International Accounting Standards Board (IASB) that have been adopted by the United Kingdom (UK).

The preparation of Financial Statements in conformity with IFRS requires the Directors to apply IAS 1 and make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not apparent from other sources. The estimates and associated assumptions are based on historical experiences and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Group's accounting policies

The Directors have concluded that no critical judgements, apart from those involving estimations (which are dealt with separately below) have been made in the process of applying the Group's accounting policies.

Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the reporting period that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are outlined below.

(i) Post-retirement benefits

The Group's defined benefit obligation is assessed by selecting key assumptions. The selection of mortality rates and inflation are key sources of estimation uncertainty which could lead to material adjustment in the defined benefit obligation within the next financial year. These assumptions are set with close reference to market conditions.

The Group's defined benefit obligation is discounted at a rate set by reference to market yields at the end of the reporting period on high quality corporate bonds. The most significant criteria considered for the selection of bonds include the issue size of the corporate bonds, quality of the bonds and the identification of outliers which are excluded.

The assumptions selected and associated sensitivity analysis are disclosed in Note 23.

The impact the COVID-19 outbreak has had on our business in 2021 and the actions we are taking to mitigate its impact are discussed in the Chair's Statement starting on page 8. Our view is that we do not believe there is a significant risk of COVID-19 causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, and therefore we have concluded the impacts from COVID-19 do not create any further key sources of estimation uncertainty.

Climate change is a global challenge and an emerging risk to businesses, people and the environment across the world. We have a role to play in limiting warming by improving our energy management, reducing our carbon emissions and by helping our customers do the same. Growing awareness of climate change and customer sustainability targets will provide impetus for business growth as we provide products, services and solutions that increase efficiency and reduce customers' energy use and carbon emissions. As a result, in our view climate change does not create any further key sources of estimation uncertainty. For further detail see the Risk Management and Sustainability sections of the Strategic Report.

The Group has considerable financial resources together with a diverse range of products and customers across wide geographic areas and industries. As a consequence, the Directors believe that the Group is well placed to manage its business risks successfully.

Further information on the Group's business activities, performance and position, together with the financial position of the Group, its capital structure and cash flow are included in the Strategic Report from the inside front cover to page 86. In addition, Note 27 to the Financial Statements discloses details of the Group's financial risk management and credit facilities.

The Consolidated Financial Statements are presented in pounds sterling, which is the Company's functional currency, rounded to the nearest one hundred thousand.

The Group's Income Statement includes an adjustment column where certain items are included. Details of the items included and the reasons why they are included are disclosed in Note 2.

New standards and interpretations applied in the current year

During the current year, the Group has applied the following amendment to IFRS Standards and Interpretations issued by the International Accounting Standards Board (IASB) effective for annual periods that begin on or after 1st January 2021. Adoption has not had a material impact on the disclosures or on the amounts reported in these Financial Statements:

- Interest Rate Benchmark Reform - Phase 2 (Amendments to IFRS 9, IAS 39 and IFRS 7, IFRS 4 and IFRS 16).

Notes to the Consolidated Financial Statements continued

1 Accounting policies continued

In April 2021 the IFRS Interpretations Committee published its agenda decision regarding configuration and customisation costs in Cloud Computing Arrangements (Software as a Service, (SaaS)) under IAS 38. The primary theme from this agenda decision was that unless the underlying software meets the criteria for recognising a separate asset (i.e., the Group obtains control of the software) then it is expected that the costs associated with the configuration and customisation of this software will be recognised as an expense rather than capitalised as an intangible asset.

During the year the Group performed a review of previously capitalised configuration and customisation costs, resulting in a £3.7m adjustment to opening reserves and intangible assets in the prior year. As a result of this change in accounting policy, the comparator period in the Statement of Financial Position and Statement of Changes in Equity have been restated. Due to the immaterial nature of the adjustment, no additional Statement of Financial Position as at the beginning of the prior year has been presented.

The Economy in Argentina remains subject to high inflation. At 31st December 2021 we have concluded that applying IAS 29 (Financial Reporting in Hyperinflationary Economies) is not required as the impact of adopting 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:

- Amendments to IFRS 3: Reference to the Conceptual Framework;
- 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 Policies;
- Amendments to IAS 8: Definition of Accounting Estimates;
- Amendments to IAS 12: Deferred Tax related to Assets and Liabilities arising from a Single Transaction;
- Amendments to IAS 16: Proceeds before intended use;
- Amendments to IAS 37: Cost of fulfilling a contract; and
- Annual Improvements to IFRS Standards 2018-2020 cycle.

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.

Basis of accounting

(i) Subsidiaries

The Group Consolidated Financial Statements include the results of the Company and all its subsidiary undertakings. Subsidiaries are entities controlled by the Group. Control exists when the Group has the power, directly or indirectly, to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, potential voting rights that presently are exercisable or convertible are taken into account. The Financial Statements of subsidiaries are included in the Consolidated Financial Statements from the date that control commences until the date that control ceases.

(ii) Associates

Associates are those entities for which the Group has significant influence, but not control, over the financial and operating policies. The Financial Statements include the Group's share of the total recognised income and expense of Associates on an equity accounted basis, from the date that significant influence commenced until the date that significant influence ceases.

(iii) Transactions eliminated on consolidation

Intra-Group balances, and any unrealised gains and losses or income and expenses arising from intra Group transactions, are eliminated in preparing the Group Consolidated Financial Statements. Unrealised gains arising from transactions with Associates are eliminated to the extent of the Group's interest in the entity.

Foreign currency

(i) On consolidation

The assets and liabilities of foreign operations are translated into sterling at exchange rates ruling at the date of the Consolidated Statement of Financial Position (closing rate). The revenues, expenses and cash flows of foreign operations are translated into sterling at average rates of exchange ruling during the year. Where the Notes to the Group Consolidated Financial Statements include tables reconciling movements between opening and closing balances, opening and closing assets and liabilities are translated at closing rates and revenue, expenses and all other movements translated at average rates, with the exchange differences arising being disclosed separately.

Exchange differences arising from the translation of the assets and liabilities of foreign operations are taken to a separate translation reserve within equity. They are recycled and recognised in the Income Statement upon disposal of the operation. In respect of all foreign operations, any differences that have arisen before 1st January 2004, the date of transition to IFRS, are not presented as a separate component of equity.

1 Accounting policies continued

(ii) Foreign currency transactions

Transactions in foreign currencies are translated to the respective currencies of the Group entities at the foreign exchange rate at the date of the transaction. Monetary assets and liabilities at the date of the Statement of Financial Position denominated in a currency other than the functional currency of the entity are translated at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in the Income Statement. Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are translated at foreign exchange rates ruling at the dates fair value was determined.

Cash flow hedges

Where a derivative financial instrument is designated as a hedge of the variability in cash flows of a highly probable forecasted transaction, the effective part of any gain or loss on the derivative financial instrument is recognised in other comprehensive income and presented in the cash flow hedges reserve. The associated gain or loss is removed from equity and recognised in the Income Statement in the period in which the transaction to which it relates occurs.

Net investment hedge accounting

The Group uses foreign currency denominated borrowings as a hedge against translation exposure on the Group's net investment in overseas companies. Where the hedge is fully effective at hedging, the variability in the net assets of such companies caused by changes in exchange rates and the changes in value of the borrowings are recognised in the Consolidated Statement of Comprehensive Income and accumulated in the translation reserve. The ineffective part of any changes in value caused by changes in exchange rates is recognised in the Consolidated Income Statement.

Interest-bearing borrowings

Interest-bearing borrowings are recognised initially at the fair value of consideration received, less directly attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are measured at amortised cost with any difference between cost and redemption value being recognised in the Consolidated Income Statement over the period of the borrowings on an effective-interest basis.

Other financial liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs. Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of the financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

The Group has not participated in any supplier financing arrangements during the current or prior year.

Property, plant and equipment

Items of property, plant and equipment are stated at cost or deemed cost, less accumulated depreciation.

Certain items of property, plant and equipment that had been revalued to fair value prior to 1st January 2004, the date of transition to IFRS, are measured on the basis of deemed cost, being the revalued amount at the date of that revaluation.

Depreciation is charged to the Income Statement on a straight-line basis at rates which write down the value of assets to their residual values over their estimated useful lives. Land is not depreciated.

The principal rates are as follows:

Freehold buildings	1.5-4.0%
Leasehold buildings (short and long-term)	Over life of lease
Plant and machinery	10-12.5%
Office furniture and fittings	10%
Office equipment	12.5-33.3%
Motor vehicles	20%
Tooling and patterns	10%

The depreciation rates are reassessed annually.

Business Combinations

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method of accounting. Identified assets acquired and liabilities assumed are measured at their respective acquisition date fair values. The excess of the fair value of the consideration given over the fair value of the identifiable net assets acquired is recorded as goodwill. Acquisition related costs are expensed as incurred. The operating results of the acquired business are reflected in the Group's Consolidated Financial Statements after the date of acquisition.

Notes to the Consolidated Financial Statements continued

1 Accounting policies continued

Intangible assets

(i) Goodwill

Goodwill represents the difference between the cost of the acquisition and the fair value of the net identifiable assets acquired. Goodwill is stated at cost less any accumulated impairment losses. Goodwill is allocated to cash-generating units and is not amortised but is tested annually for impairment (see Note 15 for more detail). Annual impairment tests are performed on goodwill by comparing the carrying value with the recoverable amount, being the higher of the fair value less cost to sell and value in use, discounted at an appropriate discount rate, of future cash flows in respect of goodwill for the relevant cash-generating unit.

(ii) Research and development

Expenditure on R&D is charged to the Income Statement in the period in which it is incurred except that development expenditure is capitalised where the development costs relate to new or substantially improved products that are subsequently to be released for sale and will generate future economic benefits. The expenditure capitalised includes staff costs and related expenses. Capitalised development expenditure is stated at cost less accumulated amortisation (see below) and any impairment losses.

(iii) Other intangible assets

Intangible assets other than goodwill that are acquired by the Group are stated at cost less accumulated amortisation (see below) and any impairment losses.

Where computer software is cloud based and the Group does not have control of the software, the configuration and customisation costs are expensed over either:

- The period the services are received, where costs are distinct from the underlying software.
- The period of the SaaS arrangement, where costs are not distinct from the underlying software.

(iv) Amortisation

Amortisation is charged to the Income Statement on a straight-line basis over the estimated useful lives of intangible assets, other than those with indefinite useful lives, from the date they are available for use. The principal amortisation rates are as follows:

Capitalised development costs	20%
ERP systems and software	12-33%
Brand names and trademarks	5-33%
Manufacturing designs and core technology	6-50%
Non-compete undertakings	20-50%
Customer relationships	6-33%

Inventories

Inventories are measured at the lower of cost and net realisable value. The cost of inventories includes expenditure incurred in acquiring the inventories, production or conversion costs and other costs in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Trade receivables and other receivables

Trade and other receivables are carried at original invoice amount (which is considered a reasonable proxy for fair value) and are subsequently held at amortised cost less provision for impairment. The provision for impairment of receivables is based on lifetime expected credit losses. Lifetime expected credit losses are calculated by assessing historic credit loss experience, adjusted for factors specific to the receivable and operating company. The movement in the provision is recognised in the Consolidated Income Statement. In continuing to assess the impact of the adoption of IFRS 9, specifically expected credit losses, is immaterial, we have considered that there is no material concentration or dependency on large customers, specific industries or geographies.

Trade and other payables

Trade and other payables are recognised at the amounts expected to be paid to counterparties and subsequently held at amortised cost.

Provisions and contingent liabilities

A provision is recognised in the Consolidated Statement of Financial Position when the Group has a present legal or constructive obligation as a result of a past event and it is probable that an outflow of resources, that can be reliably measured, will be required to settle the obligation. If the obligation is expected to be settled within 12 months of the reporting date the provision is included within current liabilities and if expected to be settled after 12 months included in non-current liabilities.

In respect of product warranties, a provision is recognised when the underlying products or services are sold. Obligations arising from restructuring plans are recognised when detailed formal plans have been established and there is a valid expectation that such a plan will be carried out. Provisions are recognised at an amount equal to the best estimate of the expenditure required to settle the Group's liability.

If the likelihood of having to settle the obligation is less than probable but more than remote, or the amount of the obligation cannot be measured reliably then a contingent liability is disclosed.

1 Accounting policies continued

Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with an original maturity usually of three months or less, and are held at amortised cost. Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are included as a component of cash and cash equivalents for the purpose of the Statement of Cash Flows.

Going concern

The statement on the going concern assumption is set out on page 43.

Alternative performance measures

The Group reports under International Financial Reporting Standards (IFRS) and also uses alternative performance measures where the Board believe that they help to effectively monitor the performance of the Group, users of the Financial Statements might find them informative and an aid to comparison with our peers. Certain alternative performance measures also form a meaningful element of Executive Directors' annual bonuses. A definition of the alternative performance measures included in the Annual Report and a reconciliation to the closest IFRS equivalent are disclosed in Note 2.

Employee benefits

(i) Defined contribution plans

Obligations for contributions to defined contribution pension plans are recognised as an expense in the Income Statement as incurred.

(ii) Defined benefit plans

The costs of providing pensions under defined benefit schemes are calculated in accordance with the advice of qualified actuaries and spread over the period during which benefit is expected to be derived from the employees' services. The Group's net obligation or surplus in respect of defined benefit pensions is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods. Past service costs are recognised straight away.

That benefit is discounted at rates reflecting the yields on AA credit rated corporate bonds that have maturity dates approximating the terms of the Group's obligations to determine its present value. Pension scheme assets are measured at fair value at the Statement of Financial Position date. Actuarial gains and losses, differences between the expected and actual returns, and the effect of changes in actuarial assumptions are recognised in the Statement of Comprehensive Income in the year they arise. Any scheme surplus (to the extent it is considered recoverable under the provisions of IFRIC 14) or deficit is recognised in full in the Statement of Financial Position.

The cost of other post-employment liabilities are calculated in a similar way to defined benefit pension schemes and spread over the period, which benefit is expected to be derived from the employees' services, in accordance with the advice of qualified actuaries.

(iii) Employee share plans

Incentives in the form of shares are provided to employees under share option and share award schemes. The fair value of these options and awards at their date of grant is charged to the Income Statement over the relevant vesting periods with a corresponding increase in equity. The value of the charge is adjusted to reflect expected and actual levels of options and share awards vesting.

(iv) Long-term share incentive plans

The fair value of awards is measured at the date of grant and the cost spread over the vesting period. The amount recognised as an expense is not adjusted to reflect market based performance conditions, but is adjusted for non-market based performance conditions.

Revenue

The Group applies the following five step framework when recognising revenue.

Step 1: Identify the contracts with customers.

Step 2: Identify the performance obligations in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligations in the contract.

Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation.

The criteria the Group uses to identify the performance obligations within a contract are:

- the customer must be able to benefit from the goods or services either on its own or in combination with other resources available to the customer; and
- the entity's promise to transfer the good or service to the customer is separable from other promises in the contract.

The transaction price is the value that the Group expects to be entitled to from the customer and includes discounts, rebates, credits, price concessions, incentives, performance bonuses, penalties and liquidated damages, but is not reduced for bad debts. It is net of any Value Added Tax (VAT) and other sales-related taxes. Variable consideration that is dependent on certain events is included in the transaction price when it is "highly probable" that the variable consideration will occur.

Notes to the Consolidated Financial Statements continued

1 Accounting policies continued

Revenue is recognised over time as the product is being manufactured or a service being provided if any of the following criteria are met:

- the Group is creating a bespoke item which doesn't have an alternative use to the Group (i.e. we would incur a significant loss to re-work and/or sell to another customer) and the entity has a right to payment for work completed to date including a reasonable profit;
- the customer controls the asset that is being created or enhanced during the manufacturing process i.e. the customer has the right to significantly modify and dictate how the product is built during construction; and
- services provided where the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs.

Judgement is made when determining if a product is bespoke and the value of revenue to recognise over time as products are being manufactured. However due to the low value of orders for bespoke items in progress at the 31st December 2021 where we have a right to payment of costs plus a reasonable profit this is not considered a critical judgement.

The value of revenue to be recognised over time for goods being manufactured is calculated using a cost based input approach. This is considered a faithful depiction of the transfer of the goods as the costs incurred, total costs expected to be incurred and order value are known.

The value of revenue to be recognised over time for services being provided is calculated based on the value to the customer transferred to date as a proportion of the total value of the service being provided.

If the criteria to recognise revenue over time are not met then revenue is recognised at a point in time when the customer obtains control of the asset and the performance obligation is satisfied. The customer obtains control of the asset when the customer can direct the use of the asset and obtain the benefits from the asset.

Factors the Group considers when determining the point in time when control of the asset has passed to the customer and revenue recognised include:

- the Group has a right to payment;
- legal title is transferred to the customer;
- physical possession of the asset has been transferred to the customer;
- the customer has the significant risks and rewards of ownership; and
- the customer has accepted the asset.

Control normally passes and revenue recognised when the goods are either despatched or delivered to the customer (in accordance with the terms and conditions of the sale) or the installation and testing is completed.

A large proportion of the Group's revenue qualifies for recognition on despatch or delivery of the goods to the customer as this is when the performance obligation is satisfied. This is normally the trigger point for raising an invoice per the terms and conditions of the order. Therefore invoicing for a large proportion of the Group's revenue occurs at the same time as when the performance obligation is satisfied. Contract assets at 31st December 2021 were £3.2m (0.2% of total revenue).

All revenue recognised by the Group is generated through contracts with customers.

When the unavoidable costs of fulfilling the contract exceed the revenue to be recognised the contract is loss making and the expected loss is recognised in the Consolidated Income Statement immediately.

Warranties that give assurance that a product meets agreed-upon specifications are accounted for as a cost provision and do not impact the timing and value of revenue. The Group does not have any material warranties that promise more than just providing assurance that a product meets agreed-upon specifications.

Costs of obtaining a contract, that are only incurred because the contract was obtained, are capitalised and expensed at a later date. At 31st December 2021 no costs of obtaining a contract were capitalised. All other assets recognised to fulfil a contract are within the scope of other accounting standards and policies.

Leases

The Group assesses whether a contract is or contains a lease at inception of the contract. The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets (assets with a value of less than £5,000). For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

1 Accounting policies continued

For new leases entered into, the lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the incremental borrowing rate for the related geographical location unless the rate implicit in the lease is readily determinable. The incremental borrowing rate is calculated at the rate of interest at which the company would have been able to borrow for a similar term and with a similar security the funds necessary to obtain a similar asset in a similar market.

Lease payments included in the measurement of the lease liability comprise:

- fixed lease payments (including in substance fixed payments), less any lease incentives receivable;
- variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- the amount expected to be payable by the company under residual value guarantees;
- the exercise price of purchase options, if the company is reasonably certain to exercise the options; and
- payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability and by reducing the carrying amount to reflect the lease payments made.

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- the lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option; and
- the lease payments change due to changes in an index or rate or a change in expected payment under a residual guarantee value.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement date and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Group expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset.

