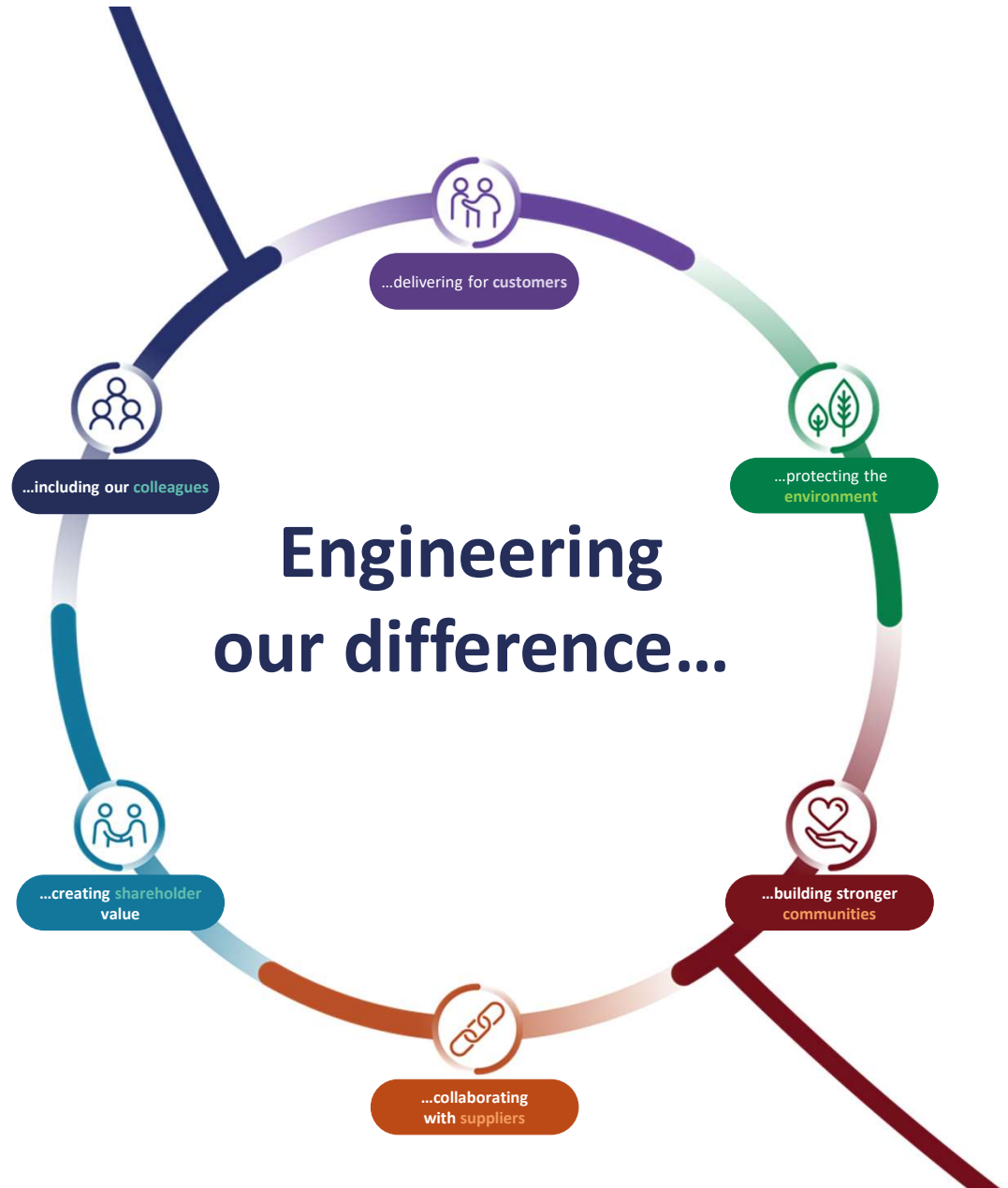


Investor opportunities

In our world-leading
niche Businesses

Spirax-Sarco Engineering plc



Spirax-Sarco Engineering plc

A British multi-national engineering Group

Three world-leading niche engineering Businesses

Global addressable market: £12.5bn; 14% market share*

Business model

- Direct sales model key to delivering customer value
- Large diversity of customers, geographies, markets and products
- **85%** of sales from maintenance and operational budgets (40% self-generated)
- Over 60% of sales from defensive end markets
- Sales presence in **67** countries; manufacturing in **16** countries



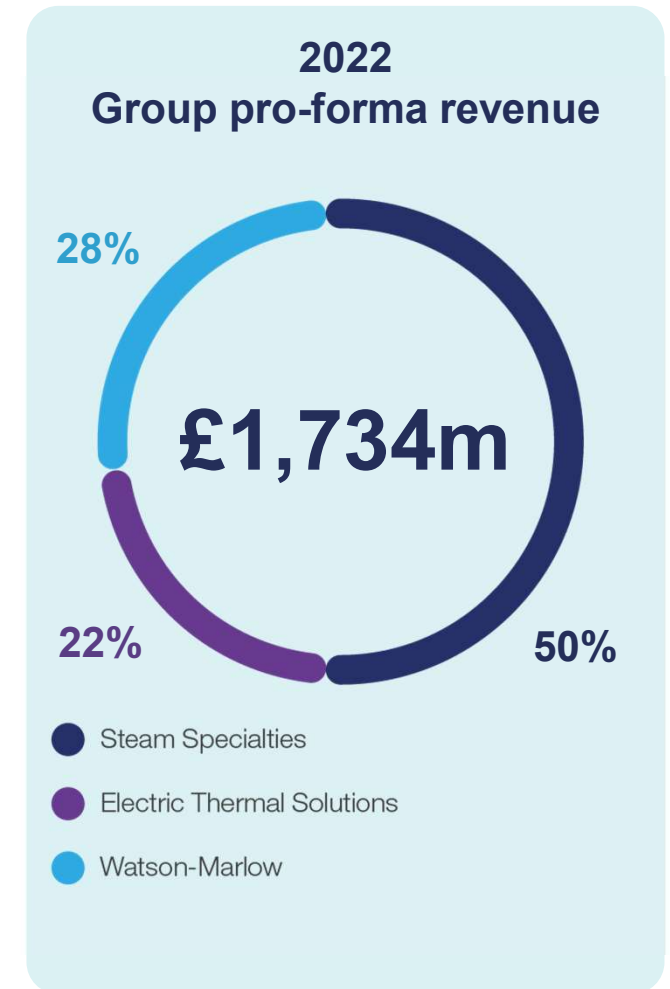
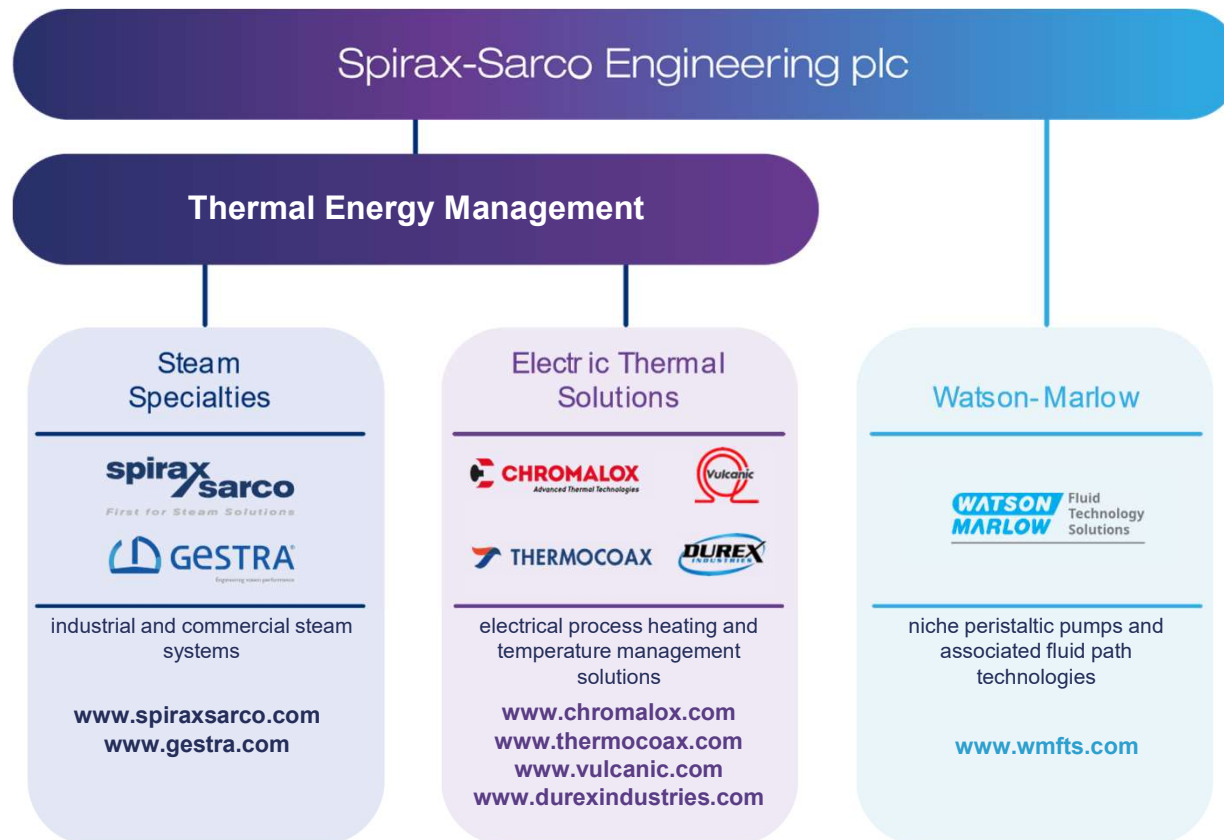
Performance

- Average revenue growth over past 10 years: >9% per annum
- Organic revenue growth: > 2x Global Industrial Production growth
- Adjusted operating profit margin: 23.6% (2022)
- Return on capital employed: 53.3% (2022) excl. IFRS 16
- Cash conversion: average 83% over the past five years
- Average dividend growth over the past 55 years: 11% per annum

**Market share on a pro-forma basis for 2022 acquisitions*

Group structure

Three world-leading niche Businesses



Steam Specialties

Solutions for the control and management of industrial steam systems

Steam uses:

heating and curing, cleaning, sterilisation, hot water generation, space heating and humidification

