Highlights

Revenue

£1,820m

2024	£1,820m
2023	£1,930m
2022	£2,047m

Trading profit[1]

£188m

2024	£188m
2023	£200m
2022	£227m

Return on sales[1]

10.3%

2024	10.3%
2023	10.4%
2022	11.1%

Operating profit

£154m

2024	£154m
2023	£190m
2022	£217m

Statutory EPS

33.5p

2024	33.5p
2023	44.0p
2022	67.2p

Free cash flow[1]

£61m

2024	£61m
2023	£128m
2022	£123m

Return on invested capital[1]

8.4%

2024	8.4%
2023	8.9%
2022	10.7%

Net debt to adjusted EBITDA[1]

1.3x

2024	1.3x
2023	0.9x
2022	0.9x

Lost Time Injury Frequency Rate per million hours

0.52

2024	0.52
2023	0.60
2022	1.08

Reduction in Scope 1 and 2 CO_2e emission intensity per metric tonne of product packed for shipment versus 2019[2]

-26.9%

2024	-26.9%
2023	-20.7%

1. For definitions of alternative performance measures, refer to Note 35 of the Group Financial Statements.
2. Pro forma performance calculated as if dolime production had been operating normally in 2023 and 2024. The actual reduction in Scope 1 and 2 CO_2e emission intensity in 2023 was 45.9% and in 2024 was 40.4%. See page 51 for further information.
3. Figures above have been rounded to the nearest million.

At a glance

Steel Division

We are a world leader in the supply of refractory products, systems and solutions to steel producers and other high-temperature industries, helping our customers increase their efficiency and productivity, and enhance their quality and safety.

Revenue
£1,343.8m

Trading profit
£153.0m

Flow Control

We supply the global steel industry with consumable ceramic products, systems, robotics and digital services for the continuous casting process.

Revenue
£769.0m

Key products

VISO (isostatic tubes, stoppers and nozzles) c.45%

SLIDE-GATE (refractories and systems) c.35%

OTHER (including fluxes, purging plugs and robots) c.20%

Advanced Refractories

We supply specialist refractory products designed to enable steel-making equipment to hold the molten metal.

Revenue
£535.6m

Key products

UNSHAPED (AlSi and basic monolithics) c.55%

SHAPED AND OTHER (including bricks and precast) c.45%

Sensors & Probes

We supply a range of products that enhance the control and monitoring of our customers' production processes.

Revenue
£39.2m

What we do for our Steel customers

We supply refractory products, flow control systems and process measurement solutions to our Steel Division customers

We combine these with robotics and mechatronic installations to increase their efficiency, lower their costs and improve their safety and product consistency

Our solutions address the key challenges of our customers in the steel industry, such as maintaining steel quality and reducing energy usage during the casting process

Our products and their applications preserve the purity of the steel as it moves through the production process, from initial refining to the cast steel slab, bar or ingot

We improve...

Safety
Improved safety at customer plants

Quality
Better steel, better castings

Foundry Division

Operating under the Foseco brand, we are a world leader in the supply of consumable products, technical advice and application support to the global foundry industry, helping our customers to improve their casting quality and foundry efficiency.

Revenue
£476.3m

Trading profit
£35.0m

Product demand is driven by higher sophistication, demanding higher-quality metal and more complex castings.

Key products

FEEDING AND FILTRATION c.40%

BINDERS AND COATINGS c.30%

OTHER (including crucibles and melt-shop products) c.30%

Customers

Foseco's primary customers are ferrous and non-ferrous foundries serving various end-markets from large bespoke castings to high volume automotive pieces. Most of Foseco's customers serve the general industrial market.

78% 22%

General industrials[1] Light vehicle market

What we do for our Foundry customers

- We provide customisable products and process technology to foundries that improve the quality of their castings
- We combine this with technical advice, application engineering and computer modelling to improve process outcomes
- Our solutions address our foundry customers' key challenges of casting quality and production efficiency
- Our products and solutions clean the molten metal, improve the solidification of that metal, and reduce wastage in the final casting

Efficiency
Cheaper steel, cheaper castings

Sustainability
Less energy usage and CO_2 emissions

...for our Steel and Foundry customers

1. General industrials includes: mining, agricultural, general engineering, heavy trucks and other industrial applications.

At a glance

Our global presence

Our worldwide footprint, with a focus on the world's growing markets, enables us to capitalise on shifting dynamics in the global steel and foundry markets.

For more information see pages 14–17.

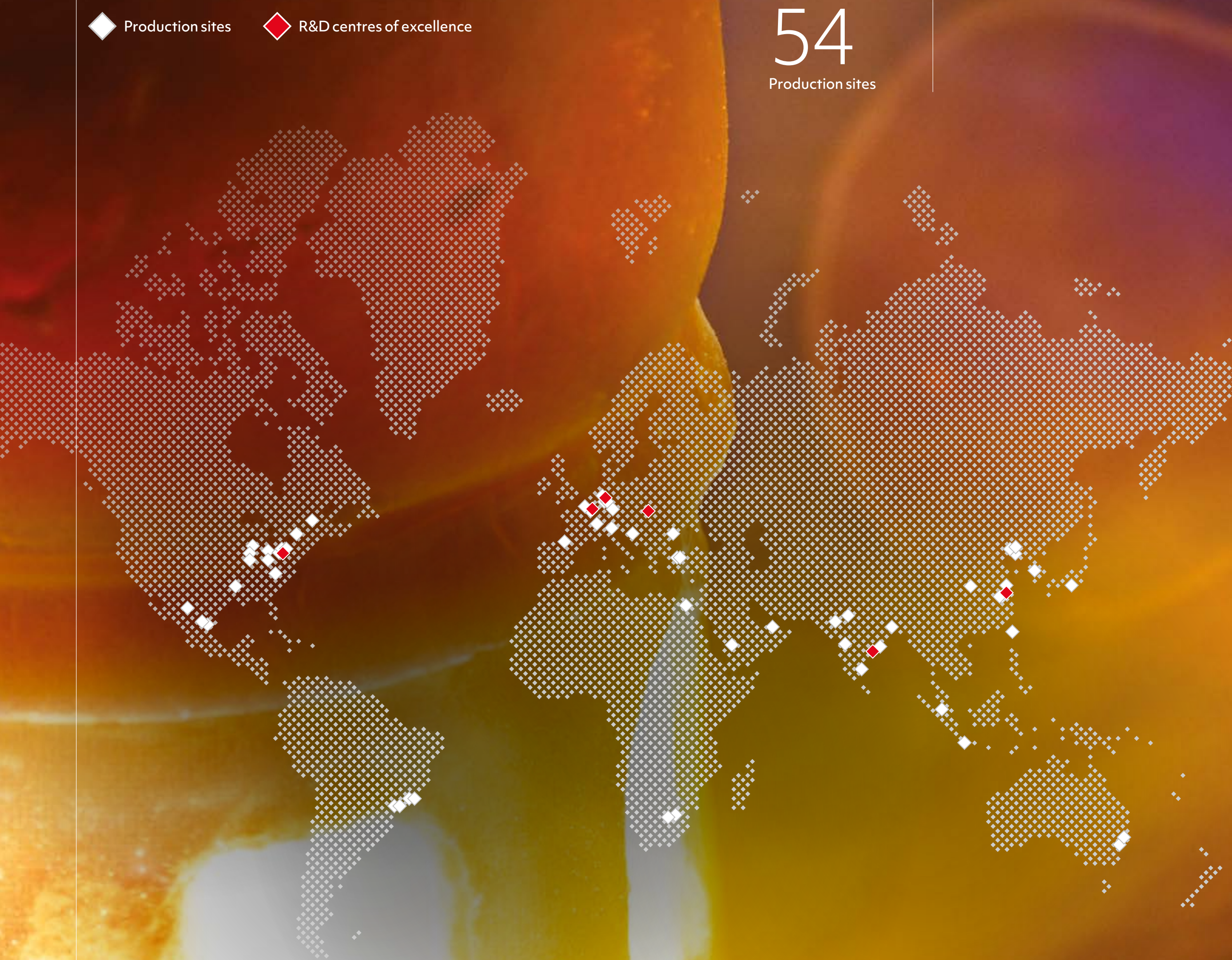
6
Continents

40
Countries

68
Sales offices

6
R&D centres of excellence

54
Production sites



Our capacity expansion in developing markets:

VIZAG, INDIA

New site developed with further expansion capacity available

Advanced Refractories:
Precast, AlSi & basic monolithics

Flow Control:
Mould flux

SKAWINA, POLAND

Flow Control:
VISO and slide-gate

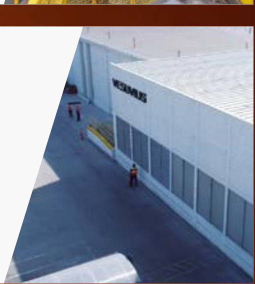
YINGKOU AND CHANGSHU, CHINA

Advanced Refractories:
Basic monolithics

Foundry:
Non-ferrous fluxes

MONTERREY, MEXICO

Flow Control:
VISO



KOLKATA AND PUNE, INDIA

Flow Control:
VISO

Foundry:
Filters

Breakdown by region

Americas
3,146 employees

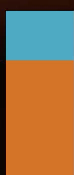
19% FOUNDRY
81% STEEL

£633.5m
Revenue

EMEA
4,309 employees

30% FOUNDRY
70% STEEL

£603.1m
Revenue



Asia-Pacific
6,260 employees

30% FOUNDRY
70% STEEL

£583.5m
Revenue

Chairman's statement

We continued to advance our strategy in 2024 despite challenging market conditions

Dear Shareholder,

2024 marked a steady year for Vesuvius, as we navigated adverse conditions across our end-markets, a number of which continued to suffer lower than expected activity. The knock-on effects of a slowing Chinese economy drove Chinese steel exports to reach increasingly elevated levels during the year, putting pressure on end-markets for our Steel Division. Similarly, Foundry end-markets were very subdued as lower industrial activity impacted our customers. Despite this, the Group delivered a resilient performance, thanks in large part to the decisive actions of the management team and leadership, as well as the hard work and commitment from our employees globally.

Strategy

We continued to advance our strategy successfully in 2024, with the Board supporting key investments to drive growth and strengthen the Group's capabilities. Our ability to gain market share in our Flow Control and Foundry businesses, despite a more challenging economic environment than anticipated, is testament to the Group's differentiated technology and excellent customer focus. Product innovation remains central to our strategy, enabling us to deliver advanced solutions that create value for our customers. Over the past year, we launched 33 new products, as we continue our commitment to staying ahead of evolving customer needs.

Our Flow Control business has been a standout contributor, with over 20% of its sales now derived from products launched in the past five years, demonstrating the tangible impact of our innovation pipeline.

Our commitment to adding value extends beyond product innovation to advanced solutions based on robotics, which continue to attract significant customer interest. In 2024, we secured nine new robotics projects, building on the five projects secured in 2023. These installations are transforming customer operations by enhancing production, improving process efficiency, and promoting safer working environments.

This year, we also announced the acquisition of a majority stake in PiroMET, a Turkish business specialising in refractory products, and advanced robotics and gunning solutions. We recently completed this acquisition, which will strengthen our Advanced Refractories business in the high-growth EEMEA region, further enhancing our ability to meet customer demand in these critical and expanding markets, whilst also supporting our ability to serve the European market.

The Group has continued to make excellent progress delivering against the cost savings targets announced at our Capital Markets Day in November 2023. The three-year cost reduction programme is proceeding well, with the exit run-rate at the end of 2024 ahead of expectations, reflecting the diligent efforts of the Vesuvius team as they identify and execute key projects to support this goal.

To underpin long-term growth, we continue to make targeted investments to expand capacity in high-growth regions like India and Poland. Our growth capex programme has been instrumental in enabling these efforts, ensuring we can meet the evolving needs of our customers and maintain our leadership position in key markets.

People

The strategic progress and financial performance we have delivered this year is founded on the dedication and professionalism of our employees across the Group. The level of technological innovation we see at Vesuvius simply could not happen if we did not have the right people in the right places, nor could we maintain the depth of our customer relationships without the contribution of our operations, sales and procurement teams.

As in previous years, the engagement survey we conducted during the year showed that we have a motivated workforce, committed to delivering on our goals. It remains the case that our people are at the heart of Vesuvius.

Members of the Board had another busy year, visiting sites in Belgium, the Czech Republic, France, Japan, Mexico, Poland and the USA, and the entire Board made a week-long trip to China. It is during these visits that the Directors can speak firsthand with our people, holding 'town hall' meetings, listening to their questions and feedback, and taking the temperature of the organisation, as well as engaging directly with our customers and other stakeholders on the ground.

Safety

The number one priority at Vesuvius is to provide our employees with a safe place to work, and we are proud of the steps we have taken over the years to ensure safety is at the core of everything we do. Although we are pleased that our Lost Time Injury Frequency Rate continued to reduce this year to 0.52 per million hours worked, which is another improvement in performance, we are aware that there is always more work to be done. Only the highest levels of safety performance can be accepted.

Progress on our sustainability objectives

The Group has set clear internal operational targets around sustainability performance, particularly in relation to our CO_2 emissions and energy consumption. Our focus on sustainability is increasingly intertwined with our R&D capabilities, where our research enables us to continue to develop innovative and energy efficient solutions for our customers. We continue to deliver positive progress against these objectives, whilst recognising that the Group's ambitions for diversity remain challenging, and as yet unfulfilled.

A highlight of the year was the inauguration of our first carbon-free major manufacturing site, for Flow Control and Advanced Refractories products in Brazil. This shows clearly what we can achieve as we focus on our CO_2e intensity reduction targets. We continue to take steps towards reaching our target of a net zero carbon footprint by 2050, and have identified priorities, targets and milestones as we progress on this journey.

The Board and governance

In 2024, we welcomed two new Independent Non-Executive Directors to the Board. Eva Lindqvist joined in May, as Senior Independent Director, following her election at the AGM. She has over 35 years of experience in global industrial and service businesses, including senior leadership roles at Ericsson and Telia, and brings strategic insight and governance expertise, having served on numerous listed company boards. Then in June, we were pleased to welcome Italia Boninelli to the Board. An experienced HR executive with extensive international exposure across the mining, healthcare, and financial services sectors, Italia's expertise will be invaluable in her role as Chair of the Remuneration Committee.

This year we also saw Douglas Hurt step down as Senior Independent Director and Chair of the Audit Committee after nine years of dedicated service, with Robert MacLeod succeeding him in the latter role. Similarly, Kath Durrant, who joined the Board in 2020, stepped down in July as Chair of the Remuneration Committee having served three years on the Board. On behalf of the Directors, I would like to thank both Douglas and Kath for their significant contributions, wise counsel and steadfast commitment to Vesuvius during their tenure.

Dividend

Vesuvius has a progressive dividend policy. As a minimum we will maintain our dividend per share year-on-year and increase it, through the cycle, in line with earnings per share growth. The Board has recommended a final dividend of 16.4 pence per share, bringing the total dividend for the year to 23.5 pence per share, which is a 2.2% year-on-year increase on the total dividend for 2023 of 23.0 pence per share. If approved at the Annual General Meeting, this final dividend will be paid on 6 June 2025 to shareholders on the register at 25 April 2025.

Following the successful completion of our first share buyback programme in 2024, we were pleased to launch a new programme for a second tranche of £50 million, which we anticipate completing over the next three months. This decision underscores our confidence in the ongoing strength of Vesuvius' free cash flow generation and reaffirms our commitment to return value to our shareholders while maintaining a strong balance sheet.

Annual General Meeting

The Annual General Meeting will be held on 16 May 2025. The Notice of Meeting and explanatory notes containing details of the resolutions to be put to the meeting accompany this Annual Report and are available on our website: www.vesuvius.com.

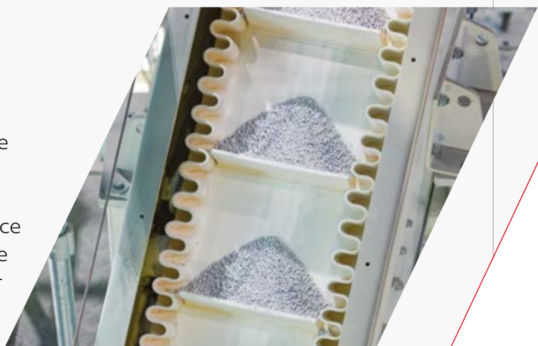
Looking ahead

Vesuvius remains steadfast in its strategy for growth and is confident in the long-term attractiveness of global steel and foundry market fundamentals. We are committed to executing our strategic ambitions with a primary focus on safety, driving innovation through our dedicated R&D capabilities, and delivering market-leading, technologically advanced products and solutions. Alongside these priorities, we will maintain a robust financial framework that supports continued investment in the business and, where appropriate, targeted acquisitions.

While the year ahead may bring economic, commercial and operational challenges, we continue to deliver on self-help measures that enhance our resilience and position us to capitalise on opportunities as end-markets improve. With our talented people, advanced products and industry expertise, we are well placed to deliver long-term value for our shareholders.

On behalf of the Board, I would like to thank our shareholders, employees and customers for their continued support, and I look forward to reporting on further successes in the coming year.

Carl-Peter Forster
Chairman
5 March 2025



Chief Executive's strategic review

Vesuvius' performance in 2024 showed resilience despite difficult market conditions, thanks to a strong focus on cost reduction and the continuing benefits of our technology strategy.

