



Engineering our future

Spirax Group Annual Report 2023



Our colleagues
Empowering future leaders

+ See pages 16-17



Our customers
Developing solutions for future customer needs

+ See pages 58-59



Our communities
Enabling future generations

+ See pages 82-83

Engineering our future through continuity and progression

The decisions we have taken over the course of our history enable our sustainable growth, influence the value we create and have a lasting impact for our stakeholders in the future.



Our environment
The future of sustainable steam

+ See pages 92-93



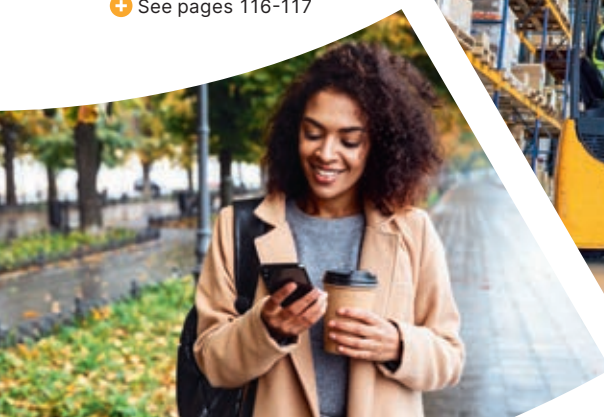
Our suppliers
Embedding sustainability into our future

+ See pages 96-97



Our shareholders
Engineering our future, together

+ See pages 116-117



The logo for Spirax Group, featuring a stylized white icon of three curved, overlapping shapes to the left of the text "Spirax Group" in a bold, white, sans-serif font.

Spirax Group

Spirax Group is the new name for Spirax-Sarco Engineering.

It balances our history and where we have come from with who we are today, and is a natural evolution for our Company.

Spirax Group is different but also familiar. Its simplicity aims to create clarity, by representing everyone and everything that we do and eliminating the confusion between the name of our Group and the Spirax Sarco Division that provides steam thermal solutions to customers. As Spirax Group, we are staying true to our heritage while also reflecting our evolution to a much larger and stronger organisation.

We are inviting our shareholders to support our legal name change to Spirax Group plc at our AGM in May.

[+ Read about our brand story overleaf](#)

The logo for Steam Thermal Solutions, featuring a stylized white icon of three curved, overlapping shapes to the left of the text "Steam Thermal Solutions" in a white, sans-serif font.

**Steam
Thermal
Solutions**

[+ See pages 46-49](#)

The logo for Electric Thermal Solutions, featuring a stylized white icon of three curved, overlapping shapes to the left of the text "Electric Thermal Solutions" in a white, sans-serif font.

**Electric
Thermal
Solutions**

[+ See pages 50-53](#)

The logo for Watson-Marlow Fluid Technology Solutions, featuring a stylized white icon of three curved, overlapping shapes to the left of the text "Watson-Marlow Fluid Technology Solutions" in a white, sans-serif font.

**Watson-Marlow
Fluid Technology
Solutions**

[+ See pages 54-57](#)

A progressive decade...

Events of the last ten years have significantly contributed to the growth and evolution of our Company and are reflected in our decision to refresh our Brand. 2024 marks the culmination of an important era in our Group's history and lays strong foundations for our future as Spirax Group.




Our refreshed brand signifies our evolution across the last decade to a much larger and more capable organisation, while staying true to our heritage of more than 135 years.

Across the Group, we have united behind our shared Purpose to create value for all our stakeholders by engineering a more efficient, safer and sustainable future. I am so proud of our collective achievements, grateful for all the support received and most importantly, I'm extremely confident in the future and sustainable success of Spirax Group."

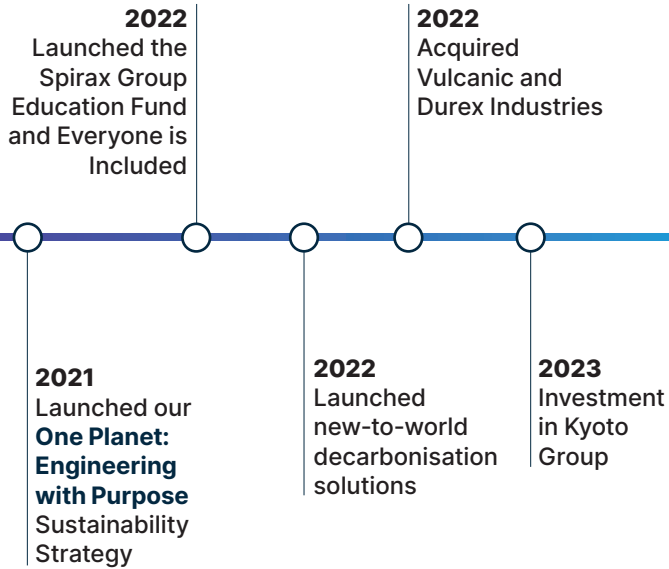
Nicholas Anderson

Group Chief Executive

16th January 2014 – 16th January 2024

 See page 14 for a final word from Nicholas Anderson

...supports our bright future



2024

Spirax-Sarco Engineering becomes



Our Group has been built on strong foundations over decades, creating an enviable culture based on our Values. We are a caring, respectful and authentic organisation with a shared Purpose that we demonstrate every day through the way we work together to make our difference.

We look forward to welcoming shareholders to our AGM in May when we will share more information on our brand refresh and ask for shareholder support to change our legal name to **Spirax Group plc.**"

Nimesh Patel
Group Chief Executive Officer

[+](#) Read more about who we are on pages 8 - 10



Engineering our future

As a Company established during the second industrial revolution, anticipating and investing in our future needs has become a core part of our DNA.

There were lots of examples of this during the last decade as we evolved the scale and composition of our Group by focusing on opportunities to create significant value for all our stakeholders and address the imperative of climate change.



for over 135 years

Spirax Group is today represented by three strong and aligned Businesses providing mission critical thermal energy and fluid technology solutions to industrial customers across a diverse range of sectors.

As Spirax Group we can help everyone better understand who we are and how we work together across our Businesses to help customers meet their operational, sustainability and decarbonisation goals.

Throughout this report we share some of the ways in which important decisions taken during the last decade will continue to shape our long-term, sustainable future.



Strategic Report

- 4 Summary
- 6 The industries we serve
- 8 Introducing Spirax Group
- 11 Chair's Statement
- 14 Letter from the former Chief Executive
- 16 Case study: Empowering future leaders
- 18 Business model and approach
- 20 Investment case
- 22 Chief Executive Officer's Review
- 26 Stakeholder engagement
- 34 Key performance indicators
- 36 Financial Review
- 44 Ten-year financial summary
- 46 Operating Review
 - Steam Thermal Solutions
 - Electric Thermal Solutions
 - Watson-Marlow Fluid Technology Solutions
- 58 Case study: Developing solutions for future customer needs
- 60 Sustainability Report
 - Responsible business foundations
 - One Planet at a glance
 - Strategic initiatives
- 82 - Case study: Enabling future generations
- 84 - TCFD & Climate-related Financial Disclosure (CFD)
- 92 - Case study: The future of sustainable steam
- 94 - Non-financial and sustainability information statement

- 96 - Case study: Embedding sustainability into our future
- 98 Risk Management

Governance Report

- 106 Our Governance
- 107 Board leadership and Company Purpose
 - Chair's introduction
 - Governance at a glance
 - Board of Directors
 - Our Group Executive Committee
 - The Board at a glance
 - Case study: Engineering our future, together
- 118 - Board activities
- 121 - Section 172 Statement
- 124 - Division of responsibilities
- 125 - Governance framework
- 126 - Board composition, succession and evaluation
- 128 - Colleague Engagement Committee Report
- 132 - Nomination Committee Report
- 138 Audit, risk and internal control
 - Audit Committee Report
 - Risk Management Committee Report
- 155 Remuneration
 - Remuneration Committee Report
 - At a glance summary: Executive Directors' remuneration
- 162 - Annual Report on Remuneration
- 175 - Summary Remuneration Policy

- 179 Regulatory disclosures
- 184 Statement of Directors' Responsibilities

Financial Statements

- 186 Independent Auditor's Report
- 195 Consolidated Statement of Financial Position
- 196 Consolidated Income Statement
- 197 Consolidated Statement of Comprehensive Income
- 198 Consolidated Statement of Changes in Equity
- 199 Consolidated Statement of Cash Flows
- 200 Notes to the Consolidated Financial Statements
- 241 Appendix: Alternative performance measures
- 249 Company Statement of Financial Position
- 250 Company Statement of Changes in Equity
- 251 Notes to the Company Financial Statements

Corporate Information

- 258 Our Global Operations
- 264 Officers and Advisers

Summary

Financial, operational and sustainability highlights

For the year ended 31st December 2023

Financial

- Revenues up 4% reflecting full-year contribution from acquisitions; down 1% organically
- Early restructuring actions and cost containment partially mitigated margin impact, particularly in H2
- Adjusted operating profit margin reflects adverse mix impact of lower volumes in higher margin businesses
- Statutory operating profit and margin reflect impact of restructuring and impairment costs
- Total dividend of 160.0 pence per share, maintaining 56 year track record
- Return to organic sales growth and adjusted operating profit margin progress expected in 2024

Operational

- Organic revenue growth in STS and ETS outperformed IP
- Integrations of acquisitions progressing well
- Preserved investment to deliver future growth:
 - First installations of **TargetZero** solutions
 - Increased digital connections enhancing our customer propositions
 - Expansion of Chromalox Ogden manufacturing facility underway
 - Investment in Kyoto **Heatcube** adds to energy storage solutions
 - Digital innovations in Watson-Marlow support customers with preventative maintenance

Sustainability

- Good progress towards 2025 targets:
- Scope 1 and 2 emissions 6% lower (45% lower than 2019 baseline)
 - Group energy use 8% lower
 - Group water consumption 20% lower
 - 135 biodiversity projects completed in 2023
 - 36% of colleagues participated in volunteering
 - Recent appointments improving gender balance of Executive Team



Our financial results in 2023 were impacted by a more challenging trading environment than we had anticipated at the start of the year, with a number of external headwinds to our highest margin businesses. An early focus on restructuring to right-size capacity, together with cost containment actions, supported our adjusted operating profit margin. We are well positioned to return to revenue and profit growth in 2024.”

Nimesh Patel
Group Chief Executive Officer

+ ‘Sales’ is used interchangeably with ‘revenue’ when describing the financial performance of the business

++ ‘STS’: Steam Thermal Solutions; ‘ETS’: Electric Thermal Solutions

+++ ‘IP’: Industrial Production growth

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

** ‘Biopharm’ refers to Watson-Marlow sales to the Pharmaceutical & Biotechnology sector

📌 See the Appendix to the Financial Statements for an explanation of alternative performance measures.

Revenue £
£1,682.6m

Year	Revenue (£m)	Organic Change %
2023	1,682.6	-1
2022	1,610.6	+14
2021	1,344.5	+17
2020	1,193.4	-3
2019	1,242.4	+6

Statutory operating profit £m
£284.4m

Year	Profit (£m)	Margin %
2023	284.4	16.9
2022	318.8	19.8
2021	320.9	23.9
2020	249.0	20.9
2019	245.0	19.7

Adjusted operating profit* £m
£349.1m

Year	Profit (£m)	Margin %
2023	349.1	20.7
2022	380.2	23.6
2021	340.3	25.3
2020	270.4	22.7
2019	282.7	22.8

All-workplace injury rate[^]
1.55

Year	Injury Rate
2023	1.55
2022	1.75
2021	2.22
2020	2.62
2019	3.44

[^] Per 100,000 hours worked

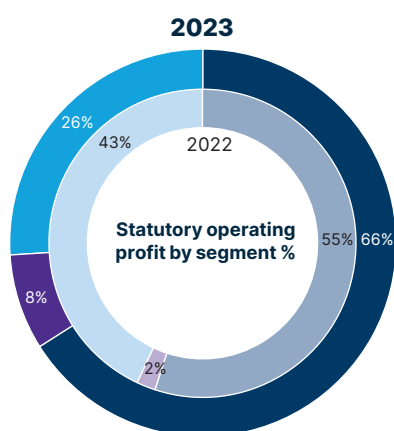
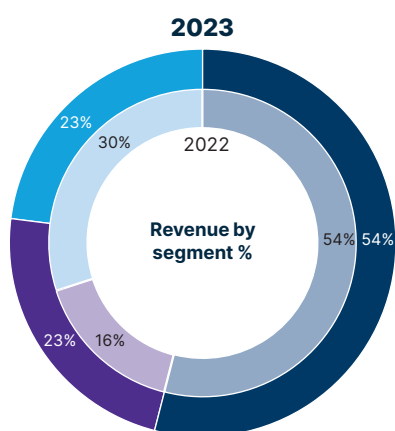
Statutory earnings per share p
249.5p

Year	EPS (p)
2023	249.5
2022	305.1
2021	318.3
2020	235.5
2019	226.2

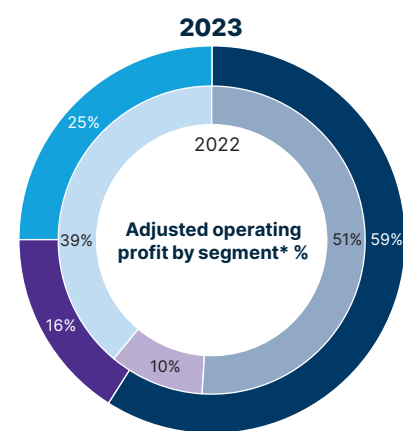
Adjusted earnings per share* p
312.4p

Year	EPS (p)
2023	312.4
2022	377.2
2021	338.9
2020	256.6
2019	265.7

+ See more on our KPIs pages 34–35



Before corporate expenses of £27.8 million.
(2022: £39.1 million).



Before corporate expenses of £27.8 million.
(2022: £25.8 million).

● Steam Thermal Solutions ● Electric Thermal Solutions ● Watson-Marlow Fluid Technology Solutions

* All adjusted profit measures exclude certain items, which totalled a charge of £64.7 million (2022: charge of £61.4 million), as set out in the Appendix to the Financial Statements

The Group's three operating segments, as defined by IFRS 8, are Steam Thermal Solutions, Electric Thermal Solutions and Watson-Marlow Fluid Technology Solutions

The industries we serve

Solutions for a diverse range of industries

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



Food & Beverage



20% 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.



Pharmaceutical & Biotechnology



18% 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.



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



6% of Group revenue

Electrical heating products reduce fluid viscosity, deliver freeze protection and provide efficiency in the processing of natural gas, crude oil and water. Our steam products enable optimum steam system performance and reduce energy use during oil and gas production.



Chemicals



6% 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



6% 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.

14% of Group revenues to 'other' industries including Pulp & Paper, Aerospace & Defence and Textiles.

+ Our sector diversity supports our resilience through economic cycles, see pages 18-21



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 

3% 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 

3% of Group revenue

Electrical products are used in water manufacturing and printing production processes to ensure thermal uniformity which is critical during chip manufacturing 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. Lined hoses are used for braking, cooling, transmission and steering systems. Our steam heat exchange and recovery solutions are used on cruise ships.

Introducing Spirax Group

Who we are

We are a leading thermal energy and fluid technology solutions Group

Our expertise, products and solutions sit behind the production of many consumables that people across the world rely on every day, from food and drink to medicines.

A proud heritage and a bright future

We are 10,000 colleagues in every corner of the globe working together in pursuit of our shared Purpose, united by and guided by our core Values.

Our Purpose

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

Our culture

An inclusive, equitable and wellbeing-focused culture makes us stronger as individuals, as teams and as Spirax Group. It is central to the promises we make to our colleagues and critical to achieving our Purpose.

[+ Read more about our inclusive culture on page 64](#)

Our Values



Safety

We care about people, helping them stay safe and look after their own wellbeing.



Collaboration

We are most successful when we trust each other and work together.



Customer focus

Through our expertise, passion and insight we achieve extraordinary results for customers.



Excellence

We approach challenges with passion, aiming for excellence in all we do, for a sustainable future.



Respect

Everyone matters, both inside and outside our Company. We respect everyone we work with, as well as the natural environment and our local communities.



Integrity

Success only matters when achieved fairly. We believe that winning with integrity leads to sustainable results.

How we deliver

Solving customers' problems is at the heart of our 'total solutions' approach. Our thermal energy and fluid technology solutions improve operating efficiency and safety in our customers' critical industrial processes.

We deliver our solutions through three strong and aligned Businesses and their Divisions, that include global and regional product brands.



At a glance

10,000

Colleagues

2,100

Sales and service engineers

66

Countries with a resident direct sales presence

37

Manufacturing sites

1,700+

Core product lines

110,000

Direct buying customers¹

¹ Actively purchasing in the last 24 months.

Introducing Spirax Group continued

For people and planet

Operating sustainably and supporting our customers' sustainability goals is at the heart of our approach and enshrined in our **One Planet Sustainability Strategy**, which is how we aim to create value for people and our planet. We hold ourselves to the highest standards and work with organisations that are aligned with our ambition.

[+ Read more in our Sustainability Report starting on page 60](#)



Rated AA (leader)



Score 3.0 (above industry average for E, S and G)



19.5 (low risk, top rated company)



A- (climate change), C (water)



Chair's Statement

A stronger, more balanced and more sustainable Group that is well positioned for the future



Decisions taken over the last years have built strong foundations, enabling Spirax Group to serve and create value for all its stakeholders.”

Jamie Pike
Chair



2023 has been a transitional year for the business on a number of fronts. With respect to trading, we have seen the transition to a post-pandemic macroeconomic environment impacting our business through customer destocking in the Pharmaceutical & Biotechnology and Semiconductor sectors, as well as a challenging geopolitical landscape resulting in higher inflation and low industrial production growth. With respect to leadership, we have successfully and smoothly made the transition to a new Group Chief Executive Officer.

Chair's Statement continued

Against these transitions, there have also been many constants, such as the fundamental strengths of our Group. The quality of our products, criticality of our solutions and the industry drivers towards more efficient, safer and more sustainable production, are still the same. That is why the Board's confidence in Spirax Group's long-term structural growth opportunities, as well as in its people and culture, are stronger than ever.

So, while 2023 has brought some very specific, short-term headwinds, our focus has been on ensuring that we are managing the business appropriately to position ourselves for growth in 2024 as end markets recover. With this at the forefront of our minds, the Board has remained committed to ensuring the decisions we make create value for all our stakeholders and the way in which we have engaged with and taken stakeholder needs into account is outlined on pages 121 to 123.

Board and leadership changes

In August, we announced that Nicholas (Nick) Anderson would be standing down as Group Chief Executive and he later retired from this role on 16th January 2024, precisely ten years after his appointment and after 12 years with the Company.

Nimesh Patel was appointed Group Chief Executive Officer and took up the position on 16th January 2024. Nimesh joined the Group in 2020 as Chief Financial Officer and his appointment as Group Chief Executive Officer follows a rigorous succession process, more details of which can be found in the Nomination Committee Report on pages 132 to 137.

As announced in December 2023, Louisa Burdett will join the Group in July 2024 as Chief Financial Officer (CFO). Louisa is a highly experienced CFO having led finance functions in several large companies including UK-listed Croda, Meggitt and Victrex. She currently serves as a Non-Executive Director and Audit Committee Chair of RS Group plc.

Phil Scott, who joined the Group in 2021 as Director of Group Finance, became Interim Chief Financial Officer on 16th January 2024 and will handover to Louisa shortly after she joins the Group later this year.

In 2023, we had one change to our Non-Executive Board members. Olivia Qiu stepped down as a Non-Executive Director on 31st January and Constance Barouel joined the Board on 2nd August, bringing strong sustainability, strategic and non-executive experience.

Biographies of the Board members can be found on pages 112 and 113.

This is my final year as Chair of Spirax Group, following ten years on the Board. The Nomination Committee is currently engaged in the search and appointment of my successor and I will stand for re-election at the Company's AGM in May in order to support the management team, and to provide an appropriate handover to the incoming Chair. I expect to have stepped down from the Board before I take up the position of Chair of IMI plc in January 2025. Further information on this can be found in the Nomination Committee and Directors' Reports on pages 134 and 180.

It has been an honour and a privilege to be part of this Group's journey over the last decade. The decisions taken over the last years have built strong foundations, enabling

Spirax Group to serve and create value for all its stakeholders. I have no doubt the Group will continue to prosper under Nimesh's leadership.

Our commitment to inclusion, equity and diversity

Our Board is diverse ethnically, culturally and in terms of gender, bringing value to our Group.

At the end of December 2023, the Board met the 40% FTSE Women Leaders Review target for female representation and with two members of the Board coming from a minority ethnic background, we exceeded the Parker Review target of at least one individual.

Board highlights

The Board met seven times in 2023. We spent a significant proportion of our time on talent reviews and leadership succession, including managing the Group Chief Executive succession process which led to another key succession process for the CFO role.

In what was a challenging year, the Board supported management in its decision-making around necessary restructuring activities, which were executed in line with our core Values and having first given due consideration to the impacts of the decision-making outcomes on all stakeholders.

During the year we also reviewed and approved major investments to support the Group's growth, including the decision to invest US\$58 million in expanding Chromalox's manufacturing facility in Ogden (Utah, USA), which is fundamental to the supply of Medium Voltage heating solutions that are critical to our decarbonisation products and solutions.

We have continued to focus on ESG activity, including receiving regular updates on Health & Safety as well as Colleague Engagement activities both through the Colleague Engagement Survey and the work of the Colleague Engagement Committee. In addition to reviewing the **One Planet Sustainability Strategy**, we received regular updates to monitor progress against targets and reviewed the Group's TCFD disclosures.

The Board travelled and visited operations in France (Thermocoax, ETS), the USA (Watson-Marlow), and UK (Spirax Sarco, STS), meeting the local leadership teams and our colleagues across sales, manufacturing and in supporting functional roles.

During the year we have closely monitored the proposed changes to the UK Corporate Governance Code, particularly those which have been clarified in the FRC guidance released in January 2024.

We have worked closely with management to support the Group's internal controls improvement 'G3' Project that aims to systematically improve and standardise controls across the Group using a risk-based framework. This workstream has been supported with additional investment into our Governance teams and supporting infrastructure.

The Board has overseen additional investment into the Group's IT infrastructure with a particular focus on assessing and improving our Cyber Security preparedness. This has included evaluating the key learnings from a ransomware simulation exercise undertaken by management.

Board highlights continued

As part of the review of the Group IT and systems infrastructure, the Board approved the decision to redesign the existing ERP upgrade programme, Project OPAL, within Steam Thermal Solutions (STS). This resulted in an impairment charge. Over time the scope of Project OPAL had expanded substantially to include a wider range of business applications. In parallel, the external technology market has continued to evolve, and the Board supported the move to implement consistent ERP solutions across all three Businesses. Within STS, this will enhance future capability, in addition to leveraging the scale of the broader Group.

The Group's IT infrastructure is an important foundation for our Digital evolution. The Board engaged regularly throughout 2023 on delivery of our Digital ambition, to understand how the Businesses are advancing projects which aim to deliver connected insights to our customers, further enhancing our solutions.

You can read more about the Board's decision making in support of all our stakeholders on page 123.

Board effectiveness

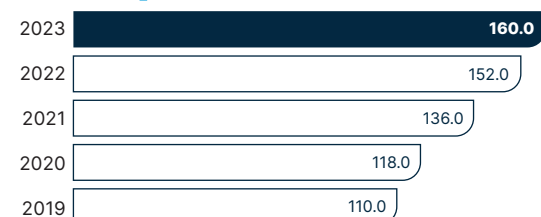
Following the external and independently facilitated Board evaluation in 2021, the Board conducted internal Board evaluations in 2022 and 2023. Full details of the 2023 evaluation process and outcomes can be found in Nomination Committee Report on page 134 and 180.

Dividends

The Directors are proposing the payment of a final dividend of 114.0 pence per share (2022: 109.5 pence). Subject to approval of the final dividend by shareholders at the Annual General Meeting on Wednesday 15th May 2024, the total Ordinary dividend for the year will be 160.0 pence per share, an increase 5% over the Ordinary dividend of 152.0 pence per share for the prior year.

Dividend per share p

160.0p



Jamie Pike

Chair

on behalf of the Board of Directors

6th March 2024

Leading with Purpose

Across this Annual Report we have recorded some of the significant decisions and outcomes that have shaped our trajectory over the last decade, under the stewardship of Nick Anderson, who took up the role of Group Chief Executive on 16th January 2014 and retired precisely ten years later.

Nick leaves behind a larger, more complex, more capable and sustainable Company which has grown to become home to three strong and aligned solutions-focused Businesses.

Under Nick's tenure, the Company has evolved, through investment, acquisitions and by aligning as One Group - now Spirax Group - with a common Purpose, business model and shared core Values that underpin our differentiated culture.

Nick leaves the Group well positioned and in safe hands, with the appointment of Nimesh as a strong successor from within the Group, supported by a very capable leadership team.

On behalf of the Board, I thank Nick for everything he has done and wish him well in the next phase of his Non-Executive career.

Section 172 Statement

In accordance with 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 when performing their duty to promote the success of the Company. This can be found on pages 121 to 123.

[+](#) See pages 121 - 123

Letter from former Chief Executive Nicholas Anderson

A final word from Nicholas Anderson



**Our journey over the last ten years
has been thrilling and inspiring.”**

Dear Shareholders

After joining the Company in 2012, my retirement on 16th January 2024 was precisely ten years to the day since taking up the mantle of Group Chief Executive of Spirax-Sarco Engineering, now Spirax Group.

As I reflect on my 12 years here, I look back with immense pride on what we have achieved collectively. I am also full of gratitude for the support and encouragement I have always received from all stakeholders throughout this journey.

Spirax Group is today a larger and stronger Group comprised of three aligned, solution-focused Businesses and represents everything that has been made possible by the evolution of Spirax-Sarco Engineering over the past decade. This was achieved through our investments in growth and infrastructure: expanding our direct sales capabilities and addressable markets, increasing our geographic and manufacturing footprint, developing new technologies, focusing on sustainability and enhancing our organisation, while constantly investing in the growth and wellbeing of colleagues all around the world.

In 2014, I became the leader of a very successful Company with a long and proud history, full of capable people doing brilliant things to transform the efficiency, safety and sustainability of industrial customers' mission-critical processes. I made it my mission then to be a respectful custodian of the legacy entrusted to me and to make sure that my leadership decisions would ultimately leave the Company in an even better standing.

In 2024, I am gratified to have extended that long and successful history, leaving behind a Group with more than double the number of even more capable people and with three great solution-focused Businesses that have even more opportunities to grow and prosper. We have also focused on fulfilling our commitments to sustainability, inclusion, community engagement, innovation, operational excellence and, importantly, preserving a very special culture based on our Values.

Handing over the baton of leadership to Nimesh was the final step in a long-planned and carefully managed transition. I have every confidence that Nimesh and the Group Executive Committee, supported by our worldwide colleagues, will take Spirax Group to even greater heights and I wish them every success in this endeavour.

From my perspective, our journey together over the last ten years has been thrilling and inspiring. It has been an honour to lead the organisation to this point and I will watch with pride and keen interest, as the Group continues on the next phase of its journey.

There is no doubt in my mind that Spirax Group has a very bright future ahead.

Thank you for your support.

Nicholas John Anderson

Group Chief Executive

16th January 2014 – 16th January 2024



 Our colleagues

Empowering future leaders

Developing our talent for the future

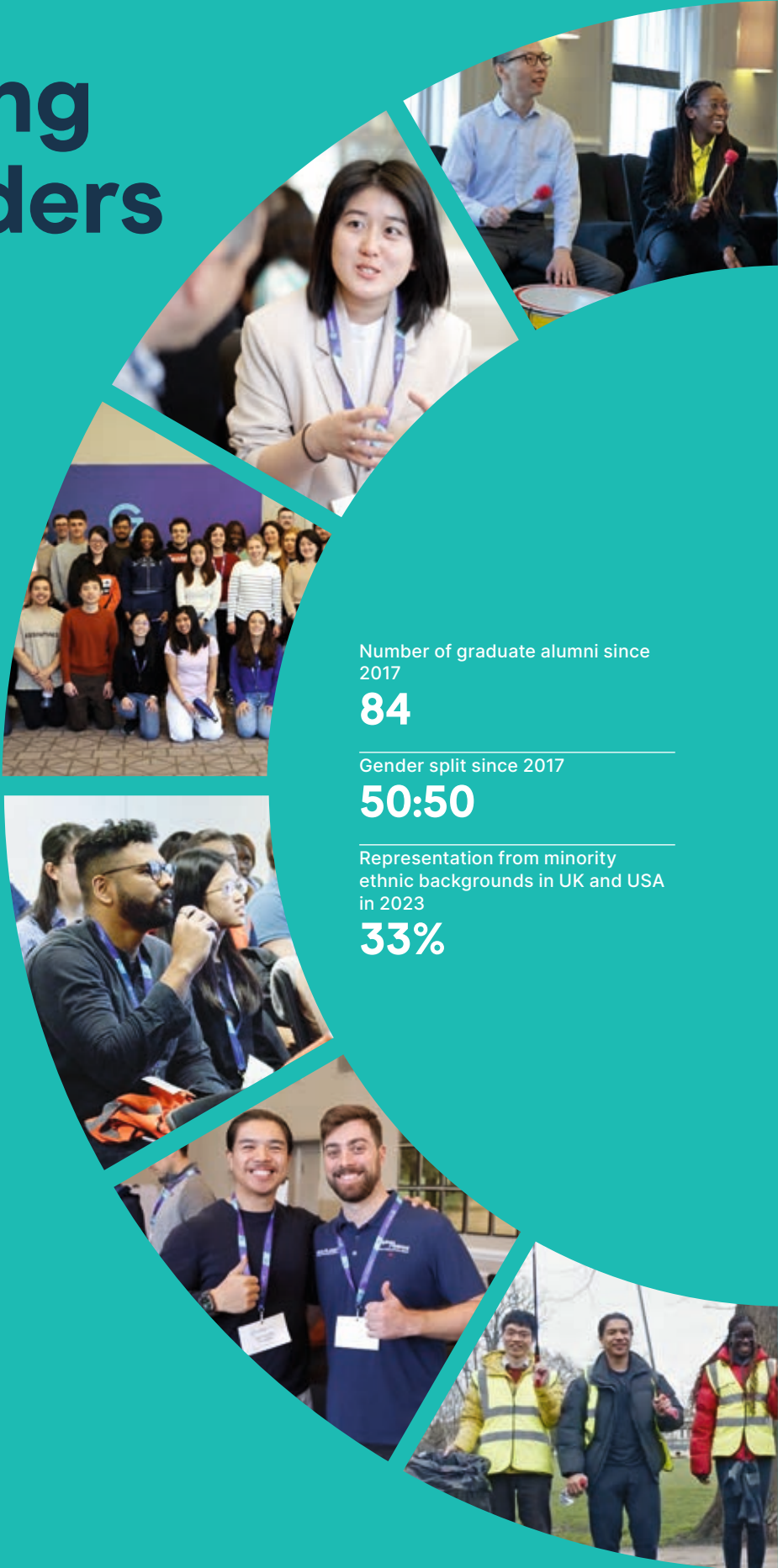
Global Graduate Leadership Development Programme

Every leader will remember when they embarked on their careers how those early experiences and learning shaped the skills they would go on to acquire for their future career. The world of work today is very different to how it was ten years ago, and so one way that we continue to engineer our future is by helping to develop the next generation of leaders, equipping them with the skills and experiences to lead effectively in the decades to come.

Our two-year Global Graduate Development Programme was launched in 2017 and became the Global Graduate Leadership Development Programme in 2023. The programme built upon its early UK foundations to focus on developing future leaders from across Spirax Group in commercial, manufacturing and supply roles.

Each graduate follows a consistent and structured development programme through a combination of online and Group learning activities. The programme is tailored to the graduate's interests and future career goals through the undertaking of three placement rotations, each with a common set of objectives but giving insights into different parts of the Group and its operations, including an overseas placement.

This allows them to see another part of the world, immerse themselves in a different culture and collaborate with colleagues from across the globe. In this way, our Global Graduate Leadership Development Programme supports our Inclusion Commitments, as we believe that having a diversity of skills, experience and perspectives in our Group is important today and for the future.



Number of graduate alumni since 2017

84

Gender split since 2017

50:50

Representation from minority ethnic backgrounds in UK and USA in 2023

33%

Kiranjit's graduate journey

Kiranjit Dharni joined Steam Thermal Solutions, a Spirax Group Business, on the Global Graduate Development Programme in 2019, completing project placements in Supply, Business Development, Group Finance and our Spirax Sarco operating company in Sweden. Kiranjit then took the role of Business Development Manager for Spirax Sarco in the Nordics, where she was involved in implementing many areas of the **Customer first² Strategy** including Digital pilots and steam system audit capability.

As of February this year, Kiranjit is Programme Manager for Gestra, supporting the implementation of our **Customer first² Strategy** by driving and executing key initiatives for Gestra globally.



I really felt my learning was enhanced through the graduate programme, from being able to contribute to solutions for real world problems through high profile, challenging projects which often involved senior leadership exposure, to learning about my strengths and what I enjoy doing. It was a privilege to be a part of.”