Benefits of steam:

high energy content, easy to control, environmentally safe, clean and sterile

Products:

steam traps, control valves, condensate recovery pumps, strainers, separators, flow meters, boiler controls and pre-fabricated engineered packages

Delivering:

improved process efficiency and product quality; reduced CO₂ emissions, energy and water use, waste and maintenance downtime; compliance with industry standards

Products



Packages



Pre-fabricated engineered packages for heat transfer & recovery and clean steam generation

A one-stop shop for plant-wide applications of industrial and commercial steam systems

Electric Thermal Solutions

Solutions for process heating and temperature management

Uses:

electric heating for mission-critical industrial processes, freeze protection for pipes, valves and tanks and component heating

Benefits of electric solutions:

easy to incorporate, install and maintain; high temperatures; efficient; no emissions at point of use

Products:

Industrial Heaters & Systems; Heat Tracing; Component Technologies; Mineral insulated cable

Delivering:

efficient thermal energy management and control solutions for improved industrial processes

Products



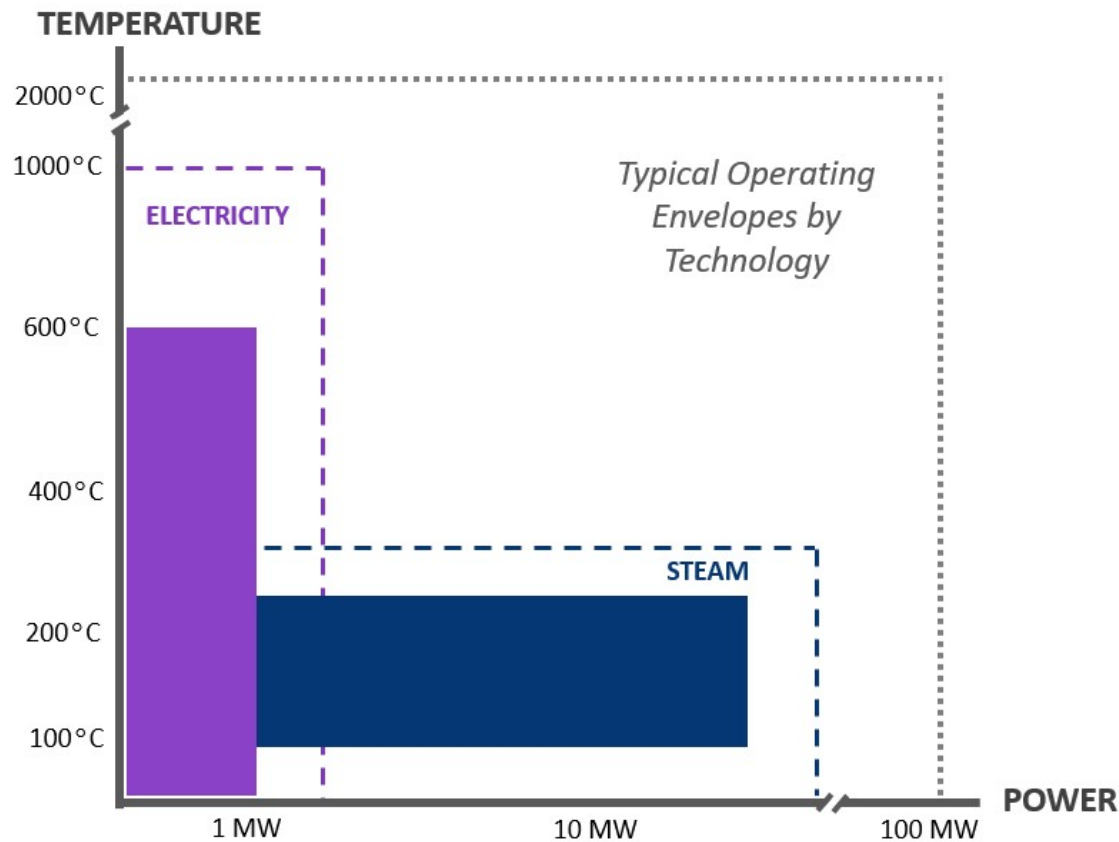
Packages



Pre-fabricated engineered packages for process heating and temperature management

Premium engineered electric thermal solutions in sustainable applications

Complementarity of steam and electric heating

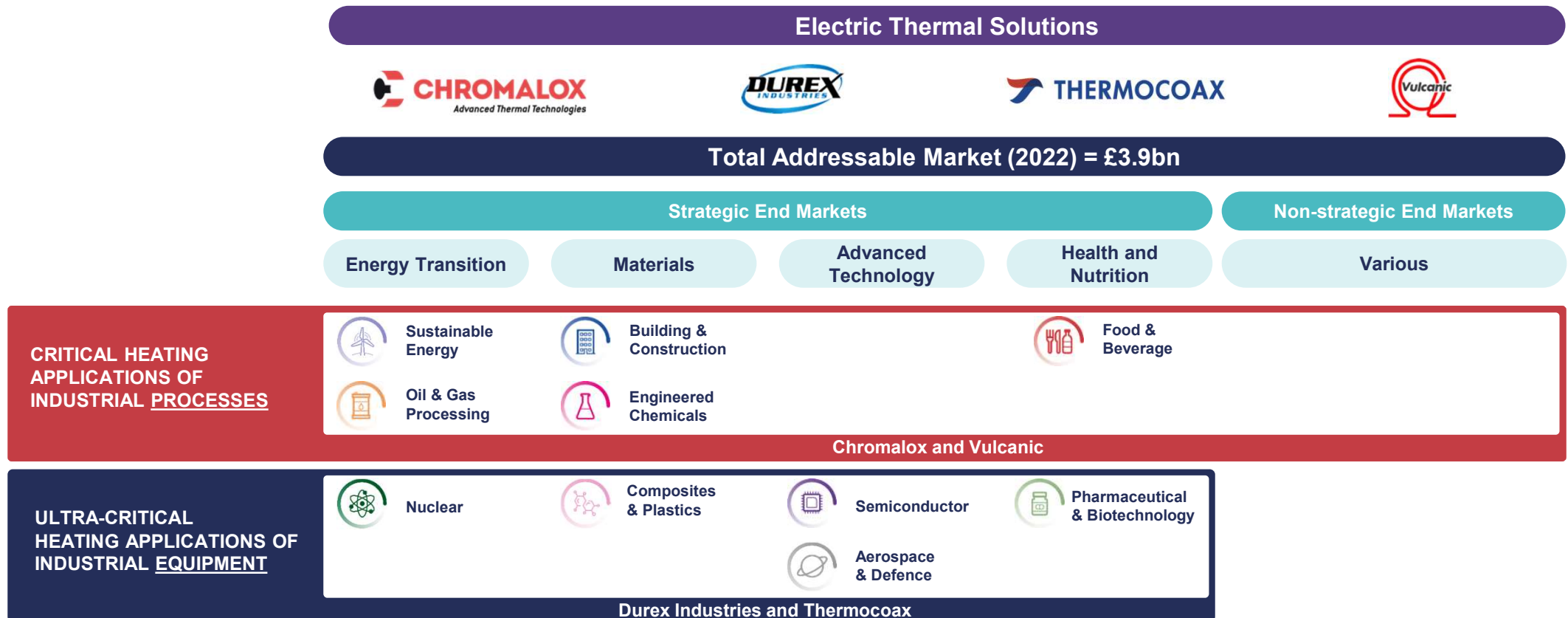


Thermal Energy Management

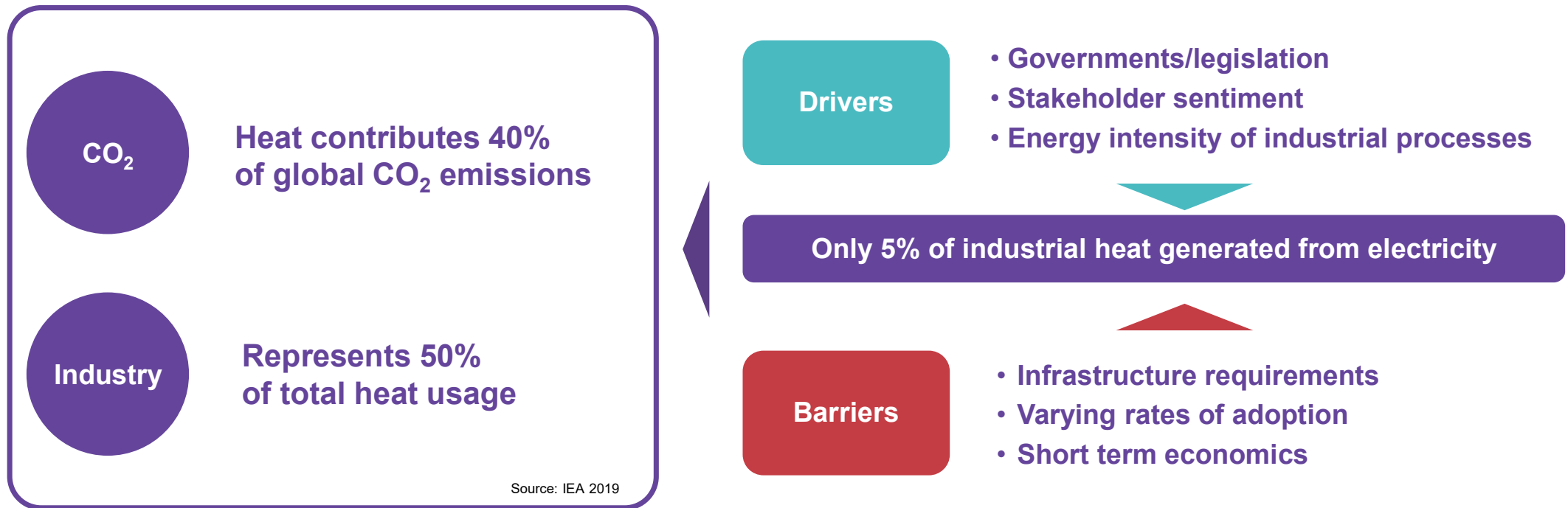
- Electricity and steam have complementary uses
- The choice between heating mediums is driven by application needs or customer circumstances