2024 difficult market background

Global steel production remained subdued in the world excluding China, Russia, Iran and Ukraine, with growth limited to 0.8% for the full year (source: World Steel Association), due to sharply increasing steel exports from China. Steel production in India continued to exhibit strong growth (+6.3% year-on-year), as did South East Asia (+5.3%) and EEMEA (EMEA excluding EU+UK, Iran, Russia and Ukraine) (+4.1%). Conversely, steel production declined in the Americas (-2.9%) and in North Asia (-3.6%). Europe (EU+UK) only modestly recovered from the very low point of 2023, with growth of 1.2%.

Despite steel production in China contracting by 1.7%, the level of net exports continued to rise during the year, reaching 104 million tonnes, an increase of c.20 million tonnes versus 2023, due to an even sharper decline in domestic steel consumption. These increasing exports put steel production outside of China under strong pressure and depressed steel prices worldwide.

Foundry markets, with the exception of India, remained very weak throughout 2024, in particular in Europe, North Asia and in the Americas, as declining industrial activity impacted the end-markets of our customers. All industrial end-markets outside of China were affected, including the light vehicle industry which had performed well in 2023. The foundry market decline was particularly severe in EU+UK and in North Asia, important regions for our Foundry Division, and we now do not expect them to return to their pre-pandemic levels in the near future.

Updated Strategic Targets

We aim to:

	Return on Sales	Free cash flow	Cash cost savings
Original targets	Achieve a Return on Sales of at least 12.5% by 2026	Generate strong and recurring free cash flow of at least £400m between 2024 and 2026	Achieve £30m of annually recurring cash cost savings by the end of 2026
Updated targets	Achieve a Return on Sales of at least 12.5% by 2028	Deliver our cumulative £400m free cash flow target between 2024 and 2027	Increase our cash cost savings objective to £45m by 2028

Progress in 2024

Return on sales has increased to 10.3%, 10 basis points higher on an underlying basis than 2023 (2023 ROS: 10.2% on a constant currency basis). This reflects substantial cost savings achieved in 2024, largely offset by the negative impact of declining volumes in the Foundry business.

Free cash flow fell to £61m in 2024 compared to £128m in 2023, reflecting the reduced EBITDA due to trading, combined with ongoing investment capex. We expect capex in 2025 to be £80m–£85m then revert to more normalised levels.

In 2024, we delivered cost savings under our Group-wide programme of £13m with an annualised exit run-rate of £18m. Of the savings delivered in-year, slightly under half were in the Foundry Division, reflecting swift action taken to address costs in a challenging environment. The cost savings achieved to date have been weighted towards headcount reductions.

Strategic Update

In November 2023, we presented our strategy and medium-term targets to investors at a Capital Markets Event. We highlighted favourable medium-term trends in our end-markets, and, through our market-leading investment in research and development, demonstrated our ability to gain market share while pricing for the value we generate for our customers. We also set out a cost reduction programme as detailed below.

Cost optimisation programme delivering above expectations

The cost optimisation programme, launched in late 2023, initially aimed to deliver £30m of annually recurring cash savings by 2026. This programme covers all of our worldwide activities and focuses on operational improvement, lean initiatives, automation and digitalisation, as well as optimisation of our manufacturing footprint.

In 2024, we delivered cost savings under this programme of £13m with an annualised exit run-rate of £18m.

Of the savings delivered in-year, slightly under half were in the Foundry Division, reflecting swift action taken to address costs in a challenging environment. The cost savings achieved to date have been weighted towards headcount reductions. We expect to deliver incremental in-year cost savings of £12m–£14m in 2025. We anticipate one-off costs in 2025 in the region of £7m–£10m and a total programme cost of £40m, including capex costs.

Given this good progress in 2024, we are now raising our cash cost savings objective from £30m of recurring annual savings by 2026 to £45m of recurring annual savings by 2028, with an incremental cost of delivery of c.£20m.

Medium-term strategic targets

Over the past year, we implemented our programme and delivered on these cost reduction actions. We also saw the benefit of our technology-led business model, with our differentiation driving market share gains in Flow Control and Foundry.

The market backdrop, however, has been challenging, particularly in our Foundry Division where the decline in market activity has been significant, such that the benefit of cost savings in 2024 has largely been offset by this market decline. Despite the short-term uncertainties in our end-markets, we remain confident in the mid- to long-term growth potential of these markets and in particular growth in the steel market outside of China. The strength of our technology-based business model should also enable us to continue outperforming our underlying markets in Flow Control and Foundry.

Given the near-term uncertain tariff and geopolitical environment and the decline experienced in Foundry end-markets over the last 18 months, we are now targeting to achieve our mid-term Return on Sales target of at least 12.5% by 2028 and to deliver our cumulative £400m free cash flow target by 2027. This will be partially dependent on a return to normal conditions in our end-markets and will be supported by an extension of our cost reduction programme which we are increasing from £30m to £45m by 2028.

Our Sustainability Priorities

- Helping our customers reduce their CO_2 emissions
- Become a zero-accident company
- Reach net zero CO_2 emissions (Scope 1 and 2)
- Improve gender diversity at every level of the company

For more information, see pages 22 and 23, and the Sustainability section of this report on pages 34–62.

Chief Executive's strategic review continued

Performance

Steel Division

Despite adverse market conditions, the Steel Division performed well in 2024. On an underlying basis, the Steel Division revenue remained broadly stable (-0.1%) while profit grew by 9.9%, resulting in return on sales increasing by 110bps. Revenue growth was driven by market share gains offsetting slightly negative market volumes evolution overall due to our overweight market position in North America, where steel production declined in 2024.

Overall, we gained market share across the Steel Division, with gains across the Flow Control business and in Advanced Refractories in the growing regions of Asia and EEMEA, which more than offset some limited Advanced Refractories market share losses in EU+UK and the Americas. Headline pricing decreased slightly, reflecting a decline in raw materials costs. Pricing net of cost inflation (raw materials and labour), however, remained positive.

Steel Division profits were also supported by the strong cost reduction actions undertaken as part of the Group-wide £30m cost-saving programme.

Foundry Division

Severe market decline, in particular in EU+UK and North Asia which represents c.40% of the Foundry Division turnover, reduced overall Foundry Division revenue by c.10%. The Division was, however, able to mitigate this general market downturn with market share gains of c.5%.

Headline pricing also decreased during the year, reflecting a decline of raw materials prices. Pricing net of cost inflation (labour and raw materials) was slightly negative as labour inflation was not fully compensated by price increases.

The Division reacted strongly to this challenging environment, successfully implementing cost reduction actions and accelerating production and resource transfers from EU+UK to lower cost and faster growing areas.

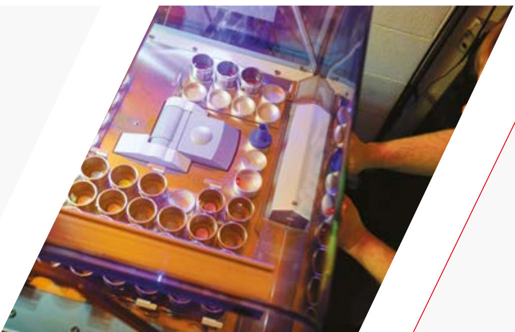
We expect this strong action plan will pave the way for an improvement of the Foundry Division results going forward despite the continuing difficult market conditions in Europe and North Asia.

Good cash generation and strong balance sheet

The business delivered adjusted operating cashflow of £130.3m in 2024, which represented a 69% cash conversion rate for the year. Free cashflow was £60.8m, after cash capex of £100.8m (2023: £92.6m). We maintained a strict focus on working capital management and were able to reduce our trade working capital intensity further, which was 22.9% at year-end, versus 23.4% last year.

Our balance sheet remained strong with a debt leverage ratio of 1.3x (31 December 2023: 0.9x), at the lower end of our 1.0–2.0x range. This reflects the free cash flow described above, £63.4m of payments relating to the share buybacks executed during the year and dividends of £61.1m.

In February 2025 we concluded the refinancing of our revolving credit facility, extended to £475m, with a syndicate of ten banks for a term of 4.5 years.



Investment

Acquisition in Türkiye

Following the agreement reached in November 2024, on 28 February 2025 we completed the acquisition of a 61.65% shareholding in PiroMET, a Turkish refractory company, for €26.2m. The acquisition will strengthen our Advanced Refractories business in the fast-growing region of EEMEA and will also allow us to leverage PiroMET's expertise in robotics and gunning worldwide.

Capacity-expansion programme in Flow Control and in Asia nearing completion

The investment programme to expand capacity and support the growth of Flow Control worldwide and Advanced Refractories and Foundry in Asia, initiated in 2021, is now largely complete and will underpin the progression of our results and profitability in the years to come. The expanded production capacity for VISO, Slide Gate and Mould Flux in Flow Control is now largely operational and will support the Business Unit's expansion in India, South East Asia, EEMEA and North America.

In Advanced Refractories, the expansion of our Basic monolithic and AlSi monolithic capacity at our new flagship plant in Vizag is nearing completion and will support profitable growth of the Business Unit in India going forward.

In Foundry, our non-ferrous flux production line in China is now fully operational and will enable the Business Unit to accelerate its penetration of the fast-growing aluminium foundry market.

This three-year capex programme of capacity expansion will be mostly completed by the end of H1 2025. Following this, capex is expected to revert towards normalised levels.

Continued progress in the productivity of R&D and new product development

We increased our investment in research and development in 2024 (on a constant currency basis), spending £36.9m, equating to 2.0% of revenue. This was fully expensed in our income statement. Our two focus areas remain:
(1) innovation in materials science, with an objective to continuously improve the performance of our consumables; and
(2) the development of mechatronics solutions to enable our customers to substitute the operators who manipulate our consumable refractories with robots and, by doing so, improve their safety, reliability, cost and quality performance.

Our New Product Sales ratio, defined as the percentage of our sales realised from products which didn't exist five years ago, reached 19.1% for the Group in 2024 (and was over 20% in our Flow Control business). This is up from 17.6% in 2023 and well on track towards our Group target of over 20% by 2026. We launched 33 new products in 2024 and have an extensive pipeline of products under development which will be progressively introduced in the market over the coming years and will support our ambition to grow our revenue and profitability.

Our robotics business is also accelerating, with orders for robotic systems for Flow Control growing from five projects in 2023 up to nine in 2024. We also saw a considerable increase in robots shipped, up to six in the year versus one in 2023, reflecting the significant positive momentum in orders over the last two years.

Sustainability

Best ever safety performance

In 2024, we achieved a further improvement in safety, with a Lost Time Injury Frequency Rate (the number of injuries necessitating a lost work-shift, per million hours worked) of 0.52, our best result ever, having achieved 0.60 in 2023. This positions Vesuvius among the best-in-class companies worldwide and is the result of many years of effort to integrate safety as the number one priority in the company culture. We remain committed to our goal of zero accidents, and we will strive towards this objective.

Significant progress on our journey to net zero

We continue to implement our action plan to progressively decarbonise our activities. As a result, we have reduced our carbon intensity (CO_2e tonnes per million tonnes product sold) by 27% as compared with our 2019 reference year, on a pro forma basis (-40% on a reported basis), significantly ahead of our 2025 objective of a 20% reduction. This has been achieved through decarbonising our electricity, improving energy efficiency and moving from higher to lower carbon-emitting energy sources. As part of this initiative, our plant in Rio de Janeiro, Brazil, became our first carbon-free major manufacturing site operating exclusively on renewable electricity and biomethane.

Current trading and outlook

This has been a challenging year for Vesuvius with Foundry markets in Europe, North Asia and the Americas weakening significantly and global steel production outside China negatively affected by the sharp increase in Chinese steel exports during the year. Despite this, thanks to significant cost cutting, resilient pricing and market share gains, we have delivered a robust performance, maintaining our results at the level of 2023 on an underlying basis, demonstrating again the strength of our technologically differentiated business model.

For the year ahead, while we remain confident in our own performance, we are cautious on market conditions due to the uncertain economic environment arising from the negative impact of trade tariffs, which continue to evolve, geopolitical volatility and the continuing structural weakness of Steel and Foundry markets in Europe. We currently anticipate that our trading profit in 2025 will be at a broadly similar level to 2024 on a constant currency basis and including the contribution from the PiroMET acquisition. We expect that cashflow for 2025 will be significantly ahead of 2024, benefiting from our working capital focus and a more normalised level of capex.

Patrick André
Chief Executive
5 March 2025

Our business model

Think beyond.
Shape the future.

Our purpose

Vesuvius is a global leader in molten metal flow engineering and technology, serving process industries operating in challenging high-temperature conditions.

We think beyond today to create the innovative solutions that will shape the future, delivering products and services that help our customers make their industrial processes safer, more efficient and more sustainable.

In turn, we provide our employees with a safe workplace where they are recognised, developed and properly rewarded, and aim to deliver sustainable, profitable growth to provide our shareholders with a superior return on their investment.

How we create value

Our strengths

People
We have more than 11,000 people and more than 2,000 directly supervised contractors in our skilled and motivated workforce

Financial capital
We have a strong balance sheet and use the cash generated by our business to invest in innovation, people, operating assets, technology and sales, to generate further growth

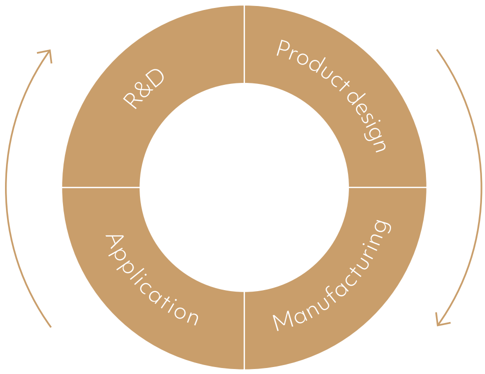
Assets
Our global footprint of 54 production sites on six continents places us in close proximity to our customers

Global supply network
We work closely with a wide range of suppliers to establish reliable and well-developed sustainable supply chains to secure high-quality raw materials

Intellectual capital
We have six R&D centres of excellence and dedicated R&D staff worldwide, generating innovative products and services

CORE Values
We champion our Values of Courage, Ownership, Respect and Energy, and our ethical approach to business conduct

Collaboration with our Steel and Foundry customers
We work in partnership with our customers to develop the products and solutions that improve their performance



Our business approach

We are...

- Entrepreneurial
- Decentralised
- A non-matrix organisation

We operate a profitable, flexible, cash-generative model focused on sustainable growth.

Robust financial returns in 2024

10.3% Return on sales

£13m Cost savings

£61m Free cash flow

How we make a difference

Innovation

Our network of talented scientists and technicians create differentiated products and solutions, allowing us to maintain our technology leadership and solve our customers' most difficult problems through innovation

Global presence

Our global footprint enables us to capitalise on shifting dynamics in the global steel market, responding to our customers' needs where they are growing

Customer knowledge

Our customer intimacy and deep knowledge of their processes and requirements give our engineers an unparalleled ability to deliver on customer needs

Efficiency

Our continuous focus on improvements in our manufacturing base, and IT and support functions, along with the automation of production processes, reduces our cost base and maintains the efficiency of our operations

Value for customers

Safety – Better working environments

Quality – Optimised products driving higher-quality steel, and better castings

Efficiency – Cheaper casting and steel through reduction of input costs and improved operational efficiency

Sustainability – Less energy usage and reduced wastage resulting in lower CO_2 emissions in our customers' processes

The value we create

Our shareholders

Our cash-generative and low capital intensity business provides returns to our shareholders and underpins sustainable growth.

£123.5m returned through our share buyback programmes and dividend payments in 2024

Our customers

Our cutting-edge products and solutions deliver enhanced value for our customers.

33 new products launched in 2024

Our people

We encourage and reward high performance to create an environment where all can realise their individual potential.

£390.8m paid to employees in wages and salaries in 2024

Our environment

We are taking active steps to improve our environmental efficiency.

26.9% pro forma reduction in Scope 1 and Scope 2 CO_2e emission intensity per metric tonne of product packed for shipment (vs 2019)[1]

1. Pro forma performance calculated as if dolime production had been operating normally in 2024. The actual reduction in Scope 1 and 2 CO_2e emission intensity in 2024 was 40.4%. See page 51 for further information.

Why invest in Vesuvius?

We operate in markets expected to grow over the medium term

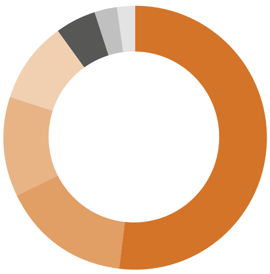
Steel Division

Markets served

By end-market %

Steel is the world's most important engineering and construction material. The steel manufactured today is principally used for construction, infrastructure, automotive manufacture and domestic goods.

- Buildings and infrastructure
- Mechanical equipment
- Automotive
- Metal products
- Other transport
- Electrical equipment
- Domestic appliances

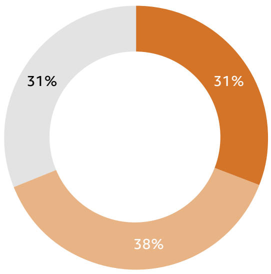


Source: World Steel Association.

By region %

We have global exposure with under half our revenue generated from the mature markets of North America and Europe. We have a strong and growing position in India and other emerging markets. China represents only 10% of our revenue due to our focus on steel manufactured using high-tech processes, but we are well placed to respond to an expected growth in high-tech steel in China in the coming years.