Kiranjit Dharni
Programme Manager,
Gestra, part of Steam Thermal Solutions

Making our difference through our One Group approach

Business model and approach

Our One Group approach

At Spirax Group, our customers' needs drive all that we do and to meet their needs effectively, we leverage our culture, strategic framework and business model to inform the way we work and deliver our Purpose.



Our Purpose is 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 common strategic framework with six strategic priorities, and a consistent business model which enables us to create outcomes with lasting impact for all our stakeholders across a breadth of geographies and diverse end market sectors.

- + Read more about how the Group has engaged with stakeholders this year on pages 26–33
- + Read more about how the Board has engaged with stakeholders this year on pages 121–123

Our culture

An inclusive, equitable and wellbeing-focused culture makes us stronger as individuals, as teams and as Spirax Group. It is central to the promises we make to our colleagues and critical to achieving our Purpose.

- + Read more on pages 64–66

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 research and development (R&D) and collaboration across our Group, 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.

37
manufacturing sites

Sell

With a resident direct sales presence in 66 countries and non-resident direct sales or distributors in a further 98 countries, we serve customers in 164 countries worldwide.

66
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.

45%
revenue from maintenance activities

Apply and solve

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

2,100
sales and service engineers

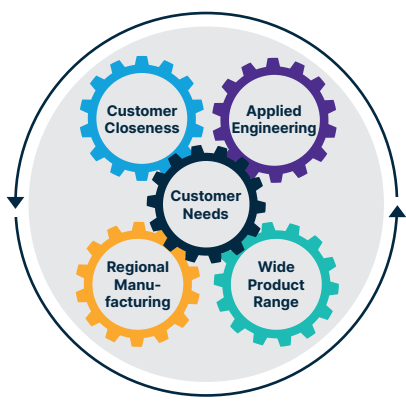
Educate

We help our customers to identify in-house engineering knowledge skill gaps and offer a wide range of training courses.

61
training centres

Our customer focus

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



Customer closeness

Through sectorisation and building deep, long-term, direct relationships with our customers we help them address their unrecognised needs.

Applied engineering

Providing value to customers through the application of our extensive knowledge of systems design, operations and maintenance.

Wide product range

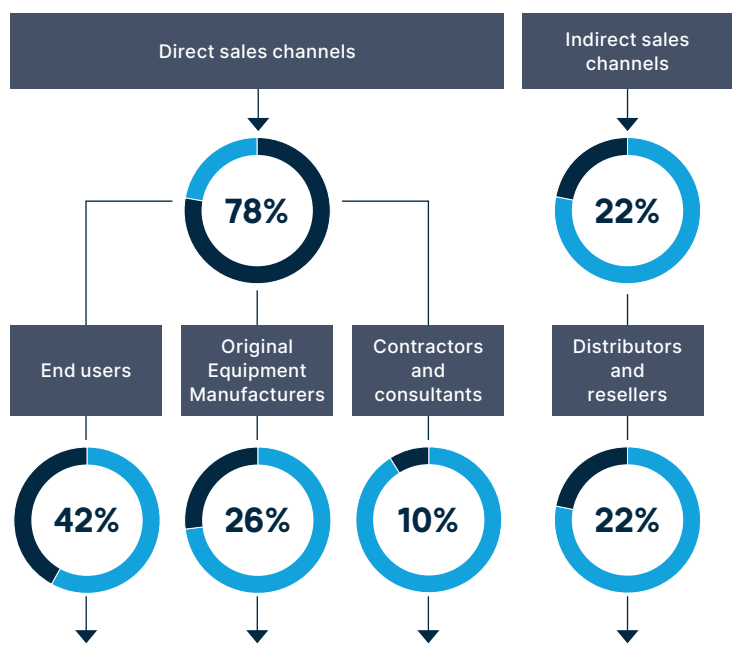
The breadth of our product offering is unmatched by our competitors and we are committed to R&D.

Regional manufacturing

Strategically located manufacturing plants provide local availability of a wide range of products whilst meeting applicable regional design codes.

Our routes to market

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 demonstrate the benefits of our products, solutions and services.

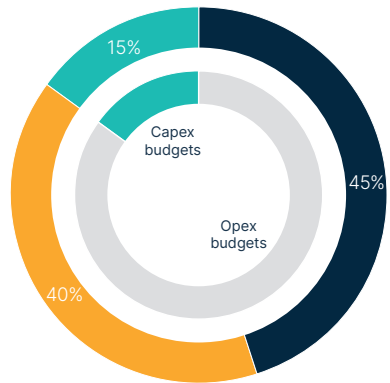


End users of our products and services

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.

How we generate revenue

85% of Group revenue is generated from annual maintenance and operational budgets and 40% of Group revenue is self-generated.



- **Maintenance and repair sales**
Typical invoice value £1.5k
- **Small project sales**
Typical invoice value £10-70k
- **Large project sales**
Typical invoice value >£100k

+ Read more about the industries we serve on pages 6-7

Engineering sustainable growth

Investment case

Our key strengths

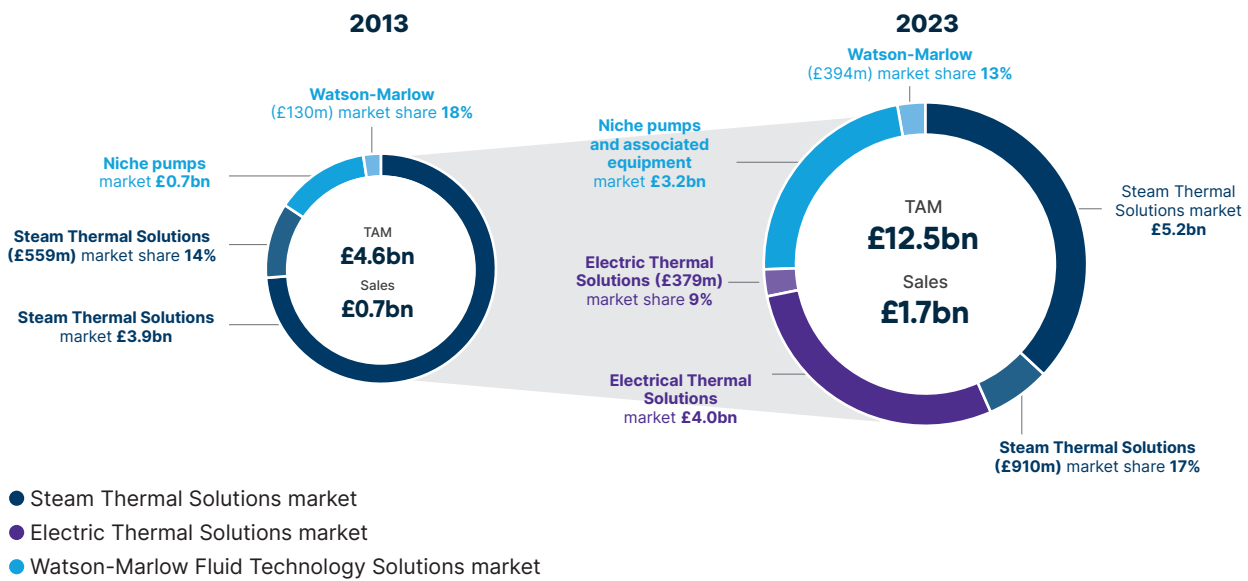
Diverse yet balanced end markets

- Leading positions in large but niche markets
- Range of high-growth as well as defensive and resilient end markets
- Global footprint

Driving further growth

- Operating leverage enables reinvestment to drive organic growth
- Highly selective bolt-on M&A to enhance capabilities and drive further growth

Ten years of total addressable market (TAM) growth



- Steam Thermal Solutions market
- Electric Thermal Solutions market
- Watson-Marlow Fluid Technology Solutions market

Source: Based on internal estimates

Delivering long-term compounding growth

Long-term compounding growth with attractive margins

Critical products supporting customers' critical processes

Strong financial track record

Leading player in fragmented niche markets

Unique direct sales model and strong customer insight

Self-generated growth with pricing based on customer economics

Organic growth > 2 x IP

Attractive stable margins

Sales funded from Opex budgets with low average invoice size

Resilience driven by geographic, sector and customer diversity

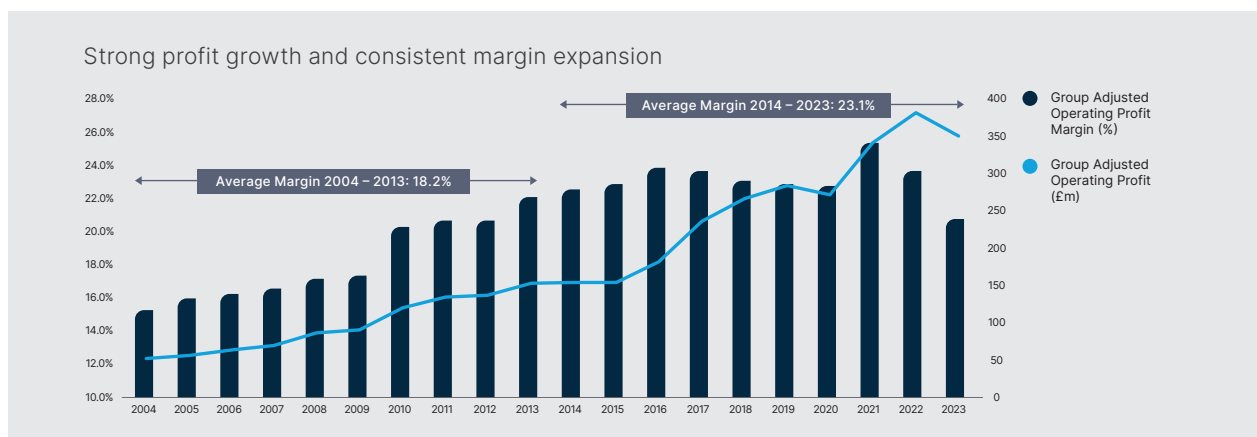
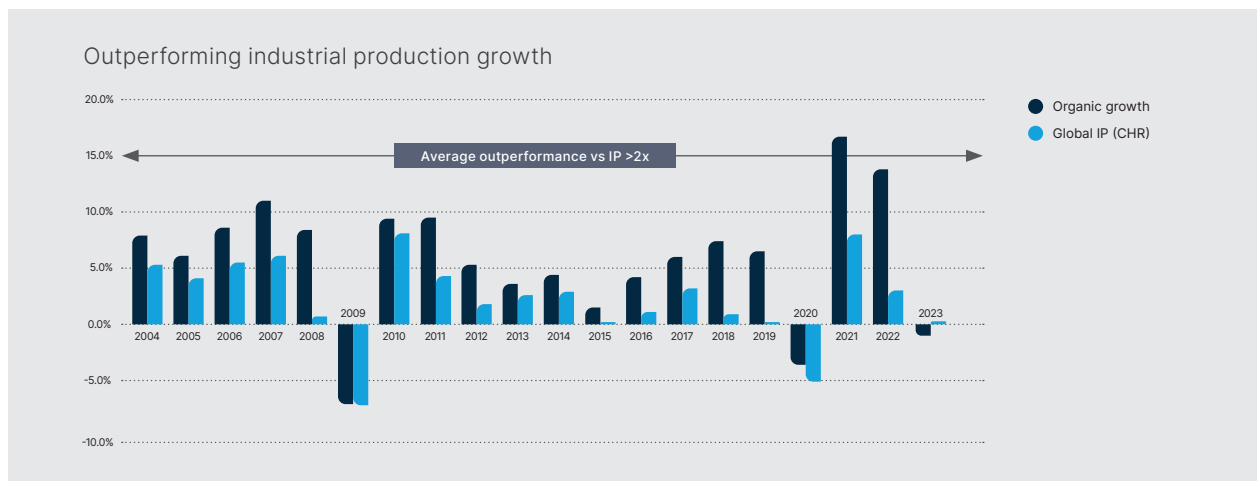
Growing addressable market with decarbonisation a key long-term driver

Strong cash generation

Earnings and dividend growth

Delivering long-term compounding growth

Sustainable returns



Our strategic priorities

The following six strategic priorities guide our focus to deliver self-generated growth that outperforms our markets.



Increase direct sales effectiveness through market sector focus



Broaden our global presence



Optimise our supply chain effectiveness



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



Leverage our R&D investments



Operate sustainably and help improve our customers' sustainability

Chief Executive Officer's Review

Well positioned to return to revenue and profit growth in 2024



It is a privilege to lead Spirax Group, working alongside outstanding people to build on our strengths and support future growth.”

Nimesh Patel
Group Chief Executive Officer



I took over as Group Chief Executive Officer of Spirax-Sarco Engineering (now rebranded Spirax Group) on 16th January 2024, following Nick Anderson's retirement. Over the past ten years, under Nick's leadership, we have established strong positions in what are now three very significant Businesses with exciting future potential.

I am grateful to Nick for bringing me into the Group and for laying the strong foundations that will support our journey in the years to come. I feel privileged to be leading Spirax Group and would like to thank the Board for supporting me and my Group Executive Committee (GEC) colleagues through this leadership transition.

Summary of 2023 performance

The macroeconomic environment was materially weaker in 2023. Global industrial production growth (IP) was 0.3% compared to 2.1% in 2022, with lower growth in all regions. IP was materially lower than the 1.4% that had been forecast at the beginning of the year with downward revisions to second half growth particularly marked in North America and China. The Group was also impacted by external demand challenges in our Biopharm and Semiconductor (Semicon¹) sectors (which accounted for approximately 16% and 4% of 2022 proforma² sales respectively), due to customer destocking.

Against this backdrop, the Group's financial performance in 2023 was in line with the expectations we set out in our November 2023 trading update.

We saw strong demand during the first half in STS and the industrial process focused Divisions of ETS (Chromalox and Vulcanic). However, demand from industrial equipment customers of ETS was lower, particularly in Semicon, impacting Durex Industries and to a lesser extent, Thermocoax. Demand in Watson-Marlow was also weak, driven by Biopharm customers destocking post the COVID pandemic. As a result, Group sales grew organically by 2% in the first half, reflecting strong growth in STS (15%) and ETS (7%) offset by a decline in Watson-Marlow (21%).

In the second half, the macroeconomic backdrop weakened for STS and the industrial process focused Divisions of ETS, while Biopharm demand remained subdued and Semicon demand was lower than in the first half. Group sales declined organically by 4% in the second half, reflecting slower growth in STS (2%) and declines in ETS (2%) and Watson-Marlow (17%).

Group revenues in 2023 declined by 1% organically compared to 2022 (down 1.5% compared to proforma 2022 sales), to £1,682.6 million. Sales benefited from a full year's contribution from the Vulcanic and Durex Industries acquisitions but were also impacted by a currency headwind of 2% and a small adverse impact from the disposal of our Russian operations in 2022. Lower sales in our highest margin businesses impacted full year adjusted operating profit, which was down 12% organically to £349.1 million, with full year adjusted operating profit margin down by 270 bps, organically, to 20.7%. This outcome reflects our strong pricing discipline, which helped to partially mitigate the impact of lower volumes and adverse sales mix on our margin, even as cost inflationary pressures eased.

Recognising the challenging trading environment, we took early action across all three Businesses to appropriately right-size capacity and overhead support costs as well as implementing temporary cost containment actions and reducing variable compensation across the Group. As a result of these actions, Group adjusted operating profit in the second half grew by 3% compared to the first half, despite sales being lower. We protected our ability to respond to an anticipated recovery in demand by continuing to invest in a number of strategic initiatives that underpin the Group's long-term growth. I am grateful to my colleagues around the world for their commitment, expertise and efforts, as well as their continued focus on delivery for all stakeholders, during these more challenging times.

The Board has declared a final dividend of 114.0 pence (2022: 109.5 pence) per ordinary share, bringing the total dividend for the year to 160.0 pence. The total dividend for 2023 represents 5% growth compared to 2022, reflecting our confidence in the Group's business model, strategy and medium to long-term prospects extending our track record of dividend progress to 56 years.

Market environment

Global industrial production growth (IP) in 2023 was 0.3% compared to 2.1% in 2022, with lower growth in all regions. IP was also materially lower than had been forecast at the beginning of the year (1.4%) with downward revisions to second half growth particularly marked in North America and China. China's IP was expected to grow by 2.1% as it recovered from the weak 1.4% in 2022; instead, it grew by only 0.6% in 2023. Global IP fell sequentially in Q4 by 0.3% compared to Q3, despite a October 2023 forecast for sequential growth of 0.7%, evidencing the weakening outlook for industrial production heading into 2024.

In Biopharm (around 50% of Watson-Marlow's sales in 2023, down from around 60% in 2022), customer destocking, which began in the second half of 2022, continued and the recovery in demand that we had anticipated in the second half of 2023 did not materialise. During the second half of 2023, our customers began to indicate higher excess inventory levels than they had originally estimated, with a return to demand growth not expected until late 2024. Despite the challenges associated with forecasting short-term demand, the Biopharm end-markets remain robust and we believe that the underlying growth in demand has continued at its pre-pandemic rate of over 10% per annum.

Industrial Production growth (IP)	2023			2022		
	H1	H2	FY	H1	H2	FY
Europe	-0.1%	0.2%	0.0%	2.2%	0.6%	1.4%
North America	0.7%	0.4%	0.5%	4.0%	2.8%	3.4%
South America	-1.1%	-1.6%	-1.4%	1.9%	1.3%	1.6%
Asia ex-China	-0.6%	1.8%	0.6%	4.0%	1.6%	2.8%
China	0.8%	0.5%	0.6%	0.5%	2.3%	1.4%
Global	0.0%	0.6%	0.3%	2.5%	1.7%	2.1%

Source: CHR 26th February 2024

1 Semicon refers to the Semiconductor Wafer Fabrication Sector

2 Proforma comparisons include contributions from Vulcanic and Durex Industries, as if they had been fully owned by the Group throughout 2022

Chief Executive Officer's Review continued

Market environment continued

In Semicon (around 11% of ETS sales in 2023, down from around 18% of proforma 2022 sales), demand in the first half was lower than we had anticipated and remained subdued through the second half, with our customers indicating a return to growth in 2024. Over the medium-term, Semicon remains an attractive and growing sector. We continue to anticipate strong demand for our niche solutions for precise thermal controls that are incorporated by Original Equipment Manufacturers (OEMs) into Wafer Fabrication Equipment (WFE) utilised in ultra-critical applications.

Other strategic sectors such as Food & Beverage, Oil & Gas and Power Generation proved resilient during 2023, while decarbonisation through electrification remains a growing strategic imperative for customers, reflected in the strong demand we have seen for our products and solutions in Chromalox and Vulcanic.

Strategic progress

Health and Safety[#]

As a result of our continued focus on Health and Safety (H&S) improvement, our all-workplace incident rate (excluding acquisitions) reduced by 11% to 1.55* in 2023.

The Group (excluding acquisitions) Lost Time Accidents (LTA) rate increased to 0.19* from 0.12* in 2022. The increase is in part attributable to our strengthened focus on monitoring and reporting. We have also introduced a category of Serious Lost Time Accidents (SLTA) and, while this increased from 7 to 8 in 2023, the rate remains low at 0.05%*.

Improving safety standards and processes in our most recent acquisitions, Vulcanic and Durex Industries, remains a key priority as we integrate these businesses into ETS. The all-workplace incident rate, LTA and SLTA rates of the two businesses in 2023 (7.55*, 1.32* and 0.47* respectively) reflect the lower priority that was given to measurement and processes around H&S under previous ownership. Both Vulcanic and Durex Industries have embraced our strong H&S focus, allowing us to build an active improvement programme.

In 2023, we introduced a five-year Group Safety Excellence Framework across all three Businesses. The framework aims to establish consistent oversight, align standards and reduce risk across all our operating companies globally, as well as evolving our H&S culture. Material areas of progress in 2023 included completion of an inventory and risk assessment of all machinery and expanding the compulsory personal protective equipment protocols. In 2024, we will conduct a global survey to better understand our H&S culture, complete a baseline of statutory inspections and introduce training to help our colleagues complete root cause analysis. In addition, as part of our commitment to continuous improvement, we have also commissioned an independent review of our approach to H&S.

Expanding our addressable market

All three Group Businesses have continued to develop new solutions, supporting our direct sales engineers to drive growth in target sectors.

STS developed a new Customer Value Proposition to support lithium mining and the related electric vehicle battery sector, helping to expand our addressable market. Following commercial launch of the Group's 'TargetZero' solutions, STS has begun to build a pipeline of long-term opportunities amongst its extensive global customer base. Sales in 2023 included the 'ElectroFit' (a retrofit electric thermal solution to replace gas fired burners in steam generating boilers) installation at a Diageo site in Turkey (with a second to follow in 2024); a first fit 'SteamVolt' (electric boiler solution developed in partnership with our boiler OEM customers) installation for a global Food & Beverage customer in Argentina; and several UK installations of the 'Steam Battery' (a storage solution for steam that can be generated by renewable energy or when electricity costs are at their lowest).

In ETS, Chromalox and Vulcanic have also continued to develop their decarbonisation project pipelines and drive penetration of Medium Voltage technology.

Watson-Marlow successfully transformed its operating model in the mining sector in Australia from a distributor-led approach to direct sales, helping to build customer proximity and strengthen its competitive advantage. Watson-Marlow also launched an important high flowrate range extension for its Qdos pump, targeting the industrial liquid/solid separation market which is an attractive new area of growth.

We also continued to make progress in implementing our digital strategy with an acceleration in the number of STS operating locations and customers that are digitally connected through the Cotopaxi platform, to support solution generation. Watson-Marlow has developed a number of machine-learning protocols aimed at delivering preventative maintenance benefits which will shortly be piloted in a number of sites within the mining sector.

Optimising supply chain effectiveness

Across the Group, we measure customer service levels using a number of metrics including on-time-to-request (OTTR). STS notably achieved a material improvement in its 2023 OTTR performance that had been impacted by supply chain challenges during 2022.

Watson-Marlow established a five-step process to drive operational excellence and efficiencies across its supply sites by delivering ongoing improvements in safety, productivity and procurement practices.

In October, ETS began construction of an expansion to Chromalox's manufacturing site in Ogden, Utah (USA), which will be dedicated to Medium Voltage heating solutions. The US\$58 million project is expected to be completed towards the end of 2024, with production ramping-up in 2025.

[#] We recognise the need to improve safety performance in our recent acquisitions. Therefore, Group data excludes acquisitions data, which is reported separately

* Per 100,000 work hours

Operating sustainably

The Group (excluding acquisitions) continued to improve its sustainability footprint. Energy usage was down by 8% compared to 2022, which supported a reduction of 6% in our absolute scope 1 and 2 market-based greenhouse gas emissions compared to 2022. To date we have achieved a 45% reduction against our 2019 baseline and are on track to achieve our targeted reduction of 50% by 2025. We now have green energy contracts in place for over 60% of the Group's electricity usage and made further progress in implementing Project ClearSky which will materially decarbonise the STS manufacturing facility in Cheltenham (UK).

Water consumption has also reduced across the Group, down by 20% compared to 2022. Building on the momentum of 78 biodiversity projects completed in 2022, a further 135 biodiversity projects were completed in 2023. An area where we recognise the need to make additional progress is reducing the Group's total waste sent to landfill, which remained at 10% in 2023, with additional resource added in this area to help deliver our target of 0% waste to landfill by 2025. Volunteering and community engagement are key elements of our **One Planet Sustainability Strategy** and 3,280 colleagues participated in volunteering activities (36% of the total number of colleagues), with the hours contributed rising by 13% compared to 2022.

Our Sustainability Strategy is being deployed within Vulcanic and Durex Industries.

Acquisitions and Disposals

During the year we continued to focus on the onboarding of Vulcanic and Durex Industries into ETS and the wider Group.

Our acquisition strategy is built around developing our suite of products and solutions with new and enhanced capabilities together with broadening our global presence. In July, we completed the acquisition of a 15% stake in Kyoto Group (Euronext ticker: KYOTO) as part of a strategic investment agreement alongside Iberdrola (IBE ticker: Iberdrola S.A.) to accelerate the decarbonisation of industrial process heat with Kyoto's proprietary '**Heatcube**', a molten salt thermal energy storage solution. Through Vulcanic, we have been working with Kyoto since 2021 to provide the electric immersion heater and power control systems of '**Heatcube**'. Our investment and partnership will support the commercial and technological development of electrical heaters for existing and future generations of '**Heatcube**' and help drive market adoption.

In August 2023, Gestra (part of STS) acquired a small distributor in Malaysia, with whom they have worked closely in the past, to enhance our local presence and engineering capability to develop tailored solutions for the local customer base.

Further details of the operational progress made by each Business are set out in the Operating Review.

Group Executive Committee membership

For the majority of 2023, the Group Executive Committee (GEC) comprised the Managing Directors of our three Businesses, as well as key functional leaders across Finance, HR, Sustainability and Legal. In September 2023, we expanded GEC with the appointment of Maria Wilson, Group Digital Director. Phil Scott joined the GEC in January 2024, following his appointment as Interim Chief Financial Officer (CFO). In the summer, we will be joined by Louisa Burdett, who was appointed CFO in December 2023, and Céline Barroche who takes over as Group General Counsel and Company Secretary, succeeding Andy Robson who is retiring from the Group later this year. I'm delighted to have such a strong, capable and diverse leadership team.

Signed by:

Nimesh Patel

Group Chief Executive Officer
on behalf of the Board of Directors
6th March 2024

Stakeholder engagement

Engineering our future for all stakeholders



Our Purpose guides us to operate in a way that aims to deliver long-term sustainable value for our six stakeholder groups. To do this, we listen and then take decisions in line with our Values to support our colleagues, customers, local communities, the environment, suppliers and shareholders equally.

Across Spirax Group, we aim to create a positive impact in everything that we do by

managing our resources thoughtfully, mitigating our risks and capitalising on the opportunities we see by implementing our strategy for growth.

This section forms part of our Section 172 statement.

- + Board engagement can be found on page 121
- + Key decisions over the year on page 111



Our shareholders

- + Read about how we are creating long-term value for all our shareholders on pages 20-21
- + Discover how we are improving financial controls for a more resilient future on pages 116-117



Our colleagues

- + Find out more about how the Board has engaged with colleagues throughout 2023 on pages 128-131
- + Read about how we are developing talent for the future on pages 16-17



Our customers

- + Find out more about how our Businesses are responding to customer demand on pages 46-57
- + Discover how we are adopting technologies such as artificial intelligence (AI) to deliver digital insights on page 58



Our suppliers

- + Find out how we are working with suppliers to help raise the standards in our supply chain and support them on their sustainability journey on pages 80 and 96-97
- + Learn about how our three Businesses are optimising supply chain effectiveness on pages 46-57



Our communities

- + Learn more about how we are removing barriers to improve equitable access to education in our local communities on pages 82-83
- + Read about how we are supporting our communities around the world through our Giving today for a better tomorrow community engagement programme on page 81



Our environment

- + Learn about the changes we are making in our own operations to deliver environmental improvements on pages 72-78
- + Discover how our new-to-world 'TargetZero' solutions are helping us to decarbonise our manufacturing facilities on pages 92-93

Stakeholder engagement continued

Our colleagues

Why they are important

The knowledge and expertise of our colleagues, aligned to our Purpose, Values-based culture and business model, is core to how we work at Spirax Group. Colleagues often do their best work when they feel valued and included. Diversity in our global teams brings a wide variety of perspectives and leads to stronger and better decision making. Therefore, our ability to attract and retain diverse talent is important for sustainable growth and success.

What matters to them

Colleagues want to work in a culture where they can be themselves, feel they belong, are supported to be at their best and encouraged to make a difference for others as well as our planet. They want to achieve better balance in their work and personal lives, while pursuing opportunities for development and to be fairly rewarded and recognised for their contributions.

How we engaged

- Colleague engagement survey which received 90% participation*
- Colleague engagement forums, including with the Board
- Senior Leader Webinars
- Business and topic specific town hall meetings

What we learnt

- Our inclusion metrics improved on 2021 by five percent* globally as a result of launching our Group Inclusion plan, Everyone is Included in 2022
- The survey told us that colleagues feel positive about being supported to help their local communities (up ten percent* on 2021) through the launch of our Spirax Group Education Fund
- And colleagues are also positive about being supported to be more environmentally responsible (83%* favourable) through our **One Planet Sustainability Strategy**

Outcomes

- Brought forward pay review from March to January 2023 and applied market-leading pay increases globally in response to significant inflationary pressures
- Held our first **Spirit Awards** Ceremony, recognising colleagues for living our Values
- Launched **One Place** (colleague engagement platform and **SPARK** (global learning and development platform)

* Excluding results from our colleagues in businesses acquired in 2022



I am proud to have been able to represent one of the Group's Values and to have won a Spirit Award in the programme's inaugural year. This experience will remain etched in my memory."

Ouardia Djaroun

ADST-S Workshop Manager, Thermocoax, Electric Thermal Solutions

- Global Wellbeing Day – an additional day of paid leave for all colleagues in 2023
- Rolled out our Group Inclusions Commitments to colleagues joining us from Vulcanic and Durex Industries (acquired in Q4 2022)
- Invested further in our Colleague Engagement and Communications capability



Our customers

Why they are important

Spirax Group has three strong and aligned Businesses that provide mission critical solutions to our customers across their thermal energy and fluid path technology processes. To provide more efficient, safer and sustainable outcomes for our customers through solving their operational challenges, we must first understand their unique and evolving needs.

What matters to them

Customers want trusted product quality combined with local knowledge, insights, expertise and speed of response. Solving what was previously an unrecognised need can often be fundamental to the efficiency, safety and sustainability of our customers' operations. This reinforces the importance of our direct sales business model to customers with our engineers able to 'walk their plants' or increasingly through the advent of digital connectivity, 'walk their plants' data', converting insights into solutions.

How we engaged

- 2,100 direct sales and service engineers maintaining close relationships
- Voice of customer (listening) activities and field trials of new products
- Digital connectivity, insights and solutions
- Engagement with customers in Pharmaceutical & Biotechnology and Semiconductor sectors to assist with demand planning
- Three customers shared perspectives of working with Spirax Group at our 2023 Leadership Conference

What we learnt

- Learnings from installations of our **TargetZero** solutions at customer sites
- How well positioned we are to address customer concerns about how to transfer heat into their industrial processes while still meeting their net zero goals
- The acceleration of demand from customers for electrification solutions
- Increasing commonality of shared customers across our three Businesses
- There is high focus on shortening product development times in the Semiconductor sector



I enjoyed meeting with the leaders of Spirax Group last year to share insights from Tetra Pak and highlight the five areas that we focus on within our partnership values relationship model."

Dariusz Koziarkiewicz

Category Manager, OEM Flow & Mechanic Systems, Tetra Pak Packaging Solution AB

Outcomes

- Commercialisation of **TargetZero**, our solutions for the decarbonisation of steam generation
- Investment in Project ClearSky, to decarbonise our UK Steam Thermal Solutions manufacturing solutions using all our **TargetZero** solutions
- US\$58m investment in expansion of our Ogden manufacturing facility, Utah (USA) to accelerate production of electrification and decarbonisation solutions
- Investment in Kyoto Group to accelerate the decarbonisation of industrial process heat with Kyoto's **Heatcube**, a molten salt thermal energy storage solution
- Establishment of a Semiconductor New Product Development Group in response to shortened customer product development times in the sector

Stakeholder engagement continued



Our communities

Why they are important

Many of our colleagues are also members of our local communities. It's where they and their families live. A thriving community is good for business too. By looking after our communities, we create a real sense of community spirit and we help to protect the most vulnerable people in society. Through a sustainable approach to investment in education, we can also help secure our pipeline of future talent.

What matters to them

Local communities want to be engaged and feel supported by businesses operating on their doorsteps. They understand that business and communities can create mutual benefit and that current and future generations flourish when those relationships are working well.

How we engaged

- Encouraged our colleagues to nominate their local education projects to receive funding from the Spirax Group Education Fund
- Proactively identified local needs and responded to requests for support through local operating companies
- Responded to requests for support due to natural disasters
- Representatives from two funded projects met and presented to leaders at the Group leadership conference on the impact made from funding received

What we learnt

- Issues of diversity, gender inequality, poverty and access to quality education are closely intertwined, with poverty a primary barrier to education
- That providing longer term support to causes enables them to show funding stability and to access further funding from other avenues
- The challenges of financing charitable operations in a high-inflationary environments

Outcomes

- Supported our communities with over 25,000 volunteering hours delivered by colleagues in 2023
- Donated over £75,000 to funds to support those affected by earthquakes in Turkey, Syria and Morocco
- Increased our financial commitment to the Spirax Group Education Fund pledging £15 million by 2030



Your extraordinary support has not only built walls and roofs but has woven dreams, painted aspirations, and constructed a gateway to a brighter tomorrow for the children. We did not just build a school, by working together we built bridges of hope and knowledge that echo in every classroom.”

Shaimaa Tantawy

CEO, Man Ahyaha Association, Egypt



Our environment

Why it is important

The Earth's temperature is rising. This rise in global temperature is already having a devastating impact on the environment. We need to take action now for our future because we only have One Planet. That's why we actively promote local biodiversity initiatives to support the habitats in the locations where our colleagues work.