ETS strategic market sector focus

Dual brand strategy leverages sector and application complementarity



Drivers of decarbonisation opportunities



TargetZero

Steam decarbonisation solutions by Spirax-Sarco Engineering

SteamVolt

Low Voltage & Medium Voltage First Fit Boiler Solution
Original Equipment Manufacturer (OEM) Boiler electric heat
and control technology



SteamBattery

Thermal storage capable of generating
steam from renewable / off peak electricity



ElectroFit

Low Voltage & Medium Voltage Retro Fit Boiler Solution
Conversion of fossil fuel fired boilers to electric



Watson-Marlow

Solutions for the control and management of industrial fluid paths

Uses:

pumping and fluid control in a broad range of critical applications, from chemical dosing to Biopharm production

Benefits of peristaltic pump technology:

sterile applications (pump does not touch fluid), dirty applications (fluid does not touch pump), sustainable, low-shear, low maintenance and accurate

Products:

speciality positive displacement pumps, automated filling machines, tubing, hoses and fluid path components

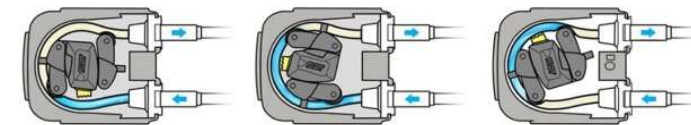
Delivering:

accurate, safe, efficient, sterile, low maintenance solutions for the fluid path

Products



Packages



- Principle: rollers squeeze tubing for gentle pumping action
- Contamination free: no moving parts in contact with fluid
- Low maintenance: fewer wearing parts
- Accuracy: precise dosing and metering

A world leader in fluid technology solutions

Our direct sales business model

Positioning us well to create value

Customer closeness:

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

Applied engineering:

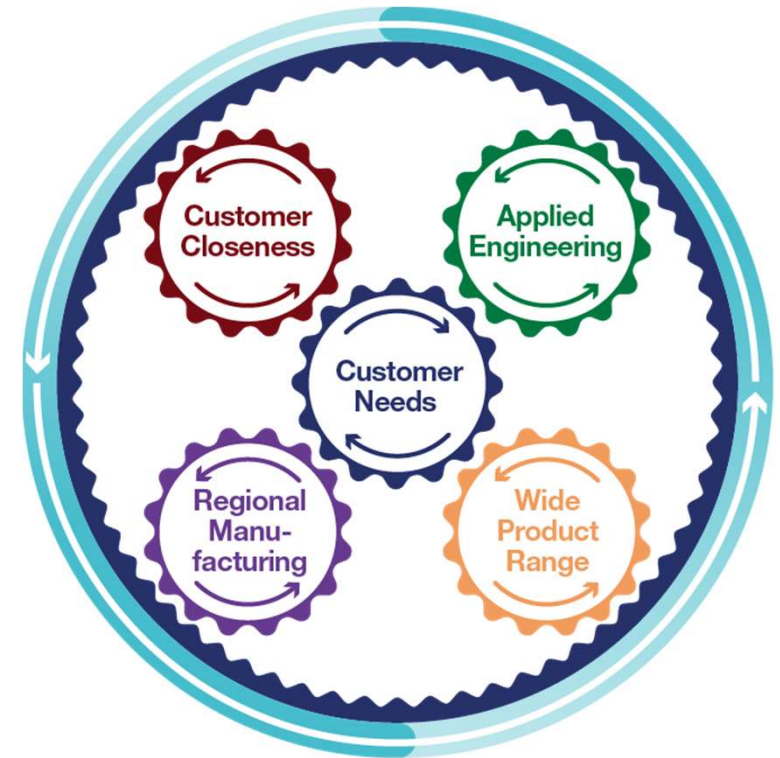
It is not our products alone that provide value to our customers, but also the application of our extensive knowledge of systems design, operations and maintenance. Our customers increasingly rely on our expertise to deliver unique engineering solutions to achieve enhanced and sustainable operating efficiencies.

Wide product range:

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

Regional manufacturing:

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



Business model: direct sales, low ticket, critical items

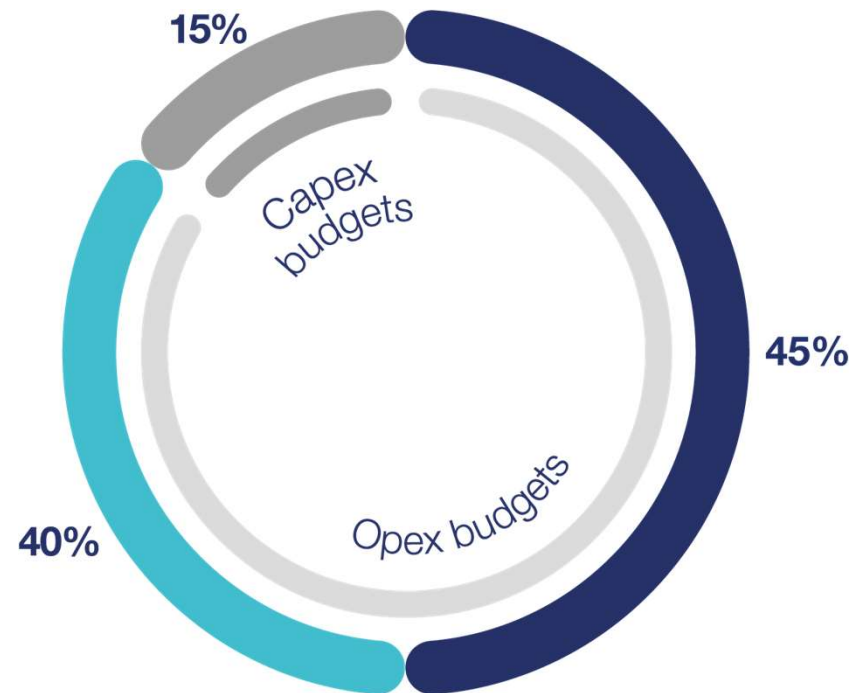
Sales by value driver*

85%

of Group revenue is generated from annual maintenance and operational budgets

Self-generated sales

Our sales and service engineers are highly skilled in both product applications and systems understanding. We self-generate sales as we identify our customers' unrecognised needs and solve their difficult process challenges.



- **Maintenance and repair sales** that *maintain existing systems*, supported by the end users' opex budgets, with a typical invoice value of around £1.4k
- **Small project sales** that *improve existing systems*, supported by the end users' opex budgets, with a typical invoice value of £10k-£50k
- **Large project sales** that *build new systems*, supported by the end users' capex budgets, with a typical invoice value of over £100k

* Based on internal estimates

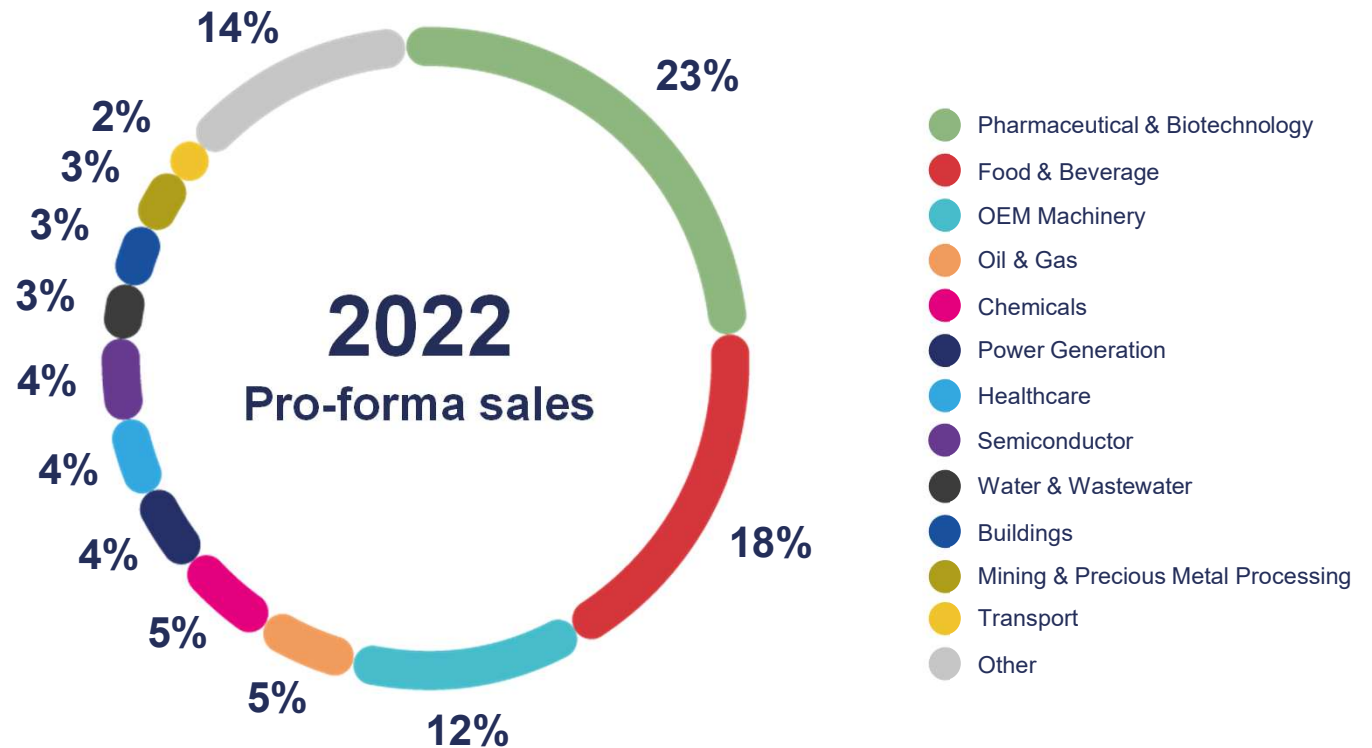
Diverse markets and broad customer base

A source of resilience

c.60% of Group revenue derived from defensive, less cyclical, end markets

85% of Group revenue derived from annual maintenance and operating budgets, rather than large projects from capex budgets

Based on internal estimates



Where there is little visibility of end user industry sector (primarily in sales via distributors), sales have been allocated across industries on a pro-rata basis. In 2022 these 'unknown' sales accounted for 16% of total revenue. OEM sales to identifiable industries have been allocated to those industries. Sales to OEM customers accounted for 27% of Group revenue in 2022.