- Asia-Pacific
- Americas
- EMEA



Product portfolio

Flow Control

Flow Control provides end-to-end continuous casting solutions, from the ladle to the mould, harnessing strong R&D capabilities to supply technologically differentiated, bespoke products and systems to our customer base. We can combine our consumables with our industry-leading slide-gate systems and robotics to deliver highly reliable, safe and fully traceable operations.

Advanced Refractories

Advanced Refractories provides consumable products (monolithics, bricks, precast) to the steel and industrial processes industries (e.g. aluminium, foundry and cement). We combine our global on-site presence at customer locations with our mechatronics solutions to deliver improved safety and efficiency within our customers' operations, whilst providing an ongoing revenue stream from our consumable products.

Market indicators and trends

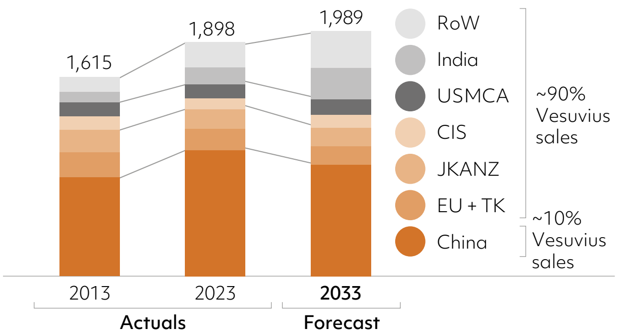
Across the Steel Division we see two main indicators, both of which forecast encouraging growth

Global steel production volumes

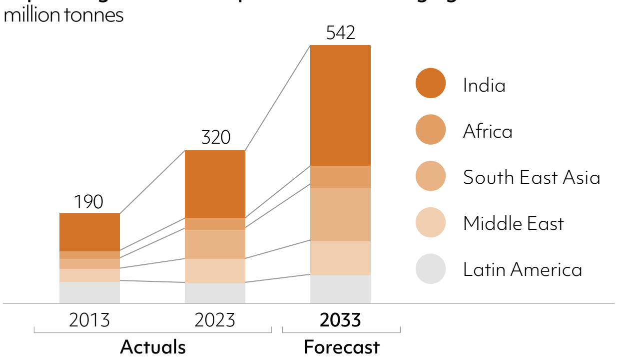
The volume of steel produced directly impacts the quantity of Vesuvius products consumed. We anticipate further growth in steel production volumes outside of China (~2% CAGR) with an estimated increase of more than 200 million tonnes in emerging markets between 2023 and 2033, linked to the development in emerging economies (including India and South East Asia). The implementation of steel import/export tariffs may also result in an increase of local production in mature markets such as the Americas and EMEA.

Vesuvius' existing exposure to mature markets, and our recent investments in India, Poland and Mexico, mean that our Steel Division is well positioned to capture this growth.

Expected evolution of global steel production
million tonnes



Expected growth in steel production in emerging markets
million tonnes



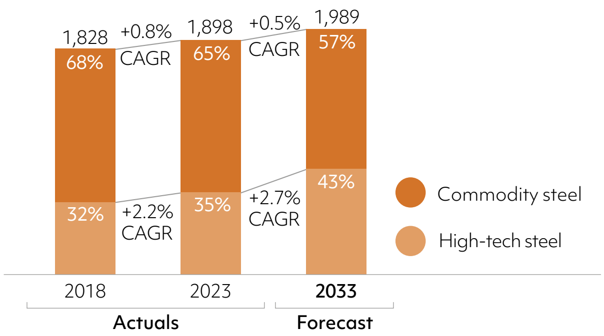
Sources:
- Actuals: World Steel Association Crude Steel Production data, issued 24 January 2025.
- Forecasts: Laplace Conseil.

Steel production by type

The type of steel produced, e.g. high-tech steel used in the automotive industry vs. commodity steel used in the construction industry, impacts the production method used by manufacturers. High-tech steel requires more sophisticated production methodologies e.g. thin slab casting, which in turn requires more elaborate and larger volumes of our Flow Control products.

We anticipate that high-tech steel volumes, which currently represent c.35% of steel production, will increase at ~2.7% CAGR driven by the maturation of developing economies as they transition from construction and infrastructure to consumer demand. We also anticipate that commodity steel volumes, which represent c.65% of current production volumes, will increase ~0.5% CAGR, driven by fast-growing economies and infrastructure investments. The high-tech steel segment represents ~58% of Flow Control sales, hence the business unit is well positioned to capture this growth.

High-technology steel production evolution, million tonnes



Why invest in Vesuvius?

We operate in markets expected to grow over the medium term

Foundry Division

Markets served

By end-market %

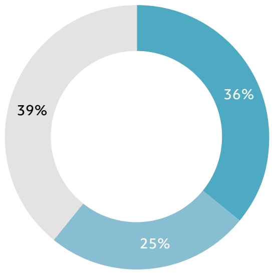
Products manufactured by the foundry casting market – made up of iron casting, steel casting and non-ferrous casting – are used across all engineering sectors.

- Light vehicles
- Mining & construction equipment
- Medium-heavy vehicles
- Railway and marine
- Power generation
- General engineering/Others

By region %

Ferrous sales in developed markets represent the core of the Foundry Division's business. We are witnessing the transition of ferrous casting activity from Western Europe towards emerging markets. We expect this strong growth to continue and we are focused on expanding our business in these developing markets.

- Asia-Pacific
- Americas
- EMEA



Product portfolio

The Foundry Division (Foseco) couples the design and manufacture of customised products and process technology with technical support to improve the quality of metal castings produced in the foundry industry. Our product portfolio consists of six core product lines, where we offer solutions to serve both ferrous and non-ferrous foundries.

Typical product line alloy application: —— Ferrous —— Non-ferrous

FEEDING SYSTEMS

COATINGS

METAL TREATMENT

FILTERS

REFRACTORIES

CRUCIBLES

Market indicators and trends

Foundry's customers

The Foundry market is highly fragmented with three main customer segments. Specialists represent the largest segment of Foundry's customer base. The Foundry Division has thousands of customers with no one customer representing more than 2% of Foundry's revenue.

Foseco customer segmentation

The captive
- Controlled by OEMs, who produce in-house where there is a technological edge vs. outsourcing

The specialist
- Focused on a limited number of markets (mining, automotive, windmill)

Large run/series (>1,000pcs/yr even up to >100kpcs/yr in automotive)

The jobbing
- Produce a range of products on request
- Process and artisanal capabilities

Small runs/series (5–100pcs/yr)

End-markets

Mainly consists of mining, agriculture and light vehicle foundries

Typically light vehicle and truck tier 2 suppliers who produce a small range of castings for various end users

Small accounts with one-off production runs, active across all sectors

We see positive dynamics in the Foundry market

Global casting volumes[1]

The volume of castings produced directly impacts the quantity of Foseco's products consumed. We anticipate growth in global casting volumes (+2% CAGR), mainly linked to development in India, South East Asia and China, where production of light vehicles, trucks and buses in particular is increasing.

Foseco's recent expansion in China, coupled with our investments in automation and previous manufacturing expansion in India, result in Foseco being well positioned to benefit from this growth.

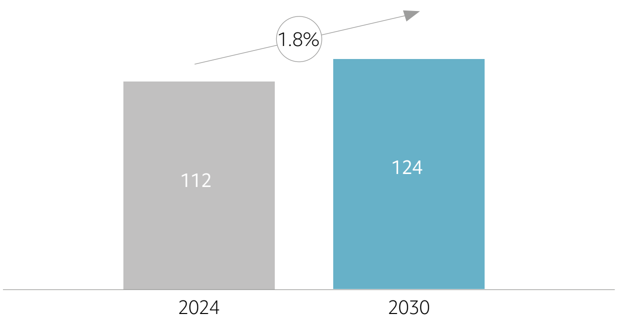
Global casting production by type[1]

The type of metal being cast, e.g. ferrous vs. non-ferrous, impacts the production method and the type and volume of consumables required.

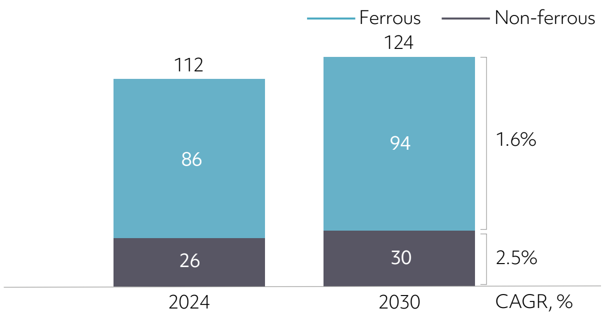
We anticipate non-ferrous casting volumes will grow faster (~2.5% CAGR) than ferrous volumes (~1.6% CAGR), as a result of automotive electrification, where vehicle volumes are shifting from ICE (Internal Combustion Engine) to BEV (Battery Electric Vehicles) which in turn increases the demand for non-ferrous metals (e.g. aluminium) for production.

Whilst Foseco has historically been stronger in ferrous casting technology, we continue to develop our non-ferrous portfolio. Foseco's existing product portfolio and market position in ferrous castings positions us well to capture the market growth in this area, whilst our focus on R&D and recent product launches in non-ferrous (which account for >50% of our new product development projects and new product launches), aims to capture the faster growth in the non-ferrous market.

Expected evolution of global casting volume (2024–2030) million tonnes



Expected evolution of global casting volume (2024–2030)[1] million tonnes



1. All CAGRs quoted are 2024–2030, source: Modern castings, country foundry associations, World Steel Association, foundry-planet, Global Foundry Magazine, Vesuvius & McKinsey data.

Why invest in Vesuvius?

We serve our customers through technological differentiation

An innovation-led business

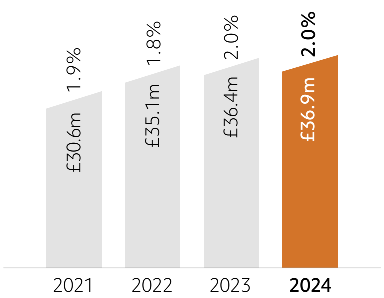
We employ expert material science and fluid dynamics specialists to create truly innovative and differentiated products. These products are highly specialised to perform their function in the extreme environments of steel manufacture and foundry casting.

We have built up a global network of expert scientists and technicians, based across our six R&D centres of excellence. These centres both develop new products and provide specialist support for our customers. In order to develop and maintain our technological advantage, we spend c.2% of revenue on R&D annually.

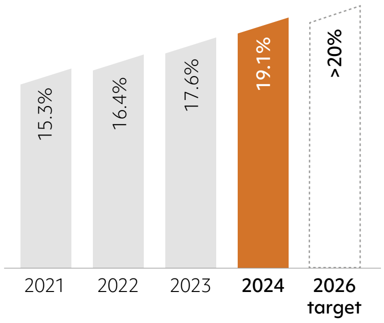
We operate a detailed process of evaluation through the product development cycle with a number of stage-gates that each product must pass to progress, in a process that typically takes c. three years. The benefit of this investment in innovation is seen in the growing proportion of sales from new products (being products launched in the past five years). We have a target of 20%, which has already been achieved by our Flow Control Business Unit.

Consistent investment in R&D

– R&D as a % of revenue
– R&D investment £m
(Constant currency)



Steadily growing new product sales[1] %



1. New product sales defined as sales from products launched in the past five years.

Ongoing innovation pipeline of value-adding products

Flow Control

Our new high performance ladle slide-gate plate, DuraPlate* L-Tech, is designed for a range of end-markets, including long steel production, stainless steel and thin slab casting

- Efficiency: long-life product
- Safety: less operator handling
- Sustainability: lower refractory consumption per kilogram of steel produced

Advanced Refractories

Fully automated gunning robot for furnace maintenance significantly improves operational efficiency and safety

- Cuts gunning time in half
- Operates at higher temperatures, reducing downtime
- Optimised monolithic for high-speed application

Foundry

SOLOSIL* is an environmentally-friendly inorganic binder

- Cores made with SOLOSIL TX* are completely inorganic and therefore emit only water vapour during core storage and the casting process
- Has health and safety and environmental benefits, as it eliminates hazardous emissions and is completely odourless

* Trademark of the Vesuvius Group of companies, unregistered or registered in certain countries, used under licence.

Customer partnership

Every steel mill and foundry is different, so our customers need and expect bespoke solutions. In addition, the effective functioning of our products is in many cases determined by their skilled application or installation which we provide through our on-site technical expertise.

We seek to develop and maintain a close partnership with our customers, fulfilling the needs of their operations by:

- Giving expert engineering and technical input to advise on the optimum product to maximise value
- Providing after-sales service to support optimum usage
- Catering for their individual needs

Our Steel Division caters for the geometries of the ladle and tundish of each different steel mill and evaluates products 'in use' to ensure that refractory use in the steel-making process is optimised.

In Advanced Refractories, we operate contracts where we provide the technicians to manage the refractory application process.

We achieve this through our dedicated team of sales and marketing experts, who work closely with our R&D teams. Our global presence means that our customers are served by experts from within their region.

Operational excellence

We seek operational excellence throughout our organisation.

- We have a manufacturing base optimised for mature and growing markets
- We share best practice across sites
- We maximise the use of automation to drive consistent product quality
- We are improving health and safety throughout our organisation
- We are improving energy efficiency and CO_2 emissions (relative to output) throughout our organisation

Mechatronic solutions that support our refractory products

Vesuvius develops systems and robots that deliver significant value to customers by removing people from working in dangerous areas of a steel plant and improving the speed and consistency of changeover of refractory parts, therefore increasing the yield of high-quality steel while reducing health and safety risks.

Our robots are designed to work with our systems and refractory products, and provide a long-term partnership with our customers.

In South East Asia, a major customer has elected to install a range of our robots and systems in the new production plant they have commissioned.

They chose a combination of our latest LG34™ ladle-gate systems and advanced tube-changer systems SEM3085™, covering both the ladle and tundish segments of their operations, all integrated with our refractory products. These systems are robot-ready and enable the customer to produce high-quality steel, as efficiently and safely as possible.

Why invest in Vesuvius?

We deliver robust and consistent financial returns

Our strategic targets

Achieve a Return on Sales of at least 12.5%

Delivered through:
- Market share gains
- Market growth
- Cost savings and operational efficiency

Delivered by 2028

Generate strong and recurring free cash flow of at least £400m

Delivered through:
- Profitable growth
- Our capex-light business model
- Reducing working capital

Delivered over 2024–2027

Achieve £30m of annually recurring cost savings in 2026 vs 2023, plus further savings of £15m by 2028

Delivered through:
- Operational improvements
- Manufacturing optimisation
- Streamlining back office operations

Our actions

Market share gains

We aim to grow ahead of the market in Flow Control and Foundry, and have a consistent track record of achieving this, with our market share gains in Flow Control and Foundry around or exceeding 2% in each of the past three years.

Flow Control

We invest in R&D ahead of competitors in order to maintain technical superiority.

Our differentiated products are typically priced at a premium to reflect the value-add that they offer to our customers over the total lifetime of the product usage, taking into account the improvements in the steel-makers' process efficiency, quality of steel output, safety and sustainability.

Foundry

Foundry products are designed to optimise the casting process in foundries. We invest in the development of these products with a focus on those where we can offer particular differentiation, notably in filters, feeding products, coatings and non-ferrous metal treatments, the latter being a growing product category.

Advanced Refractories

Our strategy is to focus on the more differentiated products around the tundish, in robotics and industrial products, where we seek to maximise profit versus prioritising market share gains.

Net positive pricing

Vesuvius has a track record of net positive pricing, particularly from Flow Control

Net positive pricing represents full cost recovery, which has been essential to margin stability as raw material costs can change significantly within relatively short time frames, and constitute a significant proportion of our costs of goods sold.

Successful net positive pricing demonstrates the ability of our organisation to make timely adjustments to pricing, appropriate to our markets and reflective of the relevant product costs. This is a feature of our decentralised organisation, where pricing can be adjusted rapidly where necessary. It also reflects the technological differentiation of our products, particularly in Flow Control and Foundry.

Strategic Value alignment

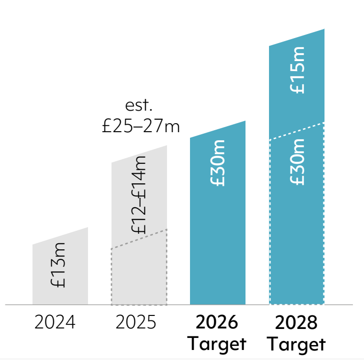
Return on Sales | Free Cash Flow | Cost Savings | Sustainability

We seek to outperform our underlying markets by, on average, 2% per annum, using our technology leadership to gain market share and share the value we generate for our customers.

Cost optimisation

We set a target of delivering an annualised £30m of cost savings by the end of 2026 and a further £15m by 2028.

Cumulative cost savings (£m)



Cost savings are split between:

- Operational improvements in manufacturing processes, e.g. increased automation
- Operational improvements achieved by streamlining administrative functions
- Headcount reductions which have been largely actioned in 2024
- Transfer of manufacturing capacity to some growing and established markets to give more flexible operations

Our actions in 2025 will be further focused on manufacturing optimisation and automation.

Our capital allocation priorities

1 Organic investment

- R&D expenditure of ~2% of revenue annually
- c.£100m growth capex programme largely concluded by end of 2024
- Capex to revert towards sustaining levels in 2025

2 Inorganic investment

- Acquisitions on a highly selective basis
- One acquisition for ~£22m agreed in 2024

3 Returns to shareholders

- Progressive dividend policy
- Maintenance of a prudent balance sheet
- Additional returns: £62.4m returned via share buyback programmes in 2024

Why invest in Vesuvius?