Variable lease payments that do not depend on an index or rate are not included in the measurement of the lease liability and the right-of-use asset. The related payments are recognised as an expense in the period in which the event or condition that triggers those payments occurs.

Judgement is required when determining whether to include or exclude optional extension periods within the lease term, and estimation is required when calculating the incremental borrowing rate used to discount the future lease cash flows. These are not considered critical judgements or a key source of estimation uncertainty.

Taxation

The tax charge comprises current and deferred tax. Income tax expense is recognised in the Income Statement unless it relates to items recognised directly in equity or in other comprehensive income, when it is also recognised in equity or other comprehensive income respectively. Current tax is the expected tax payable on the profit for the year and any adjustments in respect of previous years using tax rates enacted or substantively enacted at the reporting date. Tax positions are reviewed to assess whether a provision should be made on prevailing circumstances. Tax provisions are included within Current taxation payable. Deferred tax is provided on temporary differences arising between the tax base of assets and liabilities, and their carrying amounts in the Financial Statements. Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax is provided using rates of tax that have been enacted or substantively enacted at the date of the Statement of Financial Position or the date that the temporary differences are expected to reverse. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Share capital and repurchased shares

When share capital recognised as equity is repurchased, the amount of the consideration paid, including directly attributable costs, is recognised as a deduction from equity. Repurchased shares are classified as treasury shares or placed in an Employee Benefit Trust and are presented as a deduction from total equity.

Share-based benefits granted to subsidiary employees

The Company grants share-based benefits over its own Ordinary shares directly to employees of subsidiary companies. These employees provide services to the subsidiary companies. The cost of these shares is not recharged and therefore the fair value of the share options granted is recognised as a capital contribution to the subsidiary companies. This is accounted for as an increase in investments with a corresponding increase in a non-distributable component of equity.

Adjusting items

Please see Note 2 for the accounting policy regarding Adjusting items.

Notes to the Consolidated Financial Statements continued

2 Alternative performance measures

The Group reports under International Financial Reporting Standards (IFRS) and also uses alternative performance measures where the Board believes that they help to effectively monitor the performance of the Group, users of the Financial Statements might find them informative and an aid to comparison with our peers. Certain alternative performance measures also form a meaningful element of Executive Directors' variable remuneration. Please see the Annual Report on Remuneration 2021 on pages 136 to 151 for further detail. A definition of the alternative performance measures and a reconciliation to the closest IFRS equivalent are disclosed below.

Adjusted operating profit

Adjusted operating profit excludes items that are considered to be significant in nature and/or quantum and where treatment as an adjusted item provides stakeholders with additional useful information to assess the period-on-period trading performance of the Group and an aid to comparison with our peers. The Group excludes such items including those defined as follows:

- amortisation and impairment of acquisition-related intangible assets;
- impairment of goodwill;
- costs associated with acquisitions and disposal;
- reversal of acquisition-related fair value adjustments to inventory;
- changes in deferred consideration payable on acquisitions;
- profit or loss on disposal of subsidiary;
- significant restructuring costs;
- foreign exchange gains and losses on borrowings;
- significant profits or losses on disposal of property; and
- significant plan amendments and/or legal rulings requiring a past service cost or credit for post-retirement benefit plans.

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

	2021 £m	2020 £m
Operating profit as reported under IFRS	320.9	249.0
Amortisation of acquisition-related intangible assets	21.4	26.6
Reversal of acquisition-related fair value adjustments to inventory	–	1.0
Restructuring costs	–	4.3
Post-retirement benefit plan in Germany being closed to future accrual	(2.0)	–
Post-retirement benefit plans in the UK and Canada being closed to future accrual	–	(10.5)
Adjusted operating profit	340.3	270.4

The related tax effects of the above are included as adjustments in taxation as disclosed in Note 9.

Adjusted earnings per share

	2021	2020
Profit for the period attributable to equity holders as reported under IFRS (£m)	234.6	173.6
Items excluded from adjusted operating profit disclosed above (£m)	19.4	21.4
Tax effects on adjusted items (£m)	(4.3)	(5.8)
Adjusted profit for the period attributable to equity holders (£m)	249.7	189.2
Weighted average shares (million)	73.7	73.7
Basic adjusted earnings per share	338.9p	256.6p
Diluted weighted average shares (million)	73.9	73.9
Diluted adjusted earnings per share	338.0p	255.8p

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. 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 10.

2 Alternative performance measures continued

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 cash flow, such as Net capital expenditure, which are subject to day to day control by the business.

	2021 £m	2020 £m
Net cash from operating activities as reported under IFRS	273.4	259.2
Restructuring costs	–	4.3
Net capital expenditure excluding acquired intangibles from acquisitions	(62.1)	(47.4)
Tax paid	78.1	71.9
Repayments of principal under lease liabilities	(11.7)	(12.2)
Adjusted cash from operations	277.7	275.8

Adjusted cash conversion in 2021 is 82% (2020: 102%). 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 39.

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 calculated as adjusted operating profit after adding back depreciation and amortisation, less cash payments to pension schemes in excess of the charge to 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 on page 189.

Return on invested capital (ROIC)

ROIC measures the after 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:

	2021 £m	2020* £m
Total equity	1,010.0	852.3
Net debt	190.6	262.9
Total invested capital	1,200.6	1,115.2
Average invested capital	1,157.9	1,137.9
Average invested capital (excluding IFRS 16)	1,108.4	1,099.3
Operating profit as reported under IFRS	320.9	249.0
Adjustments (see adjusted operating profit)	19.4	21.4
Adjusted operating profit	340.3	270.4
Taxation	(85.5)	(74.4)
Adjusted operating profit after tax	254.8	196.0
Adjusted operating profit after tax (excluding IFRS 16)	254.1	195.2
Return in invested capital	22.0%	17.2%
Return in invested capital (excluding IFRS 16)	22.9%	17.8%

* Restated following IFRS Interpretations Committee agenda decision on configuration and customisation costs in cloud computing arrangements (Software as a Service (SaaS)), see Note 1 for further details.

Notes to the Consolidated Financial Statements continued

2 Alternative performance measures continued

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 on page 41.

An analysis of the components is as follows:

	2021 £m	2020* £m
Property, plant and equipment	277.4	261.3
Right-of-use assets (IFRS 16)	62.9	36.3
Software & development costs*	38.9	33.4
Prepayments	1.3	1.4
Inventories	201.3	180.1
Trade receivables	272.3	226.3
Other current assets	44.7	31.8
Tax recoverable	15.7	8.1
Trade, other payables and current provisions	(222.2)	(166.3)
Current tax payable	(33.1)	(28.6)
Capital employed	659.2	583.8
Average capital employed	621.5	589.2
Average capital employed (excluding IFRS 16)	571.9	550.6
Operating profit	320.9	249.0
Adjustments (see adjusted operating profit on page 190)	19.4	21.4
Adjusted operating profit	340.3	270.4
Adjusted operating profit (excluding IFRS 16)	339.2	269.3
Return on capital employed	54.7%	45.9%
Return on capital employed (excluding IFRS 16)	59.3%	48.9%

* Restated following IFRS Interpretations Committee agenda decision on configuration and customisation costs in cloud computing arrangements (Software as a Service (SaaS)), see Note 1 for further details.

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

	2021 £m	2020 £m
Capital employed	659.2	583.8
Goodwill and acquired intangibles	628.0	665.6
Investment in Associate	–	–
Post-retirement benefits	(44.7)	(98.6)
Net deferred tax	(35.7)	(28.5)
Non-current provisions and long-term payables	(6.2)	(7.1)
Lease liabilities	(60.1)	(34.1)
Net debt	(130.5)	(228.8)
Net assets as reported under IFRS	1,010.0	852.3

2 Alternative performance measures continued

Net debt including IFRS 16 lease liabilities

A reconciliation between net debt and net debt including IFRS 16 lease liabilities is given below. A breakdown of the balances that are included within net debt is given within Note 24. Net debt excludes IFRS 16 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.

	2021 £m	2020 £m
Net debt	130.5	228.8
IFRS 16 lease liabilities	60.1	34.1
Net debt and IFRS 16 lease liabilities	190.6	262.9

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 to adjusted operating profit. Net debt is calculated as Cash and cash equivalents less Bank overdrafts and external borrowings (excluding IFRS 16 lease liabilities). The net debt to EBITDA ratio is calculated as follows:

	2021 £m	2020 £m
Adjusted operating profit	340.3	270.4
Depreciation and amortisation of property, plant and equipment, software and development	36.2	36.7
Earnings before interest, tax, depreciation and amortisation	376.5	307.1
Net debt	130.5	228.8
Net debt to EBITDA	0.3	0.7

The components of net debt are disclosed in Note 24.

Organic measures

As we are a multi-national group of companies, which trade in a large number of foreign currencies and acquire and sometimes dispose of companies, we also refer to organic performance measures throughout the Annual Report. These strip out the effects of the movement of foreign currency exchange rates and of acquisitions and disposals. The Board believes 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 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 and disposals that occurred in either the current period or prior period are excluded from the results of the current period at current period exchange rates.

The organic percentage movement is calculated as the organic movement divided by the sum of the prior period and exchange.

The organic bps change in adjusted operating margin is the difference between the current period margin excluding acquisitions and disposals and the prior period margin at current period exchange rates.

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

	2020	Exchange	Organic	Acquisitions and disposals	2021	Organic	Reported
Revenue	1,193.4	(41.0)	192.1	–	1,344.5	+17%	+13%
Adjusted operating profit	270.4	(11.1)	81.0	–	340.3	+31%	+26%
Adjusted operating margin	22.7%				25.3%	+280 bps	+260 bps

A reconciliation of the movement in revenue compared to the pre-pandemic level in 2019 is given below.

	2019	Exchange	Organic	Acquisitions and disposal	2021	Organic	Reported
	£m	£m	£m	£m	£m		
Revenue	1,242.4	(67.8)	155.2	14.7	1,344.5	+13%	+8%

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

The term 'real terms' is defined as the growth in revenue at constant currency excluding the impacts of price inflation.

Drop through is calculated as the organic growth in adjusted operating profit divided by the organic growth in revenue.

The reconciliation for each segment is included in the Strategic Report.

Inflation adjusted sales

For the purpose of calculating the prior year carbon emission intensity ratio, inflation adjusted sales at constant currency reflects the prior year reported revenue adjusted for the impact of exchange, as shown above, as well as the impact of the global OECD inflation rate for the current year. The revenue used for the current year ratio is as reported.

Notes to the Consolidated Financial Statements continued

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

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 profit of Associate		–	–	
Profit before tax		314.5	333.9	

2020

	Revenue £m	Total operating profit £m	Adjusted operating profit £m	Adjusted operating margin %
Steam Specialties	694.1	157.8	154.3	22.2%
Electric Thermal Solutions	178.0	4.8	24.6	13.8%
Watson-Marlow	321.3	102.2	107.3	33.4%
Corporate expenses		(15.8)	(15.8)	
Total	1,193.4	249.0	270.4	22.7%
Net financing expense		(8.7)	(8.7)	
Share of profit of Associate		(0.2)	(0.2)	
Profit before tax		240.1	261.5	

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

	2021 £m	2020 £m
Europe, Middle East and Africa	563.3	507.8
Asia Pacific	334.2	288.5
Americas	447.0	397.1
Total revenue	1,344.5	1,193.4

Revenue generated by Group companies based in the USA is £342.4m (2020: £303.0m), in China is £181.6m (2020: £134.6m), in Germany is £118.2m (2020: £109.8m), in the UK is £99.6m (2020: £90.2m) and the rest of the world is £602.7m (2020: £555.8m).

3 Segmental reporting continued

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

2021

	Amortisation of acquisition-related intangible assets £m	German 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)
Total	(21.4)	2.0	(19.4)

2020

	Amortisation of acquisition-related intangible assets £m	Restructuring costs £m	UK and Canada pension plans closed to future accrual £m	Reversal of acquisition-related fair value adjustments to inventory £m	Total £m
Steam Specialties	(5.0)	–	8.5	–	3.5
Electric Thermal Solutions	(14.5)	(4.3)	–	(1.0)	(19.8)
Watson-Marlow	(7.1)	–	2.0	–	(5.1)
Total	(26.6)	(4.3)	10.5	(1.0)	(21.4)

Net financing income and expense

	2021 Income £m	2021 Expense £m	2021 Net £m	2020 Income £m	2020 Expense £m	2020 Net £m
Steam Specialties	3.0	(2.3)	0.7	1.3	(2.4)	(1.1)
Electric Thermal Solutions	–	(0.2)	(0.2)	–	(0.3)	(0.3)
Watson-Marlow	0.1	(0.5)	(0.4)	–	(0.4)	(0.4)
Corporate expenses	0.3	(6.8)	(6.5)	0.1	(7.0)	(6.9)
Total net financing expense	3.4	(9.8)	(6.4)	1.4	(10.1)	(8.7)

Net assets

	2021 Assets £m	2021 Liabilities £m	2020* Assets £m	2020 Liabilities £m
Steam Specialties	658.0	(182.1)	637.1	(198.0)
Electric Thermal Solutions	536.9	(33.0)	530.0	(27.5)
Watson-Marlow	331.8	(57.9)	269.1	(46.5)
	1,526.7	(273.0)	1,436.2	(272.0)
Liabilities		(273.0)		(272.0)
Net deferred tax		(35.7)		(28.5)
Net tax payable		(17.4)		(20.5)
Net debt including lease liabilities		(190.6)		(262.9)
Net assets	1,010.0		852.3	

* Restated following IFRS Interpretations Committee agenda decision on configuration and customisation costs in cloud computing arrangements (Software as a Service (SaaS)), see Note 1 for further details.

Non-current assets in the UK were £231.2m (2020: £203.4m), in the USA were £345.6m (2020: £350.8m), in Germany were £154.6m (2020: £168.9m), in France were £150.5m (2020: £150.9m) and in the rest of the world were £177.6m (2020: £174.9m).

Notes to the Consolidated Financial Statements continued

3 Segmental reporting continued

Capital additions, depreciation, amortisation and impairment

	2021 Capital additions £m	2021 Depreciation, amortisation and impairment £m	2020 Capital additions £m	2020 Depreciation and amortisation £m
Steam Specialties	35.6	33.9	34.5	36.4
Electric Thermal Solutions	16.6	18.3	3.8	20.8
Watson-Marlow	51.0	16.8	19.6	18.2
Group total	103.2	69.0	57.9	75.4

Capital additions include property, plant and equipment of £52.8m (2020 £42.0m), of which £nil (2020: £nil) was from acquisitions in the period, and other intangible assets of £11.3m (2020: £7.6m) of which £nil (2020: £nil) relates to acquired intangibles from acquisitions in the period. Right-of-use asset additions of £39.1m occurred during the 12 month period to 31st December 2021, all of which relates to new leases entered into during 2021. Capital additions split between the UK and rest of the world are UK £54.2m (2020: £28.2m) and rest of the world £49.0m (2020: £29.7m).

4 Operating costs

	2021 Adjusted £m	2021 Adjustments £m	2021 Total £m	2020 Adjusted £m	2020 Adjustments £m	2020 Total £m
Cost of inventories recognised as an expense	304.7	–	304.7	288.7	1.0	289.7
Staff costs (Note 5)	478.5	–	478.5	430.8	–	430.8
Depreciation, amortisation and impairment	47.6	21.4	69.0	48.8	26.6	75.4
Other operating charges	173.4	(2.0)	171.4	154.7	(6.2)	148.5
Total operating costs	1,004.2	19.4	1,023.6	923.0	21.4	944.4

Total depreciation, amortisation and impairment includes amortisation of acquisition-related intangible assets of £21.4m (2020: £26.6m). Total other operating charges include restructuring costs of £nil (2020: £4.3m) and Germany pension plan closure to future accrual credit of £2.0m (2020: UK and Canada pension plans closure to future accrual credit £10.5m). Total cost of inventories recognised as an expense includes the reversal of acquisition-related fair value adjustments to inventory £nil (2020: £1.0m). Operating costs include exchange difference losses of £1.3m (2020: benefits of £1.0m).

Total staff costs includes a credit of £2.7m relating to amounts capitalised during the year. Excluding this credit, total staff costs were £481.2m.

5 Staff costs and numbers

The aggregate payroll costs of persons employed by the Group were as follows:

	2021 £m	2020 £m
Wages and salaries	390.3	343.5
Social security costs	70.3	68.9
Pension costs	20.6	21.3
Total payroll costs	481.2	433.7

The average number of persons employed by the Group (including Directors) during the year was as follows:

	2021	2020
United Kingdom	2,225	2,009
Overseas	5,977	5,882
Group average	8,202	7,891

6 Net financing income and expense

	2021 £m	2020 £m
Financial expenses:		
Bank and other borrowing interest payable	(7.4)	(7.4)
Interest expense on lease liabilities	(1.1)	(1.2)
Net interest on pension scheme liabilities	(1.3)	(1.5)
	(9.8)	(10.1)
Financial income:		
Bank interest receivable	3.4	1.4
Net financing expense	(6.4)	(8.7)
Net pension scheme financial expense	(1.3)	(1.5)
Interest expense on lease liabilities	(1.1)	(1.2)
Net bank interest	(4.0)	(6.0)
Net financing expense	(6.4)	(8.7)

7 Profit before taxation

Profit before taxation is shown after charging:

	2021 £m	2020 £m
Depreciation of owned tangible fixed assets	(28.3)	(28.9)
Depreciation of right-of-use assets	(11.4)	(12.1)
Amortisation of acquired intangibles	(21.4)	(26.6)
Leases exempt from IFRS 16 (short-term, low value or variable lease payments)	(2.6)	(2.4)
Exchange difference (losses)/profit	(1.3)	1.0
Profit on disposal of property, plant and equipment	0.5	0.3
Research and development	(13.0)	(10.0)

	2021 £m	2020 £m
Auditor's remuneration		
Audit of these Financial Statements	0.3	0.3
Amounts receivable by the Company's auditor and its Associates in respect of:		
Audit of Financial Statements of subsidiaries of the Company	1.7	1.6
Total audit fees	2.0	1.9
Audit-related assurance services	0.2	0.1
Total non-audit fees	0.2	0.1
Total auditor's remuneration	2.2	2.0

8 Directors' emoluments

Directors represent the key management personnel of the Group under the terms of IAS 24 (Related Party Disclosures). Total remuneration is shown below.

Further details of salaries and short-term benefits, post-retirement benefits, share plans and long-term share incentive plans are shown in the Annual Report on Remuneration 2021 on pages 136 to 151. The share-based payments charge comprises a charge in relation to the Performance Share Plan and the Employee Share Ownership Plan (as described in Note 23).