Applications in diverse industrial sectors



Pharmaceutical & Biotechnology

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



Food & Beverage

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



OEM Machinery

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

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



Chemical

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

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 re-use waste heat formed during the power generation process.



Healthcare

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

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



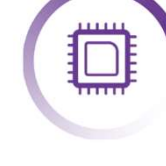
Buildings (HVAC)

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

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

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



Transport

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

Industrial production annual growth rates

An important driver of growth



Strong and consistent drivers of growth

Organic growth drivers:

Internal

- Geographic expansion
- New product development
- Self-generated sales
- Regional manufacturing strategy

External

- Industrial production growth
- Population growth
- Energy and natural resource saving targets
- Rising regulatory requirements

Inorganic growth drivers:

Bolt-on or related acquisitions

- New technologies
- Increased geographic coverage
- Expansion of addressable market

Non-IP growth:

- Biopharm industry growing at >12-14% per annum
- Geographical expansion
- Displacement of other pump types



Our unique global coverage

Operating
units*

46

Countries

Sales
offices

21

Countries

Indirect
presence

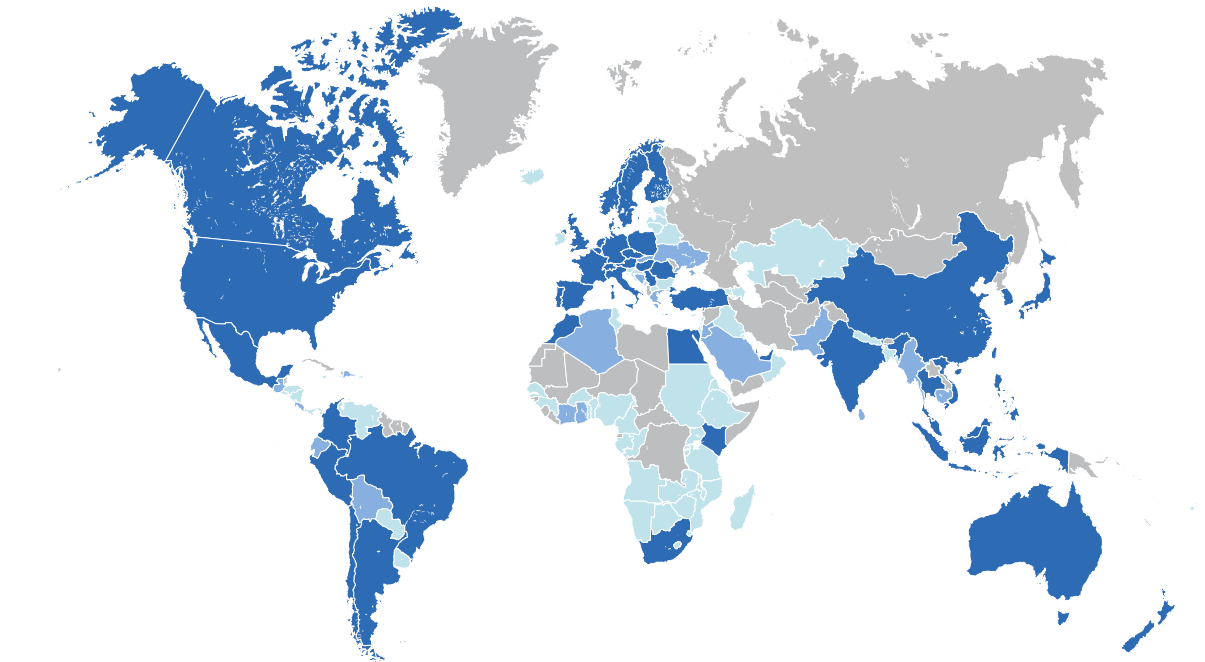
98

Countries

Key facts:

- **Over 10,400** employees
- **Over 2,100** direct sales & service engineers
- Direct sales presence in **67** countries
- **146** operating units*
- Serving customers in **165** countries
- **64** operating units established or acquired (2017-2022)

* Operating units are business units that invoice locally.
Global coverage at year end 2022.



Number of countries:	Operating units	Sales offices	Direct presence
Steam Specialties	44	22	66
Watson-Marlow	39	3	42
Electric Thermal Solutions	13	7	20

Manufacturing footprint

40 manufacturing units in 16 countries

EMEA:

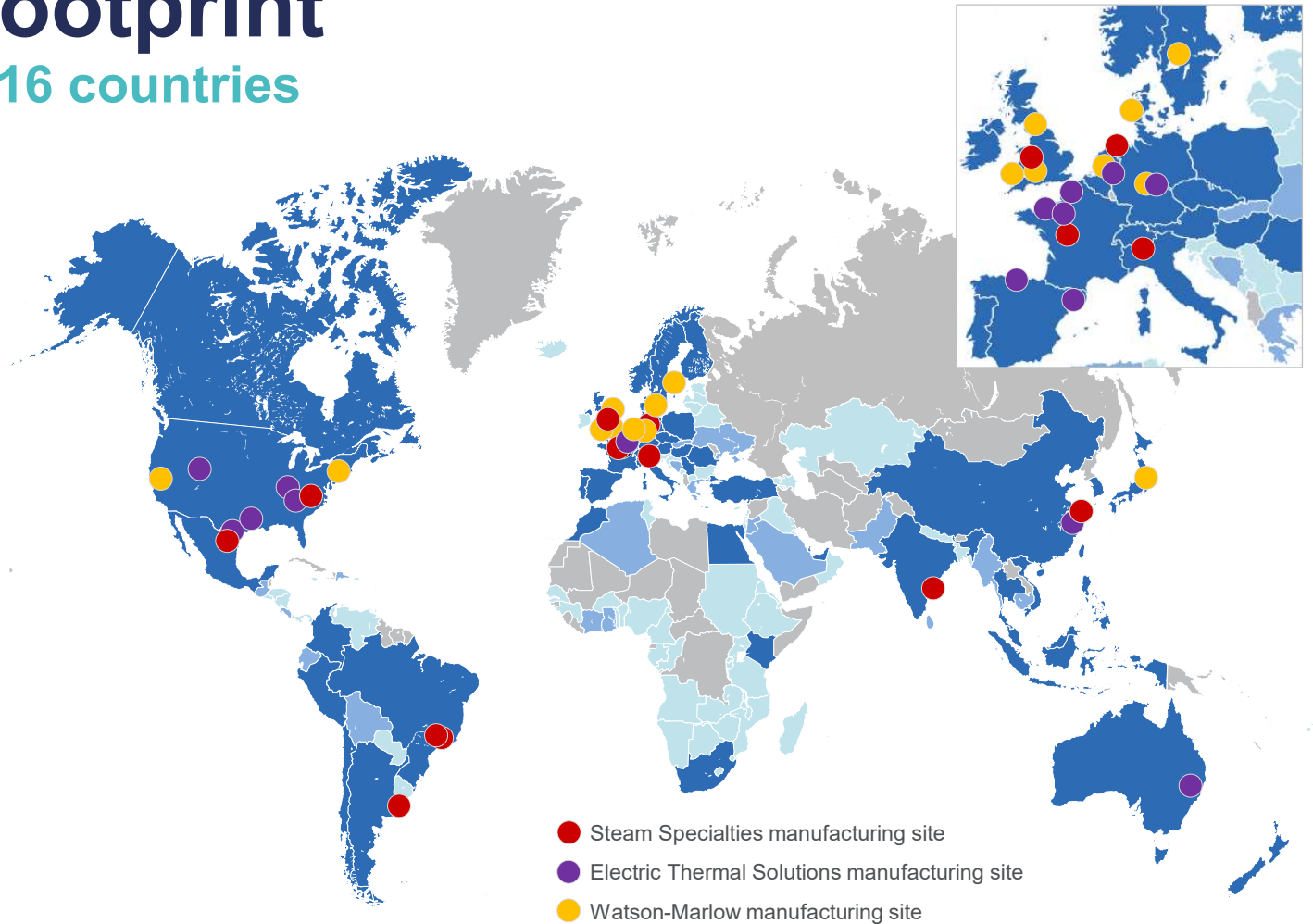
UK (x4)
France (x7)
Germany (x4)
Spain (x2)
Italy
Netherlands
Denmark
Sweden

Americas:

USA (x9)
Argentina
Brazil (x2)
Mexico (x2)

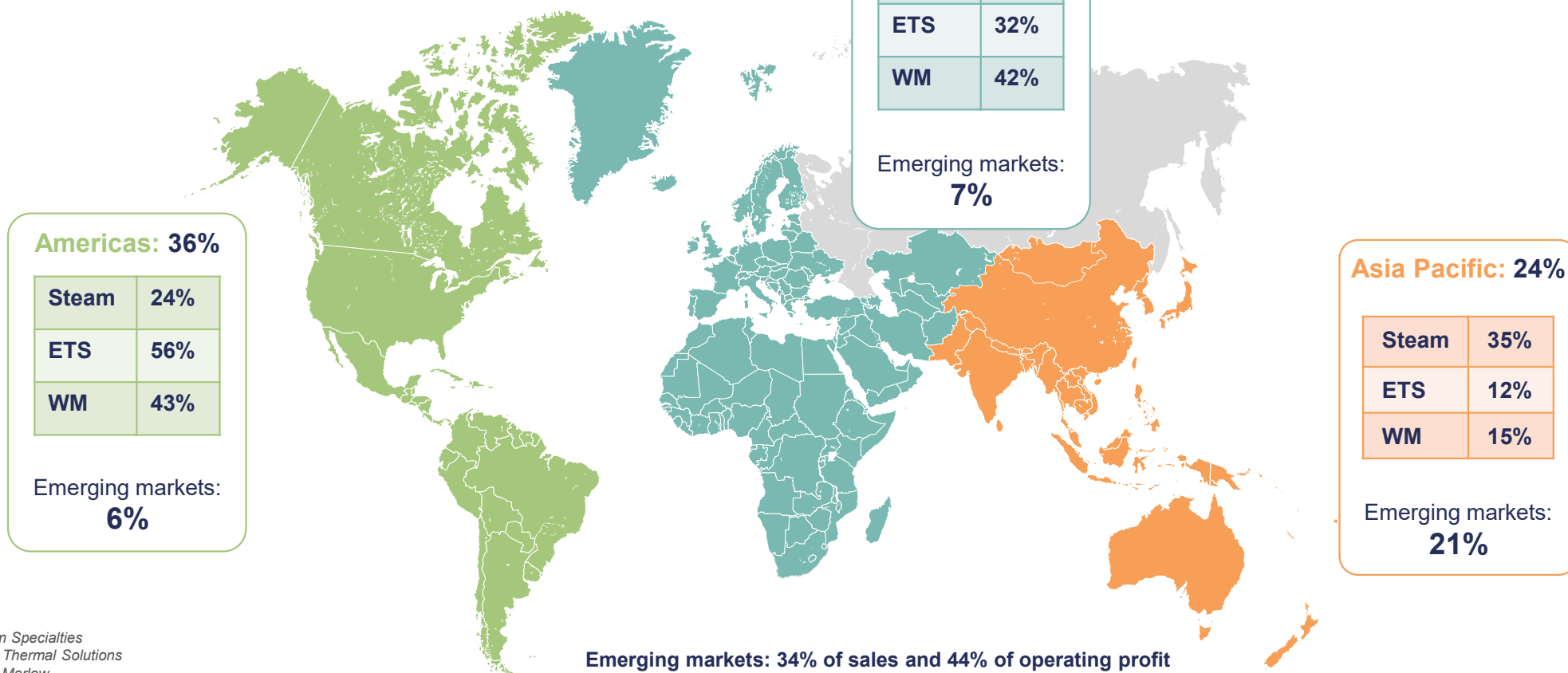
Asia Pacific:

China (x2)
Australia
India
Japan



Good regional coverage

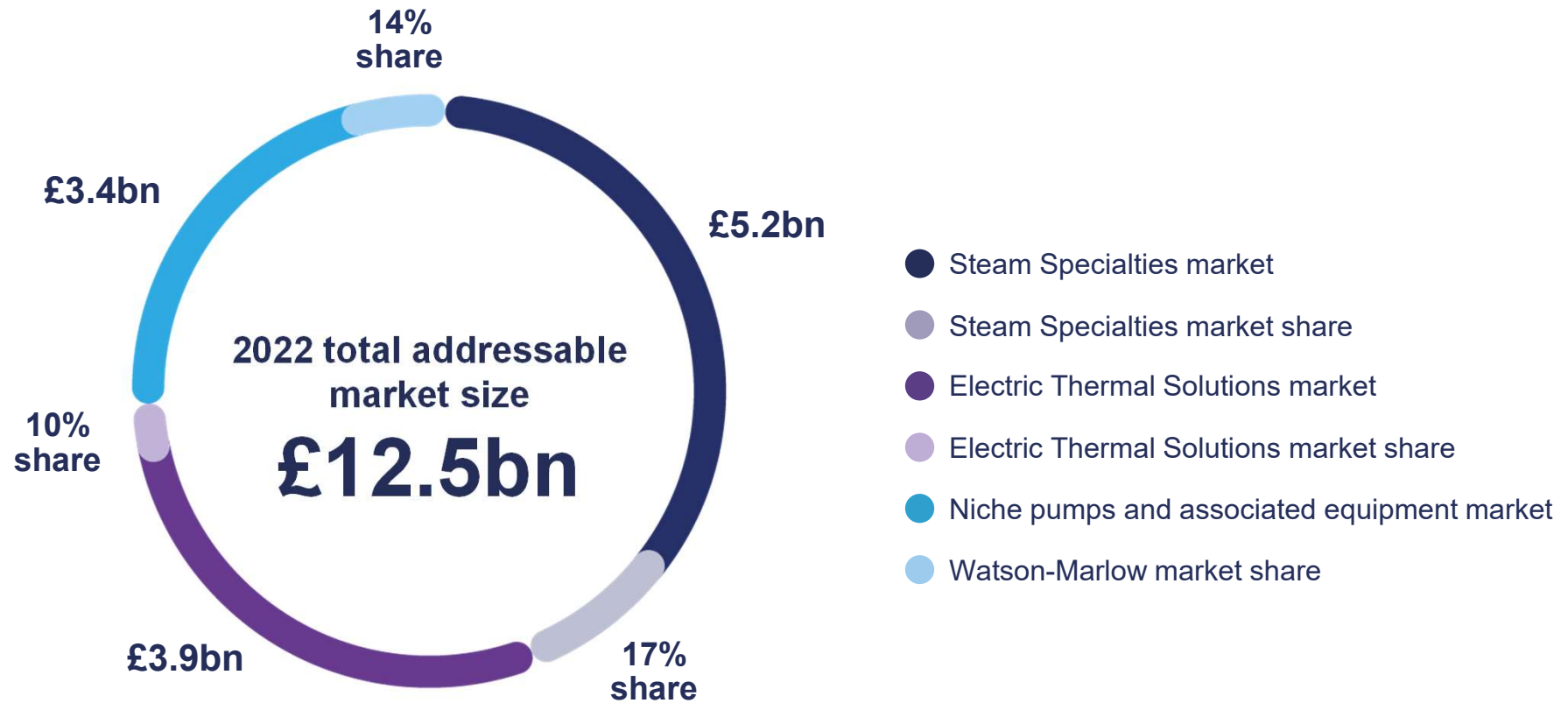
2022 pro-forma sales by destination



Steam – Steam Specialties
ETS – Electric Thermal Solutions
WM – Watson-Marlow

£12.5bn billion market size

14% market share*



*Market share calculated on a pro-forma basis for 2022 acquisitions

Our Strategy

Objective: Growth that outperforms our markets

Focus: Doing better what we already do well

Steam Specialties

- To become a global leader in industrial sustainability
- Focus on industries where we can deliver the most value to customers
- Consultative selling through enhanced physical and digital connections
- Accelerate growth and vitality through business development and innovation
- A responsive and sustainable supply chain
- Building an inclusive culture

Electric Thermal Solutions

- Customers' first choice for premium engineered electric thermal solutions in sustainable applications
- Pioneer new thermal technologies
- Expand into new geographic markets
- Market sector and application focus
- Strengthen end user, maintenance, repair and operations (MRO) and solutions business
- Stock the right products to serve customers faster

Watson-Marlow

- To be the world leader of fluid technology solutions
- Intensive market sector focus
- Increase direct sales effectiveness
- Expand addressable market through innovation and technology
- Global excellence in supply chain
- Create environments where everyone can thrive

Acquisitions

- Create significant shareholder value through supplementing organic growth
- Expand the capabilities of our niche Businesses through new technologies, skills or geographic coverage
- Increase our addressable market into adjacent related sectors

Sustainability

- Operate sustainably and help improve our customers' sustainability

Six strategic themes



1.

Increase direct sales effectiveness through market sector focus



2.

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



3.

Broaden our global presence



4.

Leverage R&D investments



5.

Optimise supply chain effectiveness



6.

Operate sustainably and help improve our customers' sustainability

Engineering with Purpose

Strategic agenda aligned with our Purpose – creating value for all stakeholders

Our Colleagues

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

£492m

paid in wages, salaries and pension contributions in 2022

Our Customers

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

110,000

direct buying global customers across multiple industries

Our Environment

Water is precious and we are doing all we can to preserve it. To achieve a zero carbon world we're doing all we can to make our products more sustainable.

Annual savings*

88.4 m³ of water

17.7 m tons of CO₂

235 GJ per year of energy

* based on a select range of 20 products sold in 2022

Our Communities

Supporting our local communities and removing barriers to education

£2m

cash, in-kind donations and employee time to community engagement activities in 2022*

**including the donation to our Group Education Fund*

Our Suppliers

We build long term sustainable relationships with our supply chain partners

£744m

paid to suppliers for materials and services in 2022

Our Shareholders

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

£103.6m

paid as dividends in 2022



Helping our customers on their sustainability journey

Customer environment benefits

Annual estimated customer CO₂ energy and water savings from a select range of 20 product categories sold in 2022



17.7m
Tonnes of CO₂
per year



235m
GJ per year
of energy



88.4m
m³ per year
of water

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



8.4m
mature trees
absorbing CO₂



3.00m
People's annual average
energy consumption (UK)



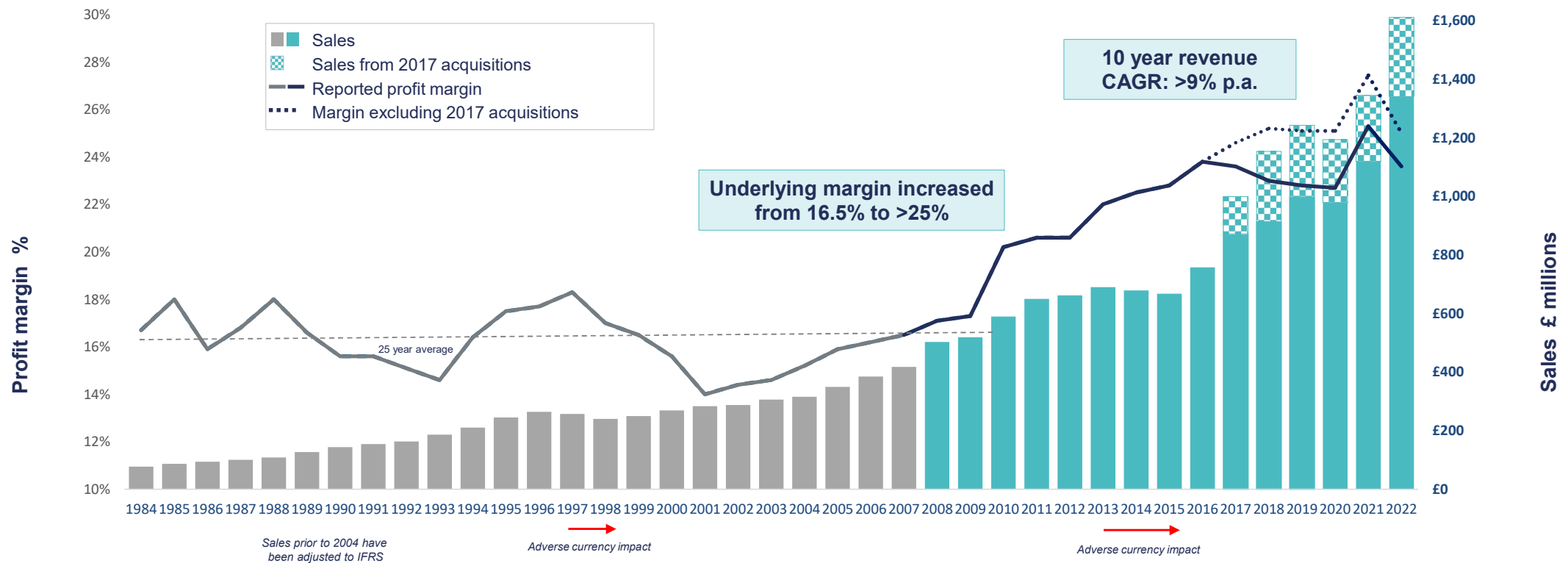
35,000
Olympic-sized
swimming pools of
water