We have a clear sustainability strategy

Every day we focus on improving the sustainability of our operations and help our customers improve the safety, energy efficiency, yield and reliability of their processes. We are committed to delivering products and services that improve safety, maximise environmental performance, reduce greenhouse gas emissions and contribute to the circular economy.

We have set four key sustainability priorities

Read more about our KPIs on p35 and 36.

Helping our customers reduce their CO_2 emissions

The World Steel Association estimates that for every tonne of steel produced, almost two tonnes of CO_2 are emitted. We contribute to the fight against climate change by helping our customers reduce their emissions. We do this by improving the casting performance of steel plants, thereby increasing the energy efficiency of their entire process. With around 10% of a steel plant's emissions resulting from wasted energy caused by interruptions in production, metal wastage and poor output quality, utilising our products to improve the quality and efficiency of their processes can deliver significant benefits.

Similar challenges exist in the Foundry industry, where our products help customers to maximise their energy efficiency by improving the ratio of metal melted to finished castings produced.

Our customers are embracing the challenge of reducing their CO_2 emissions. In the iron, steel and aluminium industries, many have pledged to reach net zero by 2050. They are investing heavily to transform their manufacturing technologies for the long term, working on a range of initiatives including the direct reduction of iron with carbon-free hydrogen and the replacement of carbon anodes in aluminium smelting. We contribute to their efforts through technology partnerships and developing new products for the next generation of zero-emission aluminium, iron and steel-making processes. We help them to evaluate the CO_2 emissions reduction our products bring to their complete value chain.

Assisting our customers to improve their environmental efficiency

Basilite Quickstart*

Eliminates the need for energy-intensive flame drying of tundish linings prior to steel production, reducing both energy consumption and CO_2 emissions in the steel-making process.

DuraSleeve*

Its enhanced erosion-resistant technology extends casting duration and reduces energy waste by minimising essential production stops.

SEMCO*

Fast-drying and colour-change coatings cut drying times compared to traditional water-based coatings, resulting in lower energy consumption for drying, whilst optimising casting productivity.

Vesuvius expertise

- Materials science
- Application engineering
- Digital solutions
- Mechatronics

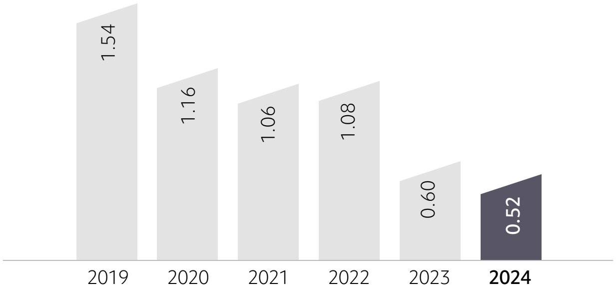
Providing technology and products to improve

- Energy efficiency
- Yield of high-quality metal
- Process efficiency to reduce stoppages

* Trademark of the Vesuvius Group of companies, unregistered or registered in certain countries, used under licence.

Become a zero-accident company

LTI Frequency Rate (LTIFR) per million hours



Links to remuneration

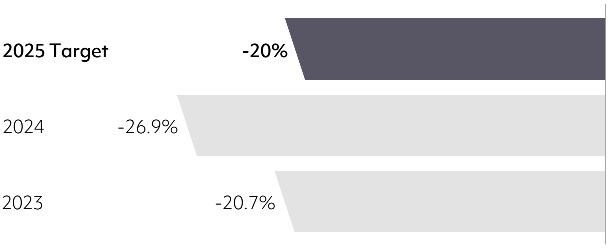
5% of VSP Award is based on reduced Lost Time Injury Frequency Rate
Read more about this on p118.

We were pleased to see continued progress with the reduction of our Lost Time Injury Frequency Rate (LTIFR) in 2024, recording a rate of 0.52 per million hours worked, which was lower than 2023. We are determined to continue our journey to zero accidents, and are focusing on two pillars to achieve this:

- People development and behaviours, with ongoing training and auditing, regular Safety Days and continued emphasis on our Core Safety Rules
- Reviewing equipment and activities, including upgrading equipment, to improve machine guarding and lifting and handling activities; and focusing on process safety

Reach net zero CO_2 emissions (Scope 1 and 2)

Reduction in Scope 1 and 2 CO_2e emission intensity per metric tonne of product packed for shipment versus 2019[2]



Links to remuneration

10% of the VSP Award is based on reduced CO_2e emission intensity
Read more about this on p118.

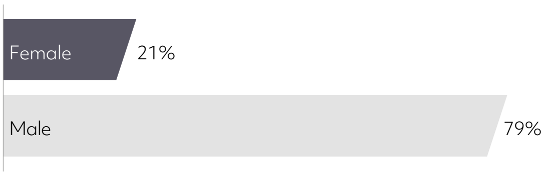
Between 2019 and 2024, our overall CO_2e emission intensity metric (CO_2e emissions per metric tonne of product packed for shipment, Scope 1 and Scope 2, market-based) reduced by 26.9% on a pro forma basis[2] (2024 actual: -40.4%), versus a target of 20% reduction by 2025.

In 2024, we continued to focus on further improvements, modernising and upgrading our installed equipment to reduce energy consumption and investing to renew equipment to the best available technologies. We focused on generating our own clean energy and, where this was not possible, converted to less CO_2-intensive energy sources. We also reduced our energy wastage, recovering heat to feed processes and heat water.

Improve gender diversity at every level of the Company

Women now represent 21% of our Senior Leadership Group (2023: 20%). This is a level that we consider is still too low and well below our 2025 target of 25%, but which represents a significant improvement as compared with the level of 15% in 2019.

Senior leaders



Links to remuneration

5% of the VSP Award is based on increased gender diversity
Read more about this on p118.

In common with many companies operating in heavy-duty and engineering industries, we face challenges in attracting women to join the organisation. As a result we are placing greater emphasis on developing an internal pipeline of female talent. We encourage managers to leverage our decentralised entrepreneurial culture to drive programmes suited to local needs and improved succession planning processes. In 2024, our operations implemented various programmes and initiatives, including a diversity ambassadors and training programme, offering flexible working arrangements and partnerships with universities to support the education of women and girls in STEM.

1. See Non-Financial and Sustainability Section on p33–62 in this document for details.
2. Pro forma performance calculated as if dolime production had been operating normally in 2023 and 2024. The actual reduction in Scope 1 and 2 CO_2e emission intensity in 2023 was 18.6% and in 2024 was 40.4%. See page 51 for further information.

Operating review

Steel Division

Despite adverse market conditions, the Steel Division performed well in 2024

£1,343.8m

Steel Division revenue

£153.0m

Steel Division trading profit

Our Steel Division reported revenues of £1,343.8m in 2024, flat on an underlying basis (-0.1%) and a decrease of 4.0% on a reported basis, reflecting currency headwinds. The flat performance reflects an increase in revenue of 1.3% in Flow Control offset by a 2.6% reduction in Advanced Refractories. Revenue from Sensors & Probes grew 7% due to market share gains. The impact of the underlying steel market performance was negative given our mix of business, as a result of our strong position in the North American market where steel production declined during the year, which we partially offset by market share gains.

Steel Division trading profit grew by 9.9% on an underlying basis to £153.0m. The profit impact from volume declines was greater than usual reflecting some plant under-utilisation in recently expanded sites. The impact of these negative volumes was offset by a combination of modestly positive net pricing and accelerated cost savings, both as part of our Group-wide cost-saving programme, and additional one-off benefits. The rise in trading profit on broadly flat revenue has resulted in the divisional return on sales reaching 11.4%, an increase of 110bps.

Steel Division	2024 (£m)	2023 (£m)	Underlying change	Change
Flow Control Revenue	**769.0**	793.0	1.3%	(3.0%)
Advanced Refractories Revenue	**535.6**	567.9	(2.6%)	(5.7%)
Sensors & Probes Revenue	**39.2**	39.1	7.0%	0.4%
Total Steel Revenue	**1,343.8**	1,400.0	(0.1%)	(4.0%)
Total Steel Trading Profit	**153.0**	147.6	9.9%	3.7%
Total Steel Return on Sales	**11.4%**	10.5%	+110bps	+90bps

Flow Control

Revenue
£m

£769m

Pascal Genest
President, Flow Control

In 2024, revenue in the Group's Flow Control business increased by 1.3% on an underlying basis to £769.0m (a decline of 3.0% on a reported basis after FX headwinds). This performance was driven by positive pricing and overall market share gains, partially offset by market-driven volume declines.

In the Americas, overall underlying revenue declined 1.1%, made up of a small outperformance of the market in North America (volumes reducing 3% against a market decline of 4%) but with modestly positive pricing, and a slight decline in South America with sales volumes declining moderately while steel production volumes were broadly flat, in part due to a significant destocking effect at our Argentinian customers. Pricing in South America reduced slightly.

In EMEA, revenue declined 1.2% compared to 2023. In EEMEA (excluding Iran, Russia and Ukraine) where steel production grew c.4%, we gained market share with volume growth significantly ahead of the market. This was offset by moderate volume declines in the EU+UK, slightly behind a flat market, due to a voluntary reduction of our sales to some customers at risk of insolvency. Pricing over the region was broadly flat.

In Asia-Pacific, revenue grew 7.8%, driven by double-digit sales volume growth in India, well ahead of market volume growth and high-single-digit growth in China despite the steel market contracting in this region.

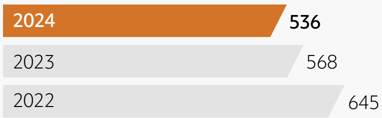
Flow Control Revenue	2024 (£m)	2023 (£m)	Underlying change	Change
Americas	**297.8**	317.8	(1.1%)	(6.3%)
Europe, Middle East & Africa (EMEA)	**241.3**	252.7	(1.2%)	(4.5%)
Asia-Pacific	**230.0**	222.4	7.8%	3.4%
Total Flow Control Revenue	**769.0**	793.0	1.3%	(3.0%)

Operating review continued

Advanced Refractories

Revenue
£m

£536m



Nitin Jain
President, Advanced Refractories

Advanced Refractories reported revenue of £535.6m in 2024, a decrease of 2.6%. This was broadly evenly split between pricing declines (partly reflecting input cost decreases) and some volume decline. Sales volume decline was higher than the underlying steel market in both the Americas and the EU+UK region of EMEA, due to market share losses at customers where we had historically given priority to pricing. Market share in these areas has now stabilised. In Asia-Pacific, revenue grew 13.9% driven by very significant double-digit volume increases in India and China, materially ahead of the market, reflecting both demand for our high-quality products and the benefit of new capacity coming on stream in these regions.

Advanced Refractories Revenue	2024 (£m)	2023 (£m)	Underlying change	Change
Americas	**188.2**	212.1	(7.6%)	(11.2%)
Europe, Middle East and Africa (EMEA)	**167.6**	191.5	(10.9%)	(12.5%)
Asia-Pacific	**179.7**	164.3	13.9%	9.4%
Total Advanced Refractories Revenue	**535.6**	567.9	(2.6%)	(5.7%)

Sensors & Probes

Revenue
£m

£39m

Luigi Magliocchi
President, Sensors & Probes

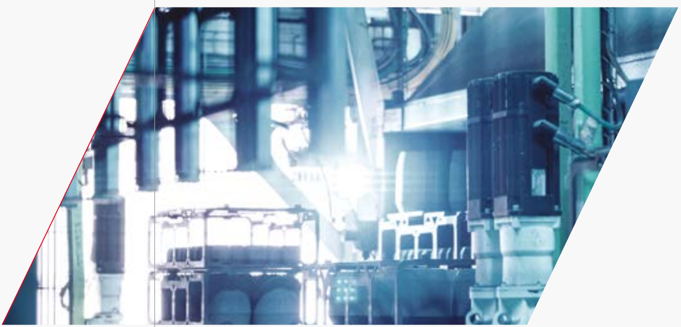
Revenue in Sensors & Probes was £39.2m in 2024, up 7% year-on-year on an underlying basis. Growth has been driven mainly by robust market demand in South America during the first half of the year, increased sales of new high-value products and by winning new customers in EEMEA.

Steel Sensors & Probes Revenue	2024 (£m)	2023 (£m)	Underlying change	Change
Americas	**28.3**	28.2	8.4%	0.2%
Europe, Middle East and Africa (EMEA)	**10.5**	10.2	5.8%	3.2%
Asia-Pacific	**0.4**	0.6	(32.2%)	(34.8%)
Total Steel Sensors & Probes Revenue	**39.2**	39.1	7.0%	0.4%

Foundry Division

Revenue
£m

£476m



Karena Cancilleri
President, Foundry

Our Foundry Division experienced a difficult trading environment, with reported revenues of £476.3m in 2024, an underlying decrease of 6.3%, reflecting contracting revenues in EMEA (-12.7%) and the Americas (-7.8%), which we partially offset by growth in Asia-Pacific (+2.7%), including India (+12%) and China (+6%). The underlying fall in revenue was largely due to c.10% market volume declines – partially offset by c.5% revenue growth from market share gains – and modestly negative sales price.

The market contraction described was driven by double-digit declines in our markets in EU+UK and North Asia and a high-single-digit market decline in North America. Against this backdrop, India continued its strong and sustained growth trend. Market share gains were largest in EMEA, India and China, with the latter being supported by our new capacity in the region. Foundry markets have stabilised at the level of H2 2024.

Trading profit and return on sales contracted 28.9% and 230bps respectively, both on an underlying basis, reflecting the negative impact of significant volume declines, particularly in our traditionally most profitable regions. This was partially offset by accelerated cost savings as part of the Group-wide plan to deliver £30m savings by 2026.

Foundry Revenue	2024 (£m)	2023 (£m)	Underlying change	Change
Americas	**119.3**	136.4	(7.8%)	(12.6%)
Europe, Middle East and Africa (EMEA)	**183.6**	215.1	(12.7%)	(14.6%)
Asia-Pacific	**173.4**	178.3	2.7%	(2.7%)
Total Foundry Revenue	**476.3**	529.8	(6.3%)	(10.1%)
Total Foundry Trading Profit	**35.0**	52.8	(28.9%)	(33.6%)
Total Foundry Return on Sales	**7.4%**	10.0%	-230bps	-260bps

Financial KPIs

Underlying revenue growth

2024 delivery

-1.8% — 2024 vs 2023

+4% — 3-yr CAGR

Track record %

2024	**-1.8**
2023	-3
2022	18

Target

+4% — CAGR medium-term

+2% — versus market (Flow Control and Foundry)

Definition*

Revenue growth on a constant currency basis, excluding the impact of acquisitions and disposals.

Rationale for being a financial KPI

A key indicator of organic growth of the Group. We seek to drive organic revenue growth through market share gains with a target of outperforming our underlying markets by at least 2% in Flow Control and Foundry.

Progress in 2024

Revenue declined 1.8% versus 2023, being broadly flat in our Steel business and reflecting a 6.3% decline in Foundry. In Flow Control and Foundry, we achieved our target of >2% market share gains.

Link to principal risks

1 2 3 4 5 6 7

Return on Sales (ROS)

2024 delivery

10.3%

Track record %

2024	**10.3**
2023	10.4
2022	11.1

Target

12.5% by 2028

Definition*

Adjusted earnings before interest, tax amortisation and separately reported items, divided by revenue.

Rationale for being a financial KPI

Return on sales is a key measure of the quality of the business, reflecting our technologically differentiated and value-adding products. We seek to achieve an ROS of 12.5% by 2028 through a combination of cost savings and revenue growth.

Progress in 2024

Return on sales reduced by 10 basis points versus the FY23 reported figure, reflecting an increase of 10 basis points on a constant currency basis, offset by currency retranslation. This underlying improvement reflects substantial cost savings achieved, largely offset by the negative impact of declining volumes in the Foundry business.

Link to principal risks

1 2 3 4 5 6 7

Headline EPS

2024 delivery

43.3p

Track record p

2024	**43.3**
2023	46.7
2022	56.5

Definition*

Profit after tax, before separately reported items, attributable to shareholders, divided by the average number of shares in issue over the year.

Rationale for being a financial KPI

Headline EPS is the underlying earnings available to shareholders. EPS reflects both the earnings achieved in the year and the number of shares in issue.

Progress in 2024

Headline EPS reduced by 7.2%, reflecting an FX retranslation headwind, partially offset by a positive underlying change of 2.1% compared to 2023. This reflects a small fall in earnings offset by a reduction in share count due to the share buybacks undertaken in the year.

Links to remuneration

Annual Incentive Plan

Read more about this on p110 and 117.

Link to principal risks

1 2 3 4 5 6 7

Principal risks

1 End-market 2 Protectionism and globalisation 3 Product quality failure 4 Complex and changing regulatory environment 5 Failure to secure innovation 6 Business interruption 7 People, culture and performance 8 Health and safety 9 Environmental, Social and Governance

* See Note 35 to the Group Financial Statements on Alternative Performance Measures for detailed definitions.

Return on Invested Capital (ROIC)

2024 delivery

8.4%

Track record %

2024	8.4
2023	8.9
2022	10.7

From 2025, management will be incentivised on ROIC excluding the impact of goodwill and intangibles that arose under IFRS3 following the acquisition of Foseco in 2008.

Definition*

Adjusted earnings before interest, tax and separately reported items, plus share of post-tax profit of JVs and associates, all after tax, divided by average invested capital (total assets excluding cash and non-interest-bearing liabilities).