	2021 £m	2020 £m
Salaries and short-term benefits	3.3	2.7
Post-retirement benefits	0.2	0.3
Share-based payments	2.4	2.1
Total Directors' remuneration	5.9	5.1

Notes to the Consolidated Financial Statements continued

9 Taxation

	2021 Adjusted £m	2021 Adjustments £m	2021 Total £m	2020 Adjusted £m	2020 Adjustments £m	2020 Total £m
Analysis of charge in period						
UK corporation tax:						
Current tax on income for the period	8.7	–	8.7	13.8	–	13.8
Adjustments in respect of prior periods	(1.7)	–	(1.7)	(3.1)	–	(3.1)
	7.0	–	7.0	10.7	–	10.7
Foreign tax:						
Current tax on income for the period	74.5	–	74.5	60.4	–	60.4
Adjustments in respect of prior periods	(1.5)	–	(1.5)	0.6	–	0.6
	73.0	–	73.0	61.0	–	61.0
Total current tax charge	80.0	–	80.0	71.7	–	71.7
Deferred tax – UK	4.0	(0.3)	3.7	3.0	(0.3)	2.7
Deferred tax – Foreign	(0.1)	(4.0)	(4.1)	(2.7)	(5.5)	(8.2)
Tax on profit on ordinary activities	83.9	(4.3)	79.6	72.0	(5.8)	66.2

Reconciliation of effective tax rate

	2021 Adjusted £m	2021 Adjustments £m	2021 Total £m	2020 Adjusted £m	2020 Adjustments £m	2020 Total £m
Profit before tax and share of profit of Associate	333.9	(19.4)	314.5	261.7	(21.4)	240.3
Expected tax at blended rate	81.4	(4.1)	77.3	65.7	(5.9)	59.8
Increased withholding tax on overseas dividends	5.2	–	5.2	4.6	–	4.6
Non-deductible expenditure	2.6	–	2.6	1.7	–	1.7
Over provided in prior years	(4.9)	–	(4.9)	(2.6)	–	(2.6)
Other reconciling items	(0.4)	(0.2)	(0.6)	2.6	0.1	2.7
Total tax in income statement	83.9	(4.3)	79.6	72.0	(5.8)	66.2
Effective tax rate	25.1%	22.2%	25.3%	27.5%	27.1%	27.5%

The Group's tax charge in future years is likely to be affected by the proportion of profits arising and the effective tax rates in the various territories in which the Group operates. The blended tax rate is calculated using each subsidiary company's headline tax rate as a proportion of its respective profit.

The Group's tax charge for the year ended 31st December 2021 includes a credit of £4.3m in relation to certain items excluded from adjusting operating profit (as disclosed in Note 2). The tax impacts of these items are:

- Amortisation of acquisition-related intangible assets (£4.9m credit); and
- Closure of defined benefit German pension scheme to future accrual (£0.6m debit)

Excluding these adjustments the tax on profit and the effective tax rate are £83.9m and 25.1% respectively.

The UK deferred tax assets and liabilities at 31st December 2021 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%.

9 Taxation continued

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 Government appealed the decision. Similar to other UK Groups, in October 2019, the Group submitted its own appeal. The Group's benefit from the FCE in the period from 1st January 2013 to 31st December 2021 is approximately £8.7m, including compound interest. During 2021, the Group 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. Her Majesty's Revenue & Customs 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.

No UK tax (after double tax relief for underlying tax) is expected to be payable on the future remittance of retained earnings of overseas subsidiaries.

The effective tax rate is calculated as a percentage of profit before tax and share of profits of Associates.

10 Earnings per share

	2021	2020
Profit attributable to equity shareholders (£m)	234.6	173.6
Weighted average shares (million)	73.7	73.7
Dilution (million)	0.2	0.2
Diluted weighted average shares (million)	73.9	73.9
Basic earnings per share	318.3p	235.5p
Diluted earnings per share	317.5p	234.8p

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.

11 Dividends

	2021 £m	2020 £m
Amounts paid in the year:		
Final dividend for the year ended 31st December 2020 of 84.5p (2020: 78.0p) per share	62.3	57.5
Interim dividend for the year ended 31st December 2021 of 38.5p (2020: 33.5p) per share	28.4	24.7
Total dividends paid	90.7	82.2
Amounts arising in respect of the year:		
Interim dividend for the year ended 31st December 2021 of 38.5p (2020: 33.5p) per share	28.4	24.7
Proposed final dividend for the year ended 31st December 2021 of 97.5p (2020: 84.5p) per share	71.8	62.3
Total dividends arising	100.2	87.0

The proposed dividend is subject to approval in 2022. It is therefore not included as a liability in these Financial Statements. No scrip alternative to the cash dividend is being offered in respect of the proposed final dividend for the year ended 31st December 2021.

Notes to the Consolidated Financial Statements continued

12 Investment in Associate

	Associate 2021 £m	Associate 2020 £m
Cost of investment	1.4	1.4
Share of equity	(1.4)	(1.4)
Total investment in Associate	–	–
Summarised financial information (100% of the results of the Associate):		
Revenue	0.6	2.3
Loss for the period	(0.7)	(1.4)
Current assets	0.4	0.7
Non-current assets	0.4	0.6
Current and non-current liabilities	1.7	1.9

Details of the Group's Associate at 31st December 2021 and 31st December 2020 is as follows:

Name of Associate	Country of incorporation and operation	Proportion of ownership interest and voting power held	Principal activity
Econotherm (UK) Ltd	UK	16.1%	Manufacturing and selling

The Group's share of Loss of Associate is £0.1m (2020: £0.4m loss). The Group's share of losses in 2021 exceeded our total investment value by £0.1m. As a result, in line with IAS 28 paragraph 38, the Group did not recognise a loss in the Consolidated Income Statement. No further future losses will be recognised in the Consolidated Income Statement going forward, and any share of profit will only be recognised once it has exceeded the cumulative unrecognised loss of £0.3m. The proportion of ownership reduced during 2021, from 26.3% to 16.1%.

13 Property, plant and equipment

2021

	Freehold land and buildings £m	Leasehold land and buildings £m	Plant and machinery £m	Fixtures, fittings, tools and equipment £m	Assets under construction £m	Total £m
Cost:						
At 1st January 2021	158.3	38.7	196.0	83.2	9.8	486.0
Exchange adjustments	(3.9)	0.7	(3.5)	(1.9)	–	(8.6)
	154.4	39.4	192.5	81.3	9.8	477.4
Additions	1.8	0.9	18.2	10.1	21.8	52.8
Transfers	2.1	0.6	2.9	0.1	(9.2)	(3.5)
Disposals	(0.6)	(0.1)	(9.4)	(2.1)	(0.1)	(12.3)
At 31st December 2021	157.7	40.8	204.2	89.4	22.3	514.4
Depreciation:						
At 1st January 2020	35.1	9.5	123.3	56.8	–	224.7
Exchange adjustments	(1.1)	0.1	(2.0)	(1.2)	–	(4.2)
	34.0	9.6	121.3	55.6	–	220.5
Charged in year	3.5	1.4	15.2	8.2	–	28.3
Transfers	(0.2)	–	(0.1)	(0.2)	–	(0.5)
Disposals	(0.4)	(0.1)	(9.0)	(1.8)	–	(11.3)
At 31st December 2021	36.9	10.9	127.4	61.8	–	237.0
Net book value:						
At 31st December 2021	120.8	29.9	76.8	27.6	22.3	277.4

13 Property, plant and equipment continued

The total amount of transfers relates to property, plant and equipment transferred to other intangible assets (see Note 15).

2020

	Freehold land and buildings £m	Leasehold land and buildings £m	Plant and machinery £m	Fixtures, fittings, tools and equipment £m	Assets under construction £m	Total £m
Cost:						
At 1st January 2020	148.1	38.4	186.7	83.5	–	456.7
Exchange adjustments	0.9	0.3	(0.3)	(0.4)	–	0.5
	149.0	38.7	186.4	83.1	–	457.2
Additions	1.9	0.1	13.5	7.4	19.1	42.0
Transfers	7.7	–	2.9	(2.4)	(9.4)	(1.2)
Disposals	(0.3)	(0.1)	(6.8)	(4.9)	0.1	(12.0)
At 31st December 2020	158.3	38.7	196.0	83.2	9.8	486.0
Depreciation:						
At 1st January 2020	31.4	8.1	109.8	56.2	–	205.5
Exchange adjustments	0.3	0.1	0.1	0.1	–	0.6
	31.7	8.2	109.9	56.3	–	206.1
Charged in year	3.5	1.4	15.9	8.1	–	28.9
Transfers	(0.1)	–	2.9	(2.8)	–	–
Disposals	–	(0.1)	(5.4)	(4.8)	–	(10.3)
At 31st December 2020	35.1	9.5	123.3	56.8	–	224.7
Net book value:						
At 31st December 2020	123.2	29.2	72.7	26.4	9.8	261.3

14 Leases

Right-of-use assets 2021

	Leased land and buildings £m	Leased plant and machinery £m	Leased fixtures, fittings, tools and equipment £m	Total right-of- use assets £m
Cost:				
At 1st January 2021	41.6	14.0	2.3	57.9
Exchange adjustments	(0.9)	(0.6)	(0.1)	(1.6)
	40.7	13.4	2.2	56.3
Additions	34.4	4.5	0.2	39.1
Disposals	(1.2)	(0.7)	–	(1.9)
At 31st December 2021	73.9	17.2	2.4	93.5
Depreciation:				
At 1st January 2021	13.3	7.0	1.3	21.6
Exchange adjustments	(0.2)	(0.4)	–	(0.6)
	13.1	6.6	1.3	21.0
Charged in the year	7.0	3.9	0.5	11.4
Disposals	(1.1)	(0.7)	–	(1.8)
At 31st December 2021	19.0	9.8	1.8	30.6
Net book value:				
At 31st December 2021	54.9	7.4	0.6	62.9

Notes to the Consolidated Financial Statements continued

14 Leases continued

The vast majority of the right-of-use asset value relates to leased property where the Group leases a number of office and warehouse sites in a number of geographical locations. The remaining leases are largely made up of leased motor vehicles, where the Group makes use of leasing cars for sales and service engineers at a number of operating company locations. The average lease term is 4.3 years (2020: 4.3 years).

2020

	Leased land and buildings £m	Leased plant and machinery £m	Leased fixtures, fittings, tools and equipment £m	Total right-of-use assets £m
Cost:				
At 1st January 2020	38.6	11.0	2.1	51.7
Exchange adjustments	(0.4)	0.3	0.1	–
	38.2	11.3	2.2	51.7
Additions	4.6	3.3	0.4	8.3
Disposals	(1.2)	(0.6)	(0.3)	(2.1)
At 31st December 2020	41.6	14.0	2.3	57.9
Depreciation:				
At 1st January 2020	6.7	3.6	0.6	10.9
Exchange adjustments	(0.2)	0.1	–	(0.1)
	6.5	3.7	0.6	10.8
Charged in the year	7.4	4.0	0.7	12.1
Transfers	–	(0.2)	0.2	–
Disposals	(0.6)	(0.5)	(0.2)	(1.3)
At 31st December 2020	13.3	7.0	1.3	21.6
Net book value:				
At 31st December 2020	28.3	7.0	1.0	36.3

The maturity analysis of lease liabilities is presented in Note 27.

Amounts recognised in Consolidated Income Statement

	31st December 2021 £m	31st December 2020 £m
Depreciation expense on right-of-use assets	11.4	12.1
Interest expense on lease liabilities	1.1	1.2
Expense relating to short-term leases	2.0	1.7
Expense relating to leases of low value assets	0.4	0.5
Expense relating to variable lease payments not included in the measurement of the lease liability	0.2	0.2
Income from subleases right-of-use assets	(0.1)	(0.1)
Total impact on profit before tax	15.0	15.6

The total cash outflow for leases during 2021 was £15.3m (2020: £15.6m).

The following cash outflows (undiscounted) are those that the Group is potentially exposed to in future periods but are currently not reflected in the measurement of lease liabilities:

- £0.1m relating to variable lease payments not based on an index or rate (2020: £0.3m);
- £1.2m relating to optional extension periods that are not reasonably certain to be exercised as at 31st December 2021 (2020: £0.7m); and
- £37.7m relating to leases that the Group are committed, but have not commenced as at 31st December 2021 (2020: £8.1m).

15 Goodwill and other intangible assets

2021

	Acquired intangibles £m	Development costs £m	Computer software £m	Total other intangibles £m	Goodwill £m
Cost:					
At 1st January 2021 (restated)	368.6	27.1	69.8	465.5	429.8
Exchange and other adjustments	(9.4)	(0.2)	(1.3)	(10.9)	(11.4)
	359.2	26.9	68.5	454.6	418.4
Additions	–	3.2	8.1	11.3	–
Transfers from property, plant and equipment	–	0.1	3.4	3.5	–
Disposals	–	–	(2.0)	(2.0)	–
At 31st December 2021	359.2	30.2	78.0	467.4	418.4
Amortisation:					
At 1st January 2021 (restated)	125.4	17.6	45.9	188.9	7.4
Exchange adjustments	(4.4)	(0.1)	(0.9)	(5.4)	(0.2)
	121.0	17.5	45.0	183.5	7.2
Amortisation	21.4	2.0	5.9	29.3	–
Transfers from property, plant and equipment	–	–	0.5	0.5	–
Disposals	–	–	(1.6)	(1.6)	–
At 31st December 2021	142.4	19.5	49.8	211.7	7.2
Net book value:					
At 31st December 2021	216.8	10.7	28.2	255.7	411.2

2020

	Acquired intangibles £m	Development costs £m	Computer software £m	Total other intangibles £m	Goodwill £m
Cost:					
At 1st January 2020	366.9	23.6	71.5	462.0	425.6
Restatement for SaaS arrangements	–	–	(5.1)	(5.1)	–
At 1st January 2020 (restated)	366.9	23.6	66.4	456.9	425.6
Exchange and other adjustments	1.7	0.1	0.4	2.2	3.6
	368.6	23.7	66.8	459.1	429.2
Additions	–	2.7	4.9	7.6	0.6
Transfers from property, plant and equipment	–	0.7	0.5	1.2	–
Disposals	–	–	(2.4)	(2.4)	–
At 31st December 2020	368.6	27.1	69.8	465.5	429.8
Amortisation:					
At 1st January 2020	99.2	15.7	43.2	158.1	7.9
Restatement for SaaS arrangements	–	–	(1.4)	(1.4)	–
At 1st January 2020 (restated)	99.2	15.7	41.8	156.7	7.9
Exchange adjustments	(0.4)	0.1	0.3	–	(0.5)
	98.8	15.8	42.1	156.7	7.4
Amortisation	26.6	1.8	6.0	34.4	–
Disposals	–	–	(2.2)	(2.2)	–
At 31st December 2020	125.4	17.6	45.9	188.9	7.4
Net book value:					
At 31st December 2020	243.2	9.5	23.9	276.6	422.4

* As a result of the IFRS Interpretation Committee agenda decision released during 2021, the Group have reassessed the accounting treatment in relation to cloud based software. This has resulted in adjustments to computer software cost and amortisation at 1st January 2020 of £5.1m and £1.4m respectively. This represents the net book value at 1st January 2020 of previously capitalised costs which are now deemed to be operating expenditure. See Note 1 for further details.

Notes to the Consolidated Financial Statements continued

15 Goodwill and other intangible assets continued

Acquired intangibles

The disclosure by class of acquired intangible assets is shown in the tables below.

2021

	Customer relationships £m	Brand names and trademarks £m	Manufacturing designs and core technology £m	Non-compete undertakings and other £m	Total acquired intangibles £m
Cost:					
At 1st January 2021	91.4	192.3	61.8	23.1	368.6
Exchange and other adjustments	(4.3)	(2.1)	(1.6)	(1.4)	(9.4)
	87.1	190.2	60.2	21.7	359.2
Acquisitions	–	–	–	–	–
At 31st December 2021	87.1	190.2	60.2	21.7	359.2
Amortisation and impairment:					
At 1st January 2021	37.9	40.4	24.8	22.3	125.4
Exchange adjustments	(1.7)	(0.6)	(0.7)	(1.4)	(4.4)
	36.2	39.8	24.1	20.9	121.0
Amortisation and impairment	6.0	10.1	4.5	0.8	21.4
At 31st December 2021	42.2	49.9	28.6	21.7	142.4
Net book value:					
At 31st December 2021	44.9	140.3	31.6	–	216.8

Customer relationships are amortised over their useful economic lives in line with the accounting policies disclosed in Note 1. Within this balance the individually material balance relates to Thermocoax £27.8m (2020: £32.0m). The remaining amortisation period is 12.3 years.

Brand names and trademark assets are amortised over their useful economic lives in line with the accounting policies disclosed in Note 1. Within this balance individually material balances relate to Chromalox £98.9m (2020: £104.2m) and Gestra £23.6m (2020: £27.5m). The remaining amortisation periods are 15.5 years and 10.3 years respectively.

Manufacturing designs and core technology are amortised over their useful economic lives in line with the accounting policies disclosed in Note 1. There are no individually material items within this balance.

Non-compete undertakings are amortised over their useful economic lives in line with the accounting policies disclosed in Note 1.

2020

	Customer relationships £m	Brand names and trademarks £m	Manufacturing designs and core technology £m	Non-compete undertakings and other £m	Total acquired intangibles £m
Cost:					
At 1st January 2020	89.0	193.8	61.0	23.1	366.9
Exchange and other adjustments	2.4	(1.5)	0.8	–	1.7
	91.4	192.3	61.8	23.1	368.6
Acquisitions	–	–	–	–	–
At 31st December 2020	91.4	192.3	61.8	23.1	368.6
Amortisation and impairment:					
At 1st January 2020	30.9	30.6	19.2	18.5	99.2
Exchange adjustments	0.3	(0.7)	0.1	(0.1)	(0.4)
	31.2	29.9	19.3	18.4	98.8
Amortisation and impairment	6.7	10.5	5.5	3.9	26.6
At 31st December 2020	37.9	40.4	24.8	22.3	125.4
Net book value:					
At 31st December 2020	53.5	151.9	37.0	0.8	243.2

15 Goodwill and other intangible assets continued

Impairment

In accordance with the requirements of IAS 36 (Impairment of Assets), goodwill is allocated to the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the business combination that gave rise to the goodwill. Goodwill impairment is considered based on groups of CGUs that represent the lowest level to which goodwill is monitored for internal management purposes, being each operating segment as disclosed in Note 3. The breakdown of the goodwill value at 31st December across these is shown below:

	2021 Goodwill £m	2020 Goodwill £m
Steam Specialties	110.6	117.4
Electric Thermal Solutions	241.0	243.7
Watson-Marlow	59.6	61.3
Total goodwill	411.2	422.4

The goodwill balance has been tested for annual impairment on the following basis:

- the carrying values of goodwill have been assessed by reference to value in use. These have been estimated using cash flows based on forecast information for the next financial year which have been approved by the Board and then extended up to a further 9 years based on the most recent forecasts prepared by management. Cash flow forecasts extend beyond 5 years only for Electric Thermal Solutions, incorporating further medium term growth expected during that period which is consistent with the acquisition plan that indicated a period of greater than 5 years would be required before the newly acquired segment reaches long term expected performance;
- discount rates range from 9.8% to 10.7% (2020: 9.8% to 11.2%);
- short to medium-term growth rates vary between 3.5% and 18.2% depending on detailed forecasts (2020: 3.5% to 13.7%). The short to medium-term is defined as not more than 9 years; and
- long-term growth rates are set using IMF forecasts and vary between 1.7% and 2.5% (2020: 1.8% to 2.5%).