What matters to it

Across the globe, Governments, Environmental Agencies, businesses and industry, as well as the wider population, are becoming increasingly concerned about the future of our planet and are taking more actions to limit the global temperature rise, to increase sustainable practices and protect the Earth's precious resources and biodiversity.

How we engaged

- Implemented local biodiversity initiatives on or close to our sites
- Assessed and developed landscaping planting schemes to improve the biodiversity as part of major construction projects
- Focused on our top five internal consumers of water and waste in in each Business by engaging colleagues to make improvements

What we learnt

- Identified areas where we needed to preserve and encourage biodiversity at our sites
- Understood where we could make the biggest improvements in water and waste

Outcomes

- Reduced greenhouse gas emissions from our own operations
- Undertaken biodiversity initiatives and worked towards delivering a 10% net gain on new sites
- Decreased our water consumption by improving efficiency at our sites and increasing colleague engagement
- Funded the protection of a further 572 acres of land on the Somuncurá Plateau in Argentinian Patagonia, equivalent to our operating footprint (including acquisitions)



Our biodiversity-focused partnership with Spirax Group is now in its third year. Each year the Group has safeguarded an equal amount of land to its physical operating footprint, which has enabled World Land Trust and our partners to bring an incredible 1,656 acres of threatened tropical habitat under protection."

Tracey Butler

Corporate Partnerships Manager, World Land Trust

Stakeholder engagement continued



Our suppliers

Why they are important

As we progress towards our ambition of becoming a leader in industrial sustainability, we recognise the importance of achieving sustainable supply chains. By working closely with our direct suppliers we aim to achieve a sustainable supply chain and reach our 2050 net zero targets which have been approved by the SBTi Net-Zero Standard.

What matters to them

Many of our suppliers care about the impact they have on the planet and want to form mutually beneficial, long-term partnerships that help them fulfil their potential, as well as their sustainability goals as they continue on their journey.

How we engaged

- Supplier sustainability surveys on ten different topics
- Supplier Sustainability Portal training and One Planet introduction webinars
- 1-2-1 meetings

What we learnt

- An understanding of where our supply chain is today on its sustainability journey so we can establish strategies for the future
- Understanding of where there are sustainability risks in our supply chain so we can explore further
- Identified a need to upskill our teams so they can have better conversations with our suppliers about sustainability

Outcomes

- Over 1,800 direct suppliers signed up to our updated Supplier Sustainability Code at the end of 2023
- Development and delivery of webinars to support suppliers with completing sustainability surveys
- 825 training courses completed by our internal teams equipping them to proactively engage with suppliers on sustainability topics



Our **One Planet Sustainability Strategy** set out the minimum standards we expect from our suppliers. Helping our suppliers meet these minimum standards is not just important for us, it will make a positive difference to their operations and the planet.”

Sarah Peers

Group Director of Sustainability

Our shareholders

Why they are important

When our shareholders understand, believe in and benefit from what we do, they continue to support us both now and into the future.

What matters to them

Accurate, transparent and reliable communications and a return on their investments in both the short and long term.

How we engaged

- Presentations of our Full and Half Year Results
- Annual General Meeting
- Steam Thermal Solutions Investor Seminar
- Investor roadshows and sell-side conferences
- Investor meetings and site tours

What we learnt

- Key areas of concern and interest for shareholders
- Market perception of macro and micro events and how that might influence their approach to investing in Spirax Group

Outcomes

- Continue holding a mixture of virtual and in-person events
- Constant review of information presented to the market to ensure it continues to be valuable and insightful



We have deepened and broadened our investor engagement during 2023 and look forward to maintaining a constructive dialogue with all our shareholders in 2024.”

Mal Patel

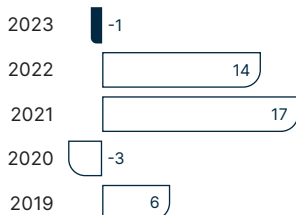
Head of Investor Relations, Spirax Group

Key performance indicators

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

1. Organic revenue growth†

-1%



[Link to Principal Risk](#)



[Link to Strategy](#)



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 2023

Sales increased by 8% organically in Steam Thermal Solutions and by 2% organically in Electric Thermal Solutions, but decreased by 19% organically in Watson-Marlow.

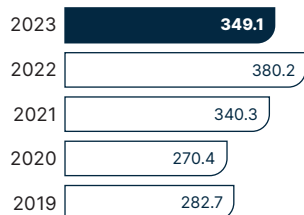
+ Read about the progress we have made in 2023 in our three Businesses in the Operating Review on pages 46 to 57

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.

2. Adjusted operating profit*

£349.1m



[Link to Principal Risk](#)



[Link to Strategy](#)



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 2023

Adjusted operating profit decreased by 8%, reflecting an organic decrease of 12%, alongside a decrease of 2% due to exchange rates and a 6% increase from the full year impact of acquisitions.

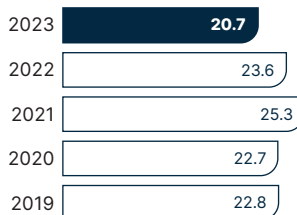
+ Read about the progress we have made in 2023 in our three Businesses in the Operating Review on pages 46 to 57

Link to remuneration

A significant proportion of Executive Directors' bonuses are based on the achievement of adjusted operating profit targets.

3. Adjusted operating profit margin*

20.7%



[Link to Principal Risk](#)



[Link to Strategy](#)



Definition

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

Progress in 2023

Decreased by 290 bps to 20.7%. On an organic basis, the adjusted operating profit margin decreased by 270 bps.

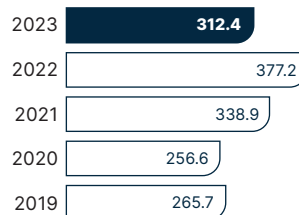
+ Read about the progress we have made in 2023 in our three Businesses in the Operating Review on pages 46-57

Link to remuneration

Executive Directors' variable remuneration is based on a number of financial components of which adjusted operating profit margin is a key driver.

4. Adjusted earnings per share (EPS)*

312.4p



[Link to Principal Risk](#)



[Link to Strategy](#)



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 2023

Decreased by 17% to 312.4 pence, in line with the decrease in adjusted profit before tax.

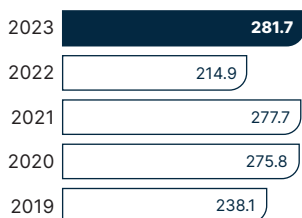
+ Read about the progress we have made in 2023 in our three Businesses in the Operating Review on pages 46-57

Link to remuneration

EPS growth over a three-year period is a key measure within the Group's Performance Share Plan.

5. Cash generation*

£281.7m



[Link to Principal Risk](#)



[Link to Strategy](#)



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 2023

Cash conversion improved to 81%, mainly driven by the phasing of a number of larger capital projects and lower working capital outflows.

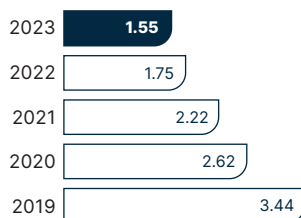
+ Read about the progress we have made in 2023 in our three Businesses in the Operating Review on pages 46 to 57.

Link to remuneration

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

6. All-workplace Injury rate^

1.55



[Link to Principal Risk](#)



[Link to Strategy](#)



Definition

The number of workplace injuries per 100,000 hours worked. 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 2023

Our all-workplace injury rate decreased during 2023, falling from 1.75 per 100,000 hours in 2022, to 1.55 per 100,000 hours in 2023, which is an early indication of our wider risk reduction strategy making an impact.

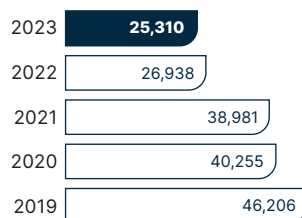
+ Read about the progress we have made in 2023 in our three Businesses in the Sustainability Report on pages 60 to 97

Link to remuneration

The safety of our colleagues 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.

7. Group GHG emissions (scope 1 and 2) tonnes CO₂e (market-based)^

25,310 tonnes



[Link to Principal Risk](#)



[Link to Strategy](#)



Definition

Scope 1 greenhouse gas (GHG) emissions arise directly from company-owned or company-controlled sources, such as company vehicles or fuel combustion. Scope 2 GHG emissions are indirect emissions, primarily from the generation of purchased electricity. Market-based emissions take into account contractual and supplier-specific GHG emissions factors.

Progress in 2023

GHG (scope 1 and 2) decreased by 6% compared to 2022 and by 45% against our 2019 baseline due to decarbonisation initiatives, an increase in operational efficiency and transition to renewable electricity supply.

+ Read about the progress we have made in 2023 in our three Businesses in the Sustainability Report on pages 60 to 97

Link to remuneration

GHG emission reductions over three-year periods accounts for 20% of the Performance Share Plan opportunity.

Principal Risks

1. Economic and political instability
2. Significant exchange rate movement
3. Cybersecurity
4. Failure to realise acquisition objectives
5. Loss of manufacturing output at any Group factory
6. Inability to identify and respond to changes in customer needs: Digital/ Non-Digital
7. Loss of critical supplier
8. Breach of legal and regulatory requirements (including ABC laws)

Link to Principal Risk key:

- Direct link
- Indirect link
- No link

+ See our Principal Risks on pages 101–105 of our Risk Management Report

+ More information about remuneration, see pages 155–178

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

^ Excluding 2022 acquisitions

Per 100,000 hours worked

Strategic themes

- 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 our R&D investments.
- Optimise our supply chain effectiveness.
- Operate sustainably and help improve our customers' sustainability.

Financial Review

Early actions taken in response to challenging trading environment

Revenue (£)

£1,682.6m

Operating profit (£)

£349.1m



The Group has balanced continuing strategic investment alongside restructuring and cost containment as we have navigated 2023. Our business model positions us well to deliver future growth.”

Phil Scott
Interim Chief Financial Officer

£m	2022	Exchange	Organic	Acquisitions & disposals*	2023	Organic	Reported
Revenue	1,610.6	(27.2)	(16.0)	115.2	1,682.6	-1%	+4%
Adjusted operating profit	380.2	(7.1)	(45.9)	21.9	349.1	-12%	-8%
Adjusted operating profit margin	23.6%				20.7%	-270bps	-290bps
Statutory operating profit	318.8				284.4		-11%
Statutory operating profit margin	19.8%				16.9%		-290bps

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

To aid comparability with the prior year we refer to both organic and proforma performance measures in the commentary below. Organic performance measures include the contribution of Vulcanic and Durex Industries only for the like-for-like periods of ownership. Proforma comparisons include contribution from Vulcanic and Durex Industries, as if they had been fully owned by the Group throughout 2022.

Sales

Group sales grew by 4%, with full year contributions from Vulcanic and Durex Industries (acquired in late 2022) partly offset by the disposal of our Russian operations, which had a small adverse impact. Group sales were 1% lower organically, compared to 2022, being 2% higher in the first half and 4% lower in the second half.

Organic sales growth in STS (8%) was significantly ahead of IP albeit with strong first half growth of 15% moderating to 2% in the second half. Second half trading was characterised by weakening macroeconomic conditions, especially in China and Germany. Large project orders were higher, compared to 2022, with growth significantly weighted to the first half of the year, reflecting customers' weakening confidence in the economic outlook and reduction in capital investment through the course of the year.

Organic sales growth in ETS (2%) was supported by demand from industrial process heating customers in Chromalox. Thermocoax sales were flat, compared to 2022, due to lower demand from Semicon customers. Chromalox's manufacturing facility in Ogden, Utah (USA) continued to implement operational improvements aimed at increasing throughput, but sales lagged the even stronger growth in demand for bespoke solutions that deliver decarbonisation benefits. We remain focused on delivering higher sales from Ogden while also completing the facility expansion.

On a proforma basis, Vulcanic sales were higher, also supported by demand from industrial process heating customers. However, this growth was more than offset by significantly lower sales in Durex Industries due to lower demand from Semicon customers (accounting for approximately 55% of Durex Industries sales in 2022), with combined proforma sales down by 6%.

Watson-Marlow sales were down by 19% organically, driven by ongoing destocking by Biopharm customers, which began in the second half of 2022. During 2023, the organic decline in Biopharm sales was greater in the first half than in the second half as a result of the more challenging comparator. Biopharm sales remained broadly flat in the second half compared to the first half. Sales to Process Industries customers, which are more directly correlated to IP, were broadly flat in the first half, compared to 2022. In the second half of 2023, Process Industries demand was impacted by the weakening macroeconomic outlook, with sales broadly similar to the first half.

Adjusted operating profit

Group adjusted operating profit was down 8%, or 12% organically. Strong organic growth in adjusted operating profit in STS of 15%, driven by higher sales and cost containment initiatives, was offset by organic declines in operating profit in ETS (4%) and Watson-Marlow (43%). Watson-Marlow's adjusted operating profit includes a one-off charge in respect of excess Biopharm inventories in the second half.

Corporate expenses, which are included in adjusted operating profit, grew by 8% to £27.8 million (2022: £25.8 million). This increase reflects ongoing investment to support key strategic initiatives, partially offset by cost containment measures and reduced variable compensation. We expect corporate expenses in 2024 to increase at more than twice the rate of Group organic sales growth due to: increased investment in strategic initiatives; the reversal of cost containment measures in the first half; and an increase in variable compensation, subject to performance targets being achieved.

Adjusted operating profit margin

Group adjusted operating profit margin of 20.7% was down 270 bps organically, reflecting the impact of lower sales from our higher margin businesses, partially mitigated by strong price discipline even as cost inflationary pressures eased and the benefits of early restructuring and cost containment actions.

STS adjusted operating profit margin of 24.6% saw strong organic progression (up 140 bps), reflecting sales growth, cost containment initiatives and strong pricing discipline. Sequentially, the second half margin was slightly higher than the first half margin. However, the second half margin was impacted by weakening IP in China and Germany as well as a slowdown in large projects sales, resulting in a smaller organic increase than in the first half, compared to 2022.

The increase in the STS adjusted operating profit margin was offset by organic declines in ETS (90 bps) and Watson-Marlow (1,030 bps).

The organic decline in the ETS adjusted operating profit margin primarily reflects the impact of lower sales to customers in the higher margin Semicon sector, but also investments in onboarding costs for Vulcanic and Durex Industries and ongoing operational improvement initiatives in Chromalox's Ogden facility. On a proforma basis ETS adjusted profit margin (15.6%) was 300 bps lower, compared to 2022.

Chromalox and Thermocoax combined adjusted operating profit margin in the second half of 2023 was above both the first half of the year and the second half of 2022. Excluding onboarding costs, Vulcanic adjusted operating profit margin in 2023 was also higher, compared to 2022. Durex Industries suffered a significant decline in adjusted operating profit margin as a result of lower Semicon demand despite cost actions.

Watson-Marlow's adjusted operating profit margin of 23.8% fell by 1,030 bps organically. Although sales were broadly similar across the first half and second half, the second half adjusted operating profit margin benefited from restructuring actions taken during the first half, offset by a one-off charge in respect of excess Biopharm inventories.

Financial Review continued

Statutory operating profit and margin

Statutory operating profit decreased by 11% to £284.4 million (2022: £318.8 million) and the statutory operating profit margin of 16.9% was down 290 bps (2022: 19.8%). Statutory operating profit and statutory operating profit margin are impacted by the same drivers as explained in the adjusted operating profit sections above, as well as the reconciling items as follows:

- Charges of £5.7 million relating to the acquisitions of Vulcanic and Gestra Malaysia. Included within this amount is a charge of £4.9 million which represents the fair value movement in deferred consideration payable by Vulcanic in relation to the acquisition of EML Manufacturing LLC in 2021
- A charge of £37.2 million (2022: £23.7 million) for the amortisation of acquisition-related intangible assets. The year-on-year increase was driven by a full year of amortisation of the intangible assets relating to Vulcanic and Durex Industries which were acquired in late 2022
- A charge of £1.3 million from the reversal of fair value adjustments to inventory on the acquisition of Vulcanic
- A profit of £0.4 million on the disposal of Econotherm (UK) Ltd, an associate investment
- A restructuring charge of £7.5 million in Watson-Marlow to appropriately right-size manufacturing capacity and reduce overhead support costs in order to offset the adverse impact of lower sales volumes; and a £1.8 million charge in relation to the impairment of non-current assets in Watson-Marlow
- A credit of £2.3 million relating to the release of the provision held in Chromalox for the restructuring of its manufacturing operation in Soissons (France)
- A one-off impairment charge of £13.9 million relating to a global ERP programme implementation within STS (further details are set out in the STS operating review)

Net financing expense

Net financing expenses increased to £39.9 million (2022: £10.7 million) comprising £35.6 million of net bank interest (2022: £8.4 million), £2.1 million of interest on pension liabilities (2022: £0.8 million) and £2.2 million of interest on lease liabilities (2022: £1.5 million). Bank interest increased due to the full year impact of higher net debt following the acquisitions of Vulcanic and Durex Industries at the end of 2022, together with the refinancing of maturing fixed rate debt at higher interest coupons due to increases in market interest rates.

Profit before tax

Adjusted profit before tax was down 17% to £309.2 million (2022: £370.6 million), driven by an 8% decrease in adjusted operating profit and additional net financing expense. Statutory profit before tax was down 21% to £244.5 million (2022: £308.1 million). The reconciling items between adjusted profit before tax and statutory profit before tax are shown above and in the Appendix to the Financial Statements.

Taxation

The Group tax rate reflects the blended average of rates in tax jurisdictions around the world in which the Group operates. As expected, the Group adjusted effective tax rate increased by 50 bps to 25.5% (2022: 25.0%) and on a statutory basis the Group effective tax rate was 24.7% (2022: 27.0%). The increase in the Group adjusted effective tax rate was driven by changes in the Group's profit mix by tax jurisdiction, including the impact of a full year of ownership of Vulcanic and Durex Industries, together with the impact of increased withholding tax on intra-Group dividend payments when combined with lower adjusted profit.

The Group is subject to a local tax adjustment in Argentina that seeks to offset the impact of inflation on taxable profits. Given the current level of inflation in Argentina, this has a meaningful impact on the effective tax rate. While we include the expected impact of this adjustment in our guidance for the effective tax rate, this is difficult to accurately forecast given the current volatility of Argentinian inflation.

The Group monitors income tax developments in the countries in which it operates, including the OECD Base Erosion and Profit Shifting (BEPS) initiative to set a minimum global tax rate of 15% (Pillar Two). The main jurisdiction where this initiative may impact the Group is in Argentina as the impact of the inflation adjustment may result in a local tax rate that falls below 15%. As noted above, given the volatility of Argentinian inflation it is difficult to accurately forecast its impact on the Group's tax charge. The Group is continuing to monitor the impact of the Pillar Two income taxes legislation on its future financial performance.

On 8th June 2022, the European Union (EU) General Court published its decision on the appeals for annulment made against the European Commission's (EC) 2019 decision that certain aspects of the UK's Controlled Foreign Company regime constituted State Aid, finding in favour of the EC. The UK Government has appealed the decision of the EU General Court. Whilst the EU General Court ruling was in favour of the EC, our assessment is that there are grounds for successful appeal. As a result, we have continued to recognise a receivable of £4.9 million in the Consolidated Statement of Financial Position. This relates to the full amount paid to HM Revenue & Customs for Charging Notices received in 2021. We have not recognised a receivable for any repayment interest on the £4.9 million. The Group has not received a Charging Notice for either the benefit received prior to 2017, which is estimated to be £2.9 million, or the benefit received during 2019 of £1.1 million. No provisions have currently been recognised relating to these amounts and therefore they remain a contingent liability at 31st December 2023.

For 2024, we currently anticipate that the Group adjusted effective tax rate will increase by up to 100 bps, compared to 2023, to approximately 26.5% based on a forecast mix of profits and level of inflation in Argentina.

Earnings per share

Adjusted basic earnings per share decreased by 17% to 312.4 pence (2022: 377.2 pence), consistent with the decrease in adjusted operating profit and increased net financing costs. Statutory basic earnings per share were 249.5 pence (2022: 305.1 pence). The statutory fully diluted earnings per share were not materially different to the statutory basic earnings per share in either year.

Dividends

The Group has a progressive dividend policy, the aim of which is to provide sustainable, affordable dividend growth. The Group has a 55-year track record of dividend progress with a compound annual increase of 11% over that period.

The Board is proposing a final dividend of 114.0 pence per share for 2023 (2022: 109.5 pence) payable on 24th May 2024 to shareholders on the register at 26th April 2024. Together with the interim dividend of 46.0 pence per share (2022: 42.5 pence), the total dividend for the year is 160.0 pence per share, an increase of 5% on the total dividend of 152.0 pence per share in 2022. Dividend cover in 2023 will reduce to 2.0x, the lower end of the Group's target range of 2.0x to 2.5x, improving over the medium-term as a recovery in demand drives earnings growth.

The total amount paid in dividends during the year was £114.9 million, 11% above the £103.6 million paid in 2022.

Currency movements

The Group's Income Statement and Statement of Financial Position are exposed to movements in a wide range of different currencies. This stems from our direct sales business model, with a large number of local operating companies. These currency exposures and risks are managed through a rigorously applied Treasury Policy, typically using centrally managed and approved simple forward contracts to mitigate exposures to forecast future cash flows and avoiding the use of complex derivative transactions. The largest individual currency exposures are to the euro, US dollar, Chinese renminbi and Korean won. Whilst the size of the Group's businesses in Argentina is immaterial to the consolidated financial results, the level of volatility in the Argentinian peso has had a negative translational impact on Group reported financial performance. While currency effects can be significant, the structure of the Group

provides some mitigation through our regional manufacturing presence, diverse spread of geographic locations and through the natural hedge of having a high proportion of our overhead costs in the local currencies of our operating companies.

Currency movements negatively impacted adjusted operating profit by 2% with a transactional benefit of £5.9 million being offset by a translational downside of £13.0 million. The translation downside reflects the impact of the strengthening of sterling in 2023 against the currencies in which the Group generated its adjusted operating profit. The main transactional exposure flow affecting the Group is the export of products from our factories in the UK, invoiced in sterling, less the import of goods from overseas Group factories and third parties priced predominately in euros and US dollars. The net exposure to transactional currency movements is approximately £120 million.

If exchange rates at the end of February were to prevail for the remainder of 2024, there would be a headwind impact of approximately 3% on 2023 sales, or approximately 2% excluding the significant devaluation of the Argentine peso in December 2023. On the same basis, the headwind impact on 2023 adjusted operating profit would be approximately 5%, or approximately 2% excluding the Argentine peso devaluation.

Capital employed

Capital employed increased by £46.2 million to £938.7 million at 31st December 2023. Tangible fixed assets (property, plant & equipment and right-of-use-assets) increased by £61.8 million to £513.5 million, principally as a result of the completion of the new manufacturing facility for Watson-Marlow in Devens, Massachusetts (USA) together with the commencement of the construction project to expand the Chromalox facility in Ogden, Utah (USA) in order to meet customer demand for Medium Voltage decarbonisation solutions.

Net capital expenditure in the period was £102.8 million. This was lower than anticipated as a result of changes in the phasing of payments on a number of large capital projects. In 2024, we expect the ratio of capital expenditure to sales to increase to 7% reflecting the impact of phasing delays from 2023 together with the ongoing expansion of the Ogden facility.

The capital intensity of our business is low with historic capital expenditure typically amounting to between 4% and 6% of sales. Excluding our investment in new construction projects, capital expenditure, as a percentage of sales, would be at the low end of our typical range.

Total working capital increased by £9.3 million and the ratio of working capital to sales was, as expected, 22.8% (2022: 22.8% on a proforma basis). It is expected that the working capital to sales ratio will remain at a consistent level in 2024.

	2023 £m	2022 £m
Capital employed		
Property, plant and equipment	415.1	384.5
Right-of-use assets	98.4	67.2
Software & development costs	42.3	44.5
Non-current prepayments	1.9	2.0
Inventories	285.2	290.0
Trade receivables	299.8	341.1
Other current assets	71.4	79.6
Tax recoverable	13.6	19.0
Trade, other payables and current provisions	(260.7)	(295.0)
Current tax payable	(28.3)	(40.4)
Capital employed	938.7	892.5
Acquired intangibles including goodwill	1,087.0	1,159.1
Investment in Associate	3.0	—
Post-retirement benefits	(51.4)	(52.1)
Net deferred tax	(37.2)	(59.1)
Non-current provisions and long-term payables	(19.0)	(15.0)
Lease liabilities	(96.7)	(65.2)
Net debt	(666.7)	(690.4)
Net assets	1,157.7	1,169.8
Adjusted operating profit	349.1	380.2
Adjusted operating profit (excluding acquisitions, disposals and leases)	317.7	369.9
Average capital employed	915.6	775.9
Average capital employed (excluding acquisitions, disposals and leases)	772.4	677.5
Return on capital employed	38.1%	49.0%
Return on capital employed (excluding acquisitions, disposals and leases)	41.1%	54.6%

Financial Review continued

Capital employed continued

Return on capital employed (ROCE)

ROCE reduced by 1,090 bps to 38.1% (2022: 49.0%). Excluding the impacts of acquisitions, disposals and leases, ROCE decreased by 1,350 bps to 41.1% (2022: 54.6%), driven by capital investments as well as the impact of the challenging trading environment on adjusted operating profit. ROCE is defined in the Appendix to the Financial Statements, see page 243.

Return on invested capital (ROIC)

ROIC decreased by 480 bps to 13.5% (2022: 18.3%). Excluding the impacts of acquisitions, disposals and leases, ROIC decreased by 430 bps to 17.7% (2022: 22.0%), driven by a decrease in adjusted operating profit after tax. ROIC is defined in the Appendix to the Financial Statements, see page 243.

Adjusted cash flow

Adjusted cash from operations is a measure of the cash flow generated from our operating companies. A reconciliation with statutory operating cash flow can be found in the Appendix to the Financial Statements.

Adjusted cash from operations of £281.7 million (2022: £214.9 million) was up £66.8 million, resulting in an improved adjusted cash conversion of 81% (2022: 57%). The improvement in cash conversion was driven by lower than anticipated capital expenditure (as outlined above) together with a lower working capital outflow which offset the fall in adjusted operating profit.

Tax paid in the period of £90.7 million (2022: £90.0 million) has remained relatively consistent year-on-year. Adjusted free cash flow of £153.3 million (2022: £116.1 million) has increased by 32% driven by improved adjusted cash from operations but negatively impacted by increased net interest payments in the period.

Dividend payments were £114.9 million (2022: £103.6 million) including payments to minority shareholders, and reflect the final dividend for 2022, as well as the interim dividend for 2023.

Share purchases, net of new shares issued for the Group's various employee share schemes, resulted in a cash outflow of £10.8 million (2022: £19.0 million) reflecting a lower vesting of the Group's Performance Share Plan.

Acquisitions (net of disposals) during the year amounted to £7.7 million (2022: £538.3 million), primarily reflecting the purchase by Gestra of a local Malaysian distributor and the acquisition of a 15% stake in Kyoto Group.

Restructuring spend of £8.1 million relates primarily to the right-sizing of capacity and overhead support costs undertaken in Watson-Marlow.

The £31.5 million increase in lease liabilities was largely driven by the lease commitment for the Watson-Marlow manufacturing facility in Devens, Massachusetts (USA).

	2023 £m	2022 £m
Adjusted Cash flow		
Adjusted operating profit	349.1	380.2
Depreciation and amortisation (excl. leased assets)	44.2	36.0
Depreciation of leased assets	16.2	13.4
Cash payments to pension schemes more than the charge to adjusted operating profit	(5.7)	(5.3)
Equity settled share plans	6.1	8.9
Working capital changes	(9.3)	(91.9)
Repayments of principal under lease liabilities	(16.1)	(12.9)
Capital expenditure (including software and development)	(102.8)	(117.5)
Capital disposals	—	4.0
Adjusted cash from operations	281.7	214.9
Net interest	(37.7)	(8.8)
Income taxes paid	(90.7)	(90.0)
Adjusted free cash flow	153.3	116.1
Net dividends paid	(114.9)	(103.6)
Purchase of employee benefit trust shares/Proceeds from issue of shares	(10.8)	(19.0)
(Acquisitions)/Disposals of subsidiaries	(7.7)	(538.3)
Restructuring costs	(8.1)	(3.2)
Cash flow for the year	11.8	(548.0)
Exchange movements	11.9	(11.9)
Opening net debt	(690.4)	(130.5)
Net debt at 31st December	(666.7)	(690.4)
Lease liability	(96.7)	(65.2)
Net debt and lease liability at 31st December	(763.4)	(755.6)

Financing and Liquidity

Net debt (excluding leases) at the 31st December 2023 was £666.7 million (FY 2022: £690.4 million), with a net debt to EBITDA ratio of 1.7x (2022: 1.7x on a reported basis and 1.5x on a proforma basis).

As at the 31st December 2023, total committed and undrawn debt facilities amounted to £294.5 million alongside a net cash balance of £212.8 million. In the year, the Group issued €110m of new US Private Placement notes at a fixed coupon of 4.38% and entered into a Bank Term Loan of €90m in order to refinance the €225m of 1.05% fixed coupon notes that matured in September 2023. The average tenor of our debt is over four years with the next contractual repayment maturity in October 2025. In February 2024, the Group successfully exercised an option to extend the maturity of our £400 million committed, revolving credit facility by an additional year to April 2029.

Fundamentals of financial resilience

The macroenvironment was challenging in 2023 with global industrial production growth (IP) of 0.3% compared to 2.1% in 2022. IP was also materially lower than had been forecast at the beginning of the year (1.4%) with downward revisions to second half growth particularly marked in North America and China.

Additionally, the Group was impacted by two specific external challenges in our Pharmaceutical & Biotechnology (Biopharm) and Semiconductor sectors, due to customer destocking which led to weaker sales in Watson-Marlow and ETS respectively. Despite this challenging backdrop the financial results delivered reflect the relative resilience of our business model. We have continued to focus on organic growth opportunities led by our direct sales model delivering engineering solutions for our diversified customer base. We took early action across all three Businesses to appropriately right-size capacity and support overhead costs whilst also protecting our ability to respond to future growth in demand whilst continuing to invest in key strategic initiatives that will drive future growth including supporting our decarbonisation solutions and building additional digital capability. The Group's longstanding track record of increasing returns to shareholders has continued with a proposed year-on-year increase of 5% in ordinary dividends.

The Group's products and solutions continue to support critical industrial processes across a broad range of industries and geographical markets. As in previous years, our business model supported our outperformance against global IP due to our ability to self-generate sales (accounting for 40% of sales) and a significant base business in maintenance and repair sales (accounting for 45% of sales). These sales are funded from our customers' operating budgets. The remaining 15% of sales are related to large projects, funded from customers' capital expenditure budgets, which are more heavily influenced by economic cycles. Approximately 60% of our sales are to defensive, less cyclical sectors and no single customer accounts for more than 1% of Group sales.

Resilience over the short, medium and long term

The Group's business model and the investments we have continued to make to support future growth, combined with our strong cash conversion, position us well to adapt to economic cycles. Our Going Concern and Viability analysis provides confidence in the robust nature of our business and our capital structure, even when analysed under a number of potential downside scenarios.

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

Going Concern statement

The Group's principal objective when managing liquidity is to safeguard the ability to continue as a going concern for at least 12 months from the date of signing the 2023 Annual Report. The Group retains sufficient resources to remain in compliance with all the required terms and conditions within its borrowing facilities with material headroom and no material uncertainties have been identified.

The Group continues to conduct ongoing risk assessments on its business operations and liquidity. Consideration has also been given to reverse stress tests, which seek to identify factors that might cause the Group to require additional liquidity and form a view as to the probability of these occurring.

The Group's financial position remains robust, with the next maturity of our committed debt facilities being US\$150 million of Bank Term loan which matures in October 2025 and which are accounted for within the cash flow forecast model. The Group's debt facilities contain a leverage covenant of up to 3.5x. Certain debt facilities also contain an interest cover covenant of a minimum of 3.0x. The Group regularly monitors its financial position to ensure that it remains within the terms of these debt covenants. At 31st December 2023 leverage (defined as net debt excluding lease liabilities divided by adjusted earnings before interest, tax, depreciation and amortisation) was 1.7x (2022: 1.7x), Interest cover (defined as adjusted earnings before interest, tax, depreciation and amortisation divided by net bank interest) was 10x at 31st December 2023 (2022: 58x).

Reverse 'stress testing' was also performed to assess the 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 cash flow modelling 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. Such actions would serve to further increase covenant headroom.

Having assessed the relevant business risks as discussed in our Principal Risks on pages 101-105 and having considered the potential impact of any climate change related risks as outlined within the Task Force on Climate-related Financial Disclosures section on pages 84-91, and in the context of the liquidity and covenant headroom available under several alternative scenarios as set out in the viability assessment below, the Directors consider it appropriate to continue to adopt the going concern basis in preparing the Financial Statements.

Financial Review continued

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. The eight Principal Risks that have been identified are listed on page 101.