2022 acquisitions



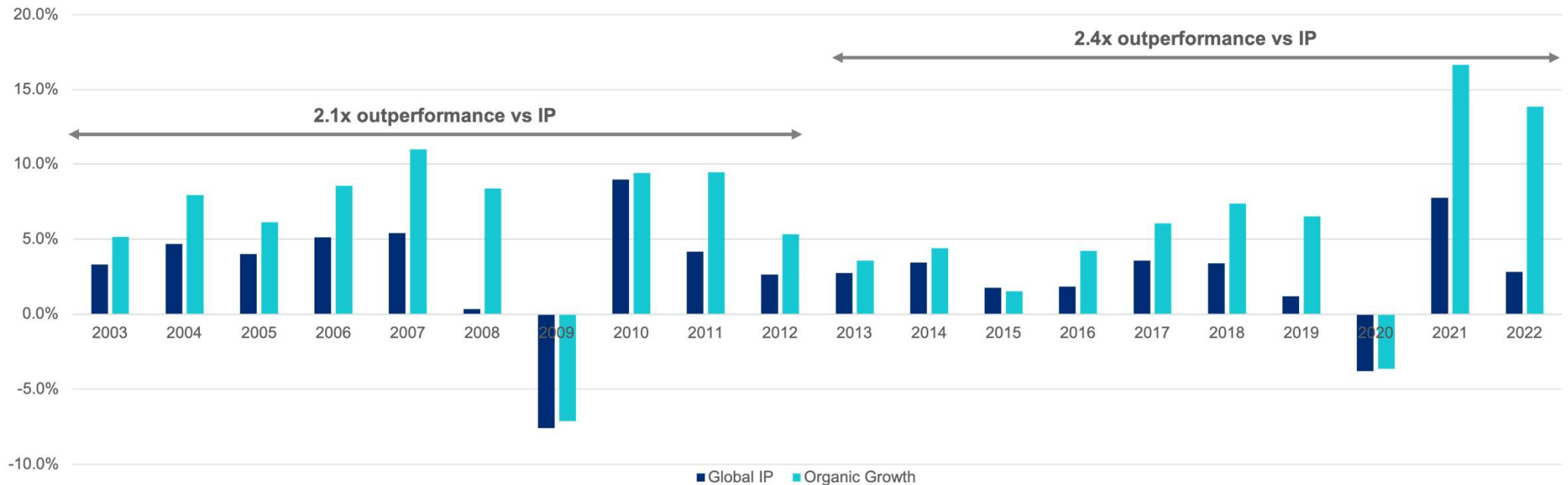
Acquisition Date	January 2022	September 2022	November 2022
Description	Consulting, digital connectivity and monitoring of energy intensive processes to help industrial customers to reduce waste and drive efficiencies	European industrial electric heating group, the largest supplier in Europe of bespoke industrial electric heating solutions	US based specialist in custom electric thermal solutions for ultra-high criticality industrial equipment
Consideration	£13.3m 16.6x EBITDA	€261.7m 11.5x EBITDA	US\$342.2m 12.1x EBITDA
Revenue (2022)	£3.1m	€111.9m	US\$81.3m
EBITDA (2022)	£0.8m	€22.7m	US\$28.3m
EBIT (2022)	£0.6m; 19.2% margin	€21.1m; 18.9% margin	US\$26.4m; 32.5% margin
Rationale	Acceleration of digital strategy	Support the delivery of growth in ETS and decarbonisation of customer processes	Support the delivery of growth in ETS and accelerate the development of ETS' critical OEM business

Track record of growth and margin expansion



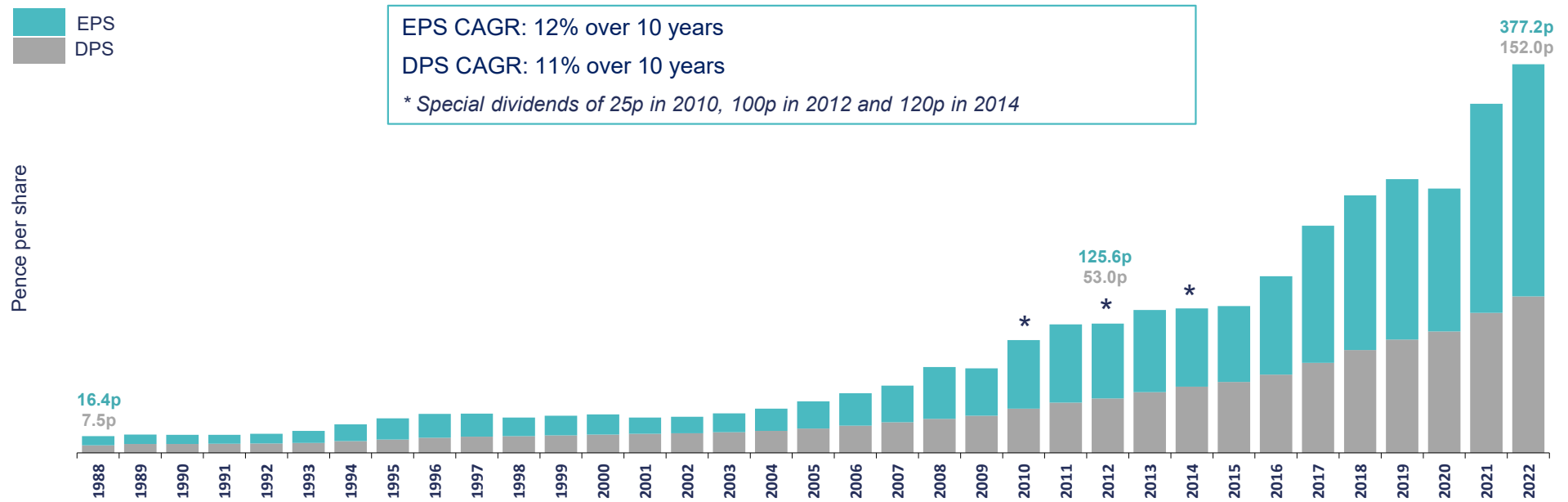
Outperforming Industrial Production growth

Organic Growth vs IP (10-year CAGR basis)



Delivering shareholder value

55 year track record of earnings and dividend growth



Note: Figures exclude non-operating and exceptional items

Our prime financial objective is to provide enhanced value to shareholders through consistent growth in earnings and dividends per share.

Capital allocation policy

4. Return **capital** to shareholders

Special dividends in 2010, 2012 & 2014

3. Reduce our **debt**

Net debt 1.5x EBITDA at 31st December 2022*

2. Invest in **acquisitions** that fit the strategy

Strategic targeting with disciplined execution

1. Invest in **ourselves**, organically growing our business

Investing in our strategy drives growth and margin progression

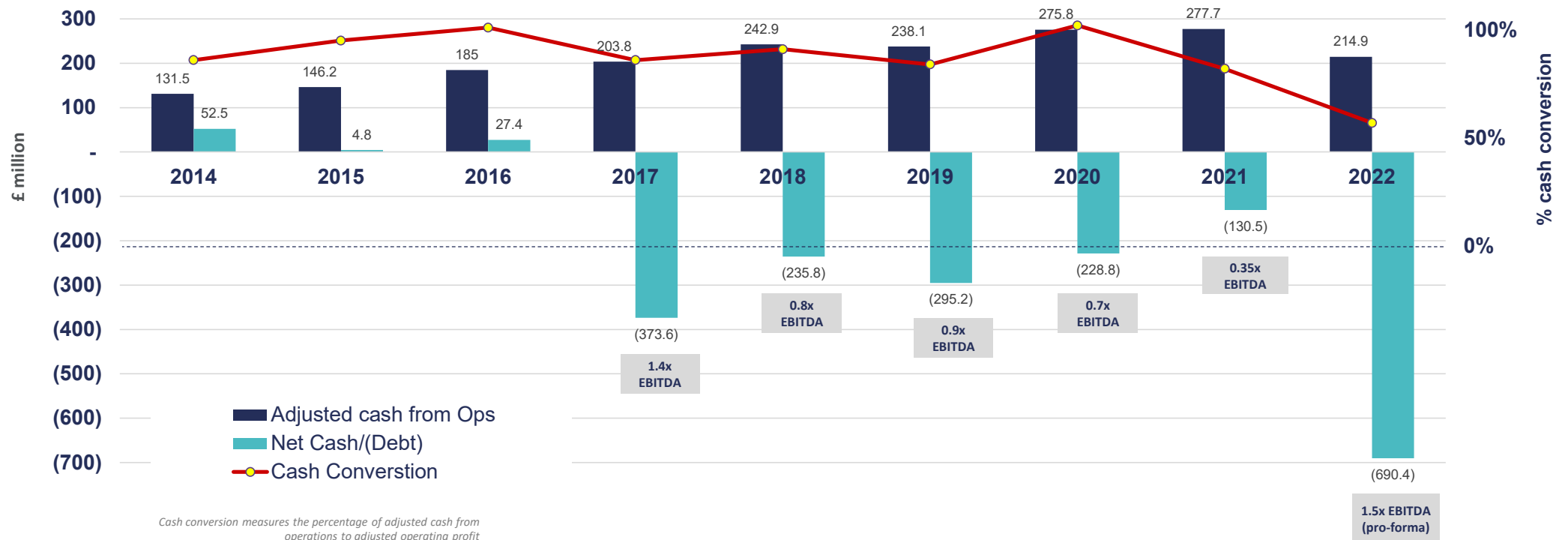
Return on capital employed (ROCE) averaged >50% p.a. for the last 5 years.

Cash conversion averages over 80% for the last 5 years.