The key assumptions on which the impairment tests are based are the discount rates, growth rates and the forecast cash flows:

The principal value in use assumptions were as follows:

Cash-generating unit	Discount rate	Short to medium-term growth rate	Long-term growth rate
Steam Specialties	10.7%	5.7%–7.9%	2.5%
Electric Thermal Solutions	9.8%	3.5%–14.9%	1.7%
Watson-Marlow	10.2%	4.9%–18.2%	2.0%

These rates have been determined by taking into account the size of business along with specific geographical and industry risk factors.

The results of the Group's impairment tests are dependent upon estimates, particularly in relation to the key assumptions described above. Sensitivity analysis to potential changes in the key assumptions has been undertaken based on the following reasonably possible change sensitivities in isolation:

- a 1.0% increase in the discount rate applied to each operating segment;
- a range of 1.0% – 4.0% reduction in the short to medium term growth rates and a 1.0% reduction in long-term growth rates used in the cash flow projections;
- a range of 100 to 200 bps reduction in the EBIT margin used in the cash flow projections; and
- a range of 1.0% – 4.0% reduction in the short to medium term revenue growth rates and a 1.0% reduction in long term revenue growth rates, combined with a range of 0 – 200bps reduction in forecast short to medium term profit margins specifically in relation to Electric Thermal Solutions.

For each cash-generating unit, the Directors do not consider that there are any reasonably possible change sensitivities for the business that could arise in the next 12 months that would result in an impairment charge being recognised.

Notes to the Consolidated Financial Statements continued

16 Deferred tax assets and liabilities

Recognised deferred tax assets and liabilities

Deferred tax assets and liabilities are attributable to the following:

	2021 Assets £m	2020 Assets £m	2021 Liabilities £m	2020 Liabilities £m	2021 Net £m	2020 Net £m
Accelerated capital allowances	0.5	0.5	(12.8)	(9.3)	(12.3)	(8.8)
Provisions	8.3	9.0	(0.2)	(0.2)	8.1	8.8
Losses	5.6	3.9	–	–	5.6	3.9
Inventory	6.6	5.9	(1.6)	(1.6)	5.0	4.3
Pensions	15.8	23.9	(3.8)	(1.2)	12.0	22.7
Acquired intangibles	–	–	(55.0)	(61.1)	(55.0)	(61.1)
Other temporary differences	9.3	7.7	(8.4)	(6.0)	0.9	1.7
Tax assets/(liabilities)	46.1	50.9	(81.8)	(79.4)	(35.7)	(28.5)

Movement in deferred tax during the year 2021

	1st January 2021 £m	Recognised in income £m	Recognised in OCI £m	Recognised in equity £m	31st December 2021 £m
Accelerated capital allowances	(8.8)	(3.7)	–	0.2	(12.3)
Provisions	8.8	(0.4)	0.1	(0.4)	8.1
Losses	3.9	1.9	–	(0.2)	5.6
Inventory	4.3	0.7	0.1	(0.1)	5.0
Pensions	22.7	(1.4)	(9.5)	0.2	12.0
Acquired intangibles	(61.1)	4.9	–	1.2	(55.0)
Other temporary differences	1.7	(2.1)	1.3	–	0.9
Group total	(28.5)	(0.1)	(8.0)	0.9	(35.7)

Movement in deferred tax during the year 2020

	1st January 2020 £m	Recognised in income £m	Recognised in OCI £m	Recognised in equity £m	31st December 2020 £m
Accelerated capital allowances	(8.0)	(0.9)	–	0.1	(8.8)
Provisions	2.1	6.9	0.3	(0.5)	8.8
Losses	2.9	(1.1)	2.1	–	3.9
Inventory	4.8	(0.3)	(0.2)	–	4.3
Pensions	16.8	(2.5)	8.3	0.1	22.7
Acquired intangibles	(67.2)	6.3	–	(0.2)	(61.1)
Other temporary differences	5.5	(2.9)	(0.1)	(0.8)	1.7
Group total	(43.1)	5.5	10.4	(1.3)	(28.5)

At the Balance Sheet date, the Group has deductible temporary differences, unused tax losses and unused tax creditors of £14.4m (2020: £13.7m) available for offset against future profits. A deferred tax asset has been recognised in respect of £5.6m (2020: £3.9m). No deferred tax asset has been recognised in respect of the remaining £8.8m (2020: £9.8m) as it is not considered probable that there will be future taxable profits available against which the relevant deduction can be offset. The losses may be carried forward indefinitely.

A deferred tax charge of £9.5m (2020: £8.3m income) recognised in the Consolidated Statement of Comprehensive Income (page 178) associated with the measurement of defined benefit obligations comprises £8.9m relating to remeasurement gains (2020: £8.2m relating to remeasurement loss) and £0.6m loss (2020: £0.1m gain) relating to exchange movements.

In the current year, the presentation of 'Other temporary differences' has been updated to show deferred tax on 'Acquired intangibles' separately. Therefore, for comparability the same change has been reflected for the prior year comparatives where total 'Other temporary differences' of £61.7m have been split into an 'Acquired intangibles' deferred tax liability of £67.2m and an 'Other temporary differences' deferred tax assets of £5.5m. The movement in the prior year within 'Other temporary differences' where £3.4m was recognised in income is split into income in relation to 'Acquired intangibles' of £6.3m and a charge in relation to 'Other temporary differences' of £2.9m; £0.1m recognised in OCI is split into 'Acquired intangibles' of £nil and 'Other temporary differences' of £0.1m; and £1.0m recognised in equity is split into 'Acquired intangibles' of £0.2m and 'Other temporary differences' of £0.8m. This change in presentation has no impact on the overall deferred tax balance or movements in the prior year and the purpose of this change is to facilitate enhanced presentation within the deferred tax note.

17 Inventories

	2021 £m	2020 £m
Raw materials, consumables and components	81.6	70.7
Work in progress	26.7	25.2
Finished goods and goods for resale	93.0	84.2
Total inventories	201.3	180.1

The write-down of inventories recognised as an expense during the year in respect of continuing operations was £2.0m (2020: £5.5m). This comprises a cost of £3.4m (2020: £6.5m) to write-down inventory to net realisable value reduced by £1.4m (2020: £1.0m) for reversal of previous write-down reassessed as a result of customer demand.

The value of inventories expected to be recovered after more than 12 months is £13.1m (2020: £12.3m).

There is no material difference between the Statement of Financial Position value of inventories and their replacement cost. None of the inventory has been pledged as security.

18 Other current assets

	2021 £m	2020 £m
Other receivables	22.6	16.4
Contract assets	3.2	2.8
Prepayments	18.9	12.6
Total other current assets	44.7	31.8

Contract assets relate to revenue recognised that has not yet been invoiced to the customer.

Other receivables comprise various financial assets across the Group including sales tax receivables and other non trade balances.

19 Trade and other payables

	2021 £m	2020 £m
Trade payables	67.8	45.6
Contract liabilities	17.1	11.8
Social security	7.3	6.7
Other payables	39.1	32.6
Accruals	85.7	63.5
Total trade and other payables	217.0	160.2

Contract liabilities relate to advance payments received from customers that have not yet been recognised as revenue.

£11.2m of the contract liabilities at 31st December 2020 was recognised as revenue during 2021 (2020: £8.2m).

Other payables comprise various balances across the Group including sales tax payables and amounts related to share-based payments.

Notes to the Consolidated Financial Statements continued

20 Provisions

	Product warranty £m	Legal, contractual and other £m	Total £m
2021			
At 1st January 2021	2.0	6.1	8.1
Additional provision in the year	0.7	3.1	3.8
Utilised or released during the year	(0.6)	(4.3)	(4.9)
Exchange adjustments	–	(0.3)	(0.3)
At 31st December 2021	2.1	4.6	6.7

	Product warranty £m	Legal, contractual and other £m	Total £m
2020			
At 1st January 2020	1.5	3.3	4.8
Additional provision in the year	0.8	4.9	5.7
Utilised or released during the year	(0.4)	(1.9)	(2.3)
Exchange adjustments	0.1	(0.2)	(0.1)
At 31st December 2020	2.0	6.1	8.1

	2021 £m	2020 £m
Current provisions	5.2	6.1
Non-current provisions	1.5	2.0
Total provisions	6.7	8.1

Product warranty

Product warranty provisions reflect commitments made to customers on the sale of goods in the ordinary course of business. These are expected to be incurred in the next three years.

Legal, contractual and other

Legal, contractual and other provisions mainly comprise amounts provided against open legal and contractual disputes arising from trade and employment. These costs are based on past experience of similar items and other known factors and represent management's best estimate of the likely outcome. The Group has taken action to enforce its rights and protect its intellectual property rights around the world.

Reflecting the inherent uncertainty within many legal proceedings, the timing and amount of the outflows could differ significantly from the amount provided. Management does not expect that the outcome of such proceedings, either individually or in aggregate, will have a material adverse effect on the Group's financial condition or results of operations. Of the total legal, contractual and other provisions at 31st December 2021 £3.5m (2020: £4.5m) has been included within current and £1.1m within non-current provisions (2020: £1.6m).

21 Called up share capital and reserves

	2021 £m	2020 £m
Ordinary shares of 26 12/13p (2020: 26 12/13p) each:		
Authorised 111,428,571 (2020: 111,428,571)	30.0	30.0
Allotted, called up and fully paid 73,766,048 (2020: 73,766,048)	19.8	19.8

In 2021, 33,856 shares with a nominal value of £9,115 were issued in connection with the Group's Employee Share Schemes with external consideration of £1.5m received by the Group.

At 31st December 2021, 134,331 shares were held in an Employee Benefit Trust and available for use in connection with the Group's Employee Share Schemes.

106 senior employees of the Group have been granted options on Ordinary shares under the Performance Share Plan (details in Note 23).

Other reserves in the Consolidated Statement of Changes in Equity on pages 178 to 179 are made up as follows:

	1st January 2021 £m	Change in year £m	31st December 2021 £m
Translation reserve	(27.6)	(25.6)	(53.2)
Net investment hedge reserve	(6.1)	18.8	12.7
Cash flow hedges reserve	2.6	(2.8)	(0.2)
Capital redemption reserve	1.8	–	1.8
Employee Benefit Trust reserve	(6.8)	(12.5)	(19.3)
Total other reserves	(36.1)	(22.1)	(58.2)

	1st January 2020 £m	Change in year £m	31st December 2020 £m
Translation reserve	(14.7)	(12.9)	(27.6)
Net investment hedge reserve	5.5	(11.6)	(6.1)
Cash flow hedges reserve	3.3	(0.7)	2.6
Capital redemption reserve	1.8	–	1.8
Employee Benefit Trust reserve	(6.5)	(0.3)	(6.8)
Total other reserves	(10.6)	(25.5)	(36.1)

Translation reserve

The foreign currency translation reserve is used to record exchange differences arising from the translation of the Financial Statements of foreign subsidiaries. On disposal accumulated exchange differences are recycled to the Income Statement.

Net investment hedge reserve

The reserve records the cumulative gain or loss on hedging instruments designated in net investment hedges. Together with the translation reserve, these are the foreign currency translation reserves of the Group.

Cash flow hedges reserve

The reserve records the cumulative net change in the fair value of forward exchange contracts where they are designated as effective cash flow hedge relationships.

Capital redemption reserve

This reserve records the historical repurchase of the Group's own shares.

Employee Benefit Trust reserve

The Group has an Employee Benefit Trust which is used to purchase, hold and issue shares in connection with the Group's employee share schemes. The shares held in Trust are recorded in this separate reserve.

Notes to the Consolidated Financial Statements continued

22 Capital commitments and contingent liabilities

	2021 £m	2020 £m
Capital expenditure contracted for but not provided	40.5	7.3

All capital commitments are related to property, plant and equipment and computer software. The Group has no material contingent liabilities at 31st December 2021 (no material contingent liabilities existed at 31st December 2020), but does have a non-material contingent liability in relation to tax estimated at approximately £3.8m (2020: £8.6m). See Note 9 for further details.

23 Employee benefits

Retirement benefit obligations

The Group operates a wide range of retirement benefit arrangements, which are established in accordance with local conditions and practices within the countries concerned. These include funded defined contribution and funded and unfunded defined benefit schemes.

Defined contribution arrangements

The majority of the retirement benefit arrangements operated by the Group are of a defined contribution structure, where the employer contribution and resulting Income Statement charge is fixed at a set level or is a set percentage of employees' pay. Contributions made to defined contribution schemes and charged to the Income Statement totalled £16.5m (2020: £15.2m). In Germany, following the closure of the defined benefit schemes to new entrants, the main scheme for new employees is a defined contribution scheme.

Defined benefit arrangements

The Group operates several funded defined benefit retirement schemes where the benefits are based on employees' length of service. Whilst the Group's primary schemes are in the UK, it also operates other material benefit schemes in the USA as well as less material schemes elsewhere. In funded arrangements, the assets of defined benefit schemes are held in separate trustee-administered funds or similar structures in the countries concerned.

UK defined benefit arrangements

The defined benefit schemes in the UK account for 22% (2020: 49%) of the Group's net liability for defined retirement benefit schemes. Spirax-Sarco operates three UK schemes: the Spirax-Sarco Employees Pension Fund, the Spirax-Sarco Executives' Retirement Benefits Scheme and the Watson-Marlow Pension Fund. These are all final salary pension schemes and are closed to new members. There is a mix of different inflation-dependent pension increases (in payment and deferment) which vary from member to member according to their membership history and which scheme they are a member of.

All three schemes have been set up under UK law and are governed by a Trustee committee, which is responsible for the scheme's investments, administration and management. A funding valuation is carried out for the Trustees of each scheme every three years by an independent firm of actuaries. Depending on the outcome of that valuation a schedule of future contributions is negotiated with Spirax-Sarco. Further information on the contribution commitments is shown in the Financial Review on page 41.

During 2021 triennial actuarial valuations were completed for the Spirax-Sarco Employees Pension Fund and the Spirax-Sarco Executives' Retirement Benefits scheme, as at 31 December 2019, resulting in an experience loss of £3.5m. The final results of the triennial valuation of the Watson Marlow Fund, as at 5 April 2020, resulted in an experience gain of £3.9m. These are both recognised in Other Comprehensive Income.

US defined benefit schemes

The Group operates a pension scheme in the USA, which is closed to new entrants and frozen to future accrual. The pension scheme defines the pension in terms of the highest average pensionable pay for any five consecutive years prior to retirement. No pension increases (in payment and deferment) are offered by this scheme. It also operates a post-retirement medical plan in the USA, which is unfunded, as is typical for these plans.

Germany defined benefit scheme

The Group operates an unfunded pension scheme in Germany which was closed to future accrual with effect from 1st January 2021 with active members becoming deferred at this date. This curtailment was recognised as a past service credit of £2.0m in the Consolidated Income Statement.

23 Employee benefits continued

Principal risks

The pension schemes create a number of risk exposures. Annual increases in benefits are, to a varying extent from scheme to scheme, dependent on inflation so the main uncertainties affecting the level of benefits payable are future inflation levels (including the impact of inflation on future salary increases) and the actual longevity of the membership. Benefits payable will also be influenced by a range of other factors including member decisions on matters such as when to retire and the possibility to draw benefits in different forms. A key risk is that additional contributions are required if the investment returns fall short of those anticipated when setting the contributions to the pension schemes. All pension schemes are regulated by the relevant jurisdictions. These include extensive legislation and regulatory mechanisms that are subject to change and may impact on the Group's pension schemes. The IAS 19 liability measurement known as Defined Benefit Obligation (DBO) and the Service Cost are sensitive to the actuarial assumptions made on a range of demographic and financial matters that are used to project the expected benefit payments, the most important of these assumptions being the future inflation levels and the assumptions made about life expectation. The DBO and Service Cost are also very sensitive to the IAS 19 discount rate, which determines the discounted value of the projected benefit payments. The discount rate depends on market yields on high-quality corporate bonds. Investment strategies are set with funding rather than IAS 19 considerations in mind and do not seek to provide a specific hedge against the IAS 19 measurement of DBO. As a result the difference between the market value of the assets and the IAS 19 DBO may be volatile. Further information on the investment strategy for the UK schemes can be found in the Financial Review on pages 41.

Sensitivity analysis to changes in discount rate and inflation are included on page 212.

The financial assumptions used at 31st December were:

	Assumptions weighted by value of liabilities % per annum			
	UK pensions		Overseas pensions and medical	
	2021 %	2020 %	2021 %	2020 %
Rate of increase in salaries	n/a	2.4	3.1	2.6
Rate of increase in pensions	3.2	2.8	1.8	1.8
Rate of price inflation	3.3	2.9	2.0	1.8
Discount rate	1.8	1.3	2.5	2.0
Medical trend rate	n/a	n/a	7.5	8.0

During 2020 the UK pensions were closed to future accrual therefore the rate of increase in salaries is no longer applicable.

The mortality assumptions for the material defined benefit schemes at 31st December 2021 and 31st December 2020 were:

Spirax-Sarco Employees Pension Fund	At 31st December 2021: 100% of SAPS 3, with CMI 2020 projections with a long-term 1.25% pa and an initial addition parameter of 0.25% and w2020 parameter of 10%. At 31st December 2020: 100% of SAPS S3, with CMI 2019 projections with a long-term 1.25% pa and an initial addition parameter of 0.25%.
Spirax-Sarco Executives' Retirement Benefits Scheme	At 31st December 2021: 84/87% (male/female) of SAPS S3 light normal, CMI 2020 projections with a long-term trend 1.25% and an initial addition parameter of 0.25% and w2020 parameter of 10%. At 31st December 2020: 84/87% (male/female) of SAPS S3 light, CMI 2019 projections with a long-term trend 1.25% and an initial addition parameter of 0.25%.
Watson-Marlow Pension Fund	At 31st December 2021: 102% of SAPS S2, CMI 2020 projections with a long-term trend of 1.25% pa and an initial addition parameter of 0.25% and w2020 parameter of 10%. At 31st December 2020: 96% of SAPS S2, CMI 2019 projections with a long-term trend of 1.25% pa and an initial addition parameter of 0.25%.
US Pension Scheme	At 31st December 2021: SOA Pri-2012 Amount-Weighted Blue Collar mortality tables with Mortality Improvement Scale MP2021. At 31st December 2020: SOA Pri-2012 Amount-Weighted Blue Collar mortality tables with Mortality Improvement Scale MP2020.

The assumptions used by the actuary are the best estimates chosen from a range of possible actuarial assumptions which, due to the timescale covered, may not necessarily be borne out in practice.