The Board has adopted a five-year viability assessment, which it believes to be appropriate as this timeframe is covered by the Group's forecasts; takes into account the nature of the Group's Principal Risks, a number of which are external and have the potential to impact over short time periods; and is in alignment with the Group's principal committed 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 cash flow 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 risks, the Company's ability to safeguard against 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 that support this process are as follows.

Scenarios modelled

Scenario 1: Revenue Fall

We considered a combination of scenarios in which future sales were adversely impacted in all years of the assessment period. The reductions reflected the combined impact of economic political instability on global Industrial Production output, material foreign exchange rate fluctuations and a loss of output at a significant Group manufacturing site.

We assumed a reduction of 17% in sales with a margin drop through that is consistent with our base case scenario and assumed no mitigating actions were taken by the Group. Despite these impacts the Group continued to trade profitably and always remained comfortably within the financial covenants in the external financing facilities.

Links to Principal Risks

Risk 1: Economic and political instability

Risk 2: Significant exchange rate movement

Risk 5: Loss of manufacturing output at any Group factory

Risk 6: Inability to identify or respond to changes in customer needs

Risk 7: Loss of critical supplier

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 2023 Adjusted Group Operating Profit was assumed alongside a negative impact of 10% on Revenue resulting from the associated reputational damage. The Revenue fall of 10% occurs in 2024 and recovers over the 5 year period modelled.

Despite these impacts the Group continued to trade profitably and always remained comfortably within the financial covenants in the external financing facilities.

Risk 8: Breach of legal and regulatory requirements (including ABC laws)

Scenario 3: Cyber Attack

We considered the occurrence of a cyber-attack that succeeds in severely impacting Group systems. We assumed an immediate disruption to trading followed by a fall in sales in subsequent years resulting from the associated negative reputational impact, the combined effect being a loss of 5% of sales in each year over the 5 year period. A significant initial cost of around 7% of the 2023 Adjusted Group Operating Profit was also included to rectify the immediate impact of the attack followed by increased investment in all subsequent years to strengthen our cyber-security.

Despite these impacts the Group continued to trade profitably and always remained comfortably within the financial covenants in the external financing facilities.

Risk 3: Cybersecurity

Scenario 4: Acquisition Failure

We considered a scenario whereby recent acquisitions (within the ETS Business) fail to achieve the financial targets contained within the acquisition business case. We assumed a 20% shortfall in sales in the acquired business and that they were disposed of 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 in the external financing facilities.

Risk 4: Failure to realise acquisition objectives

A further scenario was modelled to ascertain what level of revenue or adjusted profit margin reduction would be required to cause a breach of the Group's debt covenants. The reductions in revenue and adjusted profit margin required to breach Group's debt covenants were in excess of 17% within a 12 month period, significantly higher than those modelled in the above scenarios and greater than the impact experienced during the severe global economic downturn in 2009. This scenario assumed no mitigating actions were taken. Mitigating actions available could include reductions in operating and capital expenditure and shareholder dividends.

During the year the Group worked alongside a third-party specialist to undertake detailed financial modelling in order to determine the potential financial impact of increasing global temperatures on our business operations. The analysis concluded that the potential level of financial risk to the Group was lower than the impacts modelled in the Revenue Fall scenario included. As a result, no specific climate change impact scenario has been included.

Whilst linked to the Group's Principal Risks, the scenarios modelled 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 such risks. The results of the stress testing undertaken illustrate that the Group would be able to absorb the impact of the scenarios considered should they occur within the assessment time period. In all the scenarios considered the Group was not required to implement any potential mitigating actions in order to remain within its debt covenants.

Viability statement

Based on the outcomes of the scenarios and considering the Group's financial position, strategic plans and Principal Risks, the Directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment. The Directors' statement regarding the adoption of the going concern basis for the preparation of the Financial Statements can be found on page 41.

Long-term resilience

The Group has a long track record, over 135 years, of consistently adapting to changing macroeconomic, environmental and social factors supported by our business model. While our strategy and business model lessen any material impact from our Principal Risk factors, we nevertheless continuously review our markets, listen to our customers and adapt our solutions, while working responsibly and in line with our Values to build long-term sustainability.

The Group has a highly resilient business and strategy that will remain relevant across different climate related scenarios.

We recognise the need to anticipate and mitigate the impact of climate-related change. In 2021 we launched our **One Planet: Engineering with Purpose Sustainability Strategy** covered in more detail on pages 60 to 97. Although not classed as a Principal Risk for our Group, the TCFD disclosures on pages 84 to 91 detail the anticipated impact of climate-change related change on the Group's longer-term resilience.

The increasing commitments to net zero targets will have a profound effect on industrial activity over the coming decades and is an additional source of growth for our Group over at least the next 30 years. To address the opportunities arising from the decarbonisation of industrial processes, we have invested significantly in the development of sustainable products and solutions that help customers meet their own sustainability goals.

Outlook and 2024 guidance

CHR Economics' forecast for 2024 IP has reduced materially from the 2.6% expected in October 2023 to 1.7% currently, with growth weighted towards the second half (H1: 1.2%; H2: 2.1%). Against a backdrop of geopolitical unrest and continuing macroeconomic uncertainty, we remain cautious about the outlook for IP in 2024, particularly the forecast improvement in the second half.

If exchange rates at the end of February were to prevail for the remainder of the year, there would be a headwind impact of approximately 3% to 2023 sales and approximately 5% to 2023 adjusted operating profit.

In 2024, we anticipate mid to high-single-digit organic growth in Group revenues and low double-digit organic growth in Group adjusted operating profit, supported by our proven ability to grow ahead of IP and increased Biopharm and Semicon demand in the latter part of the year.

After absorbing the exchange rate headwinds outlined above, we expect modest progress in the Group adjusted operating profit margin compared to the 20.7% achieved in 2023. Adjusted operating profit in 2024 will be more second half weighted than usual, reflecting: exchange rate headwinds; the reversal of cost containment measures in the first half; and strong demand growth in the second half.

We anticipate adjusted cash conversion of approximately 75% in 2024 with capital expenditure as a proportion of sales of approximately 7%.

Medium-long term

Over the last decade we have evolved to become a highly differentiated specialist engineering Group of three complementary Businesses with strong capabilities in high value niche markets. Our products and solutions are critical to the operating efficiency and safety of our customers' industrial processes and increasingly, their sustainability goals. Our business model and strategy have delivered a track record of growing organically ahead of IP and industry-leading margins. Leveraging this uniquely differentiated business model to take advantage of the significant opportunities we have in long-term growth markets such as thermal efficiency, fluid path technology and decarbonisation, will enable us to continue delivering sustainable compounding growth at attractive margins over the coming years.

Phil Scott
Interim Chief Financial Officer
6th March 2024

Ten-year financial summary

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

	2014 £m	2015 £m	2016 £m	2017 £m	2018 £m	2019 £m	2020 £m	2021 £m	2022 £m	2023 £m
Revenue	678.3	667.2	757.4	998.7	1,153.3	1,242.4	1,193.4	1,344.5	1,610.6	1,682.6
Operating profit	148.1	142.8	174.1	198.9	299.1	245.0	249.0	320.9	318.8	284.4
Adjusted operating profit*	153.0	152.4	180.6	235.5	264.9	282.7	270.4	340.3	380.2	349.1
Adjusted operating profit margin*	22.5%	22.8%	23.8%	23.6%	23.0%	22.8%	22.7%	25.3%	23.6%	20.7%
Profit before taxation	144.8	139.7	171.4	192.5	288.8	236.8	240.1	314.5	308.1	244.5
Adjusted profit before taxation*	151.1	151.1	177.9	229.1	254.6	274.5	261.5	333.9	370.6	309.2
Profit after taxation	100.6	96.7	121.3	157.9	223.4	167.0	173.9	234.9	225.0	184.0
Adjusted cash from operations	131.5	146.2	185.0	203.8	242.9	238.1	275.8	279.0	214.9	281.7
Cash conversion	85.9%	95.9%	102.4%	86.5%	91.7%	84.2%	102.0%	82.0%	56.5%	80.7%
Capital expenditure to sales††	5.0%	5.0%	5.7%	3.8%	3.8%	5.0%	4.2%	4.8%	7.3%	6.3%
Basic earnings per share	132.8p	129.9p	165.0p	214.4p	303.1p	226.2p	235.5p	318.3p	305.1p	249.5
Adjusted earnings per share*	140.4p	142.6p	171.5p	220.5p	250.0p	265.7p	256.6p	338.9p	377.2p	312.4p
Dividends in respect of the year	139.9	50.6	55.8	64.4	73.6	81.1	87.0	100.2	112.0	117.8
Dividends in respect of the year (per share)	64.5p	69.0p	76.0p	87.5p	100.0p	110.0p	118.0p	136.0p	152.0p	160.0p
Special dividend (per share)	120.0p	—	—	—	—	—	—	—	—	—
Net assets	441.9	398.3	524.4	609.5	766.9	826.3	852.3**	1,010.0	1,169.8	1,157.7
Return on capital employed†	41.4%	41.1%	44.8%	49.8%	51.6%	52.5%	48.9%**	59.3%	53.3%	41.6%
Return on invested capital†	27.4%	27.1%	28.7%	22.6%	19.3%	19.0%	17.8%**	22.9%	19.0%	14.0%

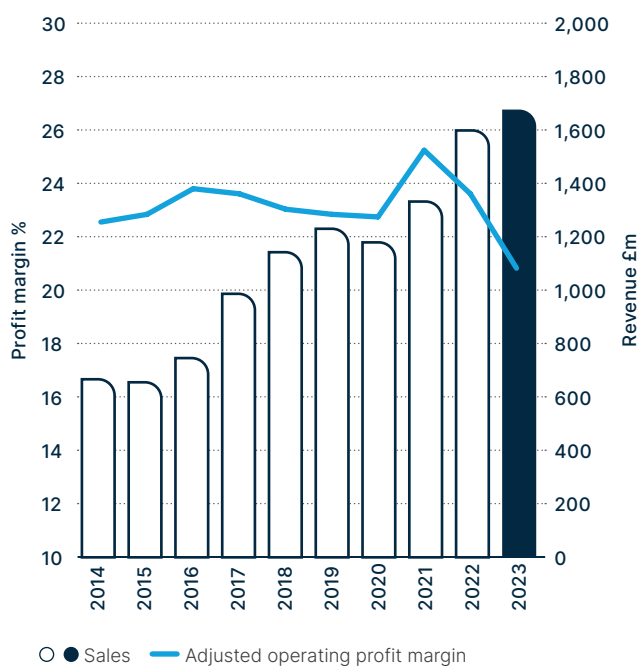
* All adjusted profit measures exclude certain items as set out and explained in the Financial Review and in the Appendix to the Financial Statements

** 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

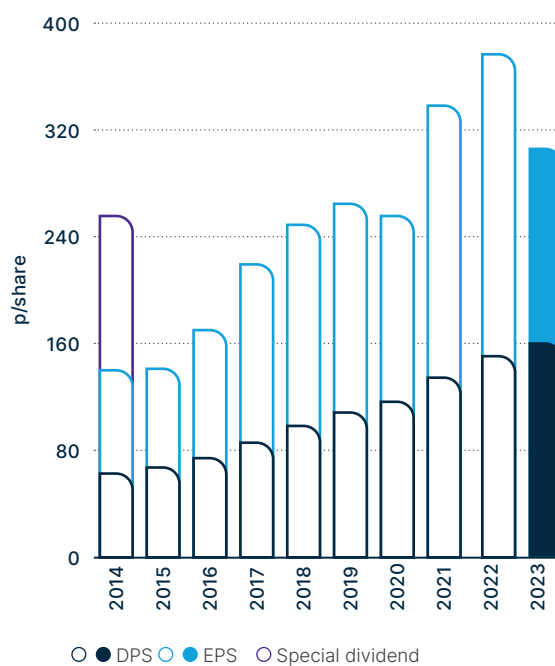
† The results for 2019 to 2023 exclude the impacts of IFRS 16, which was adopted in 2019

†† Capital expenditure excludes IFRS 16 Lease repayments

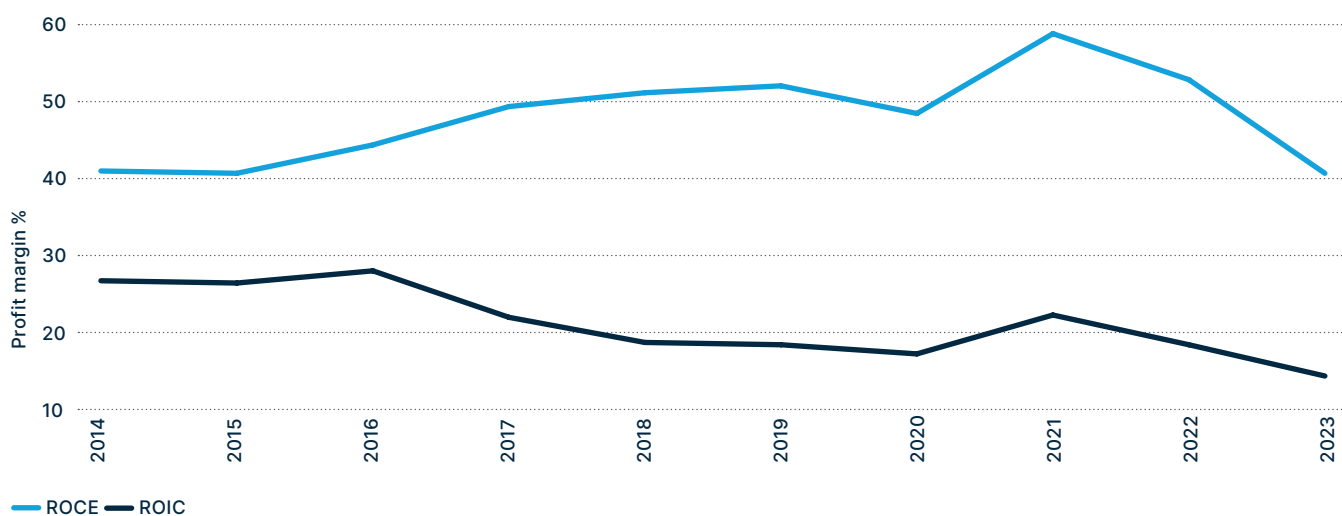
Revenue and adjusted operating profit margin £m/%



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 the Appendix 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))

† The results for 2019 to 2023 exclude the impacts of IFRS 16, which was adopted in 2019

†† Capital expenditure excludes lease repayments

Operating Review

Steam Thermal Solutions



We have continued to expand our addressable market through the development of new solutions, targeting high growth sectors.”

Maurizio Preziosa
Managing Director, Steam Thermal Solutions



Steam Thermal Solutions at a glance
(at year end)

61
operating units⁺

65
countries with a resident
direct sales presence

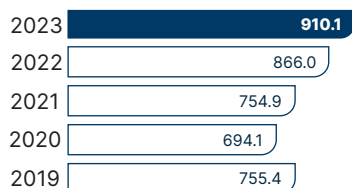
5,200+
colleagues

	2022	Exchange	Organic	Acquisitions & disposals*	2023	Organic	Reported
Revenue	866.0	(25.1)	70.5	(1.3)	910.1	+8%	+5%
Adjusted operating profit	206.1	(11.3)	29.3	(0.1)	224.0	+15%	+9%
Adjusted operating profit margin	23.8%				24.6%	+140bps	+80bps
Statutory operating profit	196.2				205.2		+5%
Statutory operating profit margin	22.7%				22.5%		-20bps

⁺ Operating units are business units that invoice locally

* Results include the impact of the treatment of our Russian operating companies as disposals from the date at which the Group suspended all trading with and within Russia

Revenue (£)

£910.1m

Reported Organic
+5% **+8%**

Adjusted operating profit margin (%)

24.6%

2022: 23.8%

Reported Organic
+ 80 bps **+ 140 bps**

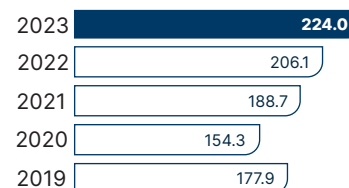
Statutory operating profit margin (%)

22.5%

Key Industries

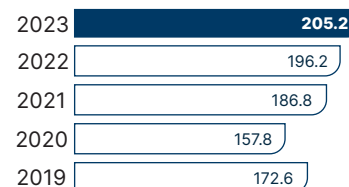


Adjusted operating profit (£)

£224.0m

Reported Organic
+9% **+15%**

Statutory operating profit (£)

£205.2m

Reported
+5%

STS delivered organic sales growth of 8%, which was significantly ahead of IP across all regions, despite a challenging macroeconomic outlook that weakened progressively through the year and particularly during the second half. Strong first half growth of 15% moderated to 2% in the second half driven by weaker IP in China and Germany, together with a slowdown in large orders compared to the first half.

Against this backdrop we implemented temporary cost containment measures while preserving investment and momentum in key growth initiatives (direct sales effectiveness, digital connected products and services, and decarbonisation solutions). As a result, full year adjusted operating profit of £224 million grew by 15% organically, with adjusted operating profit margin up 140 bps organically, reflecting price and cost discipline. Second half adjusted operating profit margin was slightly higher than in the first half of 2023 and the second half of 2022.

STS has both sales and manufacturing operations in Argentina, representing less than 1.5% of Group sales in 2023. Current levels of inflation and the extreme volatility in the Argentine peso exchange rate, as demonstrated by the large devaluation in December 2023, have created challenging operating conditions. While our local operating company prices with reference to the US dollar to protect against operating profit margin erosion, the Group's ability to repatriate cash generated in Argentina is currently limited. As a result, we are limiting inward investment into our Argentinian operations.

Statutory operating profit of £205.2 million was up 5% from £196.2 million in 2022 and the statutory operating profit margin of 22.5% decreased by 20 bps.

Since 2018, STS has been engaged in a project to upgrade its ERP systems, known as Project OPAL. Over time, the scope of the project has expanded substantially to include a wider range of business applications. In parallel, the external technology market has continued to evolve and the Group has also taken the decision to implement consistent ERP solutions across all three Businesses. Within STS, this will enhance future capability, in addition to leveraging the scale of the broader Group. This has resulted an impairment charge to statutory operating profit of £13.9 million in relation to existing assets which will no longer provide future economic benefit.

Operating highlights

We launched our 'TargetZero' solutions in November 2022, to support the decarbonisation of industrial steam generation, and the first installation of 'ElectroFit' was completed during 2023 for Diageo in Turkey. Interest in these solutions continues to strengthen and decarbonisation remains a key long-term growth opportunity for STS, working in collaboration with ETS. However, the rate of adoption will depend on several factors including: the development of local infrastructure for the generation and transmission of electricity; the comparative cost of natural gas and electricity impacting operating costs as a result of decarbonisation; and customer ambition in achieving net zero greenhouse gas emissions, as well as their willingness to invest behind delivery of their targets.

Operating Review continued

As an industry leader, STS organised and chaired the first 'Sustainable Steam Symposium' in 2023 at Brunel University. This Symposium was centred around the latest developments in research, technology trials and pilot projects within the steam and thermal solutions industry, with a focus on the decarbonisation of steam generation and energy-saving innovations.

Throughout the year we have continued to develop new digitally enhanced customer solutions that extend our expertise beyond the onsite services provided by our field engineers. We saw a doubling in the number of connected customer sites, an increase in the number of reports generated for customers and strong sales of incremental products and services attributed directly to digital connections. By driving adoption of digital connections and developing our direct sales capability to deliver solutions based on richer data and additional insights, we believe we are laying strong foundations for further digitally enabled growth in STS.

STS has continued to expand its addressable market through the development of new solutions, targeting high growth sectors. For example, STS delivered exceptional growth in the lithium-ion battery sector in 2023, particularly in Asia Pacific, where we now have over 100 customers.

In line with our strategy of continuing to develop our local presence, in August 2023 Gestra acquired a distributor in Kuala Lumpur, Malaysia. This acquisition has expanded our local direct sales team as well as our customer base allowing us to further implement our business model focused on solution-selling and self-generated sales.

2024 outlook

We anticipate mid-single-digit organic sales growth in STS. Adjusted operating profit margin is expected to be lower than in 2023, reflecting exchange rate headwinds, the reversal of 2023 cost containment measures and increased revenue investments to support future growth.



Steam Thermal Solutions

Finding the right 'whey' for cheese producer

As part of our **Customer first² strategy**, our engineers focus on direct engagement to build strong customer relationships as well as a deep understanding of our customers' needs to create value-adding solutions.

'Walking the Plant' is one of the most important ways in which our direct sales engineers can add value to our customers by identifying potential problems and finding solutions. For our customer Saputo, a bulk cheese and whey producer, a visit from direct sales engineer Travis Berry helped identify important efficiency and sustainability improvements, which have led to annual savings of around US\$700,000.

At its dairy plant in California, Saputo has three clean-in-place kitchen areas each producing condensate from heat exchangers which was going to waste, losing valuable heat. Spirax Sarco designed a solution to recover and return the condensate to the steam generating boiler, improving efficiency and sustainability.

The new condensate recovery system has delivered quantified energy, water and CO₂ savings since its installation, as well as reducing safety risks and the amount of boiler chemicals needed to treat the fresh water. It is estimated that the site will save 3,150 tons of CO₂ per year and the equivalent of 33 Olympic-sized swimming pools of water being saved each year.

Due to the success of the project, the solution will now be replicated at the customer's other sites across the USA and Canada.

3,150 tons

of CO₂ saved per year

33

Olympic-sized swimming pools of water saved each year

US\$700k

annual running cost savings

Operating Review continued

Electric Thermal Solutions



We have continued to see strong customer demand for our decarbonisation solutions leading to record order books within ETS.”

Armando R Pazos
President, Electric Thermal Solutions



Electric Thermal Solutions at a glance
(at year end)

36
operating units⁺

20
countries with a resident
direct sales presence

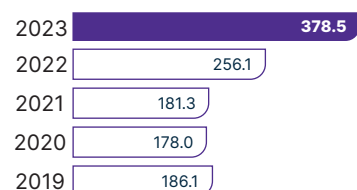
2,610+
colleagues

	2022	Exchange	Organic	Acquisitions & disposals*	2023	Organic	Reported
Revenue	256.1	0.3	4.1	118.0	378.5	+2%	+48%
Adjusted operating profit	39.9	(1.0)	(1.7)	22.0	59.2	-4%	+48%
Adjusted operating profit margin	15.6%				15.6%	-90bps	+0bps
Statutory operating profit	7.3				25.8		+253%
Statutory operating profit margin	2.9%				6.8%		+390bps

+ Operating units are business units that invoice locally

* Results include the impact of the acquisitions of Vulcanic and Durex Industries

Revenue (£)

£378.5m

Reported **+48%** Organic **+2%**

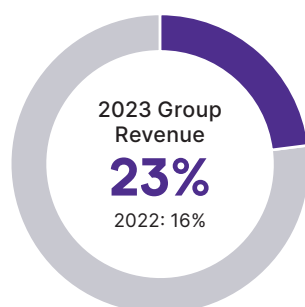
Adjusted operating profit margin (%)

15.6%

2022: 15.6%

Reported **+0 bps** Organic **-90 bps**

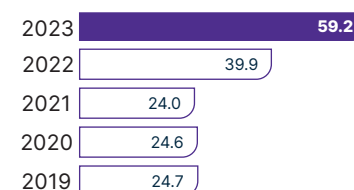
Statutory operating profit margin (%)

6.8%

Key Industries

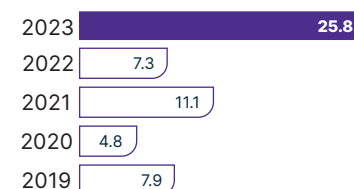


Adjusted operating profit (£)

£59.2m

Reported **+48%** Organic **-4%**

Statutory operating profit (£)

£25.8m

Reported **+253%**

While IP remains a key underlying driver of growth in ETS, secular trends in the decarbonisation and Semicon markets are important additional drivers. As expected, Semicon (18% of ETS proforma sales in 2022) sector demand remained weak through 2023, driven by customer destocking. Both Durex Industries and to a lesser extent Thermocoax (that focus on industrial equipment heating solutions) were impacted by slowing Semicon demand.

Demand growth in Chromalox and Vulcanic (that focus on industrial process heating solutions) was significantly ahead of IP. Growth was strongest in strategically important sectors such as Energy Transition, which includes decarbonisation solutions, leading to a significantly enhanced order book.

ETS sales were up 48% reflecting the contribution from the acquisitions of Vulcanic and Durex Industries. Excluding this contribution, sales were up 2% organically (H1: up 7%; H2: down 2%), reflecting growth in Chromalox but lower Semicon demand impacting Thermocoax sales, particularly in the second half.

Chromalox's manufacturing facility in Ogden, Utah (USA) continued to implement operational improvements aimed at increasing throughput but sales lagged the even stronger growth in demand for bespoke solutions that deliver decarbonisation benefits. We remain focused on delivering higher sales from Ogden while also completing the facility expansion. On a proforma basis, the combined sales of Vulcanic and Durex Industries were down 6%, compared to 2022, with strong growth at Vulcanic offset by lower sales at

Durex Industries, which was impacted by lower Semicon demand.

ETS adjusted operating profit was up 48% due to the contribution from the acquisitions of Vulcanic and Durex Industries. Excluding the acquisitions, adjusted operating profit was broadly flat, compared to 2022, with adjusted operating profit margin impacted by continued investments in operational improvements in Chromalox and weaker growth in higher margin Thermocoax. Chromalox and Thermocoax combined adjusted operating profit margin in the second half of 2023 was above both the first half of the year and the second half of 2022.

On a proforma basis, the combined adjusted operating profit margin of the acquisitions was down year-on-year, driven by the impact of lower Semicon demand on Durex Industries, as well as investments in safety, systems and processes to more closely align the acquisitions with the Group's operating standards. The benefit of early cost actions taken at Durex Industries helped to mitigate the margin decline. Excluding onboarding costs, Vulcanic adjusted operating profit margin in 2023 was higher, compared to 2022.

ETS statutory operating profit was up 253% compared to 2022, reflecting restructuring charges relating to Chromalox EMEA that impacted the 2022 result, with the statutory operating profit margin of 6.8% up 390 bps.

Operating highlights

The integration of Vulcanic and Durex Industries, one of ETS's key priorities in 2023, continued to progress well with high levels of collaboration between the Chromalox and Vulcanic teams in areas such as sales training, deployment of pricing tools and new product development. Our dual brand strategy is being implemented in Vulcanic and Chromalox with particular benefits seen for customers in

Operating Review continued

EMEA, as we migrated manufacturing of Chromalox products to Vulcanic sites in France and Spain following the closure of Chromalox's Soissons (France) site in 2022. ETS also completed a site rationalisation between Thermocoax and Durex Industries with the transfer of production from our Alpharetta, Georgia (USA) facility to Carey, Illinois (USA). Good progress continues to be made on improving safety and sustainability in line with Group operating standards.

Chromalox and Vulcanic have continued to drive growth in their target sectors, particularly focused on the industrial electrification opportunity, which has resulted in a significant increase in the ETS order book. During 2023, Chromalox supported Tesla with the development of its Cyber Truck manufacturing facility in San Antonio, Texas (USA).

In October, ETS began construction of an expansion to Chromalox's manufacturing site in Ogden, Utah (USA), which will be dedicated to Medium Voltage heating solutions. The US\$58 million expansion is expected to be completed towards the end of 2024, with production ramping-up in 2025. In support of our commitment to sustainability, the facility will install ground source heat pump systems to efficiently heat and cool the facility with renewable energy. In addition, Chromalox's manufacturing facility in Nuevo Laredo (Mexico) completed a second solar panel system installation, which will lead to significant energy savings and emissions reductions.

2024 outlook

We anticipate high-single-digit organic sales growth in ETS supported by a return to demand growth in Semicon. Adjusted operating profit margin progress will be supported by improved operational performance and higher Semicon revenues, partly offset by onboarding costs in Vulcanic and Durex Industries, as well as pre-production costs for the expanded Ogden facility.



Electric Thermal Solutions

Powering battery production from sustainable steam

A Sino-Japanese battery manufacturer turned to an industrial boiler specialist, alongside Vulcanic, part of Electric Thermal Solutions, to help it achieve sustainable steam generation for the production of electric vehicle (EV) batteries.

The battery manufacturer is committed to operating responsibly and wants to ensure that EV production from its new European manufacturing facility has minimal impact on the environment. As a result, the generation of steam for its manufacturing processes needs to be decarbonised.

The two companies combined their expertise to provide a complete end-to-end package which features Vulcanic's proprietary low voltage heating solutions to generate steam without the burning of fossil fuels. The solution is safe, easy to maintain and when it's connected to green or renewable electricity sources eliminates scope 1 and 2 greenhouse gas emissions.

The overall power of low carbon EV batteries produced by the new site will increase from 9 GWh in 2024 to 24 GWh by 2030.

20

MW total electrical power capacity from low voltage heating solution for steam generation

24

GWh of low carbon EV batteries produced from decarbonised steam generation by 2030

Operating Review continued

Watson-Marlow Fluid Technology Solutions



While destocking in the Biopharm sector impacted 2023 trading, underlying demand remains strong and we are well positioned for a return to growth.”

Andrew Mines
Managing Director, Watson-Marlow Fluid Technology Solutions



Watson-Marlow Fluid Technology Solutions at a glance
(at year end)

47

operating units*

42

countries with a resident direct sales presence

1,960+

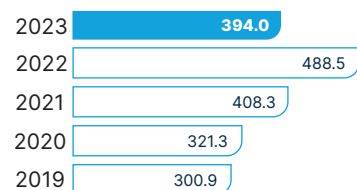
colleagues

	2022	Exchange	Organic	Acquisitions & disposals*	2023	Organic	Reported
Revenue	488.5	(2.4)	(90.6)	(1.5)	394.0	-19%	-19%
Adjusted operating profit	160.0	5.2	(71.5)	—	93.7	-43%	-41%
Adjusted operating profit margin	32.8%				23.8%	-1,030bps	-900bps
Statutory operating profit	154.4				81.2		-47%
Statutory operating profit margin	31.6%				20.6%		-1,100bps

+ Operating units are business units that invoice locally

* Results include the impact of the treatment of our Russian operating companies as disposals from the date at which the Group suspended all trading with and within Russia

Revenue (£)

£394.0m

Reported Organic
-19% **-19%**

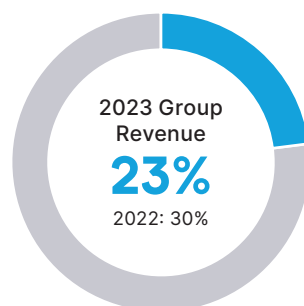
Adjusted operating profit margin (%)

23.8%

2022: 32.8%

Reported Organic
-900 bps **-1,030 bps**

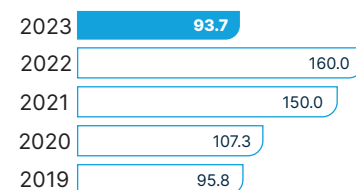
Statutory operating profit margin (%)

20.6%

Key Industries

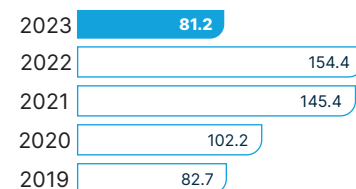
-  Pharmaceutical & Biotechnology
-  Food & Beverage
-  Water & Wastewater
-  Healthcare

Adjusted operating profit (£)

£93.7m

Reported Organic
-41% **-43%**

Statutory operating profit (£)

£81.2m

Reported
-47%

Watson-Marlow's trading continued to be impacted by customer destocking activity in the Biopharm sector throughout the year. Underlying demand remains strong, with Biopharm end-markets continuing to grow at the pre-pandemic rate of over 10% per annum. However, it became clear through 2023 that this demand would continue to be satisfied by excess inventory built up during the peak of the COVID pandemic. In Watson-Marlow this has resulted in Biopharm monthly sales remaining broadly flat throughout 2023.

Watson-Marlow sales declined by 19% organically, compared to 2022. Biopharm sales (which accounted for approximately 60% of Watson-Marlow sales in 2022) declined by close to 30% organically. The organic decline in Biopharm sales was larger in the first half than in the second half due to a more challenging comparator, with customer destocking having materially started in the second half of 2022.

Supported by the continued strong growth in Biopharm end-markets, we anticipate a return to sales growth during 2024. As evidenced by market commentary from a number of larger Biopharm OEMs, which are our customers, the precise timing and scale of the recovery remains challenging to predict with a wide range of views spanning from a recovery in the second half of 2024, through to recovery being delayed into 2025.

Sales to Process Industries customers, which are more directly correlated to IP, were broadly flat in the first half, compared to 2022. In the second half of 2023, Process

Industries demand growth was impacted by the weakening macroeconomic outlook, with sales broadly similar to the first half. Process Industries sales also remained significantly ahead of pre-pandemic levels.

The benefits of early actions to address the weaker trading environment were realised in the second half of the year, mitigating the impact of lower sales on adjusted operating profit. While the adjusted operating profit margin declined by 1,030 bps organically, to 23.8%, the second half margin was impacted by a one-off charge in respect of excess Biopharm inventory.

Statutory operating profit was down 47% compared to 2022, while statutory operating profit margin was down 1,100 bps, reflecting costs of £9.3 million to appropriately right-size manufacturing capacity and reduce overhead support costs.