Rationale for being a financial KPI

Reflects the returns achieved by the business on its capital, where returns consistently above our weighted average cost of capital demonstrate value creation for our stakeholders.

Progress in 2024

ROIC of 8.4% represents a decrease compared to 2023, largely reflecting the decline in earnings and also the investment in growth capex over the past year. ROIC excluding goodwill capitalised on the acquisition of Foseco in 2008 would be 13.6%.

Links to remuneration

- **Annual Incentive Plan and Vesuvius Share Plan**
  Read more about this on p110, 117 and 118.

Link to principal risks

1 2 3 4 5 6 7

Free Cash Flow (FCF)

2024 delivery

£61m

Track record £m

2024	61
2023	128
2022	123

Target

£400m

cumulative 2024–2027

Definition*

Cashflow from operating activities and after net capex, dividends received from JVs and dividends paid to non-controlling shareholders.

Rationale for being a financial KPI

Free cash flow represents cash flow available to the Group to either invest in the business (such as by acquisitions), to reduce our capital base (such as through buybacks) or to distribute back to shareholders. We aim to achieve £400m FCF in aggregate between 2024 and 2027.

Progress in 2024

Free cashflow fell to £61m in 2024 compared to £128m in 2023, reflecting the reduced EBITDA due to trading, combined with ongoing investment capex.

Link to principal risks

1 2 3 4 5 6

Trade working capital intensity

2024 delivery

22.9%

Track record %

2024	22.9
2023	23.4
2022	23.8

Target

21.0%

by end 2026

Definition*

Average trade working capital to sales ratio is calculated as the percentage of average trade working capital balances to the total revenue for the previous 12 months, at constant currency.

Rationale for being a financial KPI

Working capital intensity shows the control of working capital, which is a key variable component in achieving our ROIC target. We aim to achieve working capital intensity of 21% by the end of 2026.

Progress in 2024

Working capital intensity improved by 50bps to 22.9%, principally reflecting improvements in debtor and creditor management.

Links to remuneration

- **Annual Incentive Plan**
  Read more about this on p110 and 117.

Link to principal risks

2 3 4 6 7

Strategic Value alignment

Return on Sales | Free Cash Flow | Cost Savings | Sustainability

Details of the Group's **Non-Financial KPIs** can be found on pages 35 and 36.

Financial review

Overall, we've delivered stable trading profit and return on sales, despite weak end-markets, particularly in Foundry, with continued generation of good free cash flow.

2024 performance overview

2024 was a stable year in terms of underlying trading profit and return on sales overall, despite depressed underlying markets in Foundry in particular, and we have continued to generate good free cashflow. This has enabled the Board to recommend an attractive final dividend to our shareholders and commence a second share buyback, while maintaining investment in strategic areas.

Revenue for the year decreased by 5.7%, of which 3.9% related to FX headwinds and 1.8% underlying performance. Underlying revenue performance was driven by a decline in volume of 1.6% and a reduction in pricing of 0.2%. On a reported basis, the Steel and Foundry Division revenue decreased by 4.0% and 10.1%, respectively, in the year.

We achieved a trading profit of £188.0m, down 6.2% on a reported basis of which 0.2% was underlying performance and 6.0% related to FX headwinds. Within the underlying profit changes, there was a £15.1m decline due to the drop-through from volume declines, and a £2.0m decline from net pricing. In addition, there was a further contribution from our ongoing cost-saving programme of £13m plus a £6.0m benefit relating to lower management incentives based on full-year financial performance, and a net -£2.4m relating to other one-off items. Return on sales of 10.3% was up 10bps on an underlying basis.

Basis of preparation

All references in this financial review are to headline performance unless stated otherwise. See Note 35.1 to the Group Financial Statements for the definition of headline performance.

We also report key metrics on an underlying basis, where we adjust to ensure appropriate comparability between periods, irrespective of currency fluctuations and any business acquisitions and disposals.

This is done by:

- Restating the previous period's results at the same foreign exchange (FX) rates used in the current period
- Removing the results of disposed businesses in both the current and prior years
- Removing the results of acquired businesses in both the current and prior years

Therefore, for 2024:

- We have retranslated 2023 results at the FX rates used in calculating the 2024 results
- No adjustments have been required for acquisitions or disposals

The net impact of average 2024 exchange rates compared to 2023 averages was a headwind of £11.9m at a trading profit level, in particular, due to the depreciation of the Brazilian Real, the US Dollar and the Indian Rupee versus Sterling. Translated at FX rates on 27 February 2025, 2024 revenue would have been c.£1,799.9m and trading profit would have been c.£185.2m, giving currency headwinds of £20m and £2.8m, respectively.

Investment in R&D is central to our strategy of delivering market-leading product technology and services to customers. In 2024, we spent £36.9m on R&D activities (2023: £37.4m), which represents 2.0% of our revenue (2023: 2.0%, on a constant currency basis) and a small increase in expenditure on a constant currency basis.

Net Interest cost for 2024 increased to £16.2m (2023: £11.6m), principally related to a reduction in finance income from £16.6m to £10.9m due to a reduction in deposits held in Argentina that were accruing a high interest rate. This reduction in deposits arose following the successful repatriation of surplus cash which would have otherwise devalued relative to sterling.

Profit from joint ventures and associates was broadly flat year-on-year at £1.1m (2023: £0.9m).

Separately reported items of £34.3m were recognised in 2024 compared to £10.3m in 2023. £10.0m relates to amortisation of acquired intangible assets, which is consistently excluded from our adjusted profit measure (2023: £10.3m). In addition, one-off costs of £14.6m were incurred relating to our cost-saving programme, and in addition a provision for site remediation works was increased by £9.7m, reflecting a reassessment of the duration of the related liability. Due to the one-off nature of both these charges, they are shown as separately reported.

Headline profit before tax (PBT) was £172.9m, down 8.9% versus last year (£189.7m) on a reported basis. Including separately reported items, PBT of £138.6m was 22.7% lower than last year.

A key measure of tax performance is the headline Effective Tax Rate (ETR), which is calculated on the income tax associated with headline performance, divided by the headline profit before tax and before the Group's share of post-tax profit of joint ventures. The Group's headline ETR, based on the income tax costs associated with headline performance of £47.2m (2023: £51.9m), was 27.5% (2023: 27.5%).

Revenue

	2024	2023			% change	
£m	**Reported**	Reported	Currency	Underlying	Reported	Underlying
Steel	**1,343.8**	1,400.0	(54.7)	1,345.2	(4.0%)	(0.1%)
Foundry	**476.3**	529.8	(21.3)	508.5	(10.1%)	(6.3%)
Total Group	**1,820.1**	1,929.8	(76.0)	1,853.7	(5.7%)	(1.8%)

Trading profit

	2024	2023			% change	
£m	**Reported**	Reported	Currency	Underlying	Reported	Underlying
Steel	**153.0**	147.6	(8.4)	139.2	3.7%	9.9%
Foundry	**35.0**	52.8	(3.5)	49.3	(33.6%)	(28.9%)
Total Group	**188.0**	200.4	(11.9)	188.4	(6.2%)	(0.2%)

Return on sales

	2024	2023		% change	
	Reported	Reported	Underlying	Reported	Underlying
Steel	**11.4%**	10.5%	10.3%	+90bps	+110bps
Foundry	**7.4%**	10.0%	9.7%	-260bps	-230bps
Total Group	**10.3%**	10.4%	10.2%	-10bps	+10bps

The Group's total income tax costs for the period include a credit within separately reported items of £8.9m (2023: £3.1m) which primarily relates to deferred tax on intangible assets and restructuring costs.

A tax charge reflected in the Group Statement of Comprehensive Income in the year amounted to £0.8m (2023: £2.0m charge) which primarily relates to tax on net actuarial gains and losses on pensions.

We expect the Group's effective tax rate in 2025 on headline profit before tax and before the share of post-tax profits from joint ventures to be in line with that in 2024, dependent on profit mix and any one-off items.

Non-controlling interests principally comprise the minority holdings in Indian subsidiaries for the Steel and Foundry businesses. This increased to £13.1m in 2024 (2023: £12.1m) reflecting the ongoing strong growth in profit in those subsidiaries.

Headline EPS from continuing operations at 43.3p was 7.2% lower on an underlying basis than 2023 (46.7p), reflecting both the lower earnings and the higher level of non-controlling interests, partially offset by a reduction in average shares in issue from 269.1m to 260.0m (basic), reflecting both the two share buyback programmes undertaken in 2024, and the purchase of shares into the ESOP. Statutory EPS of 33.5p is 23.8% lower than the prior year (2023: 44.0p) reflecting the factors just described and higher separately reported costs.

Financial review continued

Dividend

The Board has recommended a final dividend of 16.4 pence per share to be paid, subject to shareholder approval, on 6 June 2025 to shareholders on the register at 25 April 2025. When added to the 2024 interim dividend of 7.1 pence per share paid on 13 September 2024, this represents a full-year dividend of 23.5 pence per share. The last date for receipt of elections from shareholders for the Vesuvius Dividend Reinvestment Plan will be 15 May 2025.

Cost-saving programme

At the start of 2024 we initiated an efficiency programme to realise recurring savings of £30m per annum by 2026, of which £13m has been delivered in 2024, significantly ahead of schedule as we accelerated our savings in response to the difficult trading environment. We expect to deliver further cost savings of £12–14m in 2025. The programme costs are expected to be c.£40m, including capex and operating expense, of which c.£14.6m of operating expense has been incurred in 2024 with a further £7–10m expected in 2025. As set out above, these restructuring costs are excluded from underlying performance, allowing for a clear measure of our operating performance.

Cash flow and balance sheet

Our cash management performance was solid, achieving a 69% cash conversion (2023: 93%), reflecting broadly flat trade working capital and continued investment in strategic capacity expansion.

We measure working capital both in terms of actual cash flow movements, and as a percentage of sales revenue. Trade working capital as a percentage of sales in 2024 improved to 22.9% (2023: 23.4%), measured on a 12-month moving average basis. The improvement was principally due to a reduction in debtor days on a 12-month average basis by 1.3 days, an increase in creditor days by 1.9 days and flat inventory days.

Free cash flow from continuing operations was £60.8m in 2024 (2023: £128.2m).

Capital expenditure

Capital expenditure in 2024 was £100.8m in cash outflow (2023: £92.6m) and £116.1m including capitalised leases (2023: £125.3m) of which £92.2m was in the Steel Division (2023: £93.2m) and £23.9m in the Foundry Division (2023: £32.1m). Capital expenditure on revenue-generating customer-installation assets, almost entirely in Steel, was £11.0m (2023: c.£8.4m) and we spent c.£39m in 2024 on growth capex, also principally in Steel. Total cash capex in 2025 is expected to be c.£80–85m, reflecting a modest level of growth capex which is being concluded in H1 2025. Capital expenditure will then revert to more normalised levels.

Net debt

Net debt on 31 December 2024 was £329.2m, a £91.7m increase compared to £237.5m on 31 December 2023, due to free cash flow of £60.8m offset principally by dividends of £61.1m, share buybacks of £63.4m and purchases of shares for our ESOP trust of £17.1m.

At the end of 2024, the net debt to EBITDA ratio was 1.3x (2023: 0.9x) and EBITDA to interest was 18.4x (2023: 31.5x). These ratios are monitored regularly to ensure that the Group has sufficient financing available to run the business and fund future growth.

The Group's debt facilities have two financial covenants: the ratios of net debt to EBITDA (maximum 3.25x limit) and EBITDA to interest (minimum 4x limit). Certain adjustments are made to the net debt calculations for bank covenant purposes, the most significant of which is to exclude the impact of IFRS 16.

The Group had committed borrowing facilities of £669.6m as of 31 December 2024 (2023: £685.8m), of which £202.5m was undrawn (2023: £333.4m).

Return on invested capital (ROIC)

Our ROIC for 2024 was 8.4% (2023: 8.9%). Excluding goodwill on our balance sheet from the acquisition of Foseco in 2008, ROIC for 2024 would be 14.3%. ROIC is our key measure of return from the Group's invested capital, calculated as trading profit less amortisation of acquired intangibles plus share of post-tax profit of joint ventures and associates for the previous 12 months after tax, divided by the average (being the average of the opening and closing balance sheet) invested capital (defined as: total assets excluding cash plus non-interest-bearing liabilities), at the average foreign exchange rate for the year.

Pensions

The Group has a limited number of historical defined benefit plans located mainly in the UK, USA, Germany and Belgium. The main plans in the UK and USA are closed to further benefits accrual. All of the liabilities in the UK were insured following a buy-in agreement with Pension Insurance Corporation plc ('PIC') in 2021. This buy-in agreement secured an insurance asset from PIC that matches the remaining pension liabilities of the UK Plan, with the result that the Company no longer bears any investment, longevity, interest rate or inflation risks in respect of the UK Plan.

The Group's net pension liability at 31 December 2024 was £37.4m (2023: £46.3m liability).

Technical guidance for 2025

Depreciation in 2025 is expected to be in the range £65m–£70m and the net finance charge is expected to be c.£18m–20m.

Financial risk factors

The Group's approach to risk management, including the mitigations in place for our principal risks, is detailed on pages 72 and 73. We consider the main financial risk faced by the Group to be a material business interruption incident leading to reduced revenue and profit. We also manage broad financial risks such as cost inflation, bank financing and capital market activity and to a lesser extent foreign exchange and interest rate movements (see Note 25 to the Group Financial Statements). We mitigate liquidity risk by financing using both the bank and private placement debt markets and we mitigate refinancing risk by seeking to avoid a concentration of debt maturities in any one calendar year.

Mark Collis
Chief Financial Officer
5 March 2025

Non-financial and Sustainability Information Statement

This section of the Annual Report constitutes the Group's Non-Financial and Sustainability Information Statement and addresses the requirements of S414CA and S414CB of the Companies Act 2006. Information disclosed in other sections of the Strategic Report is incorporated into this statement by reference:

The Statement provides information on the Group's activities and policies in respect of:

Reporting requirement	Relevant policies	Where to read more	
Environmental matters	– Environmental Policy	– *Why invest in Vesuvius?* – *Tackling climate change*	p22 and 23 p37–54
The Company's employees	– CORE Values – Code of Conduct – Speak Up Policy – Diversity and Equality Policy – Health and Safety Policy	– *A responsible company* – *Our people* – *Corporate Governance Statement*	p59–62 p55–58 p79–129
Social and community matters	– Code of Conduct	– *A responsible company*	p59
Respect for human rights	– Human Rights and Labour Policy – Statement on the Prevention of Modern Slavery – Sustainable Procurement Policy	– *A responsible company*	p60–62
Anti-bribery and corruption matters	– Anti-bribery and Corruption Policy – Code of Conduct	– *A responsible company*	p59–62
Business model		– *Our business model* – *Why invest in Vesuvius?*	p12 and 13 p14–23
Stakeholders		– *Our stakeholders and S172 Statement*	p63–66
Risk management		– *Risk, viability and going concern* – *Principal risks and uncertainties*	p67–71 p72 and 73
Non-financial Key Performance Indicators		– *Progress on our sustainability targets*	p35 and 36

This statement also details, where relevant, the due diligence processes implemented by the Company in pursuance of these policies.

The scope of this report covers 100% of activities inside Vesuvius' operational control boundaries, matching the Group's financial reporting perimeter.

Further non-financial and sustainability information can be found in our Sustainability Report online at: **www.vesuvius.com**

Our sustainability strategy and objectives

Vesuvius' sustainability strategy brings together all our environmental, social and governance initiatives into one coordinated programme.

We create innovative solutions that help our customers improve their safety and quality performance, reduce their environmental footprint, become more efficient in their processes and reduce costs. We work in close partnership with the most advanced steel-makers to develop the refractory products for the green steel-making and casting processes of the future.

Our Sustainability initiative sets out the Group's formal objectives and targets for supporting our customers, our employees and our communities, and for protecting our planet for future generations. It is embedded in the Group's overall strategy and informs how we deliver on our strategic priorities.

The Board has identified nine significant non-financial KPIs for the business, covering the Group's main sustainability objectives. These KPIs were defined when the sustainability strategy was launched in 2020. Most targets associated with the KPIs have a deadline in 2025. We will be setting new KPI targets for 2030.

Our planet

- To tackle climate change by reducing our CO_2e emissions and helping our customers reduce theirs with our products and services. We are committed to reaching a net zero (Scope 1 and Scope 2) carbon footprint at the latest by 2050
- To engage in the circular economy by extending the lifetime of our products, reducing our waste, recovering more of our products after they have been used and increasing the usage of recycled materials

Our customers

- To support our customers' efforts to improve safety on the shop floor, especially exposure to hot metal
- To help customers improve their operational performance and thereby reduce their environmental footprint, and especially their CO_2 emissions

Our people

- To ensure the safety of our people and everyone else who accesses our sites. This is our first priority. We take safety very seriously and are constantly striving to improve
- To attract talent and offer growth opportunities to all our employees through training and career progression to develop diverse, engaged and high-performing teams

Our communities

- To support the communities in which we operate, with a focus on promoting and supporting women's education in scientific fields
- To ensure ethical business conduct both internally and with our trading partners
- To extend our sustainability commitment to our suppliers and encourage them to progress

Progress on our sustainability targets

The Group's non-financial KPIs cover the Group's main sustainability objectives. We have set stretching targets for the Group's sustainability KPIs to reach within set time frames. These are set out in the table below.

Safety

Progress

Target <1

2024 0.52

Measure

Lost Time Injury Frequency Rate.