*on a pro-forma basis

Investing in future growth

Adjusted cash from operations



Appendices



Financial performance

Strong financial performance against a weakening macro-economic backdrop

- Revenue up 14%, organically
- Operating profit up 7%, organically
- Operating profit margin of 23.6% down 160bps, organically
- EPS up 11%, slightly below increase in operating profit
- ROCE[^] down to 55% (2021: 59%)

	2022	2021	Reported	Organic ⁺
Revenue	£1,610.6m	£1,344.5m	+20%	+14%
Operating profit	£380.2m	£340.3m	+12%	+7%
Operating profit margin	23.6%	25.3%	-170 bps	-160 bps
Net finance expense	(£9.6m)	(£6.4m)		
Pre-tax profit*	£370.6m	£333.9m	+11%	
Tax rate*	25.0%	25.1%	-10 bps	
EPS*	377.2p	338.9p	+11%	
DPS	152.0p	136.0p	+12%	
Net debt [^]	£690.4m	£130.5m		

* Organic measures are at constant currency and exclude contributions from acquisitions and disposals.

[^] Return on Capital Employed excludes the impacts of acquisitions, disposals and leases.

Watson-Marlow Fluid Technology Solutions

Ten brands offering customers an unrivalled breadth of services for the fluid path

**WATSON
MARLOW**
Pumps



Low-flow peristaltic
metering pumps
(acquired in 1990)

**WATSON
MARLOW**
Tubing



Precision pump
and transfer tubing

Bredel
Hose Pumps



High-flow industrial hose
pumps (acquired 1996)

Alitea
OEM Pumps



Low-flow, high precision
OEM pumps (acquired 2000)

Flexicon
Liquid Filling



Aseptic filling
(acquired 2008)

masosine
Process Pumps



Sinusoidal pumps
(acquired 2009)

bio
PURE



Biotechnology tubing
connection systems
(acquired 2014)

ASEPCO



Stainless steel tank bottom
and in-line valves for
Biotechnology
(acquired 2015)

Flow Smart



High purity polymer
products company
(acquired 2015)

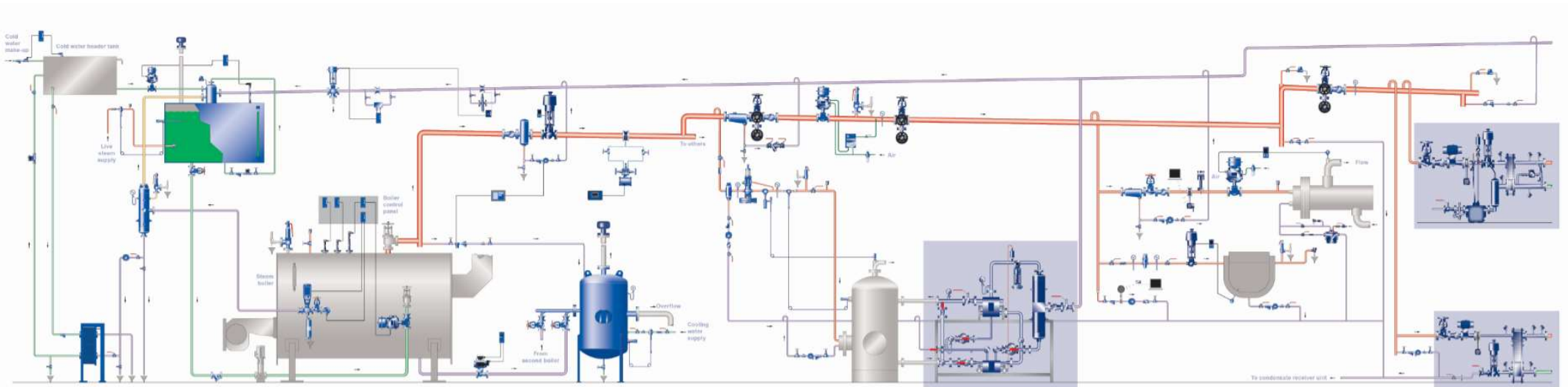
AFLEX HOSE



PTFE-lined flexible hoses
(acquired 2016)

Steam and condensate loop

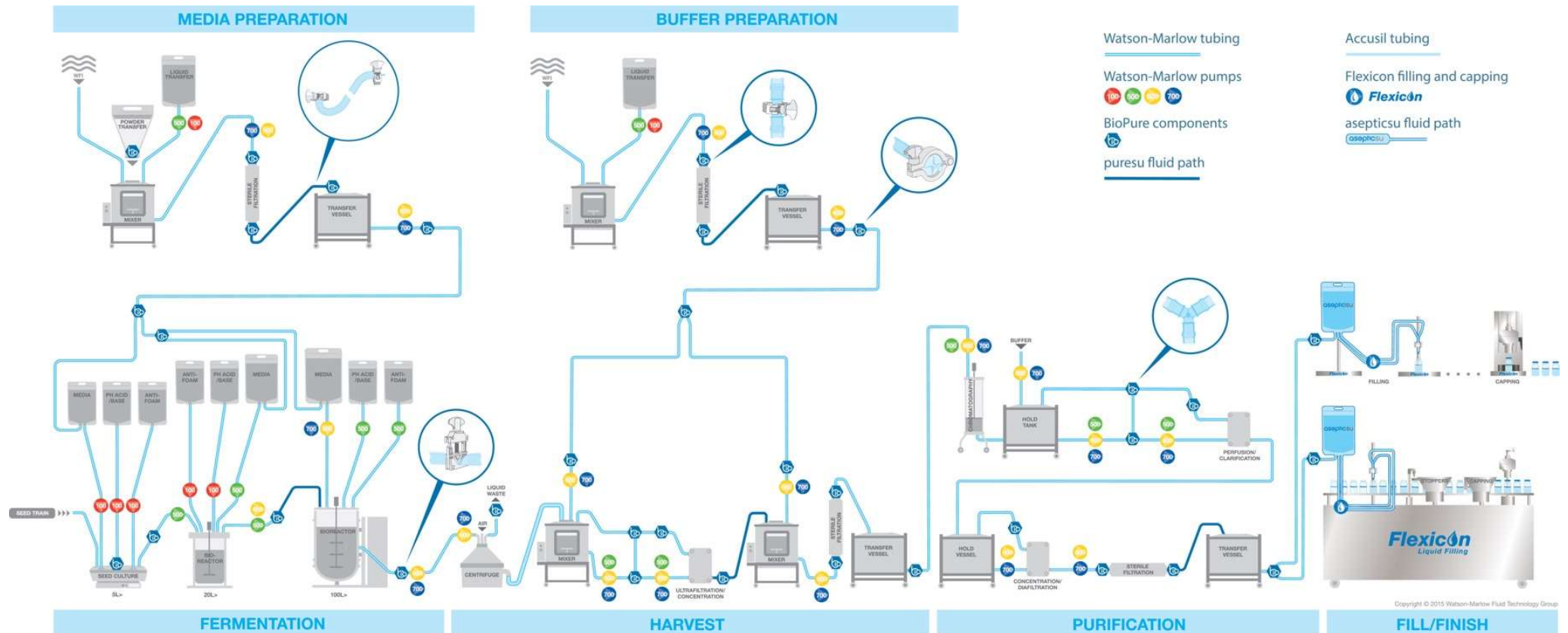
Applications overview



Steam generation				Steam distribution and utilisation				Packaged Solutions & Energy Recovery			
Feedwater supply, storage and conditioning	Boiler level controls	Bottom blowdown valves and vessels	Start-up systems and separators	Pressure control	Flow metering	Steam traps	Ancillaries	Humidification	Heat transfer solutions	Flash steam recovery	Condensate recovery
TDS controls	Boiler blowdown	Blowdown heat recovery	Condensate monitoring	Temperature control		Wireless communication		Clean & pure steam products			

Single-use bioprocessing

Complete single-use fluid technology expertise



Group competitors

	EMEA	Asia Pacific	Americas
Steam Specialties			
Armstrong International (USA) <i>Private</i>	●	●	●
ARI Armaturen (Germany) <i>Private</i>	●	○	○
Forbes Marshall (India) <i>Private</i>	●	●	○
TLV (Japan) <i>Private</i>	●	●	●
Valsteam Adca (Portugal) <i>Private</i>	●	○	●
Other product specialists: Emerson (USA): <i>NYSE</i> ; Samson (Germany) <i>Private</i> ; Flowserve (USA): <i>NYSE</i> ; Endress + Hauser (Swiss) <i>Private</i> ; Yokogawa (Japan) <i>Nikkei</i> ; Watson McDaniel (USA) <i>Private</i> ; Ayvaz (Turkey) <i>Private</i>			
Electric Thermal Solutions			
BARTEC (Germany) <i>Private Equity</i>	●	●	○
EXHEAT Limited (UK) <i>Private</i>	●	○	
nVent (USA) <i>Public: NYSE</i>	●	●	●
Thermon Group Holdings Inc (USA) <i>Public: NYSE</i>	●	●	●
Watlow Electric Manufacturing Company (USA) <i>Private Equity</i>	○	●	●
Other product specialists: Minco Products Inc (USA) <i>Private</i> ; Nibe Industrier AB (Sweden): <i>Nasdaq Stockholm</i> ; CSI (Controls South East Inc) (USA) <i>Ametek: NYSE</i> ; F.A.T.I. Srl (Italy): <i>Private</i> ; Zoppas Industries (Italy): <i>Private</i>			
Watson-Marlow			
Antylia Scientific (previously Cole Parmer) (USA) <i>Private Equity</i>	○	○	●
Verder (Netherlands) <i>Private</i>	●	○	○
Other pump types and fluid path components: Moyno / Mono (USA) <i>National Oilwell Varco: NYSE</i> ; Wilden (USA) <i>PSG Dover; NYSE</i> ; Abaque (France) <i>PSG Dover; NYSE</i> ; Waukesha (USA) <i>Private Equity</i> ; Fristam (Germany) <i>Private</i> ; Warren Rupp/Pulsafeeder (USA) <i>IDEX: NYSE</i> ; Prominent/Boyser (Germany) <i>Private</i> ; Saint-Gobain Bioprocess Solutions (France) <i>Saint-Gobain: Euronext Paris</i> ; Longer (China) <i>Halma PLC: FTSE</i> ; CPC (USA) <i>Dover, NYSE</i>			

Our people and Values

Our Values underpin decision-making, guide our conduct and shape our culture

**Safety:**

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

**Excellence:**

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

**Collaboration:**

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

**Respect:**

Everyone matters, both inside and outside our company. We respect the natural environment and our local communities.