Operating highlights

Against a backdrop of challenging trading conditions, we took steps to offset the adverse impact of lower sales volumes on profitability. While most of the right-sizing was focused on UK and EMEA manufacturing operations, Watson-Marlow also closed its Flowsmart site in Delaware (USA) and transferred manufacturing to its newly built facility in Devens, Massachusetts (USA).

Restructuring and cost actions continued to be implemented during the second half, balancing the need to protect margins with maintaining business-readiness for an anticipated return to volume growth in 2024. In this context, we also continued to invest in developing new products and services.

Watson-Marlow began incorporating ISO 13485, a quality management system covering the design and manufacture of medical devices, into its product development process

Operating Review continued

from October 2023. This is expected to become a requirement for products sold into cell and gene therapy markets.

Also in Biopharm, Watson-Marlow developed 'DriveSure' – a digitally enabled, pre-configurable pump and drive unit that can be customised for small spaces; and further developed its unique 'PureSU' (Pure Single-Use) assembly offering, which represents a powerful example of tailored customer solutions by providing customised connectivity for the fluid path between disparate pieces of end-user equipment.

Watson-Marlow continued to expand its addressable market in Process Industries by developing solutions for new and emerging sectors. Cell-based meat has been identified as a high potential area of future growth and Watson Marlow Germany is working with 'Cultivated B', the first company in the EU to apply for certification for its product. This initiative ties into Watson-Marlow's existing Future Foods focus where sales into precision fermented food manufacturers have more than doubled since 2021.

The Electric Vehicle (EV) battery market is another focus sector, especially for Watson-Marlow's Bredel product range. A key process step in EV battery manufacture is the production of the Nickel, Cobalt, Manganese (NCM) Ternary Precursors used in EV battery cathodes. Peristaltic hose pumps are the ideal technology for mixing and transferring these chemical slurries, which are vital to scale up EV battery production to meet global demand. The C42 Bredel pump has been developed to meet the specific technological needs of this sector.

2024 outlook

We anticipate high-single-digit organic sales growth supported by a return to growth in Biopharm demand in the latter part of the year, albeit there are a variety of views within the industry on the timing and scale of this recovery. This sales growth is expected to deliver a strong improvement in adjusted operating profit margin after absorbing the reversal of 2023 cost containment measures and an increase in variable compensation.



Watson-Marlow Fluid Technology Solutions

Peristaltic technology keeps hearts pumping

Cardiac ablation is an important medical procedure for the treatment of certain heart conditions. When medical device manufacturers livetec Ingenieurbüro GmbH and OSYPKA were looking for a reliable and easy-to-operate peristaltic pump for use in surgical ablation systems they turned to Watson-Marlow Fluid Technology Solutions.

Any malfunction of the pump would lead to a discontinuation of the ablation treatment. After putting a number of other peristaltic pumps through a series of tests, they were unable to find another that matched or exceeded the delivery rates and compatibility of the Watson-Marlow pump.



Ablation treatments usually take several hours and the pump must provide saline solution continuously during this time, so absolute reliability of all components is essential and was a fundamental requirement in our decision-making process.

The Watson-Marlow pump is easy to operate and has proven capability to handle the high back pressure caused by very narrow catheter channels with a very small diameter (lumen) in the micrometer range. We are able to control the flow rate precisely at any time so that the exact volume flow required for each treatment step is achieved. The peristaltic pump is one of the central components in the system and must provide absolute reliability over several years and many treatments. The ablation systems from livetec and OSYPKA have been on the market for more than five years, with several hundred devices in use. Until now, there have been no complaints due to wear of a pump. All are still working smoothly.”

Michael Schirmeier
Managing Director at livetec

Reduced

risk of human error

100%

reliability of continuous flow of saline solution.

Zero pump failures

after five years and hundreds of pumps installed



Our customers

Developing solutions for future customer needs

Strengthening customer bonding through connected environments

Across Spirax Group we are developing digital solutions that augment our physical customer closeness through 'walk the plant' activities, with digital connections that generate real-time, predictive insights that also enable us to 'walk the data' adding value to our customers through anticipating and detecting critical equipment failures.

Digital specialists at our Fluid Technology Solutions Business, Watson-Marlow, are using machine learning techniques to identify potential pump and tubing failures. By training AI models in what normal operation looks like and then feeding it data points common with pump and tubing failures, our technology has been able to correctly predict failure in 90% of cases during lab testing at our R&D facility in Falmouth (UK).

Meanwhile in Germany, Steam Thermal Solutions specialist Gestra has developed a wireless steam trap monitoring solution utilising the Group's STRATA technology and combining it with Gestra Ecobolt sensors to detect broken or leaky steam traps. This enables customers to replace steam traps in an expedient manner, saving energy and improving efficiency.



Our aim is to support current predictive maintenance processes with AI to get the maximum product life by giving our customers the insights they need to plan maintenance and only replace parts that need replacing, rather than replacing them due to length of operation."

Matthew Thomas

Head of Digital, Watson-Marlow Fluid Technology Solutions



We are working with a fertiliser chemical company in Spain to help improve the operational efficiency of its steam trap population. Once the project is complete, we estimate that we will save the customer 173,000 MWh of energy and 4,700 tonnes of CO₂. That's the equivalent average annual energy consumption of more than 2,000 people and over 200,000 mature trees absorbing CO₂."

Jayesh Chavda

Business Development Manager – Connected Services, Gestra, part of Steam Thermal Solutions



Sustainability Report

One Planet is the mechanism through which our Group delivers sustainable improvements that support people and planet

Our six strategic initiatives are helping us deliver climate and environmental action, customer sustainability, resilient supply chains and stronger communities.

+ Read more about our responsible business foundations on pages 62 to 69

+ Read more about how we delivered on our strategic initiatives in 2023 on pages 70 to 81





“2023 was a year of good progress as we further improved the environmental performance of the Group and delivered value to our communities.”

Sarah Peers
Group Director of Sustainability

Our **One Planet: Engineering with Purpose** Sustainability Strategy sets out our plans for building a more sustainable future and our commitment to having a positive impact on people and planet. Now in its third year, the strategy is well embedded across the Group and we are making good progress towards achieving our goals for sustainable business operations.

Science-Based Targets initiative

A key achievement in 2023 was the validation of our net zero targets by the Science-Based Targets initiative (SBTi). This is a collaboration between the United Nations Global Compact (UNGC), the World Resources Institute (WRI), the Carbon Disclosure Project (CDP) and the Worldwide Fund for Nature (WWF). It helps companies to set ambitious and credible climate targets that are based on the best available science and the needs of the planet.

We committed to establishing science-based targets during 2021, as part of our wider commitment to take action on climate change and reduce our environmental impacts. In 2022, we submitted our near-term and long-term decarbonisation targets to the SBTi for validation and they were approved in November 2023. This acknowledges the credibility of our decarbonisation plans both in our operations and in our value chain.

As disclosed in our 2022 Annual Report, the majority of our total emissions are scope 3 emissions and are associated with the energy in use of our Electric Thermal Solutions (ETS) products. These products are designed to replace fossil-fuel systems and therefore aid decarbonisation for our customers when supplied with green electricity. To reduce the calculated emissions associated with these products and to meet our own decarbonisation goals, we are reliant on the electricity grids in the countries where we have customers transitioning to green electricity. Read about the future of sustainable steam on pages 92-93.

Responsible business foundations

Our responsible business foundations underpin the way in which we operate, providing the basis for our Group’s ethics and social responsibility to integrate with sustainability and shape our business practices. These are:

- Health and safety
- People and wellbeing
- Inclusion and diversity
- Ethical business

Our Strategy

Our **One Planet Sustainability Strategy** is implemented by each of our three Businesses, with central oversight from our Group Executive Committee.

The strategy is delivered through six strategic initiatives, which are:

- 
1. Achieve net zero greenhouse gas emissions
 + See pages 72–75
- 
2. Deliver biodiversity net gain
 + See page 76
- 
3. Implement environmental improvements in our operations
 + See pages 77–78
- 
4. Grow sales of products with quantified sustainability benefits
 + See page 79
- 
5. Embed sustainability criteria in supply chain management
 + See pages 80
- 
6. Support the wellbeing of people in our communities
 + See page 81

Additionally, the Sustainability Strategy is supported by a strategic project to improve the availability and quality of sustainability data. A previous strategic project to develop our colleagues’ sustainability knowledge achieved the objectives it set out when the strategy was launched. It was formally retired as a strategic project in 2023 as sustainability knowledge is now embedded within standard operations across the Group.

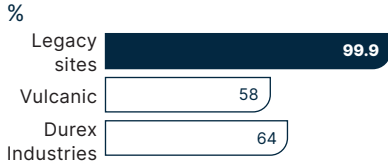
Double materiality assessment

To support our ongoing monitoring of sustainability and to prepare for future regulatory reporting requirements, we conducted a Double Materiality Assessment (DMA) in 2023. This process involved assessing the impact of sustainability topics on the Group and also assessing the impact that the Group can have on people and planet in regard to these topics. We conducted interviews and workshops with a wide range of internal and external stakeholders, including senior leadership, colleagues, customers, suppliers, community stakeholders and investors, to complete this DMA.

Sustainability Report: Responsible business foundations

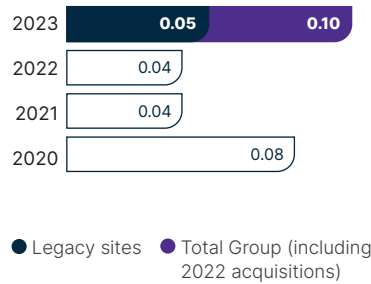
Health and Safety

Completion of Group H&S Excellence Framework (Foundation level) in 2023



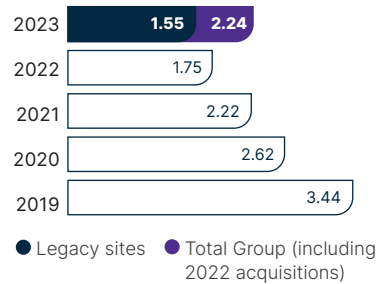
* Excluding 2022 acquisitions

Serious Lost Time Accident Rate*



* Per 100,000 hours worked

All-Workplace Injury Rate*



* Per 100,000 hours worked

Health and Safety (H&S) comes first in everything we do. Across Spirax Group we encourage all colleagues to play a vital role with a collective responsibility to do the right thing, even when no one is looking. We care about ourselves and our colleagues. Everyone in our Group is empowered and supported to speak up if things are not right. In support, we will listen, respond, learn and continually improve as one team. Our Group H&S Policy commitment was updated in 2023 and further refreshed at the start of 2024, our commitments include:

- Group H&S performance will be discussed at all Group Executive Committee (GEC) and Board meetings
- Appropriate resources is made available to support our H&S journey
- Our Group Reporting & Safety Management Platform will be adopted by all operating companies and Group functions
- Annual H&S objectives and targets, in line with the Group H&S Excellence Framework and other strategic initiatives, will be subject to a formal review, at least annually

Wherever we operate, we will comply with all relevant H&S legislation. If our Group standards are higher than, and not in conflict with, local standards we will operate to the higher set of standards. All Serious Lost Time Accidents, will be reported to the GEC by the responsible GEC member, once the initial facts are known and within 48 hours. Our operating companies and Group functions will implement and maintain specific and local H&S organisation, responsibilities, governance and arrangements. These will be sufficiently resourced, subject to continual improvement and at least an annual review.

We continue to evolve our approach with the introduction of a five-year Group H&S Excellence Framework. This is our internal philosophy to achieve significant enhancements to our **Culture**; **Assurance**; **Risk**; and **Engagement (C.A.R.E.)**, in addition to established external systems certification across the Group. At the time of publishing, 50 of our Group Companies are certified to H&S management standard ISO 45001 or equivalent. During this period, we also supported the H&S alignment and integration of our two recent acquisitions, Vulcanic and Durex Industries.

Progress

We successfully launched the foundation level of our H&S Excellence Framework in January 2023. The purpose of this initial level was to create a consistent but stretching baseline across the Group. We are pleased that in 2023, 99.9% of our Group, excluding the recently acquired Vulcanic and Durex Industries, achieved foundation level by self-assessment, which was subject to validation sampling. In Vulcanic and Durex Industries, 58% and 64% achieved this level respectively and across Spirax Group, all Divisions met the targets set. The foundation level will continue to be subject to further ongoing validation in 2024, including on site.

Other highlights during the year included revitalising our behavioural-based safety programme to create our own bespoke pathway which includes an evolving suite of learning videos using actors to recreate previous incidents to promote engagement and learning. Other examples from the framework included: a full machinery inventory, validation of use and risk assessment; a major focus on pedestrian and vehicle interaction risk reduction; and a range of risk control assurance requirements. Cross-Group learning and sharing of best practice continued to be at the heart of our approach throughout the year, with a wide range of engagement initiatives being well-attended across all three Businesses. This regular cadence and engagement has been invaluable as we have matured and advanced our approach to team collaboration.

We have also continued our investment in technological solutions to improve our understanding of risk and to build our culture. Examples include the successful pilots of a machine-learning data analysis tool and an H&S Culture benchmarking platform. To provide additional context and clarity of relative risk in incident reporting, we introduced a definition of Serious Lost Time Accidents (SLTA). These include, but are not limited to: any accident that results in admittance to hospital, or injuries leading to a permanent impairment.

There were no work-related fatalities among colleagues or contractors and whilst our overall lost-time accidents have increased this year, there is no discernible trend. This is considered indicative of our good reporting culture, which is being fully embraced by our acquisitions and is a good sign of our cultural alignment. Our all-workplace incident rate, without our acquisitions, has reduced by 11% in this reporting period. Having undertaken an analysis of SLTA, this rate is low, currently 0.05 (excluding 2022 acquisitions). Our acquisitions are embracing our H&S culture and we have an active programme of H&S alignment and continual improvement.

Focus for 2024

- Continue to implement our Group-wide H&S Excellence Framework, through Bronze level rollout
- Complete a Group-wide H&S Culture survey
- Complete an independent review of our H&S strategy
- New Group H&S thematic assurance audits (including further validation of our Foundation level of the framework)
- Implement our new machine-learning H&S data analysis tool

People and wellbeing



We are a global business united by our Purpose and where the safety and wellbeing of our colleagues are paramount. Wherever we work, we are guided by our Values of Safety, Collaboration, Customer Focus, Excellence, Respect and Integrity. They are part of an inclusive culture that empowers strong relationships and supportive teams, where everyone can contribute and learn from each other and where meaningful work helps create the sustainable future we all aspire to have. They are supported through our HR policies and systems that help protect the rights of our colleagues and ensure their equitable treatment around the world.

Progress

In 2023 we conducted our biennial Colleague Engagement Survey. Across the Group, 90% of our colleagues participated. Whilst our engagement score remained static at 72%, we saw some significant improvements across the Group in the following areas:

- i. **Valuing and promoting diversity.** The launch of our Group Inclusion Plan, **Everyone is Included**, in 2022 has had a tangible impact on our inclusion metrics in the engagement survey. Overall, the Inclusion Index increased by five percent since 2021 (excluding Vulcanic and Durex Industries). This was particularly strong in Steam Thermal Solutions (STS) where there was an eight percent increase. More significantly, our colleagues said that our Group values and promotes diversity, with this score increasing nine percent since 2021 to 78% positive.
- ii. **Actively helping our communities.** This theme saw the greatest improvement of all colleague engagement survey results (up ten percent since 2021) whilst 'Supporting colleagues to be environmentally responsible' also scored highly at 83% favourable. This reflects the progress we have made embedding our **One Planet Sustainability Strategy** and our focus on fulfilling our Purpose, with one of our recognised stakeholders being the communities in which we work.
- iii. **Supporting a balance between work and personal life.** Colleague wellbeing saw improvement across the Group (up four percent since 2021), with colleagues recognising the focus we place on mental health, wider wellbeing and supporting a balance between work life and personal life. Our aim is to continually improve these scores. In 2023, we supported this with a range of events throughout the year covering topics such as psychological safety, the menopause and preventing male suicide. We also produced a World Mental Health Day resource pack and shared it across the Group.

In 2023, we hosted the awards ceremony for our inaugural Group-wide, Values-based recognition programme, the **Spirit Awards**. From a pool of 633 applications, six Values winners were announced alongside a Group Chief Executive Award and a People's Choice recipient which was the result of a global colleague vote.

Nominations have been received for our second Spirit Awards and 18 finalists have been selected from just over 300 applications. The finalists will be invited to attend the Awards Ceremony in 2024 when the winner in each Value category will be announced.

We strive to continually improve the development opportunities for all colleagues. In September 2023, we launched our new learning and development portal, **SPARK**. This gives our colleagues access to learning academies on topics such as Personal Development, Wellbeing and Mental Health, Inclusion and Diversity, Health and Safety, Sustainability and more. It includes colleague communities and a range of content that can be tailored to individual development goals, helping our colleagues to ignite their potential. Together with **One Place**, our new internal colleague platform that was launched in March 2023, this is helping to empower the creation of more inclusive workplaces where wellbeing and mental health are prioritised building a sense of belonging across our Group.

We introduced a Wellbeing Day in 2022, giving colleagues all around the world an additional day of paid annual leave to focus on their wellbeing and self-care. Having seen the impact of providing that extra time for colleagues to refresh and invest in their positive mental health, the Wellbeing Day was brought back in 2023 and has been made permanent for all colleagues from 2024 onwards.

Focus for 2024

- Follow-up actions from the Colleague Engagement Survey
- Refresh and embed our Colleague Promises
- Continue to embed One Place and launch an app to improve access for desk-free colleagues
- Further develop and embed Spark
- Ongoing focus on inclusion, wellbeing and mental health

Sustainability Report continued

A progressive, supportive and inclusive culture

We want every day to be exceptional for all our colleagues. That's why we enable them, through our Purpose, Values, business model and Group Inclusion Commitments, providing the framework to help them achieve their potential.

Spirax Group endeavours to offer a consistently exceptional colleague experience. Colleagues have regular opportunities to give feedback and offer suggestions for improvement such as our biennial Colleague Engagement Survey. From this feedback we have developed four colleague promises that define what it means to work as part of Spirax Group.

Our promises are designed to encapsulate our Purpose, Values and Group Inclusion Commitments.

1.

An inclusive culture based on Values

As a leading global business, we are committed to creating a more inclusive and equitable world for our colleagues at work, at home and in the community. Our shared Values of Safety, Collaboration, Customer Focus, Excellence, Integrity and Respect are our organisational 'glue'; they guide our behaviours and underpin our sustainable approach to the way we do business and work together every day.

Inclusion is present in all our Values and brought to life through **Everyone is Included**, our Group's Inclusion Plan, which has ten Group Inclusion Commitments designed to support colleagues through all of life's key moments.

2.

Meaningful work creating a sustainable future for all

Within every role in Spirax Group there is the opportunity to be part of something bigger. We promise colleagues meaningful work that enables them to use their unique capabilities and innovate to engineer a more efficient, safer and sustainable world.

3.

Development every day to fulfil your potential

With an eye to the future, colleagues have the opportunity to drive their careers, problem solve and develop new capabilities whilst recognising and building on their strengths. Our dedicated learning platform, **SPARK**, as well as our **Development every day** festivals are just some of the ways in which we bring this promise to life.

4.

Belonging to supportive teams and strong relationships

Our colleagues are part of friendly, supportive and innovative teams and connect with dedicated, inspiring and diverse global colleagues. Colleagues are supported and encouraged to be themselves and champion an inclusive culture.

Representing the views of our colleagues

- We have a comprehensive engagement programme to make sure we hear from colleagues about what matters to them, including focus groups and a biennial Colleague Engagement Survey. Many of our colleagues consistently highlight four strengths, which they value highly:
- A safety mindset 'first and foremost' – this is a particularly strong observation from colleagues who have recently joined our Group
- A strong Values-based culture – colleagues regularly share examples of living our Values in the real world, which deliver better customer service, grow the business and improve colleague experience
- A sense of belonging within supportive teams – most colleagues we speak to feel part of a 'local' business, where they have a sense of being involved, listened to and permission to be entrepreneurial
- The introduction of inclusive policies, such as gender-neutral policies for parental leave and carers' leave, is seen as being best-in-class
- Colleagues also appreciate being part of a resilient and strong Company and felt supported through the cost-of-living challenges of 2023

What our colleagues have to say



Connecting personally with Company Purpose

It's good to talk and that happens much more naturally when you feel part of a strong and supportive team.

That's why, when 40 colleagues came together to celebrate the 50th anniversary of the founding of Spirax Sarco (part of Steam Thermal Solutions) in Japan, the operating company's General Manager, Shinichi Oyama saw an opportunity.

"It was a celebration but the event was also the perfect platform through which to strengthen trust and to create unity in the team. So we asked colleagues to share their own personal purpose or 'ikigai'.

"Across two days, working in small groups, we participated in several workshops including 'Leading with Purpose', the 'Story of Your Life' and 'Every day is Still Day One', and played games to break the ice and keep the conversations going.

"The feedback has been overwhelmingly positive. In developing their own personal purpose, colleagues were able to better relate to our Company Purpose and through personal storytelling have built much stronger relationships with each other."



Building stronger teams through an inclusive approach

We are all unique, we all have a story and the diversity of our lived experiences and perspectives is what makes us strong as a team. When Ilysia Carlberg joined Chromalox, part of Electric Thermal Solutions, to take up an inclusion-focused role, she set out to broaden the diversity of colleagues in the team and to help everyone feel more included.

Recognising the challenge of personal bias in the recruitment process, Ilysia introduced a linguistic gender bias decoder, an online tool to help hiring managers to identify subtle bias in job descriptions and adverts. To support the more inclusive process, she also created a set of standard interview questions and made sure to include a debrief step.

"The blueprint for inclusivity and equity lies in a structured interview process, where every candidate is afforded the same opportunity to shine. By fostering clear guidelines and standardised criteria, we dismantle biases and pave the way for diverse talents to thrive, ensuring that merit, not circumstance, defines success in our working environment." Ilysia Carlberg, Talent and Inclusion Programs Manager, Chromalox



Helping everyone feel included

The UK operations of our Watson-Marlow Fluid Technology Solutions Business, in Falmouth, has been actively fostering positive change within the community, demonstrating our commitment to LGBTQ+ (lesbian, gay, bi, trans, queer and questioning) inclusion. The Business has developed a mutually advantageous partnership with Cornwall Pride. As part of this, it gifts some of its allocated stand spaces at community Pride events to local charities who might not have otherwise been able to attend. This has helped charities such as ShelterBox and St Petrocs raise their profile with 40,000 people who attend Cornwall Pride each year.

Watson-Marlow has signed the Cornwall Pride Pledge, reinforcing our Group's position as a safe place for all LGBTQ+ people, wherever we operate in the world. Through our ongoing partnership in Cornwall we want to emphasise the strength of our support for the LGBTQ+ community. Our ongoing programme includes co-envisioning the future of Cornwall Pride for the next decade, colleague training and educational workshops.

"Our colleagues have really got behind the partnership. From volunteering to supporting the events and participating in activities in the workplace, it's been great to see colleagues celebrating inclusion. A highlight of 2023 was when the team hosted the UK's largest Progress Pride flag at our Cornwall operations." Rehan Afzal, Head of HR, EMEA, Watson-Marlow Fluid Technology Solutions

Sustainability Report continued

A progressive, supportive and inclusive culture continued

What our colleagues have to say continued



Bringing us together as Spirax Group

For three years we've been evolving how we communicate with and unify colleagues across the Group.

To deliver these improvements, our Communications teams have been 'developing every day', navigating complex challenges to put in place channels that reach all colleagues, wherever they are and whatever they do. The resulting impact of our digital signage network and a new colleague engagement platform mean that colleagues feel more informed and engaged.

The **Spirit Awards** are now in their second year and the impact we have seen from giving colleagues a platform from which to be recognised and celebrate the difference they make has been tangible.

These initiatives help colleagues feel part of One Group and know they are part of something bigger. To help cement this thinking and make it more visible outside the Company, we turned our attention to our external channels and to our brand.

In February 2024, we launched the new Spirax Group brand alongside a new website. Spirax Group is the complete representation of our Group's growth and evolution and stands for everyone and everything that we do.

Hazel Meldrum is the Group's Head of Communications:



As a low-cost, internally led and timebound change programme, this was perhaps the team's biggest challenge yet. We set out to take my idea on a post-it note and make it reality in less than a year with the clock ticking ahead of the announcement of the Group's Full Year Results, our first as Spirax Group.

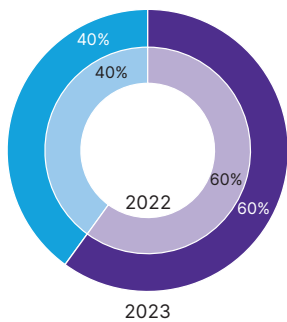
"Our new brand is a significant milestone, but all of these initiatives demonstrate how, over the last three years, we have been able to develop our communications capability at the centre, as well as in our Businesses. I'm proud that we've provided our teams with growth, as well as a sense of achievement and fulfilment. They can see the meaningful difference they are making, by helping colleagues feel more informed, connected and engaged, as well as through enabling our wider stakeholders to better understand who we are, what we do and what matters to us."

Together as One Group. Together, as Spirax Group

Sustainability Report: Responsible business foundations continued

Inclusion and diversity

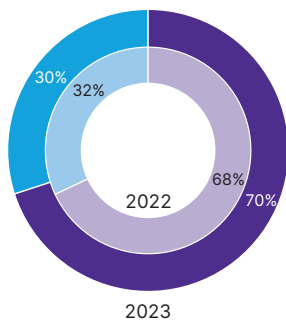
Gender – Board of Directors*



● Female – 4 (2022: 4)
 ● Male – 6 (2022: 6)
 Non-binary and other genders – none

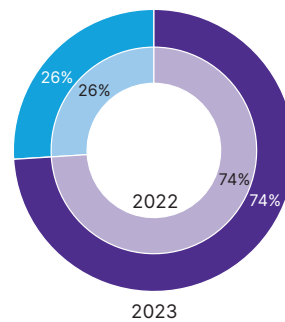
* At 31st December 2023

Gender – senior leadership*



● Female – 18 (2022: 19)
 ● Male – 42 (2022: 40)
 Non-binary and other genders – none

Gender – total workforce*



● Female – 2,588 (2022: 2,692)
 ● Male – 7,323 (2022: 7,724)
 Non-binary and other genders – data not available

Inclusion and equity create the conditions where all of our colleagues are able to be their authentic selves and achieve their potential. A culture that empowers and embeds this is one that also attracts great talent from all backgrounds. It brings a diversity of individuals, experiences and thought to our Group, helping us become a better and higher performing business. This fuels our continued growth, creating more opportunities for our colleagues and other stakeholders. Across Spirax Group, we see difference as our strength and aspire for everyone to feel included.

Progress

The February 2024 FTSE Women Leaders Review report ranked us as 61st in the FTSE 100 for gender diversity at Board and senior leadership (Group Executive Committee and direct reports combined) levels based on data from October 2023 (February 2023 report: 39th). The Review, co-Chaired by our Group CEO, Nimesh Patel, noted that we continue to meet its target of 40% women on the Board. Whilst gender diversity of senior leadership dropped slightly on the previous year by year-end 2023 (30%), we anticipate being at 33% by the end of Q1 2024. We remain committed to achieving a minimum of 40% women in our senior leadership by December 2025.

In addition, the Parker Review report, published in Q1 2023, confirmed that we continue to meet its goal of having at least one ethnically diverse Director on our Board.

Recognising the strategic significance of digital strategy, Maria Wilson was appointed to our Group Executive Committee (GEC) as Group Digital Director in 2023. In December 2023, we announced the appointment of Louisa Burdett as Chief Financial Officer (CFO) and Executive Director, following Nimesh Patel’s move from CFO to Group Chief Executive Officer in January 2024. Louisa will join the Group in this role from July 2024. In February 2024, we also announced the appointment of Céline Barroche as Group General Counsel and Company Secretary to the Board, as well as a member of the GEC, following the upcoming retirement of Andy Robson.

In line with Listing Rule 9.8.6, data used to compile diversity information is based on internal HR records for our Executive management. For the Board of Directors, we seek individual permission to share this data on an annual basis. We do not prescribe set gender or ethnicity categories, but ask for Directors to self-describe this.

In support of our gender equity journey, we continued our Women’s Executive Mentoring Programme and our partnerships with Women in Science and Engineering (WISE) and the Women’s Engineering Society (WES).

Spirax Sarco and Gestra Italia – celebrating our gender equity milestone

In Spirax Sarco and Gestra Italia, our teams are working hard to create an inclusive and equitable workplace where everyone feels respected and treated fairly and is comfortable to be themselves. In recognition of this, we have received the Italian UNI/PdR 125:2022 Gender

Equality Certification. This is given to organisations that demonstrate commitment to promoting gender equality and inclusivity within the workplace. The certificate recognises that we have adopted specific practices and cultural changes aimed at creating a more gender-equal workplace.

Sustainability Report: Responsible business foundations continued

Inclusion and diversity continued

Progress continued

Our Women’s Global Network also continued to connect and support women and allies across the Group. This included marking International Women’s Day with a global webinar on ‘embracing equity’, menopause awareness training and activity covering wide-ranging topics such as ‘Endometriosis and menstrual health’, ‘Psychological safety’ and ‘Allyship across genders’.

Following on from the successful launch of our Group Inclusion Plan, **Everyone is Included** and Group Inclusion

Commitments in 2022, we formally launched our Group Diversity goals at our Global Leadership Conference in March 2023. These goals widen our focus on gender and introduce new aspirations to increase the ethnic diversity of our colleagues, so that we better reflect the diversity of the communities we are part of.

In support of the Parker Review, we also set a new goal of 25% of senior leadership (Group Executive Committee and direct reports) to be from under-represented ethnic groups by December 2027.

In 2023, we increased our focus on race equity, through roundtables with our Black and African American colleagues in the USA and related action planning with colleagues, leaders and HR practitioners. In June and July, we hosted two global race equity webinars to explore the context for racism in different cultures, share colleague experiences and help colleagues to consider how they can move from being ‘non-racist’ to ‘actively anti-racist’ through simple, practical actions. In addition, we continued to support the Change the Race Ratio campaign, marked UK Black History Month in October with a resource pack for colleagues and launched a new Multicultural Global Network.

In 2023, we increased our support of LGBTQ+ Pride activities, by attending and supporting four UK Pride events and running three global Pride webinars. In Brazil, Steam Thermal Solutions ran an LGBTQ+ awareness event, whilst our US operations supported South Carolina Black Pride and the Trevor Project, a leading suicide prevention and crisis intervention charity for LGBTQ+ young people.

This year, we continued to embed inclusion, equity, diversity and wellbeing into our wider business processes. For example, we added a wide range of content in to our new Group education platform, **SPARK**, through a new Inclusion and Diversity Academy and a Wellbeing Academy. We also embedded inclusion, wellbeing and mental health into our new Group Health and Safety Excellence Framework (see page 62) and our global supplier selection and monitoring processes (see page 80).

Diversity goals

By the end of 2025, our ambition is to achieve:

- 20% women in commercial leadership roles
- 20% of Group Executive Committee (GEC) direct reports from under-represented ethnic groups
- 30% women in our global workforce
- 40% women in senior leadership (including each of our Board, GEC and GEC direct reports communities).

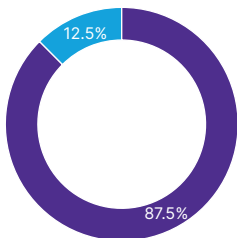
We will also seek to:

- Increase the ethnic diversity of our Board and GEC
- Have a woman as our Chair, Senior Independent Director, Chief Executive Officer or Chief Financial Officer

And annually, we aim to achieve:

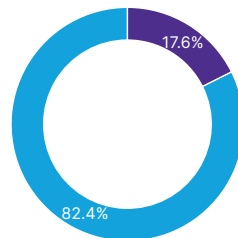
- 50% women joining the Global Graduate Development Programme
- 30% of UK and US graduate intake from under-represented ethnic groups

Commercial leadership roles



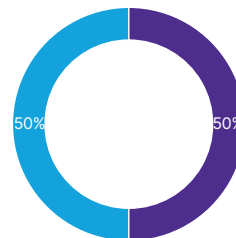
● Female – 18
● Male – 126

Direct reports to GEC



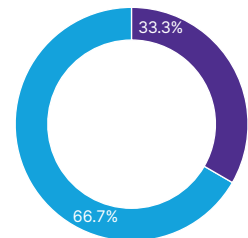
● Majority ethnic communities – 42
● Under-represented ethnic communities – 9

2023 global graduate intake



● Female – 8
● Male – 8

2023 UK and USA graduate intake



● Majority ethnic communities – 6
● Under-represented ethnic communities – 3

Focus for 2024

- Embed Diversity goals across the Group
- Achieve a broader and deeper focus on race equity
- Further grow and empower our global colleague networks

Ethical business

Our strong Company Values and robust Group policies instil a culture of ethical behaviour and provide a framework within which we operate. We expect that colleagues in all parts of our global operations meet these high standards.