Notes to the Consolidated Financial Statements continued

23 Employee benefits continued

The amounts recognised in the Consolidated Statement of Financial Position are determined as follows:

	UK pensions		Overseas pensions and medical		Total	
	2021 £m	2020 £m	2021 £m	2020 £m	2021 £m	2020 £m
Fair value of schemes' assets	497.5	474.7	63.2	57.0	560.7	531.7
Present value of funded schemes' liabilities	(507.5)	(522.8)	(76.1)	(79.9)	(583.6)	(602.7)
Deficit in the funded schemes	(10.0)	(48.1)	(12.9)	(22.9)	(22.9)	(71.0)
Present value of unfunded schemes' liabilities	–	–	(21.8)	(27.6)	(21.8)	(27.6)
Retirement benefit liability recognised in the Consolidated Statement of Financial Position	(10.0)	(48.1)	(34.7)	(50.5)	(44.7)	(98.6)
Related deferred tax asset	2.5	9.1	9.5	13.6	12.0	22.7
Net pension liability	(7.5)	(39.0)	(25.2)	(36.9)	(32.7)	(75.9)

Fair value of scheme assets

	UK pensions		Overseas pensions and medical		Total	
	2021 £m	2020 £m	2021 £m	2020 £m	2021 £m	2020 £m
Equities	138.4	118.3	36.0	32.6	174.4	150.9
Bonds	287.9	310.3	17.7	16.7	305.6	327.0
Other	71.2	46.1	9.5	7.7	80.7	53.8
Total market value in aggregate	497.5	474.7	63.2	57.0	560.7	531.7

At 31st December 2021, £107.0m (2020: £94.3m) of scheme assets have a quoted market price in an active market of which £50.6m (2020: £42.6m) relates to UK pensions and £56.4m (2020: £51.7m) relates to overseas pensions and medical.

The actual return on plan assets was an increase of £43.2 million (2020: an increase of £56.4 million).

The movements in the defined benefit obligation recognised in the Consolidated Statement of Financial Position during the year were:

	UK pensions		Overseas pensions and medical		Total	
	2021 £m	2020 £m	2021 £m	2020 £m	2021 £m	2020 £m
Defined benefit obligation at beginning of year	(522.8)	(458.2)	(107.5)	(100.9)	(630.3)	(559.1)
Current service cost	–	(3.6)	(0.1)	(0.7)	(0.1)	(4.3)
Past service credit – Curtailments	–	9.3	2.0	1.2	2.0	10.5
Interest cost	(6.7)	(8.7)	(2.1)	(2.7)	(8.8)	(11.4)
Administration costs	–	–	(0.6)	(0.6)	(0.6)	(0.6)
Contributions by members	–	(0.1)	–	–	–	(0.1)
Remeasurement gain/(loss)	8.7	(88.3)	4.9	(9.8)	13.6	(98.1)
Actual benefit payments	16.5	15.3	4.7	4.8	21.2	20.1
Experience (loss)/gain	(3.2)	11.5	0.3	(0.1)	(2.9)	11.4
Currency gain/(loss)	–	–	0.5	1.3	0.5	1.3
Defined benefit obligation at end of year	(507.5)	(522.8)	(97.9)	(107.5)	(605.4)	(630.3)

23 Employee benefits continued

The movements in the fair value of plan assets during the year were:

	UK pensions		Overseas pensions and medical		Total	
	2021 £m	2020 £m	2021 £m	2020 £m	2021 £m	2020 £m
Value of assets at beginning of year	474.7	433.7	57.0	54.1	531.7	487.8
Expected return on assets	6.1	8.2	1.4	1.7	7.5	9.9
Remeasurement gain	28.6	41.6	7.1	4.9	35.7	46.5
Contributions paid by employer	5.3	7.2	1.7	2.8	7.0	10.0
Contributions paid by members	–	0.1	–	–	–	0.1
Actual benefit payments	(16.5)	(15.3)	(4.7)	(4.8)	(21.2)	(20.1)
Administration costs	(0.7)	(0.8)	–	–	(0.7)	(0.8)
Currency gain/(loss)	–	–	0.7	(1.7)	0.7	(1.7)
Value of assets at end of year	497.5	474.7	63.2	57.0	560.7	531.7

The estimated employer contributions to be made in 2022 are £6.1m.

The history of experience adjustments is as follows:

	2021 £m	2020 £m	2019 £m	2018 £m	2017 £m
Defined benefit obligation at end of year	(605.4)	(630.3)	(559.1)	(526.1)	(543.0)
Fair value of schemes' assets	560.7	531.7	487.8	441.0	457.4
Retirement benefit liability recognised in the Statement of Financial Position	(44.7)	(98.6)	(71.3)	(85.1)	(85.6)
Experience adjustment on schemes' liabilities	(2.9)	11.4	–	(0.6)	(8.5)
As a percentage of schemes' liabilities	0.5%	1.8%	0.0%	0.1%	1.6%
Experience adjustment on schemes' assets	35.7	46.5	49.0	(27.3)	29.9
As a percentage of schemes' assets	6.4%	8.7%	10.0%	6.2%	6.5%

The expense recognised in the Group Income Statement was as follows:

	UK pensions		Overseas pensions and medical		Total	
	2021 £m	2020 £m	2021 £m	2020 £m	2021 £m	2020 £m
Current service cost	–	(3.6)	(0.1)	(0.7)	(0.1)	(4.3)
Administration costs	(0.7)	(0.8)	(0.6)	(0.6)	(1.3)	(1.4)
Past service credit – Curtailment	–	9.2	2.0	1.2	2.0	10.4
Net interest on schemes' liabilities	(0.6)	(0.5)	(0.7)	(1.0)	(1.3)	(1.5)
Total expense recognised in Income Statement	(1.3)	4.3	0.6	(1.1)	(0.7)	3.2

The expense is recognised in the following line items in the Consolidated Income Statement:

	2021 £m	2020 £m
Operating costs	(1.4)	(6.1)
Adjustments – closure of DB schemes	2.0	10.8
Net financing expense	(1.3)	(1.5)
Total expense recognised in Income Statement	(0.7)	3.2

The gain or loss recognised in the Statement of Comprehensive Income (OCI) was as follows:

Notes to the Consolidated Financial Statements continued

23 Employee benefits continued

	UK pensions		Overseas pensions and medical		Total	
	2021 £m	2020 £m	2021 £m	2020 £m	2021 £m	2020 £m
Remeasurement effects recognised in OCI:						
Due to experience on DBO	(3.2)	11.5	0.3	(0.1)	(2.9)	11.4
Due to demographic assumption changes in DBO	(1.4)	(8.6)	(0.2)	0.5	(1.6)	(8.1)
Due to financial assumption changes in DBO	10.1	(79.7)	5.0	(10.3)	15.1	(90.0)
Return on assets	28.6	41.6	7.1	4.9	35.7	46.5
Total remeasurement (loss)/gain recognised in OCI	34.1	(35.2)	12.2	(5.0)	46.3	(40.2)
Deferred tax on remeasurement (loss)/gain and change in rate recognised in OCI	(5.9)	6.7	(3.0)	1.5	(8.9)	8.2
Cumulative loss recognised in OCI at beginning of year	(67.8)	(39.3)	(30.3)	(26.8)	(98.1)	(66.1)
Cumulative loss recognised in OCI at end of year	(39.6)	(67.8)	(21.1)	(30.3)	(60.7)	(98.1)

Sensitivity analysis

The effect on the defined benefit obligation at 31st December 2021 of an increase or decrease in key assumptions is as follows:

	UK pensions £m	Overseas pensions and medical £m	Total £m
(Decrease)/increase in pension deficit:			
Discount rate assumption being 0.25% higher	(22.1)	(3.2)	(25.3)
Discount rate assumption being 0.25% lower	23.2	3.3	26.5
Inflation assumption being 0.25% higher	18.3	0.5	18.8
Inflation assumption being 0.25% lower	(17.7)	(0.5)	(18.2)
Inflation assumption being 1.0% higher	75.3	n/a	n/a
Inflation assumption being 1.0% lower	(66.0)	n/a	n/a
Mortality assumption life expectancy at age 65 being one year higher	22.4	3.3	25.7

The average age of active participants in the UK schemes at 31st December 2021 was 53 years (2020: 53 years) and in the overseas schemes 47 years (2020: 48 years).

Cash payments to the pension scheme greater or less than the expense to operating profit

	2021 £m	2020 £m
Defined benefit arrangements	0.6	4.7
Defined contribution arrangements	(16.5)	(15.2)
Total expense recognised in operating costs	(15.9)	(10.5)
Defined benefit arrangements	7.0	10.0
Defined contribution arrangements	16.5	15.2
Total contributions paid by employer	23.5	25.2
Cash payments to the pension scheme greater than the expense to operating profit	7.6	14.7

Share-based payments

Disclosures of the share-based payments offered to employees are set out below. More detail on each scheme is given in the Annual Report on Remuneration 2021 on pages 136 to 151. The charge to the Income Statement in respect of share-based payments is made up as follows:

	2021 £m	2020 £m
Performance Share Plan	7.9	5.8
Employee Share Ownership Plan	1.3	1.2
Total expense recognised in Income Statement	9.2	7.0

23 Employee benefits continued

Share option scheme

The Group historically operated equity-settled share option schemes for employees, although no grants have been made since 2011 because awards have been made using the Group's Performance Share Plan instead. Awards were determined by the Remuneration Committee whose objective was to align the interests of employees with those of shareholders by giving an incentive linked to added shareholder value. Options are subject to performance conditions, which if met make the options exercisable between the third and tenth anniversary of the date of grant. The performance condition is an increase in earnings per share (EPS) of more than 9% greater than the increase in the UK Retail Price Index to be met over the three-year period from 1st January prior to the date of the grant. If the condition is not met at the end of the three-year period the option will lapse.

The share options granted have been measured using the Present Economic Value (PEV) valuation methodology.

The number and weighted average exercise prices of share options are as follows:

Option (exercise price)	Outstanding at start of year	Granted during year	Exercised during year	Lapsed during year	Outstanding at end of year
2011 grant (1,873.0p)	15,000	–	15,000	–	–
	15,000	–	15,000	–	–
Weighted average exercise price	£18.73		£18.73		–
Weighted average contractual life remaining	0.2				–

Performance conditions in respect of all exercisable shares have been met. The number of shares exercisable at 31st December 2021 is nil (2020: 15,000). The average share price during the period was £136.72 (2020: £100.93).

Performance Share Plan

Awards under the Performance Share Plan are made to Executive Directors and other senior managers and take the form of contingent rights to acquire shares, subject to the satisfaction of a performance target. To the extent that they vest, awards may be satisfied in cash, in shares or an option over shares. The performance criteria is split into two separate parts. 40% of the award is based on a TSR measure where the performance target is based on the Company's total shareholder return (TSR) relative to the TSR of other companies included in the FTSE 350 Industrial Goods and Services Supersector over a three-year performance period where awards will vest on a sliding scale. All shares within an award will vest if the Company's TSR is at or above the upper quartile. 18% will vest if the TSR is at the median and the number of shares that will vest will be calculated pro-rata on a straight-line basis between 18% and 100% if the Company's TSR falls between the median and the upper quartile. No shares will vest if the Company's TSR is below the median. The second part, amounting to 60% of the award, is subject to achievement of a target based on aggregate EPS over a three-year performance period. 18% will vest if the compound growth in EPS is equal to the growth in global industrial production (IP) plus 2% as published by CHR Economics, and 100% will vest if the compound growth in EPS is equal to or exceeds the growth in global IP plus 8%, there is pro-rata vesting for actual growth between these rates.

Shares awarded under the Performance Share Plan have been valued using the Monte Carlo simulation valuation methodology. The relevant disclosures in respect of the Performance Share Plan grants are set out below.

	2017 Grant	2018 Grant	2019 Grant	2020 Grant	2021 Grant
Grant date	26th May	4th April	15th May	12th March	5th May
Mid market share price at grant date	5,273.0p	5,560.0p	8,161.0p	7,775.0p	11,770.0p
Number of employees	128	134	133	104	106
Shares under scheme	137,001	145,041	112,159	140,934	89,806
Vesting period	3 years	3 years	3 years	3 years	3 years
Probability of vesting	73.1%	73.5%	74.1%	74.3%	73.9%
Fair value	3,854.5p	4,084.4p	6,048.9p	5,779.2p	8,698.0p

Notes to the Consolidated Financial Statements continued

23 Employee benefits continued

Employee Share Ownership Plan

UK employees are eligible to participate in the Employee Share Ownership Plan (ESOP). The aim of the ESOP is to encourage increased shareholding in the Company by all UK employees and so there are no performance conditions. Employees are invited to join the ESOP when an offer is made each year. Individuals save for 12 months during the accumulation period and subscribe for shares at the lower of the price at the beginning and the end of the accumulation period under HMRC rules. The Company provides a matching share for each share purchased by the individual.

Shares issued under the ESOP have been measured using the Present Economic Value (PEV) valuation methodology. The relevant disclosures in respect of the Employee Share Ownership Plans are set out below.

	2017 Grant	2018 Grant	2019 Grant	2020 Grant	2021 Grant
Grant date	1st October				
Exercise price	5,496.7p	7,240.0p	7,835.0p	11,102.0p	15,043.3p
Number of employees	1,229	1,294	1,318	1,373	1,400
Shares under scheme	22,411	16,687	16,820	12,480	9,429
Vesting period	3 years				
Expected volatility	21%	19%	21%	25%	26.5%
Risk free interest rate	0.4%	0.8%	0.5%	0.1%	0.2%
Expected dividend yield	2.3%	2.0%	1.8%	1.5%	1.0%
Fair value	5,799.0p	7,623.7p	8,305.1p	11,956.9p	16,382.2p

The accumulation period for the 2021 ESOP ends in September 2022, therefore some figures are projections.

24 Analysis of changes in net debt, including changes in liabilities arising from financing activities

2021

	At 1st January 2021 £m	Cash flow £m	Acquired debt* £m	Exchange movement £m	At 31st December 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 and lease liabilities	(262.9)	90.6	(39.1)	20.8	(190.6)

* Debt acquired includes both debt acquired due to acquisition, and debt recognised on the balance sheet due to entry into new leases under IFRS 16.

The cash flow for borrowings of £77.5m relate to repayments of €90million (£77.5m) on the €160million term loan.

At 31st December 2021, total lease liabilities consist of £11.2m (2020: £10.3m) short-term and £48.9m (2020: £23.8m) long-term.

See Note 27 for further information on net debt and lease liabilities.

24 Analysis of changes in net debt, including changes in liabilities arising from financing activities continued

2020

	At 1st January 2020 £m	Cash flow £m	Acquired debt* £m	Exchange movement £m	At 31st December 2020 £m
Current portion of long-term borrowings	(34.3)				(0.6)
Non-current portion of long-term borrowings	(429.2)				(452.2)
Short-term borrowings	–				–
Total borrowings	(463.5)				(452.8)
Comprising:					
Borrowings	(463.5)	36.7	–	(26.0)	(452.8)
Changes in liabilities arising from financing	(463.5)	36.7	–	(26.0)	(452.8)
Cash at bank	330.6	(84.4)	–	–	246.2
Bank overdrafts	(162.3)	140.0	–	0.1	(22.2)
Net cash and cash equivalents	168.3	55.6	–	0.1	224.0
Net debt	(295.2)	92.3	–	(25.9)	(228.8)
Lease liabilities	(38.9)	12.2	(7.1)	(0.3)	(34.1)
Net debt and lease liabilities	(334.1)	104.5	(7.1)	(26.2)	(262.9)

25 Related party transactions

Transactions with Directors are disclosed separately in Note 8 and are shown in the Annual Report on Remuneration 2021 on pages 136 to 151.

There were no other related party transactions in either 2020 or 2021.

26 Purchase of businesses

2021

In January 2022, the Group acquired 100% of the share capital of a digitally enabled, global energy consulting and optimisation specialist, Cotopaxi Limited. Cotopaxi is a UK company whose digital solutions experience in steam installations will accelerate Steam Specialties' objective to connect to its customers' steam systems and analyse their data. In the year ended 31st December 2020, Cotopaxi reported revenues of £2.2m with pre-pandemic revenues of £4.8m.

Total consideration on a cash-free, debt-free basis at the acquisition date was £12.8m with no further amounts deferred or contingent on future performance. Due to the proximity of the acquisition date to the reporting date, finalisation of the fair value of net assets on acquisition and the associated accounting in line with IFRS 3 has not yet been finalised. Further details will be provided in the 2022 Half Year Results.

2020

During the first quarter of 2020 the deferred consideration payable for the acquisition of Qonqave, a small German pre-revenue company, within the Watson-Marlow Fluid Technology business in 2018 was paid, for a value of €5.8m (£4.8m).

During the period the fair value of the assets acquired as part of the acquisition of Thermocoax Developpement and its related group companies was reassessed. The outcome of this reassessment was an increase to goodwill of £0.6m.

On 5th March 2020, we completed the sale of ProTrace Engineering, a small, non-core electrical engineering services business in Canada to the existing management team, for a nominal value of \$1. The total impact of this in the Consolidated Income Statement was a cost of £0.4m which has been shown as an adjusting item as disclosed in Note 2, included within restructuring costs.

27 Derivatives and other financial instruments

The Group does not enter into significant derivative transactions. The Group's principal financial instruments comprise loans, cash and short-term deposits. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial instruments such as trade debtors and trade creditors, which arise directly from its operations. It is, and has been throughout the period under review, the Group's policy that no trading in financial instruments shall be undertaken.

The main risks arising from the Group's financial instruments are credit risk, interest rate risk, liquidity risk and foreign currency risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

Credit risk

The Group sells products and services to customers around the world and its customer base is extremely varied in size and industry sector. The Group operates credit control policies to assess customers' credit ratings and provides for any debt that is identified as non-collectable.

Notes to the Consolidated Financial Statements continued

27 Derivatives and other financial instruments continued

Interest rate risk

The Group's policy is to hold a mixture of fixed and floating rate debt, with a preference to floating rate when the Group's interest cover is high and leverage is low. When new debt facilities are entered into the Group assesses if this should be fixed or floating depending on the specific circumstances at the time. In addition the Group aims to achieve a spread of maturity dates in order to avoid the concentration of funding requirements at any one time. The ratio of fixed to floating rate debt and debt maturity profile is kept under review by the Group CFO in conjunction with the Board.

Liquidity risk

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of overdrafts, loans, facilities and finance leases as appropriate.

Foreign currency risk

The Group has operations around the world and therefore its Consolidated Statement of Financial Position can be affected significantly by movements in the rate of exchange between sterling and various other currencies particularly the US dollar and euro. The Group seeks to mitigate the effect of this structural currency exposure by borrowing in these currencies where appropriate while maintaining a low cost of debt. In addition the Group employs Net Investment Hedge Accounting where appropriate to mitigate these exposures, with such hedges being designated in both 2021 and 2020. The gain on net investment hedges during 2021 included in the Consolidated Statement of Comprehensive income was £18.8m (2020: £11.6m loss). This is included within other reserves in the Consolidated Statement of Changes in Equity (see note 21).

The Group also has transactional currency exposures principally as a result of trading between Group companies. Such exposures arise from sales or purchases by an operating unit in currencies other than the unit's functional currency. The Group operates a programme to manage this risk on a Group-wide net basis, through the entering into of both forward contracts and non-deliverable forward contracts with a range of bank counter-parties.

Fair values of financial assets and financial liabilities

Fair values of financial assets and liabilities at 31st December 2021 are not materially different from book values due to their size or the fact that they were at short-term rates of interest. Fair values have been assessed as follows:

- Derivatives

Forward exchange contracts are marked to market by discounting the future contracted cash flows using readily available market data.