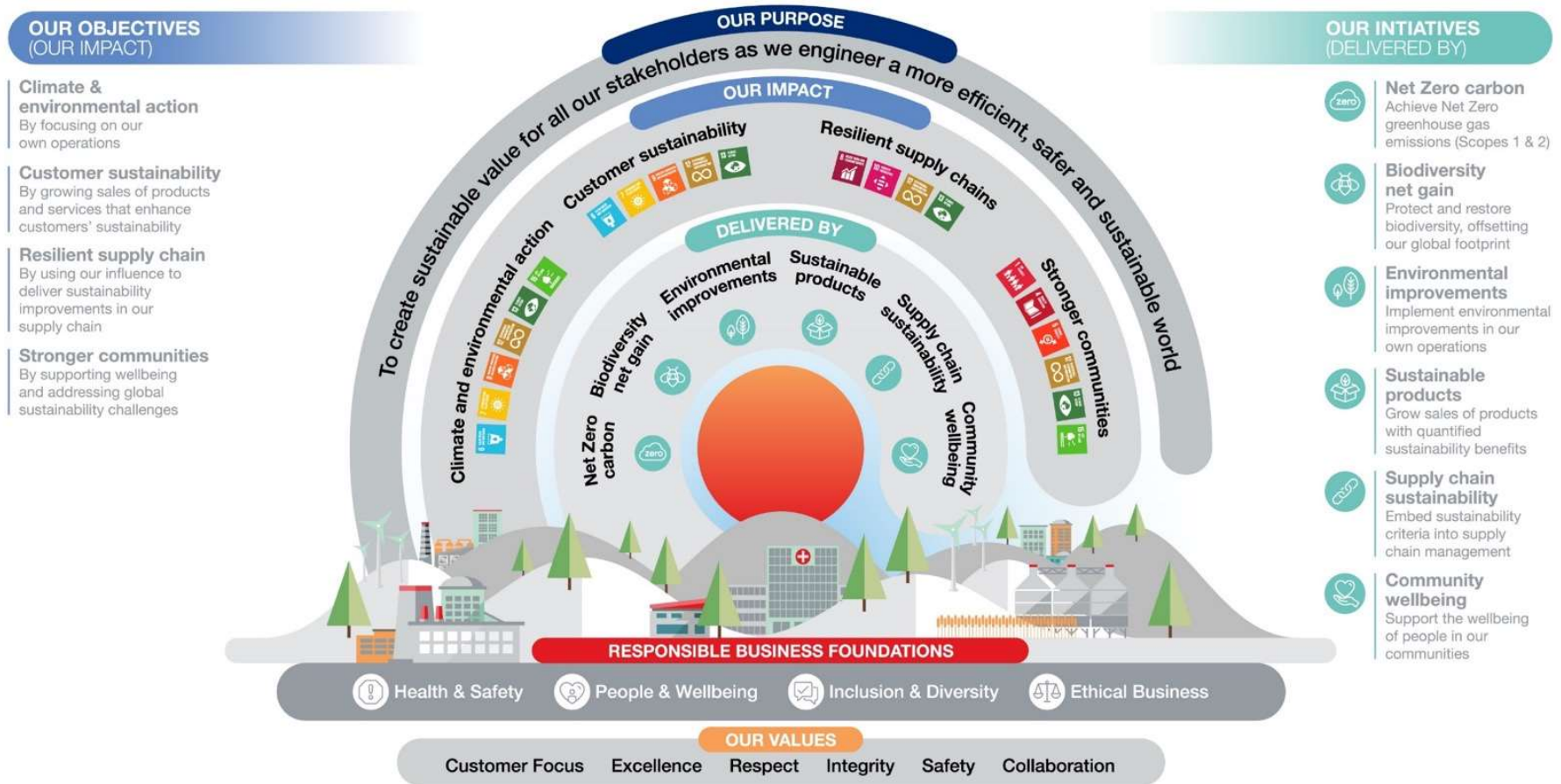
**Customer Focus:**

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

**Integrity:**

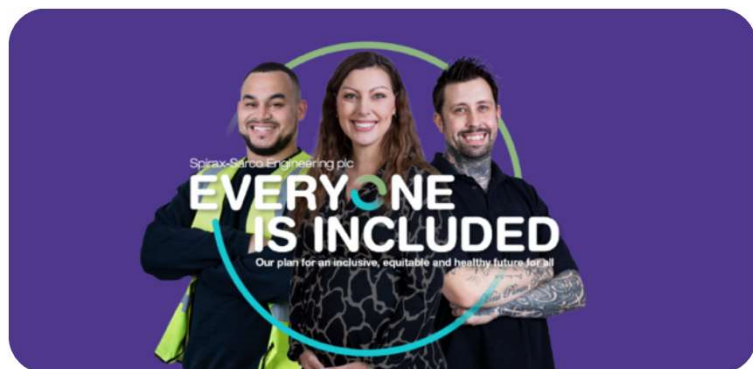
Success only matters when achieved fairly. We believe that winning with integrity leads to sustainable results.

Accelerating our sustainability agenda



Our Group Inclusion Commitments

Wherever we work in the world, we will make our difference for our colleague. Through our Group Inclusion Commitments, we commit to:



Ensuring the best start for new families by giving every colleague who becomes a parent a minimum of 16 weeks paid parental leave



Becoming an increasingly gender balanced, ethnically diverse, disability confident and faith-aware employer



Helping every colleague who is a caregiver to support their loved ones or take time for self-care



Being a safe place for all lesbian, gay, bi, trans and queer or questioning (LGBTQ+) people, wherever we operate



Supporting every colleague who experiences pregnancy loss of any kind



Enabling our hybrid workforce to be at their best wherever and whenever they are working



Standing up for colleagues who experience domestic violence or abuse



Proactively promoting better wellbeing, balance and mental health



Creating menopause-friendly workplaces



Empowering our colleagues to grow their knowledge, skills and confidence as active advocates of inclusion and wellbeing

People and communities

Giving support where it is needed the most...



...to ensure colleagues feel included...

We aim to provide a progressive, supportive and inclusive culture that enables our colleagues to thrive at work and beyond.

That's why, in 2022, we launched, Everyone is Included, our Group Inclusion Plan, with ten commitments designed to support and enrich the lives of our colleagues everywhere.

With commitments including, 16 weeks' paid parental leave for every new parent, caregivers leave, LGBTQ+ allyship, wellbeing support and much more, colleagues tell us they are feeling more supported, more welcomed and more included.



40

...and our communities become stronger.

Our Group is united behind our community engagement programme, 'Giving today for a better tomorrow'.

Whether through using their three paid volunteering days, locally funding community initiatives or nominating projects to benefit from our Group Education Fund, our colleagues around the world are doing all they can to build stronger communities in the areas where we work.

Our new Group Education Fund helped remove barriers to education and supported diversity in engineering. In 2022 we donated over £1 million to support 51 education projects nominated by our operating companies.

Protecting our planet

To create a more sustainable future we are...



...improving customer sustainability.

We saved our customers 17.7 million tonnes of CO₂ through a select group of products sold in 2022.

Through our new 'TargetZero' solutions we are uniquely placed to help our customers decarbonise their critical industrial processes, including the raising of steam, to meet their sustainability goals.



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...powering ahead to net zero.

We are executing on our net zero roadmap and by 2022 have already achieved a 41% reduction of GHG emissions compared to our 2019 baseline.

We installed 2.4 GWh of solar energy across four manufacturing sites in 2022 and now receive 57% of our electricity from renewable or green energy sources.

Because we only have One Planet.

Steam Specialties



**>4,000
tonnes***



42

Digital insights improve sustainability

Cotopaxi and Spirax Sarco worked together with Kraft Heinz, to design and install our connected energy and sustainability platform, STRATA, at its Shanghai facility in China. The digital insights generated by the system, which examined how Kraft Heinz was managing its use of water, air, gas, energy and steam (WAGES) combined with Spirax Sarco's efficiency and sustainability expertise quickly delivered value.

Through the installation of 23 utility meters the WAGES data was collected and sent to STRATA every minute, generating real time analysis which identified significant steam leakage during a plant 'shutdown', as well as heat loss to the atmosphere. Spirax Sarco implemented infrastructure improvements to address the leakage and designed a heat recovery system to capture and re-utilise the heat within the factory's production processes.

The way in which Cotopaxi technology and Spirax Sarco know-how have come together is helping Kraft Heinz achieve its Environmental Stewardship Goals, through greater efficiency in steam use, as well as reductions in carbon emissions.

*equivalent steam saving potential per year

Spirax-Sarco Engineering plc

Electric Thermal Solutions

1,500
tonnes
of CO₂*



43

Reducing CO₂ emissions in oil & gas

Chromalox is using its innovative Medium Voltage technology to decarbonise core oil & gas processes without impacting critical asset operations and uptime.

Working in support of a major energy company in the USA, Chromalox has designed a retrofit solution to replace the burner assembly inside the asset's Heater Treaters, the vessels used to separate the water from the oil and gas before it passes into the pipeline for processing.

The Heater Treaters are essential for efficient oil and gas processing. By conducting an in-situ replacement of the burner assemblies with electric immersion heaters, the refurbished Heater Treaters have zero scope 1 emissions and our customer avoids expensive asset downtime.

The solution also contributed to energy efficiency, as heat loss from the flue stack was eliminated, along with the open flame.

*eliminated by conversion to electric heating per year

Engineering our difference

Watson-Marlow

97.5%
discharge
reduction



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Technology that's good for the planet

Environmental regulations governing chemical use and disposal in wastewater are increasing. At a wastewater treatment plant in Germany, our customer was able to meet the strict environmental discharge limits by accurate and reliable ferric chloride dosing delivered by Watson-Marlow's Qdos Conveying Wave Technology pump. The precision of the pump, as well as the sealed pump head which minimises operator exposure, makes it ideal in chemical metering applications.

Controlling phosphorous discharge from wastewater treatment plants is a key factor in preventing eutrophication, which can lead to algae blooms in lakes and reservoirs, making water dangerous if consumed and jeopardising aquatic life.

Through replacing their existing pumping solution with the Qdos CWT, the plant has achieved a 97.5% reduction in phosphorus discharge in just one year.

That's good for business and for the planet.

Spirax-Sarco Engineering plc