Progress in 2024

0.52

2024 was our best safety year ever, but we recognise the fragility of our performance. Much progress is still needed to stabilise our performance and continue our journey towards zero accidents.

Link to remuneration

Vesuvius Share Plan

Read more about this on p110, 117 and 118.

Energy intensity

Progress %

-10% Target

-10.1% 2024

Measure

By 2025, reduce energy intensity per metric tonne of product packed for shipment (vs 2019).

Progress in 2024[1,2,3]

-10.1%

The Group's performance continued to improve in 2024 despite the low loading of certain continuous ovens. We targeted capital expenditure on equipment upgrades and focused on further continuous improvement through refurbishments and process parameter optimisation.

CO_2e emission intensity

Progress %

-20% Target

-26.9% 2024

Measure

By 2025, reduce Scope 1 and Scope 2 CO_2e emission intensity per metric tonne of product packed for shipment (vs 2019).

Progress in 2024[1,2,3]

-26.9%

In 2024, we continued the conversion of our plants to carbon-free electricity contracts. We also celebrated our first carbon-free major manufacturing site with kilns fuelled by biomethane.

Link to remuneration

Annual Incentive Plan and Vesuvius Share Plan

Read more about this on p110, 117 and 118.

Wastewater

Progress %

-25% Target

-28.0% 2024

Measure

By 2025, reduce wastewater per metric tonne of product packed for shipment (vs 2019).

Progress in 2024[1,2,3]

-28.0%

Progress in 2024 was significant, as a capital expenditure project delivering major benefits for the site with the highest level of wastewater was completed early in the year.

Solid waste

Progress %

-25% Target

-21.7% 2024

Measure

By 2025, reduce solid waste (hazardous and sent to landfill) per metric tonne of product packed for shipment (vs 2019).

Progress in 2024[1,2,3]

-21.7%

Many sites made good progress in reducing solid waste in 2024, through a combination of reduced waste generation and implementation of recycling solutions.

Recycled material

Progress %

Target 7%

2024 6.0%

Measure

By 2025, increase the proportion of recycled materials from external sources used in production.

Progress in 2024[1,2,3]

6.0%

In 2024, we continued to seek opportunities to replace virgin materials with recycled materials, but we remain constrained by availability, cost and the variability of properties that might affect the performance of our products.

Strategic Value alignment

Return on Sales | Free Cash Flow | Cost Savings | Sustainability

Gender diversity

Progress %

Target	25%
2024	21%

Measure

By 2025, increase female representation in the Senior Leadership Group (approx. 150 top managers).

Progress in 2024

21%

We remain far from our ambition to reach 25% by the end of 2025. We see this as a challenging target given the relatively low attractiveness of our industry to female entrants.

Link to remuneration

Annual Incentive Plan and Vesuvius Share Plan
Read more about this on p110, 117 and 118.

Compliance training

Progress %

Target	90%
2024	100%

Measure

Increase the percentage of targeted staff who complete anti-bribery and corruption training annually.

Progress in 2024

100%

All targeted employees successfully completed the training in 2024 .

Supply chain

Progress %

Target	60%
2024	58%

Measure

By the end of 2025, conduct sustainability assessments of our raw materials suppliers (as a percentage of Group raw material spend).

Progress in 2024

58%

Most of our large suppliers have now joined our Supplier Sustainability Assessment programme. Future progress will be slower as we address the large number of smaller suppliers.

1. Re-baselined using pre-acquisition data for the business acquired from Universal Refractories, Inc. (Vesuvius Penn Corporation), and BMC (Yingkou YingWei Magnesium Co., Ltd).
2. Pro forma: performance as if the dolime process had been operating normally in 2024 (based on average production levels for 2019–2022). See page 51 for further information.
3. Actual Group performance for 2024, with actual dolime production: Energy intensity -14.0%, CO_2e emission intensity -40.4%, Wastewater -24.6%, Solid waste -18.0%, Recycled material 6.5%.
4. Further information on sources of data, scope of entities covered, calculation methodologies and progress can be found in the 2024 Sustainability Report which is available at: www.vesuvius.com.

Details of the Group's **Financial KPIs** can be found on pages 28 and 29.

Tackling climate change

We are committed to reducing our environmental footprint by reaching net zero greenhouse gas emissions (Scope 1 and Scope 2) by 2050 at the latest and helping our customers reduce their emissions through improvements in the efficiency of their operations.

Vesuvius supports the Paris Agreement's central aim, to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2°C above pre-industrial levels, and pursuing efforts to limit the temperature increase even further to 1.5°C, via the implementation of its Roadmap to Net Zero.

As the world transitions to a low-carbon global economy, Vesuvius supports the call for policymakers to:

- Build a level global playing field, including carbon border adjustment mechanisms, and robust and predictable carbon pricing for companies. This will strengthen incentives to invest in sustainable technologies and to change behaviours
- Develop the necessary energy production and distribution infrastructure to provide access to abundant and affordable clean energy

Reducing our impact

Vesuvius actively participates in measures to tackle climate change by working to reduce the CO_2e emissions of all of our operations and the quantity of raw materials used, alongside helping our customers to reduce their own CO_2 footprint through the use of our products and services. Vesuvius also embraces society's expectations for greater transparency around environmental reporting.

Supporting our customers

According to estimates from the World Steel Association (WSA), the steel industry generates between 7% and 9% of global direct emissions from the use of fossil fuels, and it estimates that on average 1.91 metric tonnes of CO_2 are emitted for every tonne of steel produced.

The iron and steel industries are taking action to address the decarbonisation challenge, and we are supporting them, working in partnership with them to develop more sustainable solutions.

With around 10kg of refractory material required per tonne of steel produced, the careful selection and use of energy-saving refractories can beneficially impact the net emission of CO_2 in the steel manufacturing process. In the foundry process, the amount of metal melted versus the amount sold as finished castings is the critical factor impacting a foundry's environmental efficiency. Vesuvius continuously works with its customers to increase this metal yield.

The actions being taken by governments and societies around the world to mitigate climate change, and the changes in temperature and weather patterns resulting from it, present both opportunities and risks to Vesuvius. In its broadest context, we believe that the need for climate change initiatives will create ever greater opportunities for the Group to support our customers – to improve their efficiency and reduce their environmental impact.

Vesuvius' Environmental Policy

We commit to:

- Minimise direct and indirect CO_2 and other greenhouse gas emissions, by reducing the energy intensity of our business and using cleaner energy sources
- Minimise the consumption of water and other resources
- Reduce waste at source and during production
- Increase the usage of recycled materials and promote the development of the circular economy
- Minimise any pollution or releases of substances which could adversely affect humans or the environment
- Avoid negative impacts on biodiversity

See the full policy on **www.vesuvius.com** for further details.

External reporting & recognition

We are signatories to the UN Global Compact and report annually on our sustainability activities, commitments and progress.

We are very proud of our progress to date, as exemplified by the external recognition of the following rating agencies:

MSCI	AA
ecovadis	Silver
CDP	B

Tackling climate change continued

Task Force on Climate-related Financial Disclosures (TCFD) Report

The disclosures included in this Annual Report are consistent with the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations and Recommended Disclosures, and have been prepared taking into account the Guidance for all sectors. The disclosure is also in accordance with FCA Listing Rule requirements.

This section provides the relevant disclosures or otherwise provides cross-references in the table below, for where the disclosures are located elsewhere in the Annual Report.

In preparing this TCFD disclosure we considered recent developments in global affairs and macro trends, such as:
- Uncertainties regarding the projected growth of the electric vehicle market (and consequently the peak and decline of the hybrid vehicle market)
- The energy crisis and price gaps that exist between regions, and at the same time, the rapid reduction of the cost per installed kWh of renewable energy and associated massive investments plans
- The development and implementation of policies in all regions aimed at accelerating the transition to renewable sources of energy and the decarbonisation of industry

We concluded that the underlying assumptions and drivers of our scenario analysis, and the risks and opportunities that we have identified, do not require any significant modification this year.

We are aware of a growing acceptance that the 1.5°C global warming ambition will not be met, which supports the assumption in our scenario plans that the most optimistic scenario is a 2°C increase in global warming.

Topic	Disclosure summary	Vesuvius disclosure	
Governance Disclose the organisation's governance around climate-related risks and opportunities.	Describe the Board's oversight of climate-related risks and opportunities.	*Tackling climate change* *Risk, viability and going concern* *Directors' Remuneration Report*	p39 and 40 p67–69 p103–129
	Describe management's role in assessing and managing climate-related risks and opportunities.	*Tackling climate change* *Risk, viability and going concern*	p39 and 40 p67–69
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	*Tackling climate change*	p42–44
	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	*Tackling climate change* *At a glance* *Our business model* *Why invest in Vesuvius?*	p37–54 p2 and 3 p12 and 13 p22
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	*Tackling climate change*	p45–47
Risk management Disclose how the organisation identifies, assesses and manages climate-related risks.	Describe the organisation's processes for identifying and assessing climate-related risks.	*Tackling climate change* *Risk, viability and going concern*	p39–44 p67–69
	Describe the organisation's processes for managing climate-related risks.	*Tackling climate change* *Risk, viability and going concern*	p37–54 p67–73
	Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	*Tackling climate change* *Risk, viability and going concern*	p37–54 p67–73
Metrics and targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	*Tackling climate change*	p35, 36 and 42
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks.	*Tackling climate change*	p51–54
	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	*Tackling climate change*	p35, 36, 48–54

Governance structure

Board oversight

Vesuvius has a governance structure in place to ensure that all climate-related risks and opportunities are appropriately managed. The Board holds overall accountability for this, with the Chief Executive ultimately responsible for planning the Group's objectives to manage climate-related risks and opportunities, and delivering on this strategy.

Our sustainability governance

Chief Executive

Is ultimately responsible for the delivery of the Sustainability initiative, including planning the Group's climate-related objectives and delivering on the strategy

Board

- Holds accountability and oversight for the management of all climate-related risks and opportunities and the impact on the Group
- Oversight of Group's response to climate change is integrated into its monitoring of Group's broader strategy and initiatives, and is factored into its key decisions such as significant capital and other investments
- Formally discusses the Group's Sustainability initiative at least twice per year and sets the Group's climate change related priorities and targets, reviewing the Group's performance and progress against them

Audit Committee

- Supports the Board in ensuring climate-related issues are integrated into the Group's risk management process
- Reviews the Group's TCFD reporting and assessment of performance against targets

Remuneration Committee

- Supports the sustainability objectives through the alignment of the Group's remuneration strategy
- Executive Directors and other GEC members participate in the Vesuvius Share Plan where the vesting of 10% of each award is based on reduction of the Group's Scope 1 and 2 CO_2e emission intensity

Group Executive Committee

Chief Executive, Chief Financial Officer, General Counsel and Company Secretary, Chief HR Officer, Business Unit (BU) Presidents

- Approves Group sustainability-related policies, and monitors the Group's management of climate change risks and opportunities
- Receives reports from the VP Sustainability on the Group's progress with sustainability initiatives
- Is responsible for the progress of the Group against its sustainability objectives, including those in relation to climate change

BU Presidents

- Incorporate climate change risks and opportunities into their BU strategy and business planning processes.
- Communicate targets inside their organisations
- Allocate resources, define and implement plans to manage climate-related risks and opportunities
- All BU Presidents and VPs have part of their annual incentive tied to performance against CO_2e emission intensity reduction

Sustainability Council

Group Executive Committee, Vice President Sustainability, Head of Communication and Employee Engagement, Head of Investor Relations, Head of Strategy, Vice Presidents Operations, three regional Business Unit VPs

- Meets quarterly to oversee the Group's sustainability activities
- Monitors the Group's progress against sustainability metrics and targets, including climate-related objectives
- Assists the Board in assessing the implications of long-term climate-related risks and opportunities, elaborating strategy and setting priorities
- The Council reports to the Board twice per year

VP Sustainability

- Leads the Group's sustainability activities and coordinates the work of the Sustainability Council
- Prepares the Group's assessment of climate change risks and opportunities and oversees the formulation of climate-related scenarios
- Ensures the Group has a clear set of sustainability KPIs and produces quarterly performance reports
- Organises Group-wide communications covering climate-related risks and opportunities
- Leads external reporting and disclosures on sustainability matters

Tackling climate change continued

Climate-related risks

Each year the Group undertakes a robust assessment of the principal and emerging risks which could have a material impact on the Group. As part of this process, climate-related risks are reviewed by the GEC, and subsequently by the Board, to ensure that the risk register reflects any material changes in the operating environment and business strategy, and to ensure that the management of climate-related risks is integrated into our overall principal risk management framework. The Board takes these climate-related risks and opportunities into account when quantifying the organisation's risk appetite. A number of sustainability risks are recorded in the Group's analysis of principal risks (see the Risk, viability and going concern section on pages 67–73).

Alongside this process for reviewing the Group's material risks, the Board has undertaken a more detailed assessment of the Group's specific climate-related risks and opportunities, including the Group's physical and transition risks, and the anticipated impact of these risks and opportunities on the Group over the short, medium and long term. It also considers, each year, the formulation of the three different climate-related scenarios constructed to assess the potential financial implications of climate change and assesses the impact of these climate-related risks and opportunities on the Group's strategy.

Physical risks and business continuity

Thanks to significant restructuring carried out over the past seven years, Vesuvius now operates in a resilient and optimised global footprint. None of our manufacturing sites contribute directly or indirectly to more than 10% of our revenue and a significant amount of redundancy for most product lines remains, providing backup in case of local disruption and ensuring continuity of supply for our customers.

Vesuvius operates in 54 manufacturing sites and six R&D centres of excellence located in 23 countries. From time to time our operations can be subject to physical damage driven by weather events, such as severe storms and flooding, water shortages or wildfires, whose frequency and intensity may be exacerbated by climate change. Such events may also impact the manufacturing capabilities of our customers and suppliers, and impact our supply chain logistics.

Sites are routinely audited by our insurers and our external risk specialist. Their reports are combined with water stress analyses (based on the Aqueduct water risk atlas) and our history of events to create a physical and weather event risks map, indicating our manufacturing and R&D sites' susceptibility to physical risks arising from climate change.

In 2024, we continued updating our risk map based on professional risk engineering surveys. 32 sites were identified as being high-risk for at least one type of weather event (flooding, hailstorm, lightning, storms, tornadoes and wildfires), and four are located in areas of very high water stress (and 16 in areas of high water stress). None of our sites were markedly affected by any major weather event in 2024 (no disruption to customers and no insurance claims made).

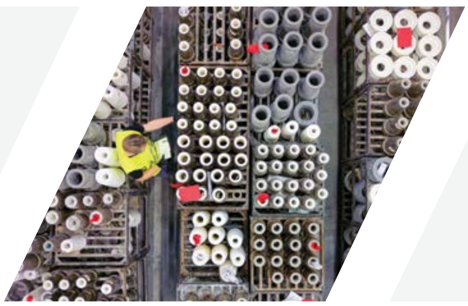
We anticipate that the likelihood and severity of adverse weather events will continue to increase, and we therefore manage our business to prepare for them and mitigate their impact when they do occur.

Local and product line business continuity plans are maintained by our manufacturing sites and are regularly reviewed. Vesuvius sites maintain and exercise emergency plans to deal with such events as part of their normal risk management and business continuity processes. Exercises and drills are organised covering IT disaster recovery, fire, explosion, weather and geophysical events, and our processes are improved based on the lessons learned.

Sites with the highest exposure to earthquake, water stress or weather events

Country	Site	Water stress (high and very high)	Flood – water bodies	Flood – precipitation	Hailstorm	Lightning	Wind – tropical storms	Wind – extra tropical storms	Tornado	Wildfire	Earthquake
Australia	Port Kembla					●				●	
Belgium	Ostend							●			
Brazil	Piedade				●	●					
	Resende		●	●		●					
	Rio de Janeiro	●				●					
	São Paulo	●			●	●					
China	Anshan	●									
	Bayuquan	●									
	Changshu		●								
	Suzhou	●									
	Weiting	●									
	Wuhan				●						
	Yingkou BRC	●		●							
Czech Republic	Trinec		●								
India	Kolkata	●	●	●			●				
	Mehsana	●									
	Puducherry	●									
	Pune	●									
	Vizag	●					●				
Indonesia	Jakarta Timur	●	●			●	●				●
Italy	Muggio				●						
Japan	Toyokawa						●	●			●
Malaysia	Pelubhan Klang		●	●		●	●				
Mexico	Monterrey	●									
	Ramos Arizpe	●	●								
Netherlands	Hengelo		●								
Poland	Skawina		●								
South Africa	Johannesburg		●		●	●					
	Olifantsfontein	●			●	●					
Taiwan	Ping Tung					●	●				
Türkiye	Gebze										●
	Istanbul	●									
UAE	Ras Al Khaimah	●		●							
UK	Tamworth		●								
USA	Champaign					●			●		
	Charleston								●		
	Chicago Heights					●			●		
	Conneaut		●			●			●		
	Coraopolis		●			●					
	Graham					●					
	Wampum		●			●					
	Wurtland					●					

Highest exposure to weather events and earthquakes based on risk evaluations conducted as part of our insurance programme; water stress based on Aqueduct water risk atlas.



Tackling climate change continued

Climate-related risks and opportunities analysis

The fight against climate change continues to require higher-technology steel and larger, more complex castings. Wind and solar energy production capacity are both considerably more steel-intensive than fossil fuel power stations, and these are both set to grow considerably. Allied to this, the steel-making process is itself decarbonising thanks to efforts to improve the performance of existing assets, and the shift from blast furnaces to direct reduced iron and electric arc furnaces.