- Interest-bearing loans and borrowings

Fair value is calculated based on discounted expected future principal and interest cash flows.

- Lease liabilities

The fair value is estimated as the present value of future cash flows, discounted at the incremental borrowing rate for the related geographical location unless the rate implicit in the lease is readily determinable.

- Trade and other receivables/payables

For receivables/payables with a remaining life of less than one year, the notional amount is deemed to reflect the fair value.

The following table compares amounts and fair values of the Group's financial assets and liabilities:

	2021 Carrying value £m	2021 Fair value £m	2020 Carrying value £m	2020 Fair value £m
Financial assets:				
Cash and cash equivalents	274.6	274.6	246.2	246.2
Trade, other receivables and contract assets	298.1	298.1	245.5	245.5
Total financial assets	572.7	572.7	491.7	491.7
	2021 Carrying value £m	2021 Fair value £m	2020 Carrying value £m	2020 Fair value £m
Financial liabilities:				
Loans	349.5	358.3	452.8	464.1
Lease liabilities	60.1	60.1	34.1	34.1
Bank overdrafts	55.6	55.6	22.2	22.2
Trade payables	67.8	67.8	45.6	45.6
Other payables and contract liabilities	56.2	56.2	44.4	44.4
Long-term payables	4.7	4.7	5.1	5.1
Accruals	85.7	85.7	63.5	63.5
Total financial liabilities	679.6	688.4	667.7	679.0

27 Derivatives and other financial instruments continued

There are no other assets or liabilities measured at fair value on a recurring or non-recurring basis for which fair value is disclosed.

Derivative financial instruments are measured at fair value. Fair value of derivative financial instruments are calculated based on discounted cash flow analysis using appropriate market information for the duration of the instruments.

Financial instruments fair value disclosure

Fair value measurements are classified into three levels, depending on the degree to which the fair value is observable:

- Level 1 fair value measurements are those derived from quoted prices in active markets for identical assets and liabilities;
- Level 2 fair value measurements are those derived from other observable inputs for the asset or liability; and
- Level 3 fair value measurements are those derived from valuation techniques using inputs that are not based on observable market data.

We consider that the derivative financial instruments fall into Level 2.

Interest rate risk profile of financial liabilities

The interest rate profile of the financial liabilities of the Group as at 31st December was as follows:

	Total £m	Fixed rate financial liabilities £m	Floating rate financial liabilities £m	Financial liabilities on which no interest is paid £m
2021				
Euro	452.8	366.8	45.0	41.0
US dollar	49.8	8.9	4.0	36.9
Sterling	65.1	20.0	–	45.1
Renminbi	51.6	1.8	–	49.8
Other	60.3	14.6	–	45.7
Group total	679.6	412.1	49.0	218.5
2020*				
Euro	484.4	459.7	0.9	23.8
US dollar	22.5	11.2	–	11.3
Sterling	24.4	1.9	–	22.5
Renminbi	28.7	7.0	–	21.7
Other	39.1	20.3	1.3	17.5
Group total	599.1	500.1	2.2	96.8

*The 2020 comparator excludes Long-term payables and Accruals.

Terms and debt repayment schedule

The terms and conditions of outstanding loans were as follows:

	Currency	Nominal interest rate	Year of maturity	2021 Carrying value £m	2020 Carrying value £m
Unsecured private placement – €225.0m	€	1.1%	2023	189.6	201.8
Unsecured bank facility – €160.0m	€	0.7%	2022	58.8	143.1
Unsecured private placement – €120.0m	€	2.4%	2026	101.1	107.7
Unsecured bank facility	£	0.0%	2022	4.0	9.2
Unsecured bank facility	SEK	0.0%	2022	0.6	6.2
Unsecured bank facility	CNY	3.5%	2022	5.8	5.6
Unsecured bank facility	€	0.0%	2022	45.0	0.9
Unsecured bank facility	€	1.4%	2022	0.1	0.3
Unsecured bank facility	PLN	0.0%	2023	0.1	0.2
Total outstanding loans				405.1	475.0

The weighted average interest rate paid during the year was 1.2% (2020: 1.2%).

Notes to the Consolidated Financial Statements continued

27 Derivatives and other financial instruments continued

Interest rate risk profile of financial assets

The interest rate profile of the financial assets of the Group as at 31st December was as follows:

	Total £m	Fixed rate financial assets £m	Floating rate financial assets £m	Financial assets on which no interest is earned £m
2021				
Sterling	63.9	0.1	43.3	20.5
Euro	119.2	0.1	23.4	95.7
US dollar	124.2	–	16.0	108.2
Renminbi	91.2	4.0	40.9	46.3
Other	174.2	12.8	17.3	144.1
Group total	572.7	17.0	140.9	414.8
	Total £m	Fixed rate financial assets £m	Floating rate financial assets £m	Financial assets on which no interest is earned £m
2020				
Sterling	66.1	–	24.6	41.5
Euro	112.6	–	8.1	104.5
US dollar	90.2	–	12.7	77.5
Renminbi	62.6	3.8	24.3	34.5
Other	160.2	6.5	20.0	133.7
Group total	491.7	10.3	89.7	391.7

Financial assets on which no interest is earned comprise trade and other receivables and cash at bank.

Floating and fixed rate financial assets comprise cash at bank or cash placed on deposit.

Currency exposures

As explained on page 216, the Group's objectives in managing the currency exposures arising from its net investment overseas (in other words, its structural currency exposures) are to maintain a low cost of debt while partially hedging against currency depreciation. All gains and losses arising from these structural currency exposures are recognised in the Consolidated Statement of Comprehensive Income. In addition the Group employs Net Investment Hedge Accounting in order to mitigate these impacts where appropriate.

Transactional (or non-structural) exposures give rise to net currency gains and losses that are recognised in the Consolidated Income Statement. Such exposures include the monetary assets and monetary liabilities in the Consolidated Statement of Financial Position that are not denominated in the operating (or functional) currency of the operating unit involved. At 31st December 2021 the currency exposures in respect of the euro was a net monetary liability of £176.4m (2020: £297.1m net monetary liability) and in respect of the US dollar a net monetary asset of £121.4m (2020: £17.5m net monetary asset).

At 31st December 2021, the percentage of debt to net assets, excluding debt was 28% (2020: 34%) for the euro, 1% (2020: 1%) for the US dollar and 1% (2020: 1%) for the Chinese renminbi.

27 Derivatives and other financial instruments continued

Maturity of financial liabilities

The Group's financial liabilities at 31st December mature in the following periods:

	Trade, other payables and contract liabilities £m	Overdrafts £m	Lease liabilities £m	Long-term borrowings £m	Total £m
2021					
In six months or less, or on demand	201.8	55.6	6.4	67.0	330.8
In more than six months but no more than twelve	8.0	–	5.8	2.1	15.9
In more than one year but no more than two	2.4	–	11.0	193.4	206.8
In more than two years but no more than three	1.1	–	6.9	2.4	10.4
In more than three years but no more than four	0.6	–	4.7	2.3	7.6
In more than four years but no more than five	–	–	3.6	102.1	105.7
In more than five years	0.5	–	28.3	–	28.8
Total contractual cash flows	214.4	55.6	66.7	369.3	706.0
Statement of Financial Position values	214.4	55.6	60.1	349.5	679.6

	Trade, other payables and contract liabilities £m	Overdrafts £m	Lease liabilities £m	Long-term borrowings £m	Total £m
2020*					
In six months or less, or on demand	87.3	22.2	6.1	3.1	118.7
In more than six months but no more than twelve	2.7	–	5.5	3.1	11.3
In more than one year but no more than two	–	–	9.4	148.2	157.6
In more than two years but no more than three	–	–	6.7	206.0	212.7
In more than three years but no more than four	–	–	3.7	2.5	6.2
In more than four years but no more than five	–	–	2.1	2.5	4.6
In more than five years	–	–	4.2	108.7	112.9
Total contractual cash flows	90.0	22.2	37.7	474.1	624.0
Statement of Financial Position values	90.0	22.2	34.1	452.8	599.1

*The 2020 comparator excludes Long-term payables and Accruals.

The Group did not employ any supply chain or similar forms of financing during 2021 or 2020.

Cash flow hedges

The Group uses forward currency contracts to manage its exposure to movements in foreign exchange rates. The forward contracts are designated as hedging instruments in a cash flow hedging relationship. At 31st December 2021 the Group had contracts outstanding to economically hedge or to purchase £45.5m (2020: £37.8m), and €20.3m (2020: €24.5m) with US dollars, £74.3m (2020: £78.2m) with Euros, £18.9m (2020: £10.0m), and €13.1m (2020: €7.5m) with Chinese renminbi, £7.7m (2020: £10.2m) and €3.1m (2020: €4.5m) with Korean won, £6.3m (2020: £7.3m) with Singapore dollar and DKK31.6m (2020: £nil) with Euros. The fair values at the end of the reporting period were a liability of £0.2m (2020: £2.6m asset). The fair value of cash flow hedges falls into the Level 2 category of the fair value hierarchy in accordance with IFRS 7.

The fair value of derivative financial instruments is estimated by discounting the future contracted cash flow using readily available market data.

Notes to the Consolidated Financial Statements continued

27 Derivatives and other financial instruments continued

The contractual cash flows on forward currency contracts at the reporting date are shown below, classified by maturity. The cash flows shown are on a gross basis and are not discounted.

2021	Less than 6 months £m	6 to 12 months £m	More than 12 months £m	Total £m
Contracted cash in/(out):				
Sterling	61.5	62.1	21.4	145.0
Euro	(21.6)	(16.8)	(8.0)	(46.4)
US dollar	(24.0)	(30.5)	(9.7)	(64.2)
Other	(14.6)	(15.4)	(3.6)	(33.6)
Total contractual cash flows	1.3	(0.6)	0.1	0.8
	Less than 6 months £m	6 to 12 months £m	More than 12 months £m	Total £m
2020				
Contracted cash in/(out):				
Sterling	39.9	37.7	33.2	110.8
Euro	(20.6)	(12.5)	(10.4)	(43.5)
US dollar	(17.3)	(16.9)	(15.5)	(49.7)
Other	(0.9)	(7.3)	(6.5)	(14.7)
Total contractual cash flows	1.1	1.0	0.8	2.9

It is anticipated that the cash flows will take place at the same time as the corresponding forward contract matures. At this time the amount deferred in equity will be reclassified to profit or loss.

All forecast transactions which have been subject to hedge accounting during the year have occurred or are still expected to occur.

A loss on derivative financial instruments of £2.8m (2020: £0.7m loss) was recognised in other comprehensive income during the period.

No amount (2020: £nil) was removed from equity during the period and included in the initial cost or other carrying amount of a non-financial asset or non-financial liability whose acquisition or incurrence was a hedged highly probable forecast transaction.

As at 31st December 2021 no ineffectiveness has been recognised in profit or loss arising from hedging foreign currency transactions.

Borrowing facilities

The Group has various borrowing facilities available to it. The undrawn committed facilities available at 31st December in respect of which all conditions precedent had been met at that date were as follows:

	2021 £m	2020 £m
Expiring in one year or less	–	–
Expiring in more than one year but no more than two years	–	–
Expiring in more than two years but no more than three years	350.0	350.0
Expiring in more than three years	–	–
Total Group undrawn committed facilities	350.0	350.0

During the year the Group's external financing facilities were updated to reflect the non publication of Inter Bank Offering Rates (IBOR) and now refer to the relevant new reference rates. The Group no longer has any external financing referencing IBOR.

At 31st December 2021, the Group had available £350.0m (2020: £350.0m) of undrawn committed borrowing facilities in respect of its £350.0m pound sterling revolving credit facility, of which all conditions precedent had been met. This facility expires on 7th May 2024.

27 Derivatives and other financial instruments continued

Sensitivity analysis

In managing interest rate and currency risks, the Group aims to reduce the impact of short-term fluctuations on the Group's earnings. Over the longer term, however, permanent changes in foreign exchange and interest rates would have an impact on consolidated earnings. At the year end borrowings totalled £405.1m (2020: £475.0m). At 31st December 2021, it is estimated that a general increase of one percentage point in interest rates would decrease the Group's profit after tax and equity by approximately £0.1m (2020: £0.7m).

For the year ended 31st December 2021, it is estimated that a decrease of five percentage points in the value of sterling weighted in relation to the Group's profit and trading flows would have increased the Group's profit before tax by approximately £13.5m (2020: £12.5m). The effect can be very different between years due to the weighting of different currency movements. Forward exchange contracts have been included in this calculation.

The credit risk profile of trade receivables

The ageing of trade receivables at the reporting date was:

	Gross 2021 £m	Impairment 2021 £m	Net 2021 £m	Gross 2020 £m	Impairment 2020 £m	Net 2020 £m
Not past due date	197.6	(1.9)	195.7	167.7	(3.3)	164.4
0–30 days past due date	40.9	(0.2)	40.7	35.9	(0.2)	35.7
31–90 days past due date	22.9	(0.5)	22.4	19.1	(0.8)	18.3
91 days to one year past due date	15.4	(1.9)	13.5	13.1	(5.2)	7.9
More than one year	8.4	(8.4)	–	8.3	(8.3)	–
Group total	285.2	(12.9)	272.3	244.1	(17.8)	226.3

Other than those disclosed above no other impairment losses on receivables and contract assets arising from contracts with customers have been recognised. Other than trade receivables there are no financial assets that are past their due date at 31st December 2021.

Payment terms across the Group vary dependent on the geographic location of each operating company. Payment is typically due between 20 and 90 days after the invoice is issued.

All contracts with customers do not contain a significant financing component.

The movement in the allowance for impairment in respect of trade receivables during the year was as follows:

	2021 £m	2020 £m
Balance at 1st January	17.8	14.8
Additional impairment	2.0	8.7
Amounts written off as uncollectable	(1.2)	(3.8)
Amounts recovered	(1.2)	(0.9)
Impairment losses reversed	(4.3)	(0.9)
Exchange differences	(0.2)	(0.1)
Balance at 31st December	12.9	17.8

Company Financial Statements

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Company Statement of Financial Position at 31st December 2021

	Notes	2021 £m	2020 £m
Assets			
Non-current assets			
Property, plant and equipment	11	5.8	6.2
Loans to subsidiaries	3, 9	291.0	309.9
Investment in subsidiaries	2	748.8	737.1
Deferred tax assets	6	0.1	–
Post-retirement benefits	7	5.1	5.6
		1,050.8	1,058.8
Current assets			
Due from subsidiaries	9	0.7	1.5
Other current assets	4	5.4	6.4
Cash and cash equivalents		19.0	9.6
		25.1	17.5
Total assets		1,075.9	1,076.3
Equity and liabilities			
Current liabilities			
Trade and other payables	5	5.4	2.1
Current portion of long-term borrowings	10	0.9	0.9
Short-term borrowings		0.1	6.2
		6.4	9.2
Net current assets		18.7	8.3
Non-current liabilities			
Long-term borrowings	10	289.8	308.6
Deferred tax liabilities	6	1.3	1.1
Due to subsidiaries	9	10.4	8.2
		301.5	317.9
Total liabilities		307.9	327.1
Net assets		768.0	749.2
Equity			
Share capital	8	19.8	19.8
Share premium account		86.3	84.8
Other reserves	8	4.5	16.2
Retained earnings		657.4	628.4
Equity shareholders' funds		768.0	749.2
Total equity		768.0	749.2
Total equity and liabilities		1,075.9	1,076.3

The loss before dividends received was £18.6m (2020: £14.8m). Dividends from subsidiary undertakings of £146.4m (2020: £23.6m) are excluded from this amount.

These Financial Statements of Spirax-Sarco Engineering plc, company number 00596337 were approved by the Board of Directors and authorised for issue on 9th March 2022 and signed on its behalf by:

N.J. Anderson N.B. Patel Directors

Company Statement of Changes in Equity

for the year ended 31st December 2021

	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Total equity £m
Balance at 1st January 2021	19.8	84.8	16.2	628.4	749.2
Profit for the year	-	-	-	127.8	127.8
Other comprehensive income:					
Transfer between reserves	-	-	-	-	-
Cash flow hedges net of tax	-	-	(2.8)	-	(2.8)
Remeasurement loss on post-retirement benefits	-	-	-	(0.3)	(0.3)
Deferred tax on remeasurement loss on post-retirement benefits	-	-	-	(0.2)	(0.2)
Total other comprehensive income for the year	-	-	(2.8)	(0.5)	(3.3)
Total comprehensive income for the year	-	-	(2.8)	127.3	124.5
Contributions by and distributions to owners of the Company:					
Dividends paid	-	-	-	(90.7)	(90.7)
Equity settled share plans net of tax	-	-	-	(7.6)	(7.6)
Issue of share capital	-	1.5	-	-	1.5
Employee Benefit Trust shares	-	-	(12.5)	-	(12.5)
Investment in subsidiaries in relation to share options granted	-	-	3.6	-	3.6
Balance at 31st December 2021	19.8	86.3	4.5	657.4	768.0
For the year ended 31st December 2020					
	Share capital £m	Share premium account £m	Other reserves £m	Retained earnings £m	Total equity £m
Balance at 1st January 2020	19.8	81.0	11.8	715.6	828.2
Profit for the year	-	-	-	8.8	8.8
Other comprehensive income:					
Transfer between reserves	-	-	3.3	(3.3)	-
Cash flow hedges net of tax	-	-	(0.7)	-	(0.7)
Remeasurement loss on post-retirement benefits	-	-	-	-	-
Deferred tax on remeasurement loss on post-retirement benefits	-	-	-	-	-
Total other comprehensive income for the year	-	-	2.6	(3.3)	(0.7)
Total comprehensive income for the year	-	-	2.6	5.5	8.1
Contributions by and distributions to owners of the Company:					
Dividends paid	-	-	-	(82.2)	(82.2)
Equity settled share plans net of tax	-	-	-	(10.5)	(10.5)
Issue of share capital	-	3.8	-	-	3.8
Employee Benefit Trust shares	-	-	(0.3)	-	(0.3)
Investment in subsidiaries in relation to share options granted	-	-	2.1	-	2.1
Balance at 31st December 2020	19.8	84.8	16.2	628.4	749.2

Other reserves represent the Company's share-based payments, capital redemption and Employee Benefit Trust reserves (see Note 8).

The Notes on pages 225 to 231 form an integral part of the Financial Statements.

Notes to the Company Financial Statements

1 Accounting policies

The separate Financial Statements of the Company are presented as required by the Companies Act 2006. The Company meets the definition of a qualifying entity under FRS 100. Accordingly the Company has adopted FRS 101 (Reduced Disclosure Framework). As permitted by FRS 101, the Company has taken advantage of the disclosure exemptions available under that standard in relation to share-based payments, financial instruments and the presentation of a Cash Flow Statement. Where relevant, equivalent disclosures have been given in the Consolidated Financial Statements.

Under section 408 of the Companies Act 2006, the Company is exempt from the requirement to present its own Income Statement. As permitted by the audit fee disclosure regulations, disclosure of non-audit fees information is not included in respect of the Company.