Progress

All colleagues with a Company email address are required to complete our Group Essentials training programme when joining the Company and annually thereafter. In 2023 we migrated all our Group Essentials training modules to a new software environment, to facilitate easier and quicker maintenance going forward. We also gave each course a design refresh to ensure that they remain current and engaging for our colleagues.

Our Group Essentials training covers topics including Anti-Bribery and Corruption (ABC), Corporate Criminal Offences (CCO), Health and Safety (H&S) and Sustainability. After a pilot, including a review cycle, the Group Essentials content for our desk-free colleagues will be rolled out to our Group manufacturing sites in 2024.

Following the release of our new Group Sustainability Policy and new Environmental and Energy Policy, we created training for senior leaders to introduce these and increase knowledge of all Group sustainability-related policies. This training highlights key points and principles colleagues should be aware of in each policy and enables leaders to support their teams' understanding. We also released an animation internally to all colleagues to raise awareness of the new Sustainability Policy. By the end of the year, 221 senior leaders had completed this voluntary training.

In 2023, we continued the work to embed the Group Essentials training to our newer colleagues in Cotopaxi, Vulcanic and Durex Industries, as well as to our factory-based colleagues. By the end of the year 6,938 colleagues across the Group had completed ABC training and 6,782 had completed CCO training. Introduction to Sustainability had been completed by 6,575 colleagues and Health and Safety at Work by 7,205 colleagues.

Whistle-blowing

Any colleague with a concern about potentially unethical behaviour can raise it confidentially through a local, independent third-party whistle-blowing service, hosted by Safecall. In 2023, 51 reports were raised globally via this service.

All reports were investigated by senior management and action taken if necessary, with summaries of reports and related actions reviewed by the Audit Committee.

Governance

The **One Planet Sustainability Strategy** has central oversight and is sponsored by the Group Executive Committee (GEC). The Group Chief Executive Officer is the overall Executive sponsor for the strategy. The day-to-day oversight is undertaken by the Group Sustainability Management Committee (GSMC), with membership detailed in our sustainability organisation chart. The GSMC meets regularly to discuss strategic progress.

This feeds into updates at most GEC meetings as well as at quarterly updates to the One Planet Steering Committee (comprised of the GEC). The Board also receives regular updates throughout the year. This combination of Board and Executive oversight ensures that the **One Planet Sustainability Strategy** is a key focus area for the Group.

Responsibility for implementing the strategy sits at a Business level, with the strategy embedded into the core Business strategies of Steam Thermal Solutions, Electric Thermal Solutions and Watson-Marlow. Each Business and operating company is responsible for implementing the **One Planet Sustainability Strategy** through its 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.

Sustainability organisation chart



Focus for 2024

- Complete deployment of Group Essentials training to desk-free colleagues

Sustainability Report continued

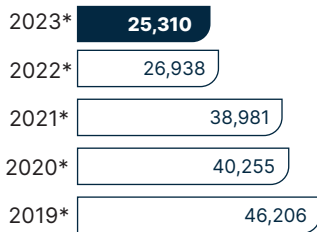
One Planet at a glance

We have been making strong progress against our key strategic targets as part of our **One Planet Sustainability Strategy**.

All data here excludes 2022 acquisitions, Vulcanic and Durex Industries, to accurately reflect the progress achieved on a like-for-like basis since the strategy was launched in 2021.

Group GHG emissions (scope 1 and 2)
tonnes CO₂e (market-based) (excluding acquisitions)

25,310 tonnes



* Historic data restated in line with our methodology statement

Description

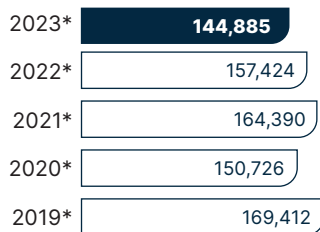
Scope 1 greenhouse gas (GHG) emissions arise directly from company-owned or -controlled sources, such as company vehicles or fuel combustion. Scope 2 GHG emissions are indirect emissions, primarily from the generation of purchased electricity. Market-based emissions take into account contractual and supplier-specific GHG emissions factors.

[Link to strategic initiatives](#)



Group energy consumption
MWh (excluding acquisitions)

144,885 MWh



* Historic data restated in line with our methodology statement

Description

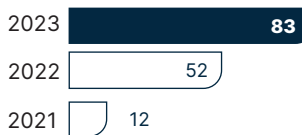
Energy consumed directly at all sites across the Group, including fuel combustion, company vehicles and electricity use.

[Link to strategic initiatives](#)



Operating companies that have delivered a biodiversity initiative cumulative % (excluding acquisitions)

83%



Description

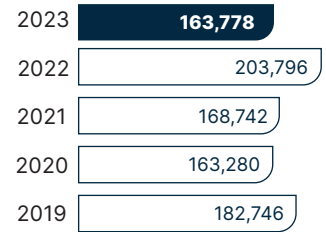
Percentage of operating companies that have completed a biodiversity initiative since the strategy launch in 2021 (cumulative).

[Link to strategic initiatives](#)



Total water use
m³ (excluding acquisitions)

163,778 m³



Description

Water consumed at our sites across the Group.

[Link to strategic initiatives](#)



Strategic initiatives:



Net zero carbon



Biodiversity net gain



Environment improvements



Sustainable products



Sustainable supply chain

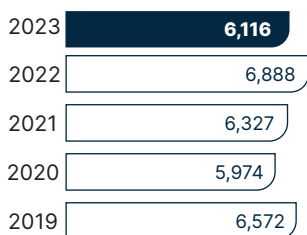


Supporting our communities

+ Read more about how we delivered on our strategic initiatives in 2023 on pages 72 to 81

Total waste generation
tonnes (excluding acquisitions)

6,116 tonnes



Description

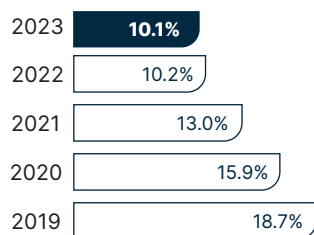
Waste generated and disposed of at our sites across the Group.

[Link to strategic initiatives](#)



Waste to landfill
% (excluding acquisitions)

10.1%



Description

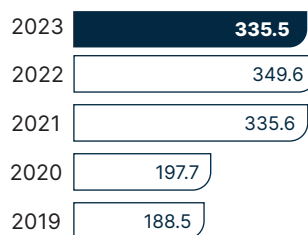
Proportion of waste that is sent to landfill versus waste that was reused, recycled or used to generate electricity.

[Link to strategic initiatives](#)



Operating company cash/ in-kind donations £'000
(excluding acquisitions)

£335.5



Description

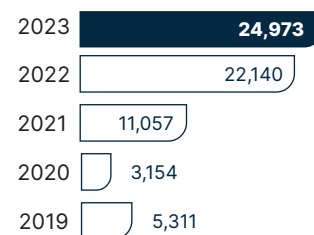
Cash and in-kind donations made to charitable causes from our Group operating companies.

[Link to strategic initiatives](#)



Volunteering
(hours) (excluding acquisitions)

24,973* hours



* 58,170 cumulative 2021 – 2023

Description

Hours spent volunteering by our colleagues across the Group.

[Link to strategic initiatives](#)



Sustainability Report: Strategic initiatives

Net zero GHG emissions

Key strategic targets

- Net zero scope 1 and 2 emissions by 2030, with an interim target of a 50% reduction (compared to 2019) by 2025
- 20% reduction in Group energy use from plant, equipment and building assets (compared to 2019) by 2025

Approved SBTi targets

- Reduce absolute scope 1, 2 and 3 greenhouse gas (GHG) emissions by 50.4% by 2032 compared to 2021 baseline
- Net zero GHG emissions across the value chain by 2050

Our progress in 2023*

6%

Decrease in scope 1 and 2 emissions (market-based) since 2022

52%

Electricity from renewable sources in 2023

8%

Reduction in Group energy use since 2022

* Includes recent acquisitions



Energy saving initiative

At our Steam Thermal Solutions site in Blythwood (USA) we use steam to test equipment and carry out heating processes. By using our metering service to analyse energy consumption against the operating schedules of each process, we were able to identify inefficiencies. We reduced boiler pressure and closed valves that feed the equipment when not in use. We expect these improvements to reduce natural gas usage by 44% and save 322 tonnes CO₂e per year.

In 2023 we continued to make good progress against our carbon reduction commitments and succeeded in having our ambitious net zero targets validated by the Science Based Targets initiative (SBTi).

As set out on page 61, the SBTi drives ambitious climate action in the private sector by enabling organisations to set emissions reduction targets in line with the latest climate science. It's based on a partnership between the United Nations Global Compact (UNGC), the World Resources Institute (WRI), the Carbon Disclosure Project (CDP) and the Worldwide Fund for Nature (WWF). The verification and approval received from the SBTi for our targets provides a clearly defined pathway for Spirax Group to reduce greenhouse gas (GHG) emissions.

Alignment with UN SDGs



Progress

We have continued to increase the proportion of green electricity in our operations, with additional solar arrays now operational on our sites in Nuevo Laredo (Mexico), Barcelona (Spain) and Devens (USA). Additional green energy contracts mean that 61% (2022: 57%) of electricity at our legacy sites now comes from renewable sources, 52% including recent acquisitions. As part of our responsible green energy sourcing strategy, we are putting power purchase agreements (PPAs) in place in several of our sites, including at our Steam Thermal Solutions (STS) site in Monterrey (Mexico), where we have invested in a solar array. This agreement secures renewable electricity for our needs for the medium term at this site, while also ensuring we are investing in infrastructure required to increase renewable capacity in this area.

Electric Vehicles (EV) are now expected as standard for all new company vehicles, unless electric charging infrastructure is insufficient. Exemptions to this EV first policy are monitored and investigated on a case-by-case basis. At the end of February 2024, 7% of our vehicle fleet had transitioned to electric vehicles. We are assessing countries where infrastructure limitations can affect the take-up of this transition and prioritising those where the infrastructure better supports the transition.

The installation of digital metering and monitoring at 20 of our manufacturing sites has meant that we have started to monitor energy use across our sites in real time. We can use this data to identify areas of improvement to reduce our energy consumption and GHG emissions. At our Steam Thermal Solutions (Spirax Sarco) manufacturing site at Runnings Road (UK) we were able to improve our energy management to reduce boiler losses there, contributing to a reduction in energy consumption at this site by over 20% in 2023 compared to 2022.

Greenhouse gas (GHG) emissions performance

In 2022 we acquired Vulcanic and Durex Industries. Following the completion of their first full year as part of Spirax Group, we are now including their data and are restating our emissions and energy consumption back to our 2019 baseline, in line with the GHG Protocol. These Divisions of ETS will be aligning with our **One Planet Sustainability Strategy** and our net zero commitments, but the focus to 2025 will primarily be our legacy operating companies, while these new Divisions further integrate into the Group and work to meet our standards.

The Group GHG footprint was verified in accordance with DIN EN ISO 14064-3:2020 regarding its correctness and completeness. This verification did not include 2022 acquisitions, as this was the first year of those Divisions collecting data and integrating into Group standards. For our legacy operating companies, verification was received as follows:

“Acting as an independent Certification Body TÜV NORD CERT GmbH has verified the carbon footprint, scope 1 and scope 2 (market-based), of the organisation for the reporting period 01.01.2023–31.12.2023 (inclusive) to be 25,310 tonnes CO₂e.”

TÜV NORD CERT GmbH, February 2024

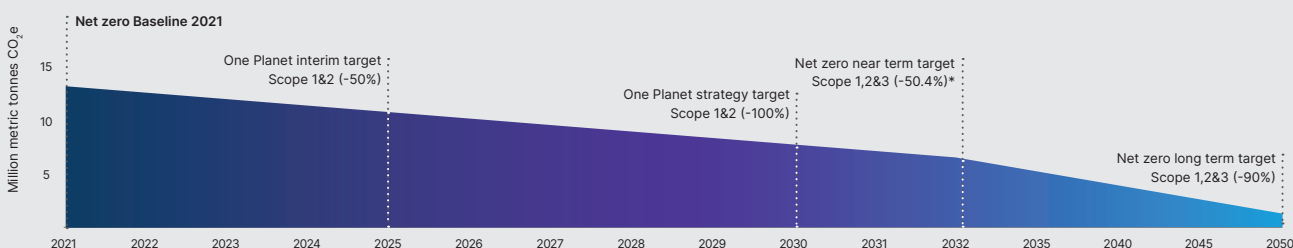
In 2023, on a market basis, excluding 2022 acquisitions, absolute Group CO₂e emissions fell six percent to 25,310 tonnes, compared to 2022 and were 45% lower than 2019. At 15.0 tonnes per million pounds of reported revenue, on an intensity basis, our Group emissions fell by ten percent compared with the prior year and were 59.6% lower than 2019.

Some of the reasons for these reductions include the effect of 2022 site consolidations in Electric Thermal Solutions and Watson-Marlow, in France and the UK respectively, the impact of efficiency improvements at Spirax Sarco's site at Runnings Road (UK) due to Project ClearSky, the impact of renewable electricity sourcing and emission reduction initiatives across the Group.

On a market basis excluding 2022 acquisitions, the UK accounted for 14% of our GHG emissions in 2023, with 4,382 tonnes being generated in total and an intensity of 38.3 tonnes per million pounds of reported revenue. These emissions are comprised of 4,333 tonnes of scope 1 and 37 tonnes of scope 2 calculated using market-based emission factors. Our emissions in the UK decreased by 23% compared to 2023, largely due to energy efficiency improvements due to Project ClearSky and the resulting change from natural gas to renewable electricity at this site (see page 93).

➕ For progress against our **One Planet: Engineering with Purpose** Sustainability Strategy targets, see pages 72-81.

2050 net zero roadmap



* Agreed SBTi target provides an allowance to reduce this to 33.3% in the near-term, with a requirement to catch up in the long-term commitment, given the reliance on grid greening, which may be weighted in the longer-term

Activities in direct operations

- Substitute fossil fuels in i) steam generation using **TargetZero** products, ii) switch high temperature industrial processes for low carbon alternatives, iii) progressively replace fossil-fuel consuming building assets to low carbon alternatives and climate-friendly refrigerants
- Source energy using onsite renewables, PPAs and green tariffs aligned with the GHG Protocol (80% of electricity by 2025 and 100% by 2030)
- Transition vehicle fleet and travel practices to low carbon alternatives
- Improve energy management and monitoring practices across all energy intensive facilities, supported by an internal absolute energy reduction target
- Engage with partners in a long-term carbon credit investment plan across scope 1, 2 and 3, making provision by 2030 for our **One Planet Sustainability Strategy** using credits for any remaining emissions (maximum of 10% baseline scope 1 and 2 emissions)

Activities across our value chain

- Continue to track the progress of grid-greening in reducing emissions from our products 'in-use' phase. 96% of our scope 3 emissions are derived from electricity consumption by our products in-use
- Optimise third-party logistics and transfer the shipping of products to low carbon suppliers, implement a long-term low emission logistics network across all modes of transport
- Work with suppliers to decarbonise critical scope 3 supply chains, or seek alternative innovative low carbon products
- Using life cycle analysis, address carbon intensive hot spots in our products and minimise life cycle emissions. Develop additional products supporting our customers' net zero journey

Sustainability Report: Strategic initiatives continued

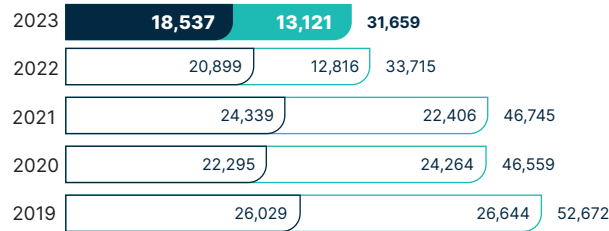


Net zero GHG emissions continued

Greenhouse gas (GHG) emissions performance continued

Group GHG emissions (scope 1 and 2)
tonnes CO₂e (market-based) (including acquisitions)

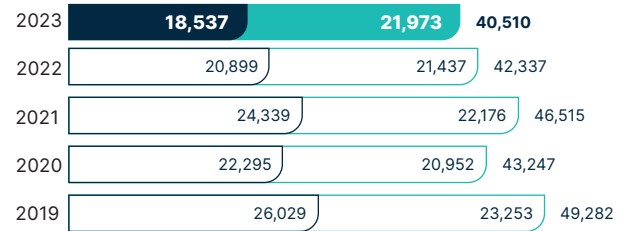
31,659 tonnes



● Scope 1 ● Scope 2

Group GHG emissions (scope 1 and 2)
tonnes CO₂e (location-based) (including acquisitions)

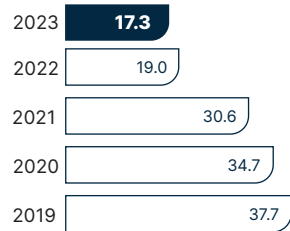
40,510 tonnes



● Scope 1 ● Scope 2

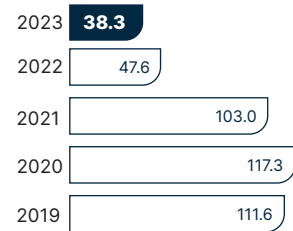
Group GHG intensity
tonnes CO₂e per £m reported revenue (market-based) (including acquisitions)

17.3 tonnes/£m



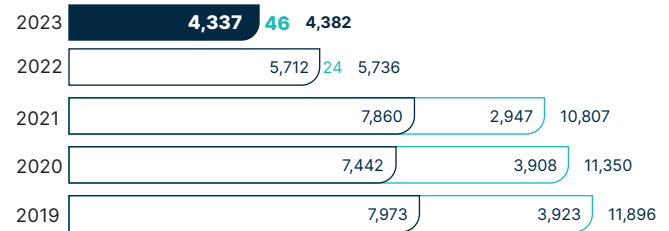
UK GHG intensity
tonnes CO₂e per £m reported revenue (market-based) (including acquisitions)

38.3 tonnes/£m



UK GHG emissions (scope 1 and 2)
tonnes CO₂e (market based) (including acquisitions)

4,382 tonnes



● Scope 1 ● Scope 2

Group GHG emissions (partial scope 3)
tonnes CO₂e (well-to-tank and transition and distribution) (excluding acquisitions)

9,924 tonnes



Group GHG emissions (full scope 3)
tonnes CO₂e (excluding acquisitions)



Greenhouse gas (GHG) emissions performance continued
In line with the GHG Protocol, we are restating historic greenhouse gas and energy data in order to include data consistent with the change in company structure. As accurate data is not available for historic years for Vulcanic and Durex Industries, 2023 data have been extrapolated for historic years in line with their annual revenues. For more information, see our methodology statement on page 75 and at spiraxgroup.com/sustainability-downloads.

Including Vulcanic and Durex Industries, our GHG scope 1 and 2, market-based emissions were 31,659 (2022: 33,715) and have reduced 40% since 2019.

Scope 3 emissions

As part of our ongoing work to assess and improve the accuracy of our scope 3 emissions, we worked in 2023 to quantify our 2022 emissions across our value chain. Working with our external partners we have improved accuracy of our assumptions and estimations, for example changing to weight data for some purchased goods and services, rather than relying purely on assumptions based on spend. During this process, we discovered that an error had been

made in the original baseline calculations. Correction of this error means that we are now restating our 2021 scope 3 emissions to be 13.3m tonnes and are also disclosing 2022 to be 12.9m tonnes. In 2024 we will recalculate our scope 3 emissions to include 2022 acquisitions, Vulcanic and Durex Industries and submit our new baseline to the SBTi for approval. We are looking at ways we can influence reduction in our scope 3 emissions, including logistics in our value chain and purchased goods and services, but scope 3 emission reductions will largely be dependent on grid-greening.

Emission reduction initiatives

We completed a wide range of emission reduction initiatives across the Group in 2023. For example, our Chromalox manufacturing site in Ogden, Utah (USA), recently completed a multi-year effort to upgrade and optimise its air compressor system, reducing energy consumption and emissions, while ensuring less downtime and maintenance and increased production throughput and quality. This has led to a 55% improvement in operating efficiency and a saving of approximately three percent of GHG emissions annually at this site as well as future-proofing for factory growth.

Group energy consumption

MWh
(including acquisitions)

166,356 MWh

2023	166,356
2022	180,345
2021	190,650
2020	172,049
2019	191,282

UK energy consumption

MWh
(including acquisitions)

41,891 MWh

2023	41,891
2022	51,673
2021	55,200
2020	48,807
2019	50,663

Group energy intensity

MWh per £m of reported revenue
(including acquisitions)

90.7 MWh/£m

2023	90.7
2022	101.8
2021	124.7
2020	128.1
2019	137.0

UK energy intensity

MWh per £m of reported revenue
(including acquisitions)

366.0 MWh/£m

2023	366.0
2022	428.6
2021	526.3
2020	504.3
2019	475.2

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 for 2023.

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, 2021, 2022 and 2023), data from the International Energy Agency (2019, 2020, 2021, 2022 and 2023), 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.

➕ For more information please see our methodology statement on our website: spiraxgroup.com/sustainability-downloads

Energy performance

In 2023, total Group energy use excluding 2022 acquisitions decreased by eight percent against 2022 to 166,356MWh and decreased by 11% on an intensity basis to 90.7MWh per million pounds of revenue (2023: 101.8).

Energy use in the UK accounted for 25% of the Group's total usage in 2023, at 41,849MWh and decreased by 19% compared with 2022. On an intensity basis, UK energy use decreased 15% year-on-year, to 365.6MWh per million pounds of reported revenue. Energy intensity for the UK is high compared to that of the Group as a whole, as we manufacture in the UK for sales overseas into global markets.

Including Vulcanic and Durex Industries, total Group energy use reduced 8% in 2023 to 166,356MWh (2022: 180,345) and has reduced 13% since 2019. In the UK, energy use including acquisitions was 41,891MWh.

Energy management

An example of an energy management project undertaken in 2023 is at our Watson-Marlow manufacturing site in Falmouth (UK). From assessing our energy consumption using data from our digital monitoring system, we were able to identify that air compressors at this site were losing compressed air at the weekends, despite none of the systems running at the weekend requiring compressed air. This knowledge allowed us to identify leaks in the system that we were able to fix and fit timers to automatically shut down these compressors between Friday PM and Monday AM when they are not needed. These changes are saving approximately 49,700kWh per annum of electricity at this site.

Focus for 2024

- Implement a power purchase agreement for a material proportion of our UK electricity consumption
- Progress electrification of our Spirax Sarco site at Runnings Road (UK)
- Embed access to data via our digital monitoring system and install digital meters at 2022 acquisition sites
- Further deploy energy management standards
- Resubmit targets to the SBTi to include recent acquisitions

Sustainability Report: Strategic initiatives continued

Biodiversity net gain

Key strategic 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 initiative per operating company, on site or in the local community by 2025

* 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

Our progress since 2021 (cumulative)*

1,656 acres

Land protected in Argentina

76%

Operating companies have delivered at least one biodiversity initiative since the launch of the **One Planet Sustainability Strategy** in 2021

* Includes recent acquisitions



Biodiversity initiative

In cooperation with LandCare and Creating Canopies, five colleagues from Spirax Sarco Australia attended our third planting day at Carnarvon Golf Course. On this day they were able to plant 200 native trees to grow the golf course canopy and also maintain plants that were planted the previous year. Volunteering work at this site has contributed to the return of bird life to this space, with Birding Australia recording 34 wild bird species at this site, including Pacific Black Ducks and a pair of Tawny Frogmouths.

Biodiversity is our ally in the battle to counter the effects of climate change. Healthy ecosystems can help to limit global temperature rises. Whilst we are becoming more and more aware of the impact of climate change on our environment and its inhabitants, we are also conscious of the effects our business activities have and the complex network of interactions between plants, animals and micro-organisms. Protecting this delicate balance is an important objective for our **One Planet Sustainability Strategy** and one that helps us to engage our colleagues, our communities and our value chain.

Alignment with UN SDGs



Progress

We have continued to invest in our partnership with the World Land Trust, funding the protection of a further 572 acres of land on the Somuncurá Plateau in Argentinian Patagonia, equivalent to our operating footprint, including that of our recent acquisitions, Cotopaxi, Vulcanic and Durex Industries. Now in its third year, this long-term partnership is helping to protect this unique environment and the species that thrive there.

As part of our commitment to biodiversity net gain, we are developing landscaping planting schemes to improve the biodiversity as part of all major construction projects. At our newly rebuilt Spirax Group

Headquarters in Cheltenham (UK), we have had our planting scheme approved by the local authority and will implement this in 2024 to deliver a biodiversity net gain of more than 10%. External assessment of proposed plans at our Watson-Marlow site in Devens (USA), will also deliver over 10% net gain in biodiversity and will start in spring 2024. Further schemes are being developed at our Gestra site in Bremen (Germany) and at Chromalox in Ogden, Utah (USA).

We are delivering excellent progress against our target for all Group operating companies to complete at least one biodiversity initiative on site or in the local community by 2025, with 83% of legacy operating companies (76% including acquisitions) already having delivered a biodiversity initiative to date. An example of an initiative delivered in 2023 is our Gestra manufacturing site contributing to reforestation of an area in North Rhine (Germany), where a 12 hectare area has been affected by damage due to a bark beetle infestation. Another example is in India where Watson-Marlow colleagues planted 1,000 trees of eight different species at Tulapur village in Pune.

Focus for 2024

- Progress biodiversity net gain for all major construction projects
- Increase biodiversity initiatives in 2022 acquisitions
- Continue to make progress against our target for all legacy operating companies to complete a biodiversity initiative by 2025



Environmental improvements

Key strategic 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 the use of solvent-based paint on our sites by the end of 2025*
- All manufacturing sites certified to ISO 14001 standard or equivalent by the end of 2025

* Unless mandated by customer requirements and with Group Executive Committee approval

Our progress in 2023*

13%

Reduction in water consumption since 2022

2%

Decrease in waste production since 2022

14%

Waste to landfill in 2023

* Includes recent acquisitions



Waste reduction initiative

Wooden pallets and boxes from incoming shipments which are in good condition are reused wherever possible at our Spirax Sarco site in Wuhan, China. However, we identified that, as a proportion of total waste, wood had increased sharply from 10% in 2019 to 30% in 2022, due to increased production output. In an effort to reduce wood waste at this site, we began reconditioning used pallets instead of recycling them. Slightly damaged pallets are now repaired and severely damaged pallets are dismantled to be used as materials for the repairs of others. Since starting this project in March 2023, wood waste fell by 37% in the first half of 2023 compared with 2022, indirectly saving approximately 1,170kg of CO₂e per year.

The way we manage resources in our own operations is one of the most direct ways through which we can lessen our impact on the environment. By ensuring that we are operating efficiently we can preserve resources, reduce our carbon footprint and minimise pollution of the natural world.

Our focus on water efficiency, waste reduction and elimination of solvent-based paints ensures that we are controlling how we use resources and dispose of waste responsibly to protect the environments where we live and work.

Alignment with UN SDGs



Progress

Following on from the rollout of waste and water action plan templates in 2022 and the resulting reduction plans, we have begun to see the positive impact of the work we have completed since launching our **One Planet Sustainability Strategy** in 2021. This has been aided by the implementation of monitoring and metering at all but one of our Group legacy manufacturing sites in 2023, excluding 2022 acquisitions.

During 2023 we focused on our top five consumers of water and producers of waste internally in each Business, ensuring that we are improving practices and efficiency at these sites to have the largest impact on our Group as a whole. We will utilise our learning from these locations to disseminate across the rest of the Group as part of internal best-practice sharing.

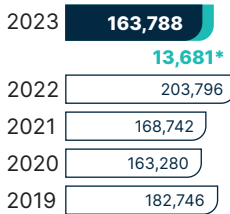
Of our 26 legacy manufacturing sites, excluding the recent acquisitions of Cotopaxi, Vulcanic and Durex Industries, 22 are currently certified to ISO 14001. In 2023, our Hiter manufacturing site in Brazil gained ISO 14001 certification and we have plans in place for 2024 and 2025 for the remaining outstanding locations. None of the 11 new manufacturing sites acquired at the end of 2022 currently have ISO 14001. Achieving certification at these sites will be a priority in 2024 onwards, but is not expected to be completed by 2025.

Sustainability Report: Strategic initiatives continued

Environmental improvements continued

Total water use
m³
(including acquisitions)

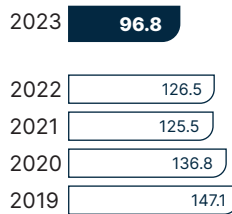
177,469 m³



* 2022 acquisitions, Cotopaxi, Vulcanic and Durex Industries included from 2023

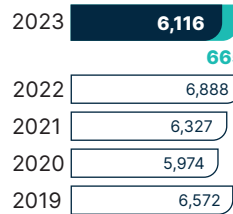
Water intensity
m³ of water per £m of reported revenue
(including acquisitions)

96.8 m³/£m



Total waste generation
m³
(including acquisitions)

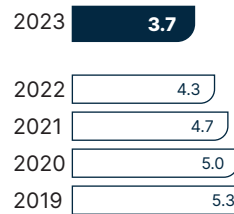
6,781 m³



* 2022 acquisitions, Cotopaxi, Vulcanic and Durex Industries included from 2023

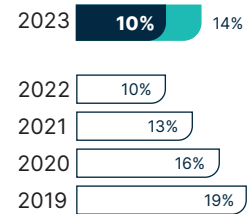
Waste intensity
m³ of waste per £m of reported revenue
(including acquisitions)

3.7 m³/£m



Waste to landfill
%
(including acquisitions)

14%



* Total Group (including 2022 acquisitions, Vulcanic and Durex Industries, from 2023)

Water

The Group water usage was verified by TÜV NORD CERT GmbH 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. This audit did not include 2022 acquisitions, as this was their first year of collecting data and integrating into Group standards, but a thorough internal review was completed on their data. For our legacy operating companies, assurance was received as follows:

Acting as an independent Certification Body TÜV NORD CERT GmbH has verified the water usage of the organisation, for the reporting period 01.01.2023–31.12.2023 (inclusive), to be 163,777,712 litres.

TÜV NORD CERT GmbH, February 2024.

In 2023, excluding 2022 acquisitions, our water consumption decreased by 20% compared to 2022 to 163,778m³. This has been due to the cumulative effects of the work we have been doing since 2021 to improve efficiencies in our processes and on sites. The installation of monitoring and metering has meant that we have been able to find and fix leaks that would otherwise have gone undetected, for example at our Watson-Marlow site in Falmouth, UK. It is estimated that fixing a previously unknown leak accounted for a 37% reduction in this site's water use compared to 2022.

Against our 2019 baseline, absolute water use excluding acquisitions decreased by ten percent. On an intensity basis, water use decreased by 23% compared with 2022, with an overall reduction in intensity of 34% compared to our 2019 baseline.

➕ For progress against our **One Planet: Engineering with Purpose** Sustainability Strategy targets, see pages 70-71.

Including Vulcanic and Durex Industries for the first time in 2023, water use in 2023 was 177,469m³ (2022: 203,796m³) and has reduced 13% since 2022 and 3% since 2019.

Waste

Excluding Vulcanic and Durex Industries, our global operations generated 6,116 tonnes of waste in 2023, which is a decrease of 11% from the previous year. On an intensity basis, we saw a 15% decrease in waste generated at 3.6 tonnes per million pounds of reported revenue.

As part of our data quality and continual improvement processes, we have made adjustments to reported waste since 2019, ensuring that we are capturing all waste streams at all sites possible. This means we are restating our historic waste data, in line with our restatement threshold of two percent, but are not rebaselining to include proportional waste for 2022 acquisition companies.

The proportion of waste that is diverted from landfill globally in our legacy sites has remained static, with 90% of our waste recovered, recycled or used to generate electricity in 2023 (2022: 90%). Including acquisitions, 86% of waste was diverted from landfill in 2023.

Including Vulcanic and Durex Industries for the first time in 2023, waste production in 2023 was 6,781 tonnes (2022: 6,888 tonnes) and has increased 3% since 2019.

Solvent-based paint

Our internal cross-Business working group continues to evolve and has recently developed transition roadmaps for each Business that details our working plans to transition away from solvent-based paints. This group has also started to develop an internal standard which defines the allowable percentage of volatile organic compounds (VOCs) we use in our paints.

The roadmaps are periodically reviewed by senior leadership to ensure full alignment and proper planning. Each of the Businesses has partnered with its primary paint suppliers for additional technical support in this journey and to ensure we are updated on the most current technology.

An exercise has been started to understand which of our recently acquired sites are using solvent-based paints and the associated volumes. Roadmaps will be developed to drive the elimination of these paints and a successful transition to aqueous-based paints, although this is not expected to be started before 2025 for these new businesses.

Focus for 2024

- Implement planned water improvement projects
- Install digital monitoring and metering at the largest of our recently acquired sites, as well as sub-metering and finding improvements from this data
- Complete end-to-end sustainability reviews of Vulcanic sites
- Strengthen internal community of practice, empowering, educating and developing leaders within the sustainability space



Sustainable products

Key strategic targets

- Quantify the sustainability benefits and whole life cycle carbon footprint of some existing product groups and all new products
- Grow sales of products with quantifiable sustainability benefits to customers
- Eliminate all single-use plastic (SUP) and non-recyclable packaging by 2025, unless specified by customer requirements such as sterile applications

We have been working on understanding the environmental attributes of our products across their whole life cycle. We are also implementing systems to embed eco-design improvements into our processes. Our goal is to design new products and, where appropriate, refresh existing products, in order to reduce our own environmental impacts as well as that of our customers and suppliers.