Our products are useful for low-carbon applications as well as the more traditional ones. No alternative to iron and steel, with the ability to offer the same range of properties and applications at comparable scales and costs, is envisaged in the foreseeable future. The technology transition required to decarbonise the iron and steel industry will not render our products obsolete. More than 70% of our revenue in steel is generated at the ladle and caster stages of the steel-making process, which will be unaffected by the changes. Other steps of the iron and steel-making process will continue to require refractory materials.

Transition risks

We believe that the main climate change transition risks facing the Group relate to:

1

The potential for carbon taxing or emissions rights trading schemes to be introduced or increased, in Europe and the US, but not uniformly in other regions, without effective border adjustment mechanisms to accompany them.

An increase in the cost of carbon emissions would affect our manufacturing costs. We are addressing this through our energy efficiency improvement initiatives and conversion to non-fossil fuels wherever possible. Long-lasting energy price increases and significant differences between Europe and other regions would further exacerbate this risk, affecting our customers' manufacturing footprint and our own.

2

The rapid transition from iron to aluminium for light vehicle castings.

A very rapid transition from iron to aluminium for light vehicle castings would affect our revenue in the iron castings market. We expect this to be compensated for by increased sales for aluminium castings, growing sales of products for thin-section automotive component iron castings and turbo-charger castings for hybrid vehicles.

Climate change related metrics

We routinely monitor a large number of metrics, both internal and external, to assess the ongoing validity of our assumptions and identified risks and opportunities, and to monitor the progress of actions. Some of the main metrics are listed in the table below:

External metrics	
– Projected compound annual growth rate (CAGR) of the high-technology steel segment	+2.7% between 2022 and 2032 (vs 0.5% for commodity steel)
– Projected CAGR of the wind turbine market	13% (between 2023 and 2030)
– Projected CAGR of the electric vehicle market	18.5% (between 2024 and 2031)
– Projected CAGR of the hybrid vehicle market	7% (between 2024 and 2031)
– Projected CAGR of the internal combustion engine vehicle market	-11% (between 2024 and 2031)
– Projected CAGR of the EAF market	4% (between 2023 and 2029)
Internal metrics	
– Steel sales into the EAF market	27% in 2024
– Percentage of Flow Control sales from high-technology steel	58% in 2024
– Percentage of Foundry sales into non-ferrous markets	19% in 2024
– Percentage of sales realised with products which did not exist five years ago	19% in 2024
– Energy intensity (kWh per kg product packed for shipment)	10.1% reduction (pro forma[1]) in 2024 vs 2019 baseline
– R&D spend	+5% p.a. from 2020 to 2024
– Number of sites at high risk of water stress or at least one type of weather event	36 in 2024
– Number of sites with negative or poor risk ratings from the insurance loss prevention risk evaluation	6 in 2024

1. Pro forma: performance as if the dolime process had been operating normally in 2024 (based on average production levels for 2019–2022). See page 51 for further information.

Climate-related risks and opportunities analysis

The choice of short-, medium-, and long-term horizons for the analysis of key climate-related impacts, risks and opportunities is driven by projected customer footprint evolutions and investment cycles, the speed of deployment of emerging technologies, the duration of product development cycles, policy and regulatory evolutions, and capital equipment lifetime (often two decades or more).

Short term (2026)

The short term is defined as one to two years. It is aligned with our strategic plans. Within this time frame, regulatory and policy changes will have very limited impact on the Group's climate-related risks and opportunities. This is also the typical timeframe required for major capital expenditure decision-making and implementation.

Impact categories (trading profit)

Very high (>£25m)	Moderate (£5–10m)
Major (£15–25m)	Minor (£1–5m)
High (£10–15m)	Insignificant (£0–1m)

Medium term (2035)

This is the most likely horizon for policies and regulatory frameworks (such as the EU Emissions Trading System and Carbon Border Adjustment Mechanism) currently being defined in many regions to reach their full effect. The effects of technological innovation currently in the later development stages will become effective and their deployment will begin during this period.

We anticipate that the major adjustments to customers' footprints and technology investments will be in full swing by then.

Long term (2050)

This deadline has been retained by the UN and many policy-making bodies to set decarbonisation goals. We are committed to reaching net zero (Scope 1 and 2) by 2050 at the latest.

The opportunities we have identified are integrated into the Group's business strategy and are being pursued by the relevant Business Units.

Opportunities

Opportunity	Description	Impact	Potential annual impact on trading profit in the short, medium and long term: Short term 2026	Medium term 2035	Long term 2050
Products and services					
Ability to diversify business activities	Commercialise refractory solutions for low-CO_2 emitting processes in the production of aluminium to replace carbon-based products	Increased revenue and trading profit	Insignificant	Minor	Minor to high
	Commercialise refractory solutions for hydrogen-based Direct Reduced Iron production and steel to replace traditional refractory products		Insignificant	Insignificant to minor	Insignificant to high
Markets					
Access to new markets	Accelerated growth of the wind power market leading to increased sales to foundries serving this market	Increased revenue and trading profit	Minor	Minor	Minor to high
	Accelerated growth of the aluminium castings market for light electric vehicles and light-weighting leading to increased sales to foundries serving this market		Minor	Minor	Minor to high
	Accelerated growth of ferrous castings for hybrid vehicles (turbo-chargers) and thin-section castings for internal combustion engines leading to increased sales to foundries serving this market		Insignificant to minor	Insignificant to minor	Insignificant
	Accelerated growth of the high-technology steel segment		Insignificant to minor	Minor to high	Moderate to very high

Tackling climate change continued

Impact categories (trading profit)

We have assessed our risks and sorted them according to the following classification, which used the same thresholds as for the assessment of principal risks:

Very high (>£25m)	Moderate (£5–10m)
Major (£15–25m)	Minor (£1–5m)
High (£10–15m)	Insignificant (£0–1m)

Risks

Risks	Description	Impact	Mitigating actions being undertaken	Potential annual impact on trading profit in the short, medium and long term: Short term 2026	Medium term 2035	Long term 2050
Physical risks						
Increased frequency and severity of extreme weather events (heatwaves, rain and river flooding, cyclones, snow etc.)	Physical damage to Vesuvius locations and people Business disruption due to natural disasters	Increased cost due to physical damage Reduced revenue from business interruption	Mitigating actions for severe weather events and the associated risks are included in the business continuity plans of plants, and insurance is purchased	Minor	Minor	Minor
Transition risks – Policy and legal						
Carbon taxing/ emissions rights trading/border adjustment mechanisms introduced or extended	Increase in manufacturing costs	Increased operating costs (main risk in Europe)	Capex to improve energy efficiency and conversion to non-fossil fuels to eliminate CO_2 emissions. Relocation of manufacturing to reflect movements in customer base	Insignificant	Insignificant to minor	Insignificant to moderate
Transition risks – Market						
Rapid growth of aluminium casting processes for light vehicle castings at the expense of traditional ferrous and other non-ferrous processes (due to conversion to electric vehicles)	Shift from castings using a high level of consumables to low consumable processes creates risk of revenue loss for the Foundry Division	Reduced revenue from shrinking market as some traditional castings will disappear or be converted to alternative processes	In ferrous, push to develop sales of Feedex and coatings for thin-section automotive components, and products for turbo-charger casting. Invest in R&D, marketing and sales force. In non-ferrous, develop products for HPDC and LPDC processes and increase penetration in markets with lower usage of refractories	Minor	Moderate to high	Moderate to high
Transition from internal combustion engines to electric vehicles will lead to the decline of sand and gravity castings	Reduced volume of aluminium power train components	Reduced revenue from shrinking market of consumables for sand and gravity castings	Adapt product portfolio, focusing on HPDC and LPDC	Insignificant to minor	Minor to moderate	Minor to moderate
Transition from Blast Furnaces – Basic Oxygen Furnaces converted to Direct Reduced Iron production or Electric Arc Furnaces (EAF) for iron and steel-making	Share of EAF in total steel production increases	Reduced size of market where Vesuvius is strongest, leading to weaker positions in the steel market	Adjust R&D and product development priorities. Redeploy sales force, focusing on EAF market	Insignificant	Minor	Minor to moderate

Climate change scenario analysis

Vesuvius has undertaken scenario analysis to seek to quantify the likely impact of climate change on the business and to test the resilience of the Group's strategy to the changes that lie ahead.

We considered three scenarios, modelling the potential financial impact of 2°C, 3°C and 4°C temperature increases on our business.

Best case scenario

In formulating our scenarios, we took as our 'best case' a 2°C scenario. This was based on the premise that despite the tremendous acceleration of public awareness, regulation, technology development and capital allocation in recent years, we doubt that there is sufficient time for the 1.5°C target to be achieved. We therefore identified our most optimistic scenario as 2°C.

Our assumption is that any further acceleration which would allow the planet to get back onto a 1.5°C course would reinforce the main characteristics and accelerate the timeline of our 2°C scenario, without fundamentally changing its features.

From assumptions to strategy

The scenarios take as their starting point the regulatory and macroeconomic assumptions underpinned by the International Energy Agency's WEO 2020 Stated Policies Scenario and Sustainable Development Scenario.

Supplementing this we have identified, for each scenario, the areas of our business in which changes may occur, such as:
- The evolution of end-markets
- Our customer footprint
- The pace and breadth of technology transition in iron and steel-making
- The pace of conversion from fossil fuels to clean electricity and hydrogen
- The evolution of the aluminium market

We then evaluated the potential magnitude of the risks and opportunities in each scenario, and analysed the implications for Vesuvius. We considered our strategic response in terms of:
- Our manufacturing and commercial footprint
- Our portfolio of products and services
- The conversion of our manufacturing processes to clean energy
- The prospects for our aluminium casting business

With this approach, the impacts on all key areas of the business were covered (sales, R&D, manufacturing and procurement).

The outcomes of the scenario analyses have been taken into account in formulating plans for achieving the Group's strategy.

Three long-term scenarios

4°C warming scenario
'Good intentions hampered by fear of economic war'

Incomplete policy and fiscal packages distort competition, slowing down technology development and leading to geographic shifts in steel supply

3°C warming scenario
'Closed doors'

Regional/national self-interest drives economic policy, competition wins over cooperation, regulatory framework and technologies evolve differently

2°C warming scenario
'Global accord'

High cooperation and commitment to limit emissions facilitates technology development and the transition to a low-carbon world

Tackling climate change continued

	4°C warming scenario – 'Good intentions hampered by fear of economic war'	3°C warming scenario – 'Closed doors'	2°C warming scenario – 'Global accord'
1 Regulatory and macroeconomic environment	The EU and US implement carbon pricing mechanisms (taxation or cap on trade), but no Carbon Border Adjustment Mechanisms or Tariffs (or insufficient to prevent the transfer of manufacturing away from these regions)	The EU and US implement carbon pricing mechanisms (taxation or cap on trade), and Carbon Border Adjustment Mechanisms or Tariffs to protect their industries from delocalisation	All major economies implement carbon pricing mechanisms. The cost of CO_2 increases in all regions at a comparable pace
2 Conversion of power generation from fossil fuels to clean electricity and hydrogen	– Fast growth in Europe of non-CO_2 emitting electricity sources (nuclear and renewable) – The cost of fossil fuels increases significantly in Europe – Energy prices differ greatly between Europe and the rest of the world over a long period of time – Coal reduces progressively, but does not disappear. Natural gas continues to grow outside Europe – Hydrogen does not become available on a wide scale and economically competitive until well after 2040	– Fast growth of non-CO_2 emitting energy sources (nuclear and renewable) in Europe – The cost of fossil fuels increases significantly in Europe. Coal reduces progressively, but does not disappear, natural gas continues to grow outside Europe – Energy prices in Europe and the rest of the world realign progressively – Hydrogen becomes available on a wide scale in the USA and Europe, and economically competitive between 2030 and 2040	– Fast growth of non-CO_2 emitting energy sources (nuclear and renewable) in all regions – The cost of fossil fuels increases significantly (taxation). Coal as a source of energy disappears, natural gas starts to reduce – Energy prices in Europe and the rest of the world realign progressively – Hydrogen becomes available on a wide scale and economically competitive between 2030 and 2040 – Fast electrification of the automotive industry – Fast growth of hydrogen-fuelled heavy vehicles
3 Technology transition – iron and steel-making	– The transition in blast furnaces to clean processes (e.g. Direct Reduction Iron (DRI), hydrogen, Carbon Capture and Storage (CCS), Carbon Capture, Utilisation and Storage (CCUS)) does not happen on a large scale – US steel producers convert blast furnaces to DRI and Electric Arc Furnaces (EAF) to benefit from the low cost and high availability of natural gas	– European iron-making transitions to clean processes (e.g. hydrogen, DRI, CCS, CCUS). The speed of the transition is dictated by the availability of green hydrogen in large quantities – Some US blast furnaces are converted to hydrogen, others to DRI and EAF – Chinese steel plants convert to clean iron and steel-making processes, albeit at a slower pace – Little or no transition outside China, the EU and the USA	– Fast transition of iron-making to clean processes in all regions; blast furnaces are revamped ahead of their normal schedule – European and Chinese integrated steel-making grows primarily in hydrogen-based iron production, implementing CCS and CCUS technologies as well – DRI and EAF grow in the US (benefiting from the availability of low-cost shale gas), and Europe – Customers also invest to increase the performance of furnaces, including downstream of casting
4 High-technology steel market	High-technology steel market grows at 0.9% per year	High-technology steel market grows at 1.2% per year (light-weighting and material efficiency efforts by downstream industries accelerate shift from lower to higher performance grades)	High-technology steel market grows at 1.6% per year (light-weighting and material efficiency efforts by downstream industries accelerate shift from lower to higher performance grades)
5 Aluminium market	Aluminium market grows at 3% per year, especially High Pressure Die Casting (HPDC) and Low Pressure Die Casting (LPDC) processes	Aluminium market grows at 5% per year (driven by the demand for transportation, construction and packaging) until 2030. Growth of HPDC/LPDC at a higher pace in the US and EU markets. Moderate development of secondary aluminium casting	Aluminium market grows at 7% per year (driven by the demand for transportation, construction and packaging) until 2025. Growth of HPDC/LPDC at a higher pace in the US and EU markets. Rapid development of secondary aluminium casting
Potential financial impact in 2035 (profit before tax)	**-£5m to £0m**	**£0m to £5m**	**£5m to £10m**

Key factors impacting Vesuvius' three climate change scenarios

1. Regulatory and macroeconomic drivers differentiate our scenarios

Firstly, effective border adjustment mechanisms to accompany carbon taxation, or cap and trade systems in regions with ambitious emissions reduction objectives, will greatly support the implementation of technologies required to decarbonise steel-making (including the development of hydrogen as the reducing agent). Conversely, the absence or ineffective implementation of border adjustments would lead to significant delocalisation of the steel industry and a displacement of CO_2 emissions to other countries rather than a significant reduction on a worldwide scale. The energy crisis which started in late 2021 and was particularly acute in Europe has resulted in additional costs and loss of competitiveness for the European steel industry. In the short term, this was addressed by the temporary stoppage of steel plants. If the energy cost gap with other regions continues, this could result in the permanent closure of steel plants and delocalisation of production to other regions. This shift in our customer footprint would lead to the need to adapt our own manufacturing footprint.

Secondly, public policy and investment financing will significantly affect the relative cost and availability of non-CO_2 emitting energy sources versus fossil fuels and their associated infrastructures. These will greatly influence the pace of deployment of selected technologies and industries (electric vehicles, carbon-free hydrogen and decarbonised steel-making). Infrastructure, construction and other downstream markets will also be incentivised to reduce steel consumption, accelerating the shift towards high-technology steel. Investment incentives and rising energy costs, as experienced since the end of 2021, will positively affect the growth rate of investment in renewable energies and penetration of electric vehicles in the automotive markets.

Finally, the level of international cooperation to encourage and support less developed economies to engage in the technology transition will also affect our customer manufacturing footprint.

Regulatory and macroeconomic drivers may affect our climate change scenarios in the short, medium and long term.

2. The future of steel

All three scenarios assume that the strong connection between world GDP and world steel output will continue, supported by urbanisation and rising living standards, as there is no significant substitute for steel. The fight against climate change is expected to have a far-reaching impact on many different industries translating into the accelerated growth of the high-technology steel segment in which Vesuvius has a key presence. For example, solar and wind power plants, where investment is growing fast, are far more steel-intensive per kWh of installed capacity than their fossil fuel equivalents. Likewise, hydrogen transportation, another area of rapid growth, also requires considerable amounts of special grades of steel for new pipelines and ships. With evolutions occurring over many years, this driver will have a stronger impact over the medium and long term than the short term.

3. Technology transition

Our scenarios consider the pace and extent of the technology transition in iron and steel-making. The Blast Furnace – Basic Oxygen Furnace (BF–BOF) route for steel-making is significantly more CO_2 intensive than the Electric Arc Furnace (EAF) route. However, EAFs cannot always be used to produce all higher-quality steel grades and they rely on the availability of scrap steel (itself a function of the level of economic development). Going forward, quality levels produced by EAFs will continue to improve.

Various technologies to decarbonise the BF–BOF route are being developed, including solutions which seek to capture the carbon as it is emitted and either store it or use the carbon in other processes. Alternatively, the BF–BOF route may be replaced by a combination of Direct Reduced Iron (DRI) and EAFs.