The Company's accounting policies are the same as those set out in Note 1 of the Consolidated Financial Statements, except as noted below.

The Directors have concluded that no critical judgements or key sources of estimation uncertainty have been made in the process of applying the Company's accounting policies.

Investments in subsidiaries are stated at cost less, where appropriate, provisions for impairment.

Loans to or from other Group undertakings and all other payables and receivables are initially recorded at fair value, which is generally the proceeds received. They are then subsequently carried at amortised cost.

2 Investments in subsidiaries

	2021 £m	2020 £m
Cost:		
At 1st January	737.1	662.0
Share options issued to subsidiary company employees	3.6	2.1
Additions	8.1	73.0
At 31st December	748.8	737.1

Investments are stated at cost less provisions for any impairment in value.

Additions in the year relate to the transfer of ownership of Spirax-Sarco Engineering (China) Limited from Spirax-Sarco Investments Limited to Spirax-Sarco Engineering plc for £8.1m.

Details relating to subsidiary undertakings are given on pages 233 to 237. Except where stated all classes of shares were 100% owned by the Group at 31st December 2021. The country of incorporation of the principal Group companies is the same as the country of operation with the exception of companies operating in the United Kingdom which are incorporated in Great Britain. All operate in steam, electrical thermal energy solutions, fluid path technologies or peristaltic pumping markets except those companies identified as a holding company on pages 233 to 237.

Notes to the Company Financial Statements continued

3 Loans to subsidiaries

	2021 £m	2020 £m
Cost:		
At 1st January	309.9	210.1
Advances	–	108.0
Interest	4.6	3.8
Repayments	(4.6)	(23.6)
Exchange adjustment	(18.9)	11.6
At 31st December	291.0	309.9

The terms and conditions of loans to subsidiaries at 31st December 2021 were as follows:

	Currency	Nominal interest rate	Year of maturity	2021 £m	2020 £m
Spirax-Sarco Overseas Limited	€	1.10%	2023	189.8	202.1
Spirax-Sarco Overseas Limited	€	2.36%	2026	101.2	107.8
Total loans to subsidiaries				291.0	309.9
Due within one year				1.0	1.1
Due after more than one year				290.0	308.8

4 Other current assets

	2021 £m	2020 £m
Prepayments and accrued income	5.4	6.4
Total other current assets	5.4	6.4

5 Trade and other payables

	2021 £m	2020 £m
Accruals	5.4	2.1
Total trade and other payables	5.4	2.1

Trade and other payables are due within one year.

6 Deferred tax assets and liabilities

Movement in deferred tax during the year 2021

	1st January 2021 £m	Recognised in income £m	Recognised in OCI £m	Recognised in equity £m	31st December 2021 £m
Other temporary differences asset	–	0.1	–	–	0.1
Pensions liability	(1.1)	–	(0.2)	–	(1.3)
Company total	(1.1)	0.1	(0.2)	–	(1.2)

Movement in deferred tax during the year 2020

	1st January 2020 £m	Recognised in income £m	Recognised in OCI £m	Recognised in equity £m	31st December 2020 £m
Other temporary differences asset	0.7	(0.7)	–	–	–
Pensions liability	(0.9)	(0.2)	–	–	(1.1)
Company total	(0.2)	(0.9)	–	–	(1.1)

7 Employee benefits

Pension plans

The Company is accounting for pension costs in accordance with International Accounting Standard 19.

The disclosures shown here are in respect of the Company's defined benefit obligations. Other plans operated by the Company were defined contribution plans.

The total expense relating to the Company's defined contribution pension plans in the current year was £0.6m (2020: £0.6m).

At 31st December 2021 the post-retirement mortality assumptions in respect of the Company Defined Benefit Scheme follows 84%/87% (male/female) of SAPS S3 light, CMI 2020 projections with a long term trend of 1.25% p.a., initial addition of 0.25% and w2020 parameter of 10%. At 31st December 2020 the post-retirement mortality assumptions in respect of the Company Defined Benefit Scheme follows 84%/87% (male/female) of SAPS S3 light, CMI 2019 projections with a long term trend of 1.25% p.a., initial addition of 0.25%. These assumptions are regularly reviewed in light of scheme-specific experience and more widely available statistics.

The financial assumptions used at 31st December were:

	Weighted-average assumptions used to define the benefit obligations	
	2021 %	2020 %
Rate of increase in salaries	n/a	2.4
Rate of increase in pensions	3.2	2.8
Rate of price inflation	3.3	2.9
Discount rate	1.8	1.3

The assumptions used by the actuary are the best estimates chosen from a range of possible actuarial assumptions, which due to the timescale covered, may not necessarily be borne out in practice.

Fair value of scheme assets:

	2021 £m	2020 £m
Equities	11.1	2.6
Bonds	35.4	48.0
Other	13.8	10.2
Total market value in aggregate	60.3	60.8

£nil (2020: £1.3m) of scheme assets have a quoted market price in an active market.

The actual return on plan assets was a gain of £3.1m (2020: £3.9m).

The amounts recognised in the Company Statement of Financial Position are determined as follows:

	2021 £m	2020 £m
Fair value of scheme's assets	60.3	60.8
Present value of funded scheme's liabilities	(55.2)	(55.2)
Retirement benefit asset recognised in the Statement of Financial Position	5.1	5.6
Related deferred tax	(1.3)	(1.1)
Net pension asset	3.8	4.5

Notes to the Company Financial Statements continued

7 Employee benefits continued

The movements in the Defined Benefit Obligation (DBO) recognised in the Statement of Financial Position during the year were:

	2021 £m	2020 £m
Defined benefit obligation at beginning of year	(55.2)	(53.9)
Current service cost	–	–
Interest cost	(0.7)	(1.2)
Contributions from members	–	–
Remeasurement (loss)/gain	(2.7)	(2.6)
Actual benefit payments	3.4	2.5
Experience loss	–	–
Defined benefit obligation at end of year	(55.2)	(55.2)

The movements in the fair value of plan assets during the year were:

	2021 £m	2020 £m
Value of assets at beginning of year	60.8	59.5
Expected return on assets	0.7	1.2
Remeasurement gain/(loss)	2.4	2.6
Contributions paid by employer	–	–
Administration costs	(0.2)	–
Actual benefit payments	(3.4)	(2.5)
Value of assets at end of year	60.3	60.8

The estimated employer contributions to be made in 2022 are £nil.

The history of experience adjustments is as follows:

	2021 £m	2020 £m	2019 £m	2018 £m	2017 £m
Defined benefit obligation at end of year	(55.2)	(55.2)	(53.9)	(52.7)	(55.7)
Fair value of scheme's assets	60.3	60.8	59.5	56.4	60.0
Retirement benefit recognised in the Statement of Financial Position	5.1	5.6	5.6	3.7	4.3
Experience adjustment on scheme's liabilities	3.5	(5.0)	–	(0.3)	(1.2)
As a percentage of scheme's liabilities	6.3%	9.1%	0.0%	0.1%	2.2%
Experience adjustment on scheme's assets	2.4	2.6	4.1	(2.4)	2.2
As a percentage of scheme's assets	4.0%	4.3%	6.9%	4.3%	3.7%

The expense recognised in the Company Income Statement was as follows:

	2021 £m	2020 £m
Current service cost	(0.2)	(0.2)
Net interest on scheme's assets and liabilities	0.1	0.1
Total expense recognised in Income Statement	(0.1)	(0.1)

7 Employee benefits continued

Statement of Comprehensive Income (OCI)

	2021 £m	2020 £m
Remeasurement effects recognised in OCI:		
Due to experience on DBO	(3.5)	5.0
Due to demographic assumption changes in DBO	0.2	(2.3)
Due to financial assumption changes in DBO	0.6	(5.3)
Return on assets	2.4	2.6
Total remeasurement loss recognised in OCI	(0.3)	–
Deferred tax on remeasurement amount recognised in OCI	(0.2)	–
Cumulative loss recognised in OCI at beginning of year	(10.1)	(10.1)
Cumulative loss recognised in OCI at end of year	(10.6)	(10.1)

Sensitivity analysis

The effect on the defined benefit obligation at 31st December 2021 of an increase or decrease in key assumptions is as follows:

Increase/(decrease) in pension defined benefit obligation	£m
Discount rate assumption being 0.25% higher	(1.6)
Discount rate assumption being 0.25% lower	1.6
Inflation assumption being 0.25% higher	1.3
Inflation assumption being 0.25% lower	(1.3)
Mortality assumption life expectancy at age 65 being one year higher	3.1

Share-based payments

Disclosures of the share-based payments offered to employees of the Company are set out below. The description and operation of each scheme is the same as outlined in the Group disclosure.

Share Option Scheme

As at 31st December 2021 the number of shares outstanding were nil, due to performance conditions in respect of all exercisable shares being met. No options have been granted since 2011.

Performance Share Plan

The relevant disclosures in respect of the Performance Share Plan grants are set out below.

	2017 Grant	2018 Grant	2019 Grant	2020 Grant	2021 Grant
Grant date	26th May	4th April	15th May	12th March	5th May
Mid market share price at grant date	5,256.0p	5,560.0p	8,161.0p	7,775.0p	11,770.0p
Number of employees	12	12	12	19	15
Shares under scheme	62,356	60,899	60,626	82,607	45,815
Vesting period	3 years	3 years	3 years	3 years	3 years
Probability of vesting	73.1%	73.5%	74.1%	74.3%	73.9%
Fair value	3,842.1p	4,084.4p	6,048.9p	5,779.2p	8,698.0p

Notes to the Company Financial Statements continued

8 Called up share capital and reserves

	2021 £m	2020 £m
Ordinary shares of 26 ¹² / ₁₃ p (2020: 26 ¹² / ₁₃ p) each		
Authorised 111,428,571 (2020: 111,428,571)	30.0	30.0
Allotted, called up and fully paid 73,766,048 (2020: 73,766,048)	19.8	19.8

33,856 shares with a nominal value of £9,115 were issued in connection with the Group's Employee Share Schemes for a consideration of £1.5m received by the Company.

In 2021 the Parent Company purchased 188,000 shares representing 0.25 % of called up share capital with a nominal value of £50,615 for a consideration of £26,130,357. The shares were placed in an Employee Benefit Trust (EBT) to be used in connection with the Group's Employee Share Scheme.

At 31st December 2021 134,331 shares were held in an Employee Benefit Trust and available for use in connection with the Group's Employee Share Schemes.

15 senior employees of the Company have been granted options on Ordinary shares under the Share Option Scheme and Performance Share Plan (details in Note 7).

Other reserves in the Company Statement of Changes in Equity on page 224 are made up as follows:

	1st January 2021 £m	Change in year £m	31st December 2021 £m
Share-based payments reserve	18.6	3.6	22.2
Cash flow hedges reserve	2.6	(2.8)	(0.2)
Capital redemption reserve	1.8	–	1.8
Employee Benefit Trust reserve	(6.8)	(12.5)	(19.3)
Total other reserves	16.2	(11.7)	4.5

Share-based payments reserve

This reserve records the Company's share based payment charge that is recognised in reserves.

Cash flow hedges reserve

This reserve records the Company's cumulative net change in the fair value of forward exchange contracts where they are designated as effective cash flow hedge relationships.

Capital redemption reserve

This reserve records the historical repurchase of the Company's own shares.

Employee Benefit Trust reserve

The Company has an Employee Benefit Trust which is used to purchase, hold and issue shares in connection with the Group's employee share schemes. The shares held in Trust are recorded in this separate reserve.

9 Related party transactions

	2021 £m	2020 £m
Dividends received from subsidiaries	146.4	23.6
Loans due from subsidiaries at 31st December	291.0	309.9
Amounts due from subsidiaries at 31st December	0.7	1.5
Amounts due to subsidiaries at 31st December	10.4	8.2

10 Financial instruments

The terms and conditions of outstanding loans at 31st December 2021 are as follows:

	Currency	Nominal interest rate	Year of maturity	Carrying value £m
Unsecured private placement – €225.0m	€	1.1%	2023	189.6
Unsecured private placement – €120.0m	€	2.4%	2026	101.1
Total outstanding loans				290.7
Current portion of long-term borrowings due before 31st December 2022				0.9
Long-term borrowings payable after 31st December 2022				289.8
Total outstanding loans				290.7

11 Other information

Dividends

Dividends paid by the Company are disclosed in Note 11 of the Consolidated Financial Statements.

Property, plant and equipment

The Company holds freehold property with a cost of £9.7m (2020: £9.4m), accumulated depreciation of £3.9m (2020: £3.2m) and a net book value of £5.8m (2020: £6.2m).

Employees

The total number of employees of the Company at 31st December 2021 was 112 (2020: 85).

Directors' remuneration

The remuneration of the Directors of the Company is shown in the Annual Report on Remuneration 2021 on pages 136 to 151.

Auditor's remuneration

Auditor's remuneration in respect of the Company's annual audit has been disclosed on a consolidated basis in the Company's Consolidated Financial Statements as required by Section 494(4)(a) of the Companies Act 2006.

Contingent liabilities and capital commitments

The Company has no contingent liabilities or capital commitments at 31st December 2021 (2020: £nil).

Our Global Operations

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Our Global Operations

Steam Specialties – EMEA

Country/Territory	Company Name	Registered Office address
Belgium	Spirax Sarco NV	Industriepark 5, B-9052 Zwijnaarde, Belgium
Czech Republic	Spirax Sarco spol sro	Prazska 1455, 102 00 Praha, Hostivar, Czech Republic
Egypt	Spirax Sarco Egypt	19 Farid Street, Heliopolis, Cairo, Egypt
	Spirax Sarco Energy Solutions LLC (H)	19 Farid Street, Heliopolis, Cairo, Egypt
Finland	Spirax Oy	Niittytie 25 A 24, 01300 Vantaa, Helsinki, Finland
France	Spirax Sarco SAS	Zone Industrielle des Bruyeres 8 Avenue le Verrier, 78190 Trappes, France
	Spirax-Sarco France HoldCo SAS (H)	23 Route de Château-Thierry, 02200 Noyant-et-Aconin, Soissons, France
	Gestra France SAS	Zone Industrielle des Bruyeres 8 Avenue Le Verrier 78190 Trappes, France
Germany	Spirax Sarco GmbH Regelapparate	Reichenastr. 210, 78467 Konstanz, Germany
	Spirax-Sarco Germany Holdings GmbH (H)	Reichenastr. 210, 78467, Konstanz, Germany
	Gestra AG	Muenchener Str. 77, 28215, Bremen, Germany
	Gestra HoldCo GmbH (H)	Muenchener Str. 77, 28215, Bremen, Germany
Hungary	Spirax-Sarco Kft	1103 Budapest Koér utca 2/A, Hungary
Italy	Spirax Sarco Srl	Via Per Cinisello 18, 20834 Nova Milanese, Italy
	Italgestra Srl	Via Per Cinisello 18, 20834 Nova Milanese, Italy
Kenya	Spirax Sarco East Africa Ltd	Clifton Park, Mombasa Road, Nairobi, Kenya
Morocco	Spirax Sarco Maghreb	Secteur 3, Lot 146, Rue Arfoud, Bureaux 5 et 6, commerce 2-12000 Temara, Morocco
Netherlands	Spirax-Sarco Netherlands BV	Industrieweg 130A, 3044 AT, Rotterdam, Netherlands
	Spirax-Sarco Engineering BV (H)	Industrieweg 130A, 3044 AT, Rotterdam, Netherlands
	Spirax-Sarco Investments BV (H)	Industrieweg 130A, 3044 AT, Rotterdam, Netherlands
	Spirax-Sarco Netherlands Holdings Coöperative WA (H)	Sluisstraat 7, 7491 GA Delden, Delden, Netherlands
Norway	Spirax Sarco AS	Vestvollveien 14A, N-2019 Skedsmokorset, Norway
Poland	Spirax Sarco Sp Zoo	Jutrzenki 98, 02-230, Warszawa, Poland
	Gestra Polonia Sp Zoo	ul Ku Ujściu 19, PL 80-172, Gdansk, Poland
Portugal	Spirax Sarco Equipamentos Ind Lda	Rua Quinta do Pinheiro, No 8 & 8A, 2794-058 Carnaxide, Portugal
	Gestra Portugal, Lda	Avenida Dr Antunes Guimaraes, Numero 1159, Porto 4100-082, Portugal
Romania	Spirax-Sarco SRL	2-4 Traian Street, Cluj-Napoca Municipality, Cluj County, Romania
Russia	Spirax-Sarco Engineering LLC*	198188, Russian Federation, St. Petersburg, Vozrozhdeniya Street, The House 20a, lit.A. Russian Federation
South Africa	Spirax Sarco Investments (Pty) Ltd (H)	Corner Brine Avenue and Horn Street, Chloorkop Ext 23, Gauteng 1624, South Africa
	Spirax Sarco South Africa (Pty) Ltd	Corner Brine Avenue and Horn Street, Chloorkop Ext 23, Gauteng 1624, South Africa
Spain	Spirax-Sarco SAU	C/ Sant Josep, 130 08980 Sant Feliu de Llobregat, Barcelona, Spain
	Spirax-Sarco Engineering SLU (H)	C/ Sant Josep, 130 08980 Sant Feliu de Llobregat, Barcelona, Spain
	Gestra Espanloa SA	Calle Luis Cabrera 86-88, 28002, Madrid, Spain
Sweden	Spirax Sarco AB	Evenemansgatan 40, 169 56 Solna, Sweden
Switzerland	Spirax Sarco AG	Gustav-Maurer-Strasse 9, 8702 Zollikon, Switzerland
Turkey	Spirax Sarco Valf Sanayi ve Ticaret A.Ş.	Serifali Mevkii, Edep Sok No 27, 34775 Yukari Dudullu - Ümraniye, Istanbul, Turkey
United Kingdom	Spirax-Sarco Ltd*	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Spirax-Sarco America Ltd (H)	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Spirax-Sarco America Investments Ltd* (H)	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Spirax-Sarco Investments Ltd* (H)	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Spirax-Sarco Overseas Ltd* (H)	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Gestra Holdings Ltd* (H)	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Gestra UK Ltd	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom

Our Global Operations continued

Steam Specialties – Asia Pacific

Country/Territory	Company Name	Registered Office address
Australia	Spirax Sarco Pty Ltd	14 Forge St., Blacktown, NSW 2148, Australia
China	Spirax-Sarco Engineering (China) Ltd	No 800 XinJun Ring Road, Pujiang Hi Tech Park, Shanghai, China
	Spirax Sarco Trading (Shanghai) Co Ltd	No 800 XinJun Ring Road, Pujiang Hi Tech Park, Shanghai, China
	Gestra (Shanghai) Fluid Control Technology Co Ltd	Room 333 3rd Floor of 4th Area Building 1, No.2001 North Yanggao Road China (Shanghai) Free Trade Pilot Zone, Shanghai, China
Hong Kong	Spirax Sarco Hong Kong Co Ltd	Unit 1507, 15th Floor, Prosperity Center, 25 Chin Yip Street, Kwun Tong, Kowloon, Hong Kong
India	Spirax-Sarco India Private Ltd	Plot No. 6, Central Avenue, Mahindra World City, Chengalpattu Taluk, Kancheepuram District 603004, India
Indonesia	PT Spirax Sarco Indonesia	Kawasan Infinia Park Blok C-99, Jl. Dr Sahardjo No. 45, Manggarai Tebet, Jakarta Selatan 12850, Indonesia
Malaysia	Spirax Sarco Sdn Bhd	No 10, Temasya 18, Jalan Pelukis U1/46A, 40150 Shah Alam, Selangor, Malaysia
	Spirax Sarco Investment Limited (H)	6th Floor, Akademi Etiqa, No23 Jalan Melaka, 50100 Kuala Lumpur, Malaysia
Myanmar	Spirax Sarco Ltd	No.192, Kabar Aye Pagoda Road, Myanmar Centre - Tower 2, Unit.1218, Bahan Township, Yangon, Myanmar
New Zealand	Spirax Sarco Ltd	6 Nandina Avenue, East Tamaki, Auckland 2013, New Zealand
Philippines	Spirax-Sarco Philippines Inc	2308 Natividad Building, Chino Roces Avenue Extension, Makati City, Philippines
Singapore	Spirax Sarco Pte Ltd	21 Changi South Avenue 2, #01-01 Singapore 486630, Singapore
	Spirax-Sarco APAC Investments Pte Ltd	21 Changi South Avenue 2, #01-01 Singapore 486630, Singapore
	Gestra Singapore Pte Ltd	21 Changi South Avenue 2, #01-01 Singapore 486630, Singapore
South Korea	Spirax Sarco Korea Ltd	Steam People House, 99 Sadangro 30gil, Dongjak-gu, Seoul, Republic of Korea
Taiwan	Spirax Sarco Co Ltd	6F-3, No. 12, Lane 270, Sec. 3, Pei Shen Road, Shen Keng District, New Taipei City 22205, Taiwan
Thailand	Spirax Sarco (Thailand) Ltd	38 Krungthepkreeta Road, Khlong Song Ton Nun, Lat Krabang, Bangkok 10520, Thailand
Vietnam	Spirax Sarco Vietnam Co Ltd	4th Floor, 180 Nguyen Van Troi Street, Ward 8, Phu Nhuan District, Ho Chi Minh City, Vietnam

Steam Specialties – Americas

Country/Territory	Company Name	Registered Office address
Argentina	Spirax Sarco SA	Av. del Libertador 498, 12th Floor, Buenos Aires C1001ABR, Argentina
Brazil	Spirax Sarco Ind e Com Ltda	Avenida Manoel Lages do Chão, 268, Bairro Portão, Cotia, São Paulo, 06705-050, Brazil
	Spirax-Sarco Servicos de Engenharia Ltda	Avenida Manoel Lages do Chão, 268, Bairro Portão, Cotia, São Paulo, 06705-050, Brazil
	Hiter Controls Engenharia Ltda	Avenida Manoel Lages do Chão, 268, Bairro Portão, Cotia, São Paulo, 06705-050, Brazil
Canada	Spirax Sarco Canada Ltd	383 Applewood Crescent, Concord, ON L4K 4J3, Canada
Chile	Spirax-Sarco Chile Ltda	Las Garzas 930, Galpón E, Quilicura, Santiago de Chile, Chile
	Inversiones Spirax-Sarco Chile Ltda (H)	Las Garzas 930, Galpón D, Quilicura, Santiago de Chile, Chile
Colombia	Spirax Sarco Colombia SAS	Carretera Panamericana No 3-150, Jamundi, Valle del Cauca, Cali, Colombia
Mexico	Spirax Sarco Mexicana, SAPI DE CV	Boulevard Alianza 30B, Parque Industrial CPA, Ciénega de Flores Nuevo León, CP 65550, Mexico
Peru	Spirax Sarco Peru SAC	Av. Guillermo Dansey 2124, Lima, Lima, Perú
United States	Spirax Sarco Inc	1150 Northpoint Blvd., Blythewood, SC 29016, United States
	Sarco International Corp (H)	2711 Centerville Road, Suite 400, Wilmington, DE 19808, United States
	Spirax Sarco Investments, Inc (H)	251 Little Falls Drive, Wilmington, DE 19808-1674, United States
	Gestra USA, Inc	1150 Northpoint Blvd., Blythewood, SC 29016, United States

Electric Thermal Solutions

Country/Territory	Company Name	Registered Office address
Brazil	Chromalox Engenharia Ltda	Avenida Manoel Lages do Chão, 268, Bairro Portão, Cotia, São Paulo, 06705-050, Brazil
Canada	Canadian Heat Acquisition Corp (H)	7051 68th Ave NW, Edmonton, Alberta, T6B 3E3, Canada
China	Chromalox Precision Heat Control (Shanghai) Co Ltd	88 Taigu Road, Suite A2, 4th Floor – Fenggu Building, Shanghai, 200131, China
	Chromalox Precision Heat Control (Suzhou) Co Ltd	T02, No 1801, Pangjin Road, Pangjin Industrial Park, Wujiang, Suzhou, 215200, China
	Thermocoax (Chengdu) Co Ltd	No.11 Fujiang Road, Shuangliu Park, Jiaelong Industry Port, Chengdu, Sichuan, China
France	Etirex SAS	23 Route de Chateau Thierry, Noyant-et-Aconin, Soissons, Cedex, F-02203, France
	Thermocoax Developpement SAS	40 Boulevard Henri Sellier, 92150 Suresnes, France
	Thermocoax SAS	Usine de Planquivon, Athis-de-l'Orne, 61430 Athis-Val de Rouvre, France
Germany	Chromalox Isopad GmbH	Englerstraße 11, 69126 Heidelberg, Germany
Hong Kong	Chromalox Hong Kong Holdings Ltd (H)	33/F, Shui On Centre, Nos 6-8 Harbour Road, Wanchai, Hong Kong
India	Chromalox India Precision Heat & Control Private Limited	1st Floor, 6 Unicom House, A-3 Commercial Complex, New Delhi, Janakpuri, 110058, India
Mexico	ELW Industrial S. de R. L. de C.V.	Carretera Nacional, K.M. 8.5, Modulo Industrial de America, Lote #5, Nuevo Laredo, Tamaulipas, 88277, Mexico
Singapore	Chromalox Precision Heat and Control (Singapore) Pte Ltd	No 11 Woodlands Close, #05-34, Singapore, 737854, Singapore
Thailand	Chromalox (Asia Pacific) Ltd	383/2, The Village Business Centre, Unit D16-A, Moo 12, Sukhumvit Road, Nongprue, Banglamung, Chon Buri, 20151, Thailand
United Arab Emirates	Chromalox Gulf DWC, LLC	PO Box 390012, Office No: E-2-0226, Business Park, Dubai Aviation City, United Arab Emirates
United Kingdom	Chromalox (UK) Ltd	AMP House, 2nd Floor, Dingwall Road, Croydon, Surrey, CR0 2LX, United Kingdom
	Thermocoax UK Ltd	Tower House, Lucy Tower Street, Lincoln, LN1 1XW, United Kingdom
United States	Chromalox, Inc.	2711 Centerville Rd., Suite 400, Wilmington, DE 19808, United States
	Heat Acquisition Corp (H)	2711 Centerville Rd., Suite 400, Wilmington, DE 19808, United States
	Thermocoax, Inc	Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, Delaware, United States

Our Global Operations continued

Watson-Marlow Fluid Technology Group

Country/Territory	Company Name	Registered Office address
Australia	Watson-Marlow Pty Ltd	Unit 15, 19-26 Durian Place, Wetherill Park, NSW 2164, Australia
Austria	Watson-Marlow Austria GmbH	Rathaus Viertel 3/1 OG/TOP 311, Guntramsdorf A 2353, Wien, Austria
Belgium	Watson-Marlow NV	Industriepark 5, B-9052 Zwijnaarde, Belgium
Brazil	Watson-Marlow Bredel Ind e Com de Bombas Ltda	Alameda Oceania, 63, Polo Empresarial Tamboré, Santana de Parnaíba, São Paulo, CEP 06543-308, Brazil
Canada	Watson-Marlow Canada Inc	383 Applewood Crescent, Concord, ON L4K 4J3, Canada
Chile	Watson-Marlow Bombas Chile Ltda	Las Garzas 930, Galpón E, Quilicura, Santiago de Chile, Chile
Colombia	Watson-Marlow Colombia SAS	Carretera Panamericana No 3-150, Jamundi, Valle del Cauca, Cali, Colombia
Czech Republic	Watson-Marlow sro	Pražská 1455/18a, 102 00 Praha 10, Czech Republic
Denmark	Watson-Marlow Flexicon A/S	Frejasvej 2, 4100 Ringsted, Denmark
Finland	Watson-Marlow Finland Oy	Niittytie 25 A 24, 01300 Vantaa, Helsinki, Finland
France	Watson-Marlow SAS	9 Route De Galluis, Zi Les Croix, 78940 La Queue Lez Yvelines, France
Germany	Watson-Marlow GmbH	Kurt-Alder-Str. 1, 41569 Rommerskirchen, Germany
Hungary	Watson-Marlow Kft	Lajos ucta 30, Budapest 1023, Hungary
India	Watson-Marlow India Private Ltd	Mahalaxmi Icon, S. No. 132/2A-3A, Near Sai HP Petrol Pump, Pune-Mumbai Bypass Road, Tathawade, Pune, Maharashtra, 411 033, India
Ireland	Watson-Marlow Ltd	Unit 1013, Gateway Business Park, New Mallow Rd., Cork, Ireland
Italy	Watson-Marlow Srl	Via Padana Superiore 74/D, 25080 Mazzano, Brescia, Italy
Japan	Watson-Marlow Co Ltd	4-23-21 Ukima Kita-ku, Tokyo 115-0051, Japan
Malaysia	Watson-Marlow SDN BHD	6th Floor, Akademi Etiqa No. 23 Jalan Melaka, 50100 Kuala Lumpur W.P., Malaysia
Mexico	Watson-Marlow S de RL de CV	Boulevard Alianza 30B, Parque Industrial CPA, Ciénega de Flores Nuevo León, CP 65550, Mexico
Netherlands	Watson-Marlow BV	Oslo 9 - 11, 2993LD Barendrecht, Netherlands
	Watson-Marlow Bredel BV	Sluisstraat 7, 7491 GA, Delden, Netherlands
	Watson-Marlow Bredel Holdings BV (H)	Sluisstraat 7, 7491 GA, Delden, Netherlands
	Watson-Marlow Bredel Holdings II BV (H)	Sluisstraat 7, 7491 GA, Delden, Netherlands
New Zealand	Watson-Marlow Ltd	Unit F, 6 Polaris Place, East Tamaki, Auckland 2013, New Zealand
Norway	Watson-Marlow Norge AS	Vestvollveien 14A, 2019 Skedsmokorset, Norway
Philippines	Watson-Marlow Inc	10th Floor EGI Rufino Plaza, Sen. Gil Puyat Avenue, Corner Taft Avenue, Barangay, 38 Pasay City, Fourth District, Philippines
Poland	Watson-Marlow Sp Zoo	Al. Jerezgo Waszyngtona 146, 04-076 Warszawa, Poland
Russia	Watson-Marlow LLC*	Room 19, Premises I, Shosse Entuziastov, 34, Moscow, 105118, Russian Federation
Singapore	Watson-Marlow Pte Ltd	421 Tagore Industrial Avenue, #01-13, Singapore 787805, Singapore
South Africa	Watson-Marlow Bredel SA (Pty) Ltd	Unit 6 Cradleview Industrial Park, Cnr Beyers Naude Drive & Johan Street, Laser Park, South Africa
Spain	Watson-Marlow SLU	Tuset, 20 3 - 08006, Barcelona, Spain
Sweden	W-M Alitea AB	Hammarby Fabriksväg 29-31, SE-120 30 Stockholm, Sweden
Switzerland	Watson-Marlow AG	Gustav-Maurer-Strasse 9, 8702 Zollikon
Taiwan	Watson-Marlow Co Ltd	No.9 Lane 270 Sec. Beishen Road, Shenkeng District, New Taipei City 222, Taiwan
United Arab Emirates	Watson Marlow FZCO	Office Number FZJOA2005, Jafza One, Jebel Ali Free Zone, Dubai, United Arab Emirates
United Kingdom	Aflex Hose Ltd	Dyson Wood Way, Bradley, Huddersfield, HD2 1GZ, United Kingdom
	BioPure Technology Ltd	Bickland Water Road, Falmouth, Cornwall, TR11 4RU, United Kingdom
	Watson-Marlow Ltd*	Bickland Water Road, Falmouth, Cornwall, TR11 4RU, United Kingdom
United States	ASEPCO	1161 Cadillac Ct, Milpitas, CA 95035, United States
	Watson Marlow Inc	37 Upton Technology Park, Wilmington, MA 01887, United States
	Watson-Marlow Flow Smart Inc	1675 South State St., Suite B, Dover, DE 19901 United States

Dormant companies

Country/Territory	Company Name	Registered Office address
Canada	Canadian Heat Holding Corp	6600-100 King Street W., 1 First Canadian Place, Toronto, Ontario, M5X 1B6, Canada
France	Heat Holding France SAS	23 Route de Château-Thierry, 02200 Noyant-et-Aconin, Soissons, France
United Kingdom	Gervase Instruments Ltd*	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Heat Holding (UK) Limited	AMP House, 2nd Floor, Dingwall Road, Croydon, Surrey, CR0 2LX, United Kingdom
	SARCO Ltd*	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Sarco Thermostats Ltd	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Spirax Manufacturing Co Ltd	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Spirax-Sarco Europe Ltd*	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
	Spirax-Sarco International Ltd*	Charlton House, Cirencester Road, Cheltenham, Gloucestershire GL53 8ER, United Kingdom
United States	Electronic Control Systems, Inc.	103 Gamma Drive, Pittsburgh, PA 15238, United States
	Heat Asset Acquisition Corp.	2711 Centerville Rd., Suite 400, Wilmington, DE19808, United States
	Mexican Heat Holding Corp.	c/o RA PO Box 20380, Carson City, Nevada, 89706, United States
	Mexican Heat Holding, LLC	160 Greentree Dr., Suite 101, Dover, Delaware, 19904, United States
	Ogden Manufacturing Co.	2711 Centerville Rd., Suite 400, Wilmington, DE19808, United States

The global operations listed on pages 233 to 237 are registered companies.

In addition to these operations we have a number of other operating units, including an Associate company; a company that is part owned with a third-party trust; branches of Spirax Sarco steam or Watson-Marlow companies; and several Watson-Marlow businesses that operate via Spirax Sarco steam business companies. Also, during 2021, the Spirax Sarco Group Education Fund was established, however under IFRS 10 the Group does not have control of this fund and therefore is not included in the consolidated financial statements.

Notes

1. All subsidiaries in the tables on pages 220 to 224 are indirect subsidiaries of Spirax-Sarco Engineering plc, unless indicated*. All subsidiaries listed are 100% owned by the Group, except as follows:

Company	% owned by the Group
Spirax Sarco Egypt	98.867%
Spirax Sarco Energy Solutions LLC, Egypt	98.992%
Spirax Sarco Korea Ltd	97.5%
Spirax-Sarco Philippines Inc	99.998%
Spirax Sarco Services South Africa (Pty) Ltd	48.51%. (51.49% is owned by a third-party trust, The Tomorrow Trust). The Group has control of the company and exposure, or rights, to variable returns from its investment in the investee.
Spirax Sarco (Thailand) Ltd	99.995%

2. In addition to the subsidiaries in the tables on pages 220 to 224, we have the following operations:

Steam Specialties (Spirax Sarco):

Country	Operating as a branch of
Cambodia	Spirax Sarco Pte Ltd, Singapore
Denmark	Spirax-Sarco Limited, UK
Ghana	Spirax-Sarco Limited, UK
Greece	Spirax-Sarco Limited, UK
Ireland	Spirax-Sarco Limited, UK
Japan	Spirax-Sarco Limited, UK
Pakistan	Spirax-Sarco Limited, UK
Sri Lanka	Spirax-Sarco India Private Ltd, India
United Arab Emirates	Spirax-Sarco Limited, UK

Watson-Marlow Fluid Technology Group:

Country	Operating as a branch of
Serbia	Watson-Marlow Austria GmbH
Switzerland	Watson-Marlow Limited, UK
	Operating via
Argentina	Spirax Sarco SA, Argentina
China	Spirax-Sarco Engineering (China) Ltd
South Korea	Spirax Sarco Korea Ltd
Indonesia	PT Spirax-Sarco Indonesia
Thailand	Spirax Sarco (Thailand) Ltd
Vietnam	Spirax Sarco Vietnam Co Ltd

This complete list of our global operations, including subsidiaries, forms part of the audited Financial Statements. For more information see Note 2 in the Company Financial Statements.

3. UK registered subsidiaries exempt from audit:

BioPure Technology Ltd (company no. 03665190), Chromalox (UK) Ltd (company no. 04325451), Gestra UK Ltd (company no. 10639879), Spirax-Sarco America Ltd (company no. 07829847), Spirax-Sarco Investments Ltd (company no. 00100995), Spirax-Sarco Overseas Ltd (company no. 01472201), V.C.E Ltd (company no. SC126116), Gestra Holdings Ltd (company no. 11612492), Spirax-Sarco America Investments Ltd (company no. 11639451) and Heat Holding (UK) Limited (company no. 04325456) qualify to take the statutory audit exemption as set out within section 479A of the Companies Act 2006 for the period ended 31st December 2020. Spirax-Sarco Engineering plc will guarantee the debts and liabilities of the companies claiming the statutory audit exemption at the balance sheet date in accordance with section 479C of the Companies Act 2006.

Key

- * Direct subsidiary owned by Spirax-Sarco Engineering plc
- (H) Holding company

Officers and Advisers

Secretary and registered office

A.J. Robson
Group General Counsel and Company Secretary
Spirax-Sarco Engineering plc
Charlton House
Cirencester Road
Cheltenham
Gloucestershire GL53 8ER

Tel: 01242 521361
Email: group.legal@uk.spiraxsarco.com
Web: www.spiraxsarcoengineering.com

Auditor

Deloitte LLP

Financial advisers

Rothschild
J.P. Morgan Securities plc (J.P. Morgan Cazenove)

Financial PR

Citigate Dewe Rogerson

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Barclays Bank PLC
HSBC Bank PLC
BNP Paribas
Citibank, N.A.
Crédit Industriel et Commercial
UniCredit Bank AG
Wells Fargo Bank, N.A.

Corporate brokers

J.P. Morgan Securities plc (J.P. Morgan Cazenove)
Morgan Stanley & Co International plc

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Website: www.shareview.co.uk

Solicitors

Baker & McKenzie LLP

Important dates

Annual General Meeting	11th May 2022
2021 Half Year Results	11th August 2022

Final dividend**

Ordinary shares quoted ex-dividend	21st April 2022
Record date for final dividend	22nd April 2022
Final dividend payable	20th May 2022

** Subject to shareholder approval at the AGM.



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Spirax-Sarco Engineering plc