Alignment with UN SDGs



Progress

In 2023 we started developing sustainability product passports in Watson-Marlow that identify all the sustainability metrics of our products to provide clarity for our customers. The passports will be adapted to adopt new metrics in line with customer questions highlighted in our Voice of the Customer programmes.

Across the Group, we conducted eight life cycle assessments (LCAs) in 2023. LCAs support new product development by giving our engineers key metrics to set targets for improvements. A recent LCA conducted on one of our soon-to-be-released BioPure products has proven to show significant reductions. The assessment, covering all stages of the life cycle, revealed an estimated 22% reduction in CO₂e emissions, with expected significant reductions in manufacturing and upstream emissions, benchmarked against a previous LCA conducted in 2021.

Our digital monitoring capabilities are helping customers to optimise industrial processes and energy use worldwide, reducing energy consumption and operational spend. For example, Cotopaxi and Spirax Sarco worked with a multinational food company in 2023 to deliver real time analysis of water, air, gas, energy and steam (WAGES) through our monitoring system. They identified evaporation and heat losses and then implemented a heat recovery system.

Spirax Sarco, part of STS, has introduced the Customer Sustainability Journey (CSJ). The programme provides optimisation of customers' steam systems measured against energy, CO₂e, water and financial savings. These can then be managed via a new digital platform. A CSJ for a customer from the dairy industry focusing on recovery of energy from the surface blowdown in the steam system yielded a saving of 6,529GJ of energy, 2,482 m³ of water and 366 tonnes CO₂e per year.

Our progress in 2023

8

Life cycle assessments completed

Decarbonising our customers' industrial processes is a major part of Spirax Group's offering. Working with staff at a university campus, Chromalox's DirectConnect Medium Voltage electric steam generators were installed to replace gas powered heating and distribution systems. The steam generators are highly efficient and have low installation costs and quick response times compared to traditional low voltage steam generators.

Customer environment benefits

Annual estimated customer CO₂ energy and water savings from a select range of 20 product categories sold in 2023.

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

16.6m
tonnes of CO₂ per year

675m
mature trees absorbing CO₂

226m
GJ per year of energy

2.08m
people's annual average energy consumption (UK)

87.1m
m³ per year of water

34,900m
Olympic-sized swimming pools of water

Focus for 2024

- Develop and implement a purpose-built eco-design tool that will standardise environmental assessment across the Group
- Further develop product sustainability passports for some of our product families highlighting materials, due diligence, responsible production, efficient design, circularity and responsible packaging

Sustainability Report: Strategic initiatives continued

Sustainable supply chains

Key strategic target

- 80% of strategic and high risk suppliers assessed and meeting or exceeding our sustainability standards by 2025

Our progress in 2023 (cumulative)

931

Suppliers in the Supplier Sustainability Portal

76%

Suppliers signed the Supplier Sustainability Code



Castings project

As part of our scope 3 quantification, we identified that metal castings are the single largest commodity for greenhouse gas (GHG) emissions in our supply chain. In 2023, we launched a project to work with casting suppliers and investigate opportunities to reduce GHG emissions from these products, including recycled materials, circular economy opportunities and investment in induction furnaces. The partnerships from this project will mean stronger working relationships as we collaborate to reduce our impact on the environment.

As a responsible manufacturer, we understand the importance of our supply chain in meeting our sustainability goals for people and the planet. We actively develop and educate our suppliers, to further raise standards and build long-term partnerships that are mutually beneficial.

By encouraging our suppliers to reduce their environmental footprint, as well as requiring them to meet our expectations relating to human rights, we are ensuring that we meet both our own high standards and the growing expectations of our stakeholders. This increased monitoring combined with continuous improvement methodologies will deliver a robust, high performing supply chain capable of meeting our future needs, which also delivers for the needs of the planet.

Following on from the launch of our Supplier Sustainability Portal (Portal) in 2022, we have now successfully onboarded 931 suppliers, in line with our rollout plan. These strategic or higher risk suppliers have been providing qualitative and quantitative data and evidence regarding a wide range of sustainability topics, including resource use, climate impact and human rights. In these suppliers we are seeing a month-on-month improvement in response rates against all topics, with response rates up to 59% of respondees for a questionnaire on product stewardship by the end of February 2024. As the newer suppliers continue to engage and phase one suppliers, who were part of the initial rollout, further embed, we expect to see these results continue to improve. We are on track to meet our 80% target by 2025. Suppliers of our 2022 acquisitions are not included in these targets yet.

As well as direct monitoring of these strategic and higher risk suppliers, the Portal also allows for indirect monitoring of a larger range of suppliers, such as monitoring alerts on potential compliance issues or areas of concern in news articles, media outlets and other sources of communication. We are now monitoring 1,973 additional suppliers indirectly in this way, with all potential flags being reviewed and assessed internally. In 2023, we had 308 flags from this system,

however, many of these are duplicates or related to historic issues. None of these flags have required immediate intervention. Reviewing these flags is being incorporated into our supplier management risk-assessment process.

Signing the Code

In 2022, we reported an expected drop in the percentage of suppliers having signed the Supplier Sustainability Code (Code) as we transitioned to a new system of the Code being signed through the Portal. By the end of 2023, this percentage had increased to 76% (2022: 30%), demonstrating that our suppliers are familiarised with the new process. Our in-house monitoring systems are enabling us to focus on and effectively target unsigned Codes.

In 2023, we analysed our supply chain and exited some suppliers, particularly those who were unwilling to sign the Code or where standards fell short of those required, as part of this larger review across the Group.

Alignment with UN SDGs



Focus for 2024

- Incorporate the next phase of suppliers into our Supplier Sustainability Portal
- Work with suppliers to improve response rates and begin to assess results



Supporting our communities

Key strategic targets

- Deliver 150,000+ hours (cumulative) of colleague volunteering globally by 2025
- £2 million of cash or in-kind donations (cumulative) made by our Group Companies by 2025
- Establish the Group Education Fund and donate up to £15 million by 2030

Our progress in 2023*

25,697

Volunteering hours delivered

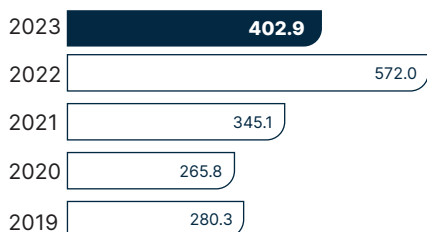
£1,158,284

Donated by the Spirax Group Education Fund

* Includes recent acquisitions

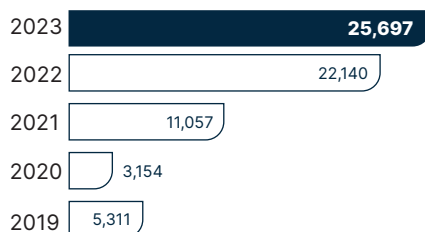
Group Charitable Fund donations £'000

£402,900



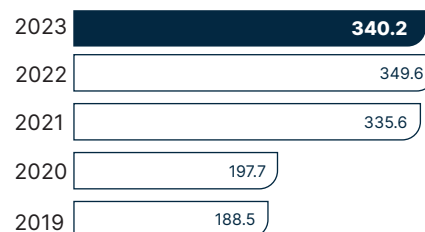
Volunteering hours hours (including acquisitions)

25,697 hours



Operating company cash/in-kind donations £'000 (including acquisitions)

£340,200



As a Group, we have committed to increasing the wellbeing of people in our communities, while addressing global sustainability challenges such as access to education, climate change and biodiversity loss.

In the 66 countries in which we operate globally, we want to make life better for the people in our communities. Through charitable donations and colleague volunteering we share our resources and expertise to meet local needs, improve access to education and support longer-term economic wellbeing so that our communities are stronger and more resilient now as well as in the future.

Alignment with UN SDGs



Progress

Spirax Group Education Fund

In 2023, we continued to invest in local educational needs as identified by our operating companies in the communities in which they operate. Since inception, the Spirax Group Education Fund has approved a total of 100 projects in 38 countries, paying out over £2 million to date. Some of the projects approved across the Group in 2023 include the funding of educational resources for hospitalised children in France; the funding of academic scholarships for underprivileged young people in children's homes and young people with disabilities in Taiwan; and funding university tuition fees for five students from an orphanage in Vietnam.

In 2022, we commenced funding towards the construction of a new school in Egypt with further funds donated in 2023. This school was completed and opened in October 2023, providing initial places for 96 young students who previously had no access to education in their local area and either had to walk long distances to school or did not attend.

Group charitable donations

The Spirax Group Charitable Fund donated over £409,200 to charitable causes. Some of these donations include: £8,000 to Young Lives vs Cancer, £30,000 to National Star College and £40,000 to WaterAid.

Colleague volunteering hours increased by 16% in 2023 compared to 2022, totalling 25,697 hours of Company time spent volunteering, with 58,894 hours cumulatively since 2021. Our operating companies donated £340,200 to charitable causes, in cash or in-kind (non-cash) donations during 2023.

For our International Day of Charity in September, we supported Sustainable Development Goal 2 - 'Zero Hunger'. Against this objective, 27 activities were reported by 19 operating companies, delivering 382 volunteering hours.

Matched-giving

A number of earthquakes with devastating effects occurred in 2023. In February, we launched a match-giving appeal resulting in over £100,000 donated by colleagues and the Spirax Group Charitable Fund to help those affected by the earthquake in Turkey and Syria. In addition, in September the Group made a £25,000 donation to support the British Red Cross Morocco Earthquake Appeal.

Focus for 2024

- Support SDG 15 - 'Life on Land' for the International Day of Charity in September
- Continue to develop and refine impact measurements for the Spirax Group Education Fund
- Embed community engagement culture in recently acquired companies
- Ensure we continue to have a diverse range of applicants for the Spirax Group Education Fund, from a wide geographical and operating company spread



Our communities

Enabling future generations

Building the foundations for a brighter future

The Spirax Group Education Fund (the Fund) is our commitment to supporting the future of engineering at a grass roots level. It was established at the end of 2021 to improve access to education, tackle poverty through education, remove barriers and inequality, and improve diversity in engineering. The Spirax Group Education Fund is a central source of funding that our operating companies can apply to, to request money to meet a locally identified educational need and build a brighter future together.

By the end of 2023 the Fund has paid out more than £2 million to over 100 projects, with a further £600,000 committed for payment in future years. What's special about the Fund is that each project supported has been nominated by a colleague to improve the lives of people in their local communities. Each grant awarded is managed by a local operating company which means that right across our Group, we're working together to provide help where it is needed most in our local communities.

We are also particularly proud of projects that can become self-sustaining as a result of our support, such as the creation of a digital learning hub at an elementary school serving a remote and under-privileged community, in Quezon, Philippines.

Joel Flores is Process Industries Leader for Watson-Marlow based in Southeast Asia. He explains why he applied for a grant from the Spirax Group Education Fund.

Number of projects supported by the Spirax Group Education Fund so far

100+

Total amount paid or committed since launch

£2.8 million

Funds to be donated by 2030

£15 million



The impact of this investment in the early education and digital skills of future generations of engineers will be seen in years to come, as they embark on their careers. By equipping and inspiring young people in the province of Quezon, we are enabling them to find their role in delivering a more efficient, safer and sustainable world in the future.”

Joel Flores

Process Industries Leader,
Watson-Marlow Fluid Technology Solutions



Digital skills powering sustainable futures

Dunong Cacawayan Elementary School is located in Infanta Quezon – an under-privileged area in the province of Quezon, Philippines, with a population of around 600 people. The school is several miles from the town, via challenging roads, and despite being established in 1972 only recently secured an electricity supply. As the school just has two functional classrooms, the Rotary Club of Infanta was looking for support in constructing a Learning Hub for the students.

“I applied to the Spirax Group Education Fund for £12,500 to cover the construction costs of the project and was delighted when I found out my application had been successful,” said Joel Flores, Process Industries Leader.

The Learning Hub features a mini library and computer bank. It is designed to inspire its 83 students and spark an interest in engineering, but it also gives them access to online information and digital educational resources they wouldn't have had previously, to help improve their reading, IT and science-based learning skills.

Digital technology and skills have revolutionised nearly every part of our daily lives, and will continue to have a major role to play in our future, so giving this community the skills they will need to be a part of this future is vital.

Longer term, the initiative, along with the wider curriculum of the school, aims to provide free access to education regardless of background, helping to tackle poverty in the community and improve access to education now and for years to come.

After receiving the funds in August 2023, clearing of the site began in September and construction of the 30m³ Dunong Cacawayan Learning Hub began in January 2024 and will complete by the end of March. The local government will provide ongoing funding to the facility and it will be monitored by a community representative from the Department of Education and the Rotary Club of Infanta Quezon.

TCFD and Climate-related Financial Disclosure (CFD)

Task Force on Climate-related Financial Disclosures (TCFD)

In accordance with Listing Rule 9.8.6R(8) we confirm that the following table contains disclosures consistent with the Task Force on Climate-related Financial Disclosures' recommendations and recommended disclosures.

Our approach is fully aligned with ten of the 11 TCFD recommendations and partially aligned with one, which is: Metrics and targets b) disclose scope 1, scope 2 and, if appropriate, scope 3 greenhouse gas (GHG) emissions and the related risks. Throughout 2022, we used a third-party carbon accounting specialist to help us establish our scope 3 emissions for a baseline year of 2021. In 2023, we calculated our scope 3 emissions for the 2022 financial year and improved our methodology to increase accuracy of these data. Scope 3 emissions for 2021 and 2022 can be found on page 74. Scope 3 is highly complex and requires significant levels of estimations where data are not available. As we are still developing our data collection processes for scope 3, reliant on external support, it was not possible to calculate full scope 3 emissions for 2023 ahead of the reporting deadline. We have disclosed a partial scope 3 figure (category 3, B and C) for 2023, which can be found on page 74 and full scope 3 emissions for 2022. In 2024, we will be working to increase the speed of these calculations, with a view to publishing a full scope 3 analysis in the coming years.

We will review our disclosures against the recommendations of TCFD on an annual basis.

Governance

Describe the Board's oversight of climate-related risks and opportunities

The Board is responsible for the overall stewardship of strategic risk management and internal control. The Audit Committee is also directly involved in the detailed review of risks, including those detailed in these disclosures, and reports back to the Board on its findings. During 2023, the Audit Committee received four risk management updates from the Risk Management Committee's Chair, and also reviewed the Principal Risks, as well as the position of climate change on the Group Risk Register.

Our **One Planet: Engineering with Purpose** Sustainability Strategy is an important mechanism by which we seek to mitigate climate-related risks and maximise climate-related opportunities. The Board received six updates and the Audit Committee received two updates from Group Director of Sustainability during 2023. This included updates on the Group's progress against **One Planet Sustainability Strategy** targets, TCFD, upcoming changes to regulatory reporting requirements and information about scope 3 data calculations.

Supporting customers on their decarbonisation journey is an important element of both our Steam Thermal Solutions (STS) and Electric Thermal Solutions (ETS) Business strategies. The Board also provides strategic oversight of these Business strategies, ensuring that we are mitigating any market-based risks that could arise as a result of climate change.

Where sustainability, including carbon reduction investments, is part of a large Capex proposal, these investments are directly approved by the Board. Climate impact is considered as one of the factors when making Capex decisions and in mergers, acquisitions and other business plans.

Describe management's role in assessing and managing climate-related risks and opportunities

The Risk Management Committee has responsibility for managing climate-related risks. Sarah Peers, Group Director of Sustainability, had specific delegated responsibility for overseeing climate-related risks and mitigation activities in 2023. Through her role as a member of the Group Executive Committee she ensures that climate-related risks and opportunities are appropriately considered in management's day-to-day operational practices.

During 2023, we reviewed the Group's exposure to risk using a bottom-up approach, where the Committee sought views of the Group operating companies on the risks that they considered may affect their activities to ensure new or emerging risks are not missed. Following this process, the Committee reviewed and confirmed the robustness of the countermeasures that Group operating companies have in place to mitigate the Principal Risks in the Group Risk Register.

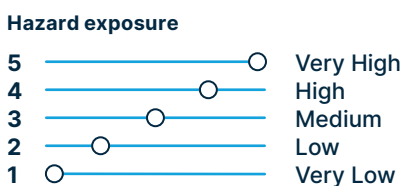
During 2023, management of the Group's climate change mitigation activities was overseen by the Board, the Group Executive Committee and the Group Sustainability Management Committee (GSMC) utilising the management structure outlined on page 69. The GSMC comprises the Group Director of Sustainability, the Business Heads of Sustainability, Strategic Initiative and Strategic Project Leads and other relevant individuals. Governance structures for risk management can be found on page 100.

Management oversight of climate-related risks and opportunities is embedded within the **One Planet Sustainability Strategy** and within our core Business strategies. Through those strategies, the Group Executive Committee and Business Executive Committees consider climate-related risks, opportunities, strategic implementation and progress against targets.

Strategy – Acute physical risks





Acute physical risks are event driven, specific episodes that have the potential to inflict significant physical damage

Risk/opportunity	Description	How we manage and mitigate this risk	Estimated financial impact	Link to metrics and targets
Flooding – river and flash flooding from precipitation	<p>17% of the Group's operations by total insured value (TIV), 42 of 239 locations, are currently exposed to risk of river flooding, with 28 sites (13% of TIV value) having 1% likelihood of river flooding in a year. TIV at risk is expected to increase to 19% by 2030, and then remain stable at 19% to 2050 under a high (4°C) warming scenario. The Group has some exposure to heavy rainfall and potential flash floods with 43% of the TIV today located in areas exposed to high levels of precipitation, which is forecast to increase slightly to 44% by 2050 under a high warming scenario. The Steam Thermal Solutions site in Shanghai, China, is the highest value asset at the highest level of risk.</p> <p>Although a number of sites have exposure to this flooding, the risk and potential impact are still insignificant, with likelihood of flooding tending towards a 1-in-100-year-type event under high-warming scenario, RCP8.5 (see page 90).</p> <p>Under RCP 8.5, it is predicted that by 2050, 5% of the operations have a 10% likelihood of flooding in a given decade.</p>	<p>These risks are managed through our Principal Risks 5 (loss of manufacturing output at any Group factory) and 7 (loss of a critical supplier). To mitigate risk, annual risk assessments are conducted by our insurance partner and we have appropriate insurance cover. Business continuity planning and capacity planning are in place to ensure we have spare capacity at alternative sites and stock is held locally in sales companies. For key commodities, where possible, we seek to maintain dual sourcing to negate the risk from the loss of a critical supplier.</p> <p>In 2024, findings of the climate risk assessment will be circulated, particularly with manufacturing facilities, so that adequate mitigation measures can be considered and embedded in their business continuity plans at a site level.</p>	<p>Low carbon economy (RCP 2.6 – 2030)</p> <p>Hazard exposure</p> <p>Residual risk profit impact</p> <p>Hothouse world (RCP 8.5 – 2050)</p> <p>Hazard exposure</p> <p>Residual risk impact</p>	<p>Minor residual risk impact means that the we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target.</p>
Windstorm	<p>91 locations (mostly in Europe) are in regions exposed to strong winds (accounting for 51% of TIV), with a 1% annual chance of having severe wind gusts of over 121km/h, with 4 sites having a risk of winds of 161–200km/h. The highest value asset currently at risk from windstorm is Watson-Marlow's site in Falmouth (UK). TIV at risk from windstorms is expected to remain stable to 2050 under a high warming scenario, but the frequency of windstorms is likely to increase over time.</p> <p>Even under a hothouse world scenario, the average annual modelled impact may increase slightly; however, it would still be in the insignificant range as per the Group Enterprise Risk Management (ERM) scale.</p>	<p>This risk is managed through our Principal Risks 5 (loss of manufacturing output at any Group factory) and 7 (loss of a critical supplier). To mitigate risk, annual risk assessments are conducted by our insurance partner and we have appropriate insurance cover. Business continuity planning and capacity planning are in place to ensure we have spare capacity at alternative sites and stock is held locally in sales companies. For key commodities, where possible, we seek to maintain dual sourcing to negate the risk from the loss of a critical supplier.</p> <p>In 2024, findings of the climate risk assessment will be circulated, particularly with manufacturing facilities, so that adequate mitigation measures can be considered and embedded in business continuity plans at a site level.</p>	<p>Low carbon economy (RCP 2.6 – 2030)</p> <p>Hazard exposure</p> <p>Residual risk profit impact</p> <p>Hothouse world (RCP 8.5 – 2050)</p> <p>Hazard exposure</p> <p>Residual risk impact</p>	<p>Minor residual risk impact means that the we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target.</p>



TCFD and CFD continued

Strategy – Acute physical risks continued

Risk/opportunity	Description	How we manage and mitigate this risk	Estimated financial impact	Link to metrics and targets
Fire	12% of the Group's TIV is today exposed to at least 20 days per year of fire weather, with Chromalox's Ogden, Utah (USA), site the highest value asset with some level of risk, and Chromalox's Nuevo Laredo, Mexico, site having the highest level of risk but a lower TIV.	This risk is managed through our principal risks 5 (loss of manufacturing output at any Group factory) and 7 (loss of a critical supplier). To mitigate risk, annual risk assessments are conducted by our insurance partner and we have appropriate insurance cover. We also conduct occasional inspections by local fire officers.	Low carbon economy (RCP 2.6 – 2030) Hazard exposure  Residual risk impact 	Minor residual risk impact means that the we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target.
	As global temperatures increase, the likelihood of fire risk is expected to increase with 19% of TIV at risk by 2050 under a high-warming scenario.	Business continuity planning and capacity planning are in place to ensure we have spare capacity at alternative sites and stock is held locally in sales companies. For key commodities, where possible, we seek to maintain dual sourcing to negate the risk from the loss of a critical supplier.	Hothouse world (RCP 8.5 – 2050) Hazard exposure  Residual risk impact 	

Under current conditions, the likelihood of an acute physical risk impacting the Group's direct operations in a given year is deemed Unlikely, and the residual impact (post-mitigation) has been assessed as Insignificant (<£10 million).





To mitigate risk, annual risk assessments are conducted by our insurance partner and we have appropriate insurance cover. Business continuity planning and capacity planning are in place to ensure we have spare capacity at alternative sites and stock is held locally in sales companies. For key commodities, where possible, we seek to maintain dual sourcing to negate the risk from the loss of a critical supplier.

In 2024, findings of the climate risk assessment will be circulated, particularly to manufacturing facilities, so that adequate mitigation measures can be considered and embedded in their business continuity plans at a site level.

+ For more information about the management of these Principal Risks, see pages 101 to 105

Strategy – Chronic physical risks

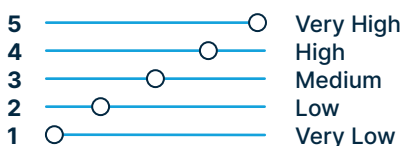
Chronic risks arise from longer-term changes in climate pattern, notably drought, heat stress and sea level rise.

Risk/opportunity	Description	How we manage and mitigate this risk	Estimated financial impact	Link to metrics and targets
Heat stress	Currently 45% of the TIV of the Group's operations (112 locations) is exposed to heat stress, seeing an average of >20 heatwave days in a given year with temperatures in excess of 30°C. This is expected to increase to 55% of TIV at risk from heat stress by 2050, under a high warming scenario. Examples of high TIV sites currently at risk from heat stress include Chromalox Nuevo Laredo, Mexico; Steam Thermal Solutions Mexico; and Chromalox Tennessee (USA). Risks from heat stress include increased costs of running HVAC equipment and potential decrease in productivity of employees.	Many of the operations currently exposed to heat stress are in locations where this environment is expected and well adapted for. Changing weather location patterns mean that more sites may move into areas of heat stress that are not currently and these sites may be less prepared.	Low carbon economy (RCP 2.6 – 2030) Hazard exposure  Residual risk impact 	Minor residual risk impact means that the we have not identified this as a risk that requires a specific metric or target. The Risk Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target.
		Operations of Electric Thermal Solutions, Steam Thermal Solutions and Watson-Marlow are exposed. This trend could mean that increased cooling of buildings and machinery might be required to reduce the risk of operational disruption and also to improve working conditions for colleagues.	Hothouse world (RCP 8.5 – 2050) Hazard exposure  Residual risk impact 	

Risk/opportunity	Description	How we manage and mitigate this risk	Estimated financial impact	Link to metrics and targets
Drought	<p>Currently 12% of the TIV of the Group's operations (54 locations) is exposed to drought stress with three or more drought months per year. This is expected to increase under a high warming scenario, reaching 31% by 2050. An example of a high value asset with a high exposure to drought risk today is Chromalox Nuevo Laredo, Mexico. Drought may impact the availability and quality of water, which could impact manufacturing processes including product testing.</p> <p>Drought has the potential to impact the supply of raw materials where inland waterways are used for transportation, impact electricity availability in locations with a higher reliance on hydropower and increase the risk of wildfires.</p>	<p>The operations of the Group are not generally considered water intensive and therefore the potential impacts may be addressed through adaptation and risk management.</p> <p>Supply of raw materials and electricity are managed through Principal Risk 7, loss of a critical supplier. Mitigation activities under this risk include dual sourcing, managing stock levels for high-risk commodities and in-sourcing production where appropriate.</p>	<p>Low carbon economy (RCP 2.6 – 2030)</p> <p>Hazard exposure </p> <p>Residual risk impact </p> <p>Hothouse world (RCP 8.5 – 2050)</p> <p>Hazard exposure </p> <p>Residual risk impact </p>	<p>Minor residual risk impact means that the we have not identified this as a risk that requires a specific metric or target. The Risk Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target.</p>
Sea level rise	<p>Risk of exposure from sea level rise is 10% of assets by value, with no change expected to 2050. The Steam Thermal Solutions site in Shanghai, China, is the highest value asset at risk.</p>	<p>Our exposure under this risk is no expected to change under a hothouse world scenario. This risk is managed under Principal Risk 5, loss if a manufacturing output at any Group facility.</p> <p>To mitigate risk, annual risk assessments are conducted by our insurance partner and we have appropriate insurance cover.</p> <p>In 2024, findings of the climate risk assessment will be circulated, particularly with manufacturing facilities, so that adequate mitigation measures can be considered and embedded in their business continuity plans at a site level.</p>	<p>Low carbon economy (RCP 2.6 – 2030)</p> <p>Hazard exposure </p> <p>Residual risk impact </p> <p>Hothouse world (RCP 8.5 – 2050)</p> <p>Hazard exposure </p> <p>Residual risk impact </p>	<p>Minor residual risk impact means that the we have not identified this as a risk that requires a specific metric or target. The Risk Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target.</p>

The impacts of chronic risks are likely to differ by location, with some countries already experiencing and managing high levels of heat stress or drought, with the ability to adapt to those conditions. For other locations, historically less used to drought or heat stress, the impacts could potentially be more disruptive. However, as we are not a highly intensive user of water and chronic risks can largely be mitigated or adapted, the residual impact (post-mitigation) of chronic physical risks has been assessed as Insignificant (<£10 million).

Hazard exposure



Residual risk impact (annual profit)



TCFD and CFD continued

Transition risks/opportunities

Transition risks arise from changes required to facilitate a low carbon economy.

Risk/opportunity	Description	How we manage and mitigate this risk	Estimated financial impact	Link to metrics and targets
Market transition	<p>Increasing availability of green energy could enable electric heating solutions to replace fossil fuel-derived steam generation where carbon emission concerns override cost differences in the medium to long term (5+ years). This will provide opportunities across all geographical regions and most customer sectors for our Electric Thermal Solutions and Steam Thermal Solutions Businesses as these Businesses combine to electrify the generation of steam.</p> <p>Increased cost of electricity provision and raw materials provides some risk, as the introduction of carbon taxes could be passed on in raw material spend.</p>	As market leaders in the provision of thermal energy solutions, mitigating this risk and maximising the opportunity is deeply embedded in the core business strategies of both our Steam Thermal Solutions and Electric Thermal Solutions Businesses. This risk is mitigated through Principal Risk 6 (inability to identify and respond to changes in customer needs). Mitigation includes regular voice of customer research and research and development/new product innovation to lead the way in providing innovative solutions to customers. For more information about the management of this Principal Risk, see page 104.	<p>Risk 2025</p> <p>2030</p> <p>Opportunity 2025</p> <p>2030</p>	<p> Net zero carbon</p> <p> Sustainable products</p>
Technology transition	Costs of upgrading and installing infrastructure to support an electric vehicle fleet, or costs to transition away from fossil fuel dependent production equipment.	The transition to low carbon technology across our operations is embedded in our net zero roadmaps developed by all manufacturing sites and at a Group level. Fossil fuel-dependent systems and processes have been identified and investment plans developed, through annual and medium-term financial planning cycles, to phase the cost of decarbonisation activities over time, reducing risk.	<p>Risk 2025</p> <p>2030</p> <p>Opportunity 2025 N/A</p> <p>2030 N/A</p>	<p> Net zero carbon</p> <p> Environment improvements</p>
Reputation	Risk of reputational loss of Spirax Group as a top performing, environmentally sustainable business due to association with fossil fuel-reliant systems over the medium to long term (5+ years).	This very low risk is mitigated by our strong reputation, our innovative product developments, the introduction of our Natural Technology marketing strategy, which correctly positions steam as a sustainable technology and our own leading net zero commitments and progress against them.	<p>Risk 2025</p> <p>2030</p> <p>Opportunity 2025</p> <p>2030</p>	<p> Net zero carbon</p> <p> Sustainable products</p>

Estimated financial impact (annual profit)

5		Significant	>£100m
4		Major	£100m - £50m
3		Moderate	£50m - £25m
2		Minor	£25m - £10m
1		Insignificant	<£10m

Risk/opportunity	Description	How we manage and mitigate this risk	Estimated financial impact	Link to metrics and targets
Policy and legal transition	Carbon taxation: In country or at borders, could lead to increased operational costs. For example, the EU's Carbon Border Adjustment Mechanism (CBAM) became effective in October 2023, with a two-year transition period now in operation before carbon taxation commences on high carbon imports (such as steel, iron or aluminium) into the EU.	This risk is mitigated through our One Planet Sustainability Strategy , which includes net zero targets, energy reduction commitments, major decarbonisation projects and conversion to an electric vehicle fleet.	Risk 2025 2030 	 Net zero carbon
	Building code regulations: Policy makers may promote a switch to low carbon buildings, for new builds or retrofitting old buildings, which could lead to increased costs, such as implementing Minimum Energy Efficiency Standards.	We manage and monitor existing and upcoming legislation from a range of sources to ensure that we are able to pro-actively respond to upcoming legislating risks.		
	Climate change litigation: Risk arising from the increasing activism of shareholders or the public against companies for failure to adapt to climate change, greenwashing by overstating positive environmental impacts, or understating risks or insufficient disclosure around material financial risks. (Risk is deemed very low for our Group).	Climate change litigation risk is mitigated by our innovative product developments, the introduction of our Natural Technology marketing strategy, which correctly positions steam as a sustainable technology and our own leading net zero commitments and progress against them.		 Sustainable products
	Waste-related laws and regulation: Driven by an aim to increase circularity of the economy, new regulations could impact how we manage waste on our own sites and, potentially, impact end of life treatment of products we sell.			 Sustainable supply chain

Estimated financial impact (annual profit)



TCFD and CFD continued

Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

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, our **One Planet Sustainability Strategy** underpins our Business strategies, which in conjugation with the voice of the customer and understanding customer needs, allows us to develop products and services that help our customers achieve their own carbon reduction targets. This, in turn, helps us to manage reputational risk by ensuring we're driving down our own emissions, in line with our commitments to the Science Based Targets initiative (SBTi) and the UN Global Compact.

Each of our three Businesses incorporate sustainability in their Business strategy, Customer first², Engineering Premium Solutions and Strategy25. This has resulted in the creation of TargetZero solutions to decarbonise the raising of steam, which was a collaboration between Steam Thermal Solutions and Electric Thermal Solutions.

As part of our financial planning process, we have an annual financial plan for sustainability. When considering sustainability investments, we prioritise initiatives that deliver the best value of £/tCO₂e saved. In 2022, we developed and commenced implementation of net zero roadmaps across our manufacturing sites. For more information about our net zero roadmap, see page 73.

Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

With customers in almost all industries worldwide and across 164 countries, steam remains the world's most efficient heat transfer medium for a wide range of applications, with multiple onsite uses from the production of foods, beverages and medicines, to the generation of power. Our Steam Thermal Solutions are complemented by our Electric Thermal Solutions product and service offering. We thus have a highly resilient business that will remain relevant across different climate-related scenarios.

As part of our annual viability assessment, we annually undertake scenario risk modelling focusing on stress testing the Income Statement and cash flow projections to determine the resulting impact on the Group's debt covenants and liquidity headroom, to ascertain the potential revenue or adjusted operating profit impacts that could arise from one, or a combination, of the Group's Principal Risks. The key risks associated with climate change would be mitigated by management processes for three of our Principal Risks (5, 6 and 7). Modelling completed as part of our viability assessment suggests that our Principal Risks do not pose a significant threat to the viability of our Group; therefore, management believes that this also applies to climate risk. For more information see pages 42 to 43, 144 and 154.

As well as these ongoing risk management and Principal Risk Management processes, during 2023 we worked with

Willis Towers Watson to complete quantified scenario analysis for a range of warming scenarios (a below 2°C scenario (1.5°C scenario), a 2–3°C scenario and a 4°C scenario), over multiple timeframes. Physical risks were assessed under current conditions and projected impact in the medium term (2030) and long term (2050). These timeframes align with our **One Planet Sustainability Strategy** targets and SBTi approved net zero targets.

The chosen scenarios were in line with the Intergovernmental Panel on Climate Change (IPCC) representative concentration and shared social economic pathways (RCPs mapped to SSPs) RCP 2.6 (SSP1), RCP 4.5 (SSP2) and RCP 8.5 (SSP5) respectively. The two extreme scenarios were chosen in order to 'stress-test' the impact to the Group under cases of maximum physical risk impact and maximum transition risk impact. RCP 4.5 was assessed as a middle scenario.

Physical risks were identified through asset 'exposure diagnostic' analysis for 239 operating locations (comprising sales and manufacturing companies and sites). The climate risks were derived from a number of data sources including Willis Towers Watson's Global Peril Diagnostic and Climate Diagnostic tools, data from Munich Re hazard databases and research in line with the IPCC reports. The findings were then validated in workshops.

Transition risks were identified and assessed through multiple workshops, drawing on relevant expertise from colleagues from across the Group. For this assessment, one scenario of RCP 2.6 (1.5°C scenario) was considered, as it is under these conditions that transition risks would be most relevant. Transition risk exposure was assessed on a short-term horizon of 2025 and a medium-term time horizon of 2030 with impacts being assessed as an annualised amount. Transition risks were not quantified in the longer term due to the difficulty in building assumptions around the direction of policy out to 2050 or beyond; physical risks are anticipated to be more relevant on those timeframes.

In addition, physical risk exposure diagnostic analysis was completed for 45 of the Group's suppliers (selected on the basis of spend, strategic importance, geographic location or business coverage).

Risk management

Describe the organisation's processes for identifying and assessing climate-related risks

The Risk Management Committee holds annual top-down or bottom-up reviews that provide information and evaluations that the Committee uses alongside our risk impact, likelihood, appetite and velocity ratings to create an effective system for assessing materiality, monitoring, planning and developing our Group-wide approach and culture regarding risk.

The Risk Management Committee performs a scoring exercise each year against all our documented risks, assessing impact, likelihood, control, velocity and appetite for each risk. Each member of the Committee scores each risk and the scores are reviewed, discussed and assessed compared to the other risks. This process is used to assign the Principal Risks and position of each risk on the Register. Existing and emerging regulatory requirements related to climate change are considered as part of this review.

Risk velocity was deliberated and approved as a further measure in our Group risk management framework in 2022. Risk velocity ratings were assigned and validated for all Principal Risks in 2023, as set out on pages 101 to 105, and other risks on the Risk Register, including climate change.

Describe the organisation's processes for managing climate-related risks

Materiality for climate change risks is based on the enterprise risk management scales used to determine materiality across all of our risk management processes. Climate change-related risks are currently deemed to be low for the Group (based on assessment of likelihood, velocity, impact and control) and climate change is not identified as a Principal Risk on the Group's Risk Register. However, a number of the key risks associated with climate change, e.g. physical risks – notably the impact of a climate-related event on our direct operations, specifically the loss of a manufacturing site, or on a critical supplier – and transition risks, such as failure to meet changing market needs, are already managed through other Principal Risks on the Group Risk Register. We therefore believe that our risk management processes are adequate and appropriate for the level of risk as applicable to our Group.

+ For more information about how we manage risk, see the Risk Management Committee Report on pages 150 to 154

Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management

During 2023, we reviewed the Group's exposure to risk using a bottom-up approach, where the Committee sought views of the Group operating companies on the risks that they considered may affect their activities to ensure new or emerging risks are not missed. Following this process, the Committee reviewed and confirmed the robustness of the countermeasures that Group operating companies have in place to mitigate the Principal Risks in the Group Risk Register.

Climate change is a risk factor that influences other risks, so control of climate risk is embedded in and managed through other Principal Risks, particularly risk 5 (loss of manufacturing output at any Group facility), risk 6 (inability to identify and respond to changes in customer needs) and risk 7 (loss of a critical supplier).

Climate change has risen in position in the Risk Register over the last few years to position 10. It is considered a serious, emerging risk though not currently one of the Group's Principal Risks.

See the following pages for targets related to:

- + Net zero carbon and energy use – 72
- + Environmental improvements in our own operations – 77
- + Sustainable products – 79
- + Sustainable supply chain – 80

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

We have disclosed cross-industry TCFD metrics used to manage our climate-related risks and opportunities. Managing our GHG emissions to meet our net zero targets and helping our customers to do the same mitigates climate risk by working towards realising a low carbon future.

- Scope 1, 2 and 3 GHG emissions – 74
- Energy use – 75
- Proportion of company vehicles that are EV – 72
- Waste and water – 78
- Climate-related executive management remuneration – 35
- Customer environmental benefits – 79

Group greenhouse gas emissions (scope 1 and 2) are monitored as a Group key performance indicator (KPI) to measure successful progress against our strategy. See pages 34 to 35 for more information on our KPIs. Given the strong engagement with, and investments in, net zero initiatives across the Group, an internal carbon price is not needed. In addition, internally we monitor a number of opportunity metrics, for example the customer decarbonisation opportunities pipeline in the Electric Thermal Solutions Business and metrics related to the launch of our **TargetZero** solutions. These metrics are not disclosed externally as they are commercially sensitive.

In December 2023, we received approval from the SBTi for our near-term and long-term targets, and net zero target for 2050 in line with a 1.5°C trajectory.

Disclose scope 1, scope 2 and, if appropriate, scope 3 greenhouse gas (GHG) emissions and the related risks

+ Scope 1, scope 2 and scope 3 disclosures can be found on pages 73 to 74

During 2022, we used a third-party to help us quantify a full scope 3 baseline figure for 2021. This figure was calculated using GHG Protocol-aligned scope 3 methodologies, but is heavily reliant on estimates and assumptions. In 2023 we further calculated our scope 3 emissions for the 2022 financial year and improved our methodology to increase accuracy of this data, restating 2021 as data availability and accuracy improved.

+ For more information about the methodology we use to calculate our scope 1, 2 and 3 emissions and customer savings metrics, see page 75 and a more detailed methodology statement on our website: spiraxgroup.com/sustainability-downloads

Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets

Reflecting the central importance of the Group-wide **One Planet Sustainability Strategy** to all of our forward-looking plans, the measures for the 2022 Performance Share Plan (PSP) changed to include a sustainability measure accounting for 20% of the PSP opportunity, dependent on reduction of greenhouse gas emissions (scope 1 and 2) over three-year periods. For more detail see page 160.



Our environment

The future of sustainable steam

How our **TargetZero** solutions will play an essential role in enabling industrial decarbonisation for the raising of steam.

The decarbonisation of steam generation is one of the main challenges facing all industries. Our customers are looking for solutions to maintain their critical steam systems while still achieving their stated sustainability goals. That's why we are excited about the potential of our **TargetZero** solutions, which decarbonise the use of steam through electrification of the heating source, removing the need to burn fossil fuels.

As a Group, we are committed to eliminating our scope 1 and 2 greenhouse gas (GHG) emissions by 2030 and achieving net zero (scope 1, 2 and 3) by 2050 as part of our **One Planet Sustainability Strategy**.

'Project ClearSky' is our initiative to decarbonise the generation of steam through the elimination of fossil fuels at our UK manufacturing facility for Spirax Sarco, part of Spirax Group's Steam Thermal Solutions Business. The 60,000sqm facility consumes around 37GW of energy every hour. And, when the decarbonisation project is complete, the annual GHGs emitted from the raising of steam at this facility will reduce from 6,000 tonnes of CO₂ (reducing Spirax Group's global emissions by over 15%).



Zero

GHG emissions from the raising of steam at the site upon completion

Emissions saved at the site equivalent to driving an average internal combustion engine car

138 million miles

15%+

Reduction in Spirax Group's CO₂e



Our goal is to quite literally ‘clear the skies’ of the emissions associated with steam generation and other industrial heat applications creating a better world for future generations by facilitating the switch to a greener technology.”

Allison Lappe

Associate Manager, Research & Development Engineering, Chromalox, Electric Thermal Solutions



Project ClearSky is a transformational project that marks a step change in how we understand our customers’ decarbonisation challenges and support them in future proofing their operations.”

Mark Sadler

Head of Strategic Projects, Spirax Sarco, Steam Thermal Solutions

Project ClearSky

There are many processes and operations across industry which rely on steam. To demonstrate how customers can maintain their steam systems and meet their net zero goals, the technology implemented at our manufacturing site in Cheltenham (UK) demonstrates what is possible in the decarbonisation of steam generation.

The practical insights gained throughout this project put us in a unique position to not only understand the challenges our customers face as they strive for net zero emissions, but also present them with a robust, tried and tested solution so they can understand how this technology will help future proof their own sites.

This project is also a good example of collaboration across the Group. Firstly, most of the products that make up this solution are our own innovations, developed from proprietary technologies we have in the Group. Secondly, the delivery of the project has meant synchronising with numerous functions including Health and Safety, Supply Chain and Legal.

We began the project in May 2022 by decommissioning our Combined Heat and Power unit, halving the site’s GHG emissions. We then installed a 9MW power supply in preparation for the installation of a new 9MW electrical substation and associated infrastructure. This will power the Medium Voltage (MV) heating technology from Chromalox (part of Electric Thermal Solutions), which forms the basis of our **TargetZero** portfolio of solutions for decarbonising the raising of steam and sits at the heart of the site’s new steam generation capabilities.

The first of our three **TargetZero** solutions to be powered up will be the **SteamBattery**, a thermal energy storage system capable of generating steam from renewable or off-peak electricity. Following this, our second solution, **SteamVolt** a first-fit boiler solution that uses electric heat and control technology, will go online. It is at this point that we will have decarbonised the generation of steam at our site. However, we will also be deploying our third solution, **ElectroFit**, a retrofit boiler solution that converts fossil fuel fired boilers to electric. This solution will become our back up boiler.

This holistic approach means we are able to achieve the emissions reduction fundamental to our targets as outlined by our **One Planet Sustainability Strategy** and demonstrate the impact of our solutions for customers.

Non-financial and sustainability information statement 2023

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 and Sustainability Information Statement for 2023.*

Reporting requirement	Group policies that guide our approach	Information and risk management, with page references
Environmental matters	<ul style="list-style-type: none"> Group Sustainability Policy Group Environmental and Energy Policy Group Management Code Supplier Sustainability Code 	<ul style="list-style-type: none"> Sustainability Report, pages 70-80 Principal Risks, pages 104-105 TCFD and CFD Disclosures, pages 84-91 Our business model, pages 18-19 Section 172 Statement, pages 121-123 Company Purpose, page 107
Employees	<ul style="list-style-type: none"> Group Diversity and Inclusion Policy Group Management Code Group Human Rights Policy Group Sustainability Policy Group Health and Safety Policy – Statement of Intent 	<ul style="list-style-type: none"> Sustainability Report, pages 62-68 Our business model, pages 18-19 Colleague Engagement Committee Report, pages 128-131 Section 172 Statement, pages 121-123 Company Purpose, page 107
Social matters	<ul style="list-style-type: none"> Group Human Rights Policy Group Charitable Donations Policy Group Employee Volunteering Policy Supplier Sustainability Code Group Sustainability Policy 	<ul style="list-style-type: none"> Sustainability Report, pages 63-69, 81-83 Our business model, pages 18-19 Section 172 Statement, pages 121-123 Company Purpose, page 107
Respect for human rights	<ul style="list-style-type: none"> Group Human Rights Policy Modern Slavery Statement Supplier Sustainability Code 	<ul style="list-style-type: none"> Sustainability Report, pages 80 Principal Risks, page 105 Risk Management Committee Report, page 152
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 	<ul style="list-style-type: none"> Sustainability Report, pages 69 Principal Risks, page 105 Risk Management Committee Report, page 105
Description of the business model		<ul style="list-style-type: none"> Our business model, pages 18-19
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		<ul style="list-style-type: none"> Risk Management, pages 101-105 Risk Management Committee Report, page 151-154 TCFD and CFD Disclosures, page 84-91
Non-financial key performance indicators		<ul style="list-style-type: none"> Sustainability Report, pages 62, 67-68, 70-81 Key Performance Indicators, pages 34-35

* The policies listed above can be found on our website: spiraxgroup.com/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 2023, which can be found on our website spiraxgroup.com/sustainability-downloads.

In line with the Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022, we have disclosed fully against these requirements, which can be found in our TCFD report on pages 84-91.

Our policies

Group Governance Policies	
Group Management Code	This Code sets out the Group's policy on the operation of its Businesses and the procedures, controls and senior manager certification that provide the means to achieve compliance with the Code throughout the Group and to achieve continuous improvement in the Group's performance.
Anti-Bribery and Corruption Policy	It is Group policy to conduct its business free of any bribery or corruption. The Group will not enter into contractual relationships with third parties that are known to engage in corrupt practices and will not engage in the giving or receiving of bribes or favours that create a conflict of interest. Anti-bribery and corruption training forms part of our Group Essentials Training and must be completed by all new employees and annually thereafter.
Group Whistle-blowing Policy	We are committed to conducting our business with honesty and integrity and we expect all colleagues to maintain high standards in accordance with our Group Management Code and our core Values. A culture of openness and accountability is essential to prevent any situations occurring and to address them when they do occur. This policy aims to encourage colleagues to report suspected wrongdoing as soon as possible, in the knowledge that their concerns will be taken seriously and investigated as appropriate and that their confidentiality will be respected.
Competition Law Compliance Policy	It is Group policy to conduct business in accordance with the competition laws of all the countries in which we operate. This policy outlines standards of conduct and integrity we expect from all colleagues and the potential consequences of breaching competition laws.
Gifts, Hospitality and Entertainment Policy	This policy sets out the Group's position on the giving and receiving of gifts, hospitality and entertainment, and our colleagues' responsibilities under this policy.
Charitable Donations Policy	This policy sets out the principles to be adopted in relation to charitable donations, both cash and in-kind, and applies to all charitable donations and community engagement activities across the Group.
Environmental Policies	
Group Sustainability Policy	This policy outlines the standards and commitments by which we guide operations at our Group Functions, operating companies and colleagues of Spirax Group in a socially and environmentally responsible manner. While these standards and commitments guide our own operations, we also encourage suppliers and partners to abide by the standards outlined in this Policy.
Group Environmental and Energy Policy	This policy underlines the commitments made in our One Planet: Engineering with Purpose Sustainability Strategy with regard to protection of the environment, climate change and the efficient use of resources, including water, waste management and biodiversity enhancement.
Supplier Sustainability Code	The Code represents the minimum standards that we ask our suppliers and their sub-tier suppliers to adhere to when conducting business with Spirax Group. It covers expectations relating to human rights, health and safety, quality management, environmental sustainability and ethics.
Colleague and Human Rights Policies	
Employee Volunteering Policy	All Group colleagues are entitled to up to three days of volunteering leave per year. This policy is intended to help and support colleagues wishing to volunteer and provides a framework for good practice.
Group Health and Safety Policy – Statement of Intent	This statement outlines the commitments of intent that our Group Functions and operating companies must adhere to, in order to ensure that Health and Safety remains a core Value and our first consideration.



Our suppliers

Embedding sustainability into our future

Working together to achieve a more sustainable future

We only work with suppliers who align with our Values and agree to comply with our Supplier Sustainability Code (the Code). This ensures we are always working with suppliers who want to go beyond our minimum standards, doing all that we can together to ensure our supply chain operates ethically and upholds the standards we believe in.

In 2022, as part of a wider initiative to use digital enhancement to deliver resilient business operations, we launched our Supplier Sustainability Portal (the Portal). This has several key benefits:

- It enables us to assess supplier sustainability performance and risk
- It provides direct suppliers with a platform through which they can sign and commit to the Code
- It is an online resource centre designed to help develop their knowledge around sustainability

Overall, we plan to onboard 1,600 direct suppliers into the Portal, through a strategic phased approach, and we have achieved over 50% of that target to date.

Suppliers are required to complete a series of surveys including climate impact, human rights, human trafficking and slavery and a Spirax Group bespoke survey covering biodiversity, community engagement and inclusion, as well as

diversity in the supply chain. In addition, the data gathered through the climate impacts survey in particular helps us develop a clearer picture of our scope 3 greenhouse gas emissions and understand where our suppliers are on their sustainability journey to identify improvements.

Through the Portal, suppliers have quick access to definitions of terms in eight languages, as well as links to more information should they need it. They can participate in training modules and tutorials through the Portal's virtual library and live webinars on how to use the Portal, the surveys and regulatory updates.

It is not just our suppliers who have access to training materials in our Portal. Our buyers also have access to over 40 training modules to enable them to develop a better understanding of where sustainability improvements can be made within our supply chain. Educating our purchasing teams not only helps them to make more sustainable decisions but also equips them to advise and guide our suppliers when they need it.

Our commitment to make a positive contribution for a better world is enshrined in our **One Planet Sustainability Strategy** and our supply chain collaboration is one of the key ways in which we can unite across industry to leave a lasting legacy for future generations.

1,841

direct suppliers signed the Supplier Sustainability Code



Risk Management



Effective risk management remains fundamental to the resilience of our Group.”

Nimesh Patel
Group Chief Executive Officer

Our approach and appetite for risk

During 2023, the Risk Management Committee was chaired by Nick Anderson, prior to his retirement. The Risk Management Committee monitors our operational risks, in particular those identified as Principal Risks, on an ongoing basis, while the Board is responsible for the overall stewardship of strategic risk management and internal control. The Audit Committee is also involved in the detailed review of risks reporting to the Board on its findings.

We hold annual reviews, alternating each year between top-down or bottom-up, that provide information and evaluations that the Committee uses alongside the Risk Appetite and Risk Velocity ratings for our Principal Risks to create an effective system for monitoring, planning and developing our Group-wide approach and culture regarding risk.

The senior managers of our operating companies are involved in the risk assessment process. The evaluations of the Committee, including setting the appropriate levels of risk, are then communicated to all Group operating 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, together with the external macroeconomic environment, and guide our ongoing monitoring and mitigation activities.

Key risk management actions

The following key actions were undertaken by the Group during 2023 in addition to the regular monitoring of risks:

- Bottom-up risk review: the Committee received input from its Group operating companies resulting in the identification of a new risk in our Risk Register: Ineffective IT Systems
- Risk Register: the bottom-up risk review informed the annual review, validation and update of the Risk Register
- Digital Services: the risk of failing to respond to changes in our customer's Digital requirements was identified as requiring dedicated focus and our Principal Risks were realigned accordingly with the inclusion of a new sub-risk: Inability to Identify and Respond to Changes in Customer Needs – Digital
- In light of the current geopolitical and macroeconomic forces impacting a number of countries in which the Group operates, the Group has considered and adapted its strategies in response to evolving risks
- Enterprise Risk Management: the recommendations of our Enterprise Risk Management review undertaken in 2022 were agreed and a blueprint created for implementation
- Risk Appetite Statement: the Risk Management Committee confirmed the statement, which can be found on pages 153-154

Further reading

- + Our Principal Risks See pages 101 to 105
- + The Committee's analysis of the Principal Risks affecting the Group, before mitigation, is set out on pages 101 to 105.

Governance and Compliance

Recognising the growing geopolitical tensions and corresponding effects on world trade, continued acceleration for demand of digitalised products and solutions together with relatively high levels of inflation and increases in cost of living, we decided in 2023 to reinforce our focus on governance and compliance which sits at the heart of our risk management framework. This focus has culminated in a number of key steps taken in 2023, including a refresh of our Group Sanctions Policy, the creation of a new position with the Group Head of Product Compliance and a refresh of our Treasury and Tax policies (including the prevention of Criminal Evasion of Tax). Our IT teams have also embedded stronger internal governance and controls in the field of information security. We will continue to assess the robustness of our governance and compliance programmes and controls in the context of prevailing economic, political and social forces and respond in the manner which enables our Group to mitigate the challenges presented by such dynamic risks.

Risk Register review

Following the annual review of the Risk Register, Principal Risks and the responses from the bottom-up risk review, as compared to 2022, Failure to Realise Acquisition Objectives and Inability to Identify and Respond to Changes in Customer Needs (Digital/Non-Digital) were elevated as Principal Risks on recommendation of the risk owners. Subsequently, Loss of Manufacturing Output at any Group Factory, Loss of Critical Supplier and Breach of Legal & Regulatory Requirements (including ABC Laws) were lowered in ranking. Ineffective IT Systems was also introduced as a new risk in the Risk Register, although not a Principal Risk.

The year-on-year trend for each Principal Risk was assessed and updated; Risk Appetite and Risk Velocity ratings were also validated for each of the Principal Risks. Ineffective IT Systems was assigned a Risk Velocity and Risk Appetite rating given its addition to the Risk Register in 2023.

Climate Change

Climate Change risk is broken down into two categories: physical risks (such as increased frequency and severity of extreme weather events), and the impacts of such events and climatic changes on the Group's operations (including supply chains); and transition risks (arising from political, economic and societal shifts to a low-carbon economy).

Climate change is accelerating. The most recently published Report by the Intergovernmental Panel on Climate Change noted that global surface temperatures were 1.1°C higher in 2011-2020 than 1850-1900 (with land surface temperatures an average of 1.6°C higher). In 2023 we worked with our global insurance broker, Willis Towers Watson, to assess the likely impact of extreme weather events on our Group operating companies. The results of the assessment revealed that, under current conditions, the residual impact of such risks for our Group is insignificant.

However, Climate Change continues to be an emerging risk that we will closely monitor in light of national and global developments and features as a risk on our Risk Register. Our climate risk is managed holistically by the Committee with regular updates to the Group Executive Committee and the Board. We also continue to follow the framework set by the Task Force on Climate-related Financial Disclosures (TCFD) to enable the transition to a low-carbon economy. Our TCFD disclosures are set out on pages 84 to 91 of the Sustainability Report.

Emerging risks

The Risk Management Committee and the Board are actively involved in assessing emerging and over-the-horizon risks and opportunities. In 2023, an example of this was highlighted in the Group's decision to purchase a 15% stake in the Norwegian thermal battery company, Kyoto Group. The transaction enables the Group to work closely with Kyoto and enter into agreements to accelerate the decarbonisation of industrial process heat using the technology in Kyoto's **Heatcube**, a molten salt thermal energy storage solution. This is an example of our appetite for new-to-world decarbonisation solutions to serve our customers' evolving industrial needs.

Risk Management continued

Managing risks



Further reading

- + Risk Management Committee Report See pages 150 to 154
- + Our Viability Statement See pages 42 to 43
- + Our Going Concern Statement See page 41
- + TCFD Disclosures See pages 84 to 91

Principal Risks

The following pages set out the Group's Principal Risks, as validated by the Risk Management Committee and describes the links to strategy, the mitigation measures, the velocity of each risk and the appetite for each risk. The risk trend shown is the risk before mitigation measures have been implemented. The risk appetite and risk velocity ratings are after mitigation has been taken into account.

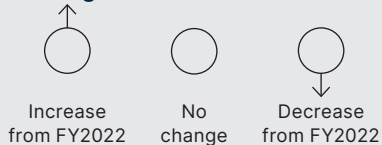
Principal Risks

1. Economic and political instability
2. Significant exchange rate movement
3. Cybersecurity
4. Failure to realise acquisition objectives
5. Loss of manufacturing output at any Group factory
6. Inability to identify and respond to changes in customer needs: Digital/ Non-Digital
7. Loss of critical supplier
8. Breach of legal and regulatory requirements (including ABC laws)

Strategic priorities

- 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 our R&D investments.
- Optimise our supply chain effectiveness.
- Operate sustainably and help improve our customers' sustainability.

Ranking



Impact



Control



Risk velocity



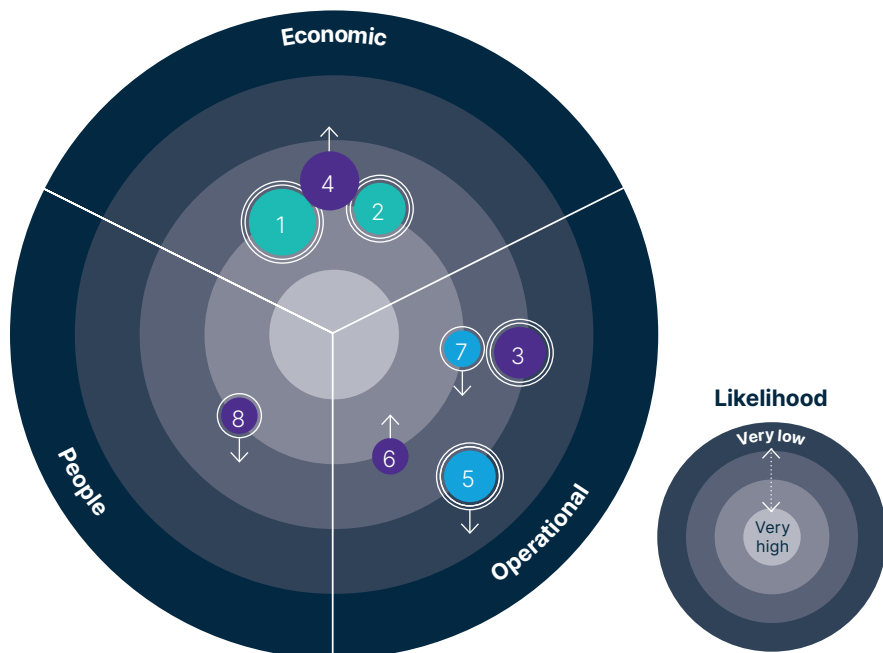
Risk appetite ratings defined:

Velocity	Description
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, sometimes unproven options that carry with them the potential for high-level rewards.

Risk velocity ratings defined:

Velocity	Description	Timeframe
Very low	Very slow impact, response time adequate to mitigate effects	Felt after 12 months
Low	Slow impact, robust response to strategy may mitigate effects	Felt within 12 months
Medium	Moderate time to impact, swift and robust response may mitigate effects	Felt within 6 months
High	Fast impact, immediate response may mitigate effects	Felt within a month
Very high	Very rapid impact with little or no warning. Limited time to respond and mitigate effects	Felt within a week

Risk likelihood, control and impact



Risk Management continued

Principal Risks continued




Principal Risk and why it is relevant	Trend	Risk velocity	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
1. Economic and political instability					
The Group operates worldwide and maintains operations in territories that have historically experienced economic or political instability, including regime changes. In addition to the potential impact on our local operations, this instability also increases credit, liquidity and currency risks.	→	Very high High Medium Low Very low	<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 cash pooling 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 sponsor: Group Chief Executive Officer</p> <p>Change: No change.</p>	Very high High Balanced Low Very low	We have the track record and local insight to successfully manage 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.




Link to strategic priority:  

2. Significant exchange rate movement					
The Group reports its results and pays dividends in sterling. Sales and manufacturing companies trade in local currency. With our local presence in markets across the globe, the nature of our business necessarily results in exposure to exchange rate volatility.	↑	Very high High Medium Low Very low	<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 sponsor: Chief Financial Officer</p> <p>Change: This risk has increased to reflect the increasing volatility of foreign exchange rates across both developed and developing economies that we have witnessed over the past year.</p>	Very high High Balanced Low Very low	We take a balanced view of this risk which arises as a direct result of our global presence, but our geographic spread means we are not wholly dependent on any one currency.

Link to strategic priority:  

Link to strategic priorities

-  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 our R&D investments.
-  Optimise supply chain effectiveness.
-  Operate sustainably and help improve our customers' sustainability.

Trend

- ↑ Risk increased.
- No change to risk.
- ↓ Risk decreased.

 Direct link  Indirect link

Principal Risk and why it is relevant	Trend	Risk velocity	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
3. Cybersecurity					
Cybersecurity risks include theft of information, malware, ransomware and compliance with evolving statutory and legislative requirements. Risks may manifest through a direct attack on our business or through our supply chain.	→	Very high High Medium Low Very low	<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 Further strengthening of security for centrally-managed systems for heightened protection and consistency Mandatory cyber awareness training is delivered to all staff electronically each year <p>Executive sponsor: Group IT Director</p> <p>Change: No change.</p>	Very high High Balanced Low Very low	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.

Link to strategic priority:  

4. Failure to realise acquisition objectives					
<p>The Group mitigates this risk in various ways, including through comprehensive due diligence, professional advisers, contractual protections and comprehensive integration planning.</p> <p>However, there are some variables that are difficult to control, such as adverse economic conditions, or the loss of key employees, which could impact acquisition objectives.</p>	↑	Very high High Medium Low Very low	<ul style="list-style-type: none"> 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 <p>Executive sponsor: Group Chief Executive Officer</p> <p>Change: The risk has increased due to the combined size of the two acquisitions undertaken in 2022 (Vulcanic and Durex Industries) and reflecting the impact should the Group fail to realise its acquisition objectives.</p>	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 strategic priority:   

Risk Management continued

Principal Risks continued

Principal Risk and why it is relevant	Trend	Risk velocity	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
5. Loss of manufacturing output at any group factory					
The risk includes loss of output as a result of natural disasters, industrial action, accidents or other causes. Loss of manufacturing output from our larger plants risks serious disruption to Group sales.	↓	Very high High Medium Low Very low	<ul style="list-style-type: none"> • New facility for Watson-Marlow Fluid Technology Solutions 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 alternative lines of supply <p>Executive sponsors: Managing Directors of Steam Thermal Solutions, Electric Thermal Solutions and Watson-Marlow Fluid Technology Solutions</p> <p>Change: This risk has decreased as the risk is lower than in the Covid Pandemic. Risk of labour and materials shortage is also lower than the previous year.</p>	Very high High Balanced Low Very low	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.

Link to strategic priority:   

6. Inability to identify and respond to changes in customer needs: digital/non-digital					
This risk could lead to a reduction in demand from a failure to respond to changes in the needs of customers or technology shifts.	→	Very high High Medium Low Very low	<ul style="list-style-type: none"> • Stronger presence of sales engineers, compared with competitors, in the marketplace • Acquisition of Durex Industries and the Vulcanic Group to better position the Group in meeting customer demand in the transition to more sustainable industries • 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 each Business are either underway or under preparation with longer term implications on investment, resource levels, new skills and need to develop external partnerships • A Group Digital Director leading the Group Digital Strategy • Acquisition of Cotopaxi to further accelerate the Group digital learning curve <p>Executive sponsors: Managing Director, Steam Thermal Solutions and Group Digital Director</p> <p>Change: No change.</p>	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 a good level of control effectiveness, but a low appetite for this risk.

Link to strategic priority:    

Principal Risk and why it is relevant	Trend	Risk velocity	Key mitigation, sponsor and explanation of change	Risk appetite rating	Rationale for rating
7. Loss of critical supplier					
This risk relates to the loss of a critical supplier that could result in manufacturing constraints and delayed deliveries to customers.	↓	Very high	<ul style="list-style-type: none"> 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 	Very high	Our expenditure with suppliers is not heavily concentrated in any one supplier or group of suppliers.
		High		<p>Medium</p> <p>Low</p> <p>Very low</p>	
			<p>Executive sponsors: Business Supply Heads</p> <p>Change: This risk has decreased as turbulence in our upstream supply chain has abated as markets have grown to accept a new normal which includes a greater level of turbulence than in historical times and inflation on commodities has eased.</p>		

Link to strategic priority:    

8. Breach of legal & regulatory requirements (including ABC laws)					
We operate globally and must ensure compliance with laws and regulations wherever we do business. As we grow into new markets and territories we continually review and update our operating procedures and ensure our colleagues are fully informed and educated in all applicable legal requirements, such as with respect to anti-bribery and corruption (ABC) legislation.	→	Very high	<ul style="list-style-type: none"> 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 	Very high	We abide by the laws, rules and regulations of the jurisdictions in which we operate and given the serious consequences for breaching these laws, rules and regulations, we have a very low appetite for this risk.
		High		<p>Medium</p> <p>Low</p> <p>Very low</p>	
Breaching any of these laws or regulations could have serious consequences for the Group.			<p>Executive sponsor: Group General Counsel</p> <p>Change: No change.</p>		

Link to strategic priority:      



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Spirax Group's commitment to environmental stewardship is reflected in this Annual Report, which has been printed on Revive 100 Silk, which is 100% post-consumer recycled, FSC® certified and totally chlorine free (TCF) paper. Printed in the UK by Park Communications using vegetable-based inks, with 99% of dry waste being diverted from landfill. The printer is a CarbonNeutral® company. Both the mill and the printer are certified to ISO 14001 (Environmental Management System) and ISO 9001 (Quality Management System).

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