Hydrogen-based DRI associated with EAFs has the potential to be nearly carbon-free if carbon-free electricity and hydrogen are available. We anticipate that there will be a gradual reduction in steel production via the BF–BOF route and growth in the EAF route. The extent and pace of this change will depend on technologies coming to maturity, the availability of infrastructure (carbon-free electricity and hydrogen), and regulatory frameworks.

These technologies will require many years to mature and be deployed on a large scale. This driver is therefore expected not to have any impact over the short term, and to reach its maximum impact in the long term.

Conclusion on strategic resilience

Sustainability has always been at the heart of Vesuvius' business and the Group's analysis concludes that the opportunities for the Group manifested by the global pressure to mitigate climate change outweigh the risks. Our technology helps our customers improve their process efficiency and their environmental footprint.

We estimate the financial impact of the opportunities and risks on the Group will be most adverse under a 4°C scenario and most positive under a 2°C scenario. Under all three scenarios, we expect to benefit from the continuing growth in the production of steel in line with GDP, along with the accelerating shift towards higher performance iron and steel castings, as we support customers to maximise the efficiency and quality of their production. With our technological expertise, strong customer relationships and broad manufacturing footprint, we expect to play a key role in supporting our customers' efforts to decarbonise their operations.

We also believe there is a low downside for Vesuvius in all three scenarios as more than 70% of our business in steel is in the steel casting part of the operation which, as a stand-alone process, is low CO_2 emitting (1% to 3% of a steel plant's CO_2 emissions), and which we do not expect to be affected by technology shifts that the decarbonisation of iron and steel-making will require.

Whilst the electrification of light vehicles and ongoing light-weighting efforts are expected to translate into a shrinking of the market for certain iron castings, it is anticipated that this will be more than compensated for by the growth in other markets such as wind turbines and aluminium castings.

We do not anticipate that climate change will lead to any significant changes in our access to capital or require the impairment of assets on a material scale.

Tackling climate change continued

Roadmap to Net Zero

We have set intermediate targets in our journey to reach net zero CO_2e emissions by 2050 (Scope 1 and Scope 2), in line with the Paris Agreement and the UK's commitment in the Climate Change Act 2008 (2050 Target Amendment) Order 2019. These emissions encompass the seven GHGs listed by the Intergovernmental Panel on Climate Change in the Kyoto Protocol (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 and NF_3).

Our preferred metrics to monitor progress with our journey to net zero are energy and CO_2e emission intensity (energy consumption and CO_2e emissions per metric tonne of product packed for shipment). These reflect the progress made in our operations better than absolute metrics. Managing this energy intensity not only has environmental benefits, it is also part of our long-term strategy to enhance our cost competitiveness.

Our targets

Our targets cover 100% of Vesuvius' operations. They are aligned with the Science Based Targets initiative (SBTi) requirements for a well below 2°C global warming scenario and are consistent with the Paris Agreement. 2019 was selected as the baseline for all energy and GHG emissions data and targets, absolute and relative, as this was the last year of normal trading prior to the COVID-19 pandemic.

- 10% improvement in the Group's energy intensity between 2019 and 2025
- 20% reduction in CO_2e emission intensity normalised per metric tonne of product packed for shipment (Scope 1 and Scope 2) by 2025 (vs 2019 baseline)
- 100% carbon-free electricity by 2030
- A reduction in total Scope 1 and Scope 2 CO_2e emission intensity of 50% by 2035 (vs 2019 baseline)
- Zero Scope 1 and Scope 2 CO_2e emissions by 2050

We aim to achieve our decarbonisation goals without the use of any carbon offsets (or only to address residual emissions).

The Group energy CO_2e emissions reduction targets have been cascaded to all Business Units, which have built action plans accordingly. Portions of the Group Executive Committee's Long-Term Incentive Plan and senior management annual variable compensation are linked to the achievement of CO_2e emissions reduction targets.

Our plan

Our Roadmap to Net Zero is based on five key areas of focus:

1. Modernising and upgrading installed equipment to reduce our energy consumption
2. Investing to renew equipment to the best available technologies and converting to less CO_2e intensive energy sources
3. When possible, replacing high CO_2e emission electricity (generated from coal or natural gas) with greener electricity or other sources of energy
4. Reducing our energy wastage, recovering heat to feed processes and heat water
5. Generating clean energy

Assumptions and sensitivities

Some significant assumptions underpin our net zero plan, including:

- The availability of the necessary technologies, at an affordable level and at a scale appropriate for our industry, especially for the firing of refractory ceramics and carbon capture (including carbon capture technologies for the dolime production process)
- The development of additional production capacity and distribution infrastructure for renewable energy and hydrogen, and their cost competitiveness
- Adequate policy support to foster innovation and ensure the cost of CO_2 emissions will increase the attractiveness of carbon-free processes
- No significant change to our business model and product portfolio

The achievement of our CO_2e emissions targets will also be sensitive to:

- The growth of revenue, organically, and from acquisitions, and divestitures
- Product mix evolution (especially driven by dolime volume, which is the most CO_2 intensive product line)
- Macroeconomic conditions and the capex cycle impacting plant loading (and thereby the energy efficiency of continuous processes)

In the short and medium term, we will focus on reducing the Scope 1 and Scope 2 emissions of product lines other than dolime. We have made investments in recent years to optimise the energy efficiency and reduce the CO_2 intensity of this process. Further significant improvements will require investing in technologies such as carbon capture, which we anticipate will not be available at an affordable level and at an appropriate scale, in the short and medium term.

Our plan to reach net zero

Our plan to reach net zero covers 100% of our operations. We aim to achieve our decarbonisation goals without the use of any carbon offsets (or only to address residual emissions).

Short term (2026)

A wide variety of projects have been initiated and more are being considered, to help us deliver our energy efficiency and CO_2e emissions reduction targets, including:

- Optimisation of process parameters
- Introduction of new refractory furniture
- Retrofitting of ovens and kilns
- Replacement of older and less efficient units
- Upgrades of compressors
- Replacement of light sources with LED lights
- Replacement of diesel-powered forklift trucks with electric forklift trucks
- Installation of heat recovery systems in ovens and kilns
- Burner setting optimisation and loading, and cycle optimisation
- Continued conversion of electricity supplies to carbon-free sources
- Installation of solar panels

We endeavour to use the best available technologies to reduce CO_2 emissions in all our major capital expenditure projects.

Medium term (2035)

We anticipate that further emissions reduction will be possible through further energy efficiency measures (continuation of the short-term actions).

Technological developments currently in preparation with our partners will allow us to reduce GHG emissions even further. Projects have been launched across a range of activities including:

- Electrification of high-temperature manufacturing processes that currently rely on natural gas or LPG. The first investments to replace natural gas-powered ovens with electric ovens were completed at the end of 2024
- The use of a combination of natural gas and renewable energy such as carbon-free hydrogen to fire refractory materials. We have already started R&D trials with a blend of hydrogen and natural gas
- The use of bio-fuels instead of natural gas. The first investments to replace natural gas with biomethane were completed in 2024

Whilst the list of assets that will require upgrade or replacement is defined, a precise time plan cannot be elaborated beyond the next few years:

- Electric and hydrogen-powered high-temperature processes are still in the development phase and not ready for industrial-scale deployment. The manufacture of each product family in our portfolio requires a specific set of parameters such as type of process (batch vs continuous), temperature and atmosphere. It is still too early to decide which technological solutions will be possible and most appropriate for each process
- All high-temperature processes will require an adequate and affordable supply of carbon-free energy to be economically viable. Availability and price trajectories may vary greatly from region to region

These low-carbon production processes should be progressively introduced during the 2025–2035 period, as they meet the technical and economic conditions allied with the availability of required energy. Precise capital expenditure project lists have been defined for the 2026 horizon and are in preparation for the next few years. We estimate the incremental capital commitment required by our decarbonisation roadmap will be approximately £7m per year until 2035.

We do not expect the useful economic lives of our existing assets to be materially affected by our plans until 2035. We will continue using the internal price of carbon to assess the relative benefits and prioritise projects.

We also anticipate that changes in our product portfolio towards less energy-intensive products (such as resin-bonded and unshaped refractories) will continue, though the impact cannot be quantified.

Long term (2050)

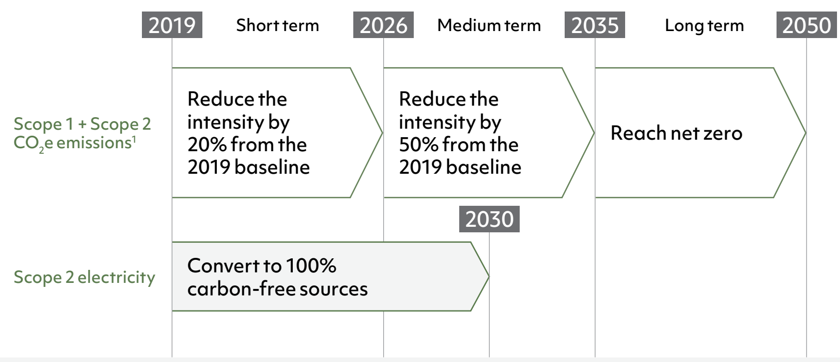
Beyond 2035, the short-term and medium-term programmes will continue to deliver opportunities.

We are regularly monitoring the emergence and readiness of new technologies, through our network of suppliers of capital goods, universities and trade associations. In the longer term (2050), various technologies are promising candidates for the near zero emissions curing and firing of refractory products (electricity, carbon-free hydrogen, synthetic gas, biomass).

We currently anticipate that carbon capture solutions will be available for our industrial application during the 2035–2050 period, though most will probably not be available sooner. We are progressively adapting our product and process R&D programmes to explore such opportunities.

Capital expenditure requirements and the useful economic lives of our existing assets will depend on the evolution of technologies currently in development.

Our journey to net zero



1. Re-baselined using pre-acquisition data for the business acquired from Universal Refractories, and BMC from 2019 onwards.

Tackling climate change continued

Our progress – key Group initiatives for energy conservation and for increasing energy efficiency

We have continued converting our manufacturing sites to carbon-free electricity and undertaken a number of major projects to significantly reduce the Scope 1 CO_2e emissions of the Group by addressing some of its most CO_2e intensive installations.

Progress in 2024

1 Carbon-free energy sources

The Group supports the transition towards renewable energy sources and cleaner carbon-free technology when possible. Our energy strategy includes an ongoing effort to convert to carbon-free electricity contracts whenever practical and economically viable, investment in solar panels, and the conversion of processes to electricity as soon as the technology is cost-effective.

In 2024, three sites converted to carbon-free electricity contracts. At the end of 2024, we had 43 sites with carbon-free electricity contracts, representing 75% of our manufacturing sites and R&D centres of excellence.

81% of the grid electricity consumed in our sites in 2024 was generated from renewable sources (71% in 2023), and 83% using processes that did not emit CO_2e (renewable and nuclear) (75% in 2023).

A third Vesuvius plant became carbon-free in 2024, with Rio de Janeiro converting all of its natural gas-based production processes to biomethane. CO_2e emissions from the Rio de Janeiro plant are now at zero.

In addition, capital expenditure projects for solar panels with a value of £0.3m were approved in 2024. Ten of our sites are now equipped with photovoltaic solar panels and 19 sites are investigating solar panel projects.

2 Capital commitments and internal CO_2 pricing

We include an environmental impact analysis in the evaluation of our capital expenditure projects as these are the key decisions that drive long-term future sustainability performance, and CO_2 emissions in particular.

Our Environmental Policy, which is the responsibility of the Chief Executive and the Group Executive Committee, covers all our operations and states that all our investment decisions will include an analysis of their environmental impact. An internal price for CO_2 emissions (Scope 1 and Scope 2) is included in the calculation of payback for all investments reaching the threshold for approval by the Business Unit Presidents or Chief Executive.

Vesuvius views this shadow pricing mechanism as a key tool to ensure that the environmental impact of long-term investment decisions is understood. It seeks to ensure that the best available technology is adopted, even in locations where no external cost for carbon is in place or foreseen. The internal price of CO_2 was introduced in 2020. It is reviewed annually by the Sustainability Council and is applicable across all Business Units in all regions. The price is adjusted, taking into consideration both the previous year's price and the evolution of the EU Emissions Trading System (EU-ETS) carbon pricing. In 2020, it was initially set at €30 per tonne of CO_2. It was raised to €90 per tonne in 2021, and subsequently maintained at this level. The Sustainability Council has decided to maintain the internal price of CO_2 emissions at €90 per tonne of CO_2 for 2025.

3 Improving our energy efficiency

All Vesuvius plants have targets to reduce energy intensity. We have implemented a structured approach across the Company. We collect and analyse data from our sites, identify gaps and opportunities and eventually target our engineering projects. We select the processes and sites that are the most energy-intensive or have the greatest impact, and coordinate the projects centrally. We also share best practices across locations. For example, in one of the most energy-consuming sites, we will improve our process by installing additional nozzles in the spray towers, building on the experience from another Vesuvius site. Many additional initiatives are managed locally.

In 2024, the first investments replacing natural gas-powered ovens with electric ovens were completed, as part of our plan to electrify high-temperature manufacturing processes that currently rely on natural gas or LPG. We also ran R&D trials focusing on the use of a combination of natural gas and carbon-free hydrogen to fire refractory materials, and completed the first investments in replacing natural gas with biomethane. During the year, we also continued the deployment of meters on energy-intensive equipment.

We are encouraging sites to carry out energy audits and pursue ISO 50001 certification. 13 sites carried out energy audits in 2024, and 31 have planned audits in 2025. Three sites have already obtained ISO 50001 certification. This combination of initiatives allows us to better identify and analyse opportunities and target investments on projects with the largest impact. More than 4,700 employees have received training on energy conservation and greenhouse gas emissions reduction.

In 2024, as a result of thermal processes optimisation and the installation of retrofit solutions, we have reduced energy consumption by more than 15 GWh per year and CO_2e emissions by 20 KT versus 2023. New capital expenditure worth c.£7m, dedicated to 122 projects with energy efficiency and CO_2 emissions reduction as one of their prime objectives, was approved in 2024.

Our energy consumption and Scope 1 and Scope 2 CO_2e emissions

Whilst Vesuvius' products differ significantly in the energy intensity of their manufacture, most of our manufacturing processes are not energy intensive nor do they produce significant quantities of waste and emissions. Dolime production (based in South Africa), which uses coal to calcine dolomite, is our major emitter of CO_2. Dolime and the next five of our 39 main manufacturing processes account for 61% of our energy consumption and 69% of our location-based CO_2e emissions. These continue to be a clear focus for our investment to reduce CO_2e emissions.

In January 2023, an incident incapacitated one of our dolime rotary kilns, which resulted in it being out of service for over a year. As a consequence, the tonnage of dolime produced by the Group has been considerably lower than in prior years and the Group's product mix has been very different. The Group's absolute energy consumption, CO_2e emissions, energy intensity and CO_2e emission intensity reduction have been affected by the lower output of dolime, which has higher energy and carbon intensity than most of our production processes. The dolime installation resumed production in 2024 albeit at a lower level than prior to the 2023 incident.

The Group's progress in reducing our CO_2e emission intensity was adversely affected in 2024 by the increase in dolime production. Low volumes of other product lines resulted in lower fill rates for continuous processes and lower energy efficiency, thereby also contributing to a higher CO_2e emission intensity. Between 2019 and 2024 the Group achieved an overall reduction in energy intensity (normalised to per metric tonne of product packed for shipment) of 14.0%. The pro forma energy intensity reduction assuming the Group had produced dolime at the normal rate, was 10.1% vs a target of 10% by 2025.

During the same period, our overall CO_2e emission intensity metric (CO_2e emissions per metric tonne of product packed for shipment, Scope 1 and Scope 2, market-based) reduced by 40.4% vs a target of 20% by 2025. This includes a 40.2% reduction in energy CO_2e intensity, and a 41.2% reduction in process CO_2e intensity, per metric tonne of product packed for shipment. Excluding dolime, the CO_2e emission intensity reduction between 2019 and 2024 was 40.2%. If the production of dolime had remained on average the same as the 2019–2022 period, prior to the dolime incident, our pro forma CO_2e emission intensity reduction would have been 26.9%.

Scope 1 covers emissions from fuels used in our factories and offices, fugitive emissions and non-fuel process emissions.

Scope 2 relates to the indirect emissions resulting from the generation of electricity, heat, steam and hot water we purchase to supply our offices and factories.

Scope 3 covers all other direct CO_2 and CO_2e emissions that occur in the Company's value chain.

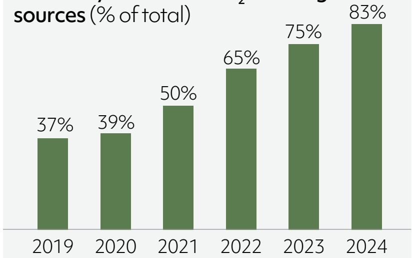
The conversion by many of our sites to carbon-free electricity contracts has helped our CO_2e emissions reduce at a faster pace than our energy efficiency improvements. Vesuvius' total energy costs in 2024 were £45.6m, c.2.5% of revenue (£48.5m in 2023, c.2.5% of revenue). None of our installations meet the criteria to be included in the European Union Emissions Trading System (ETS). South Africa is the only country where we exceed the threshold to be submitted to a carbon tax or an emissions trading scheme. The carbon tax cost in 2024 was c.£ 0.1m (£0.2m in 2023), based on emissions in the prior year.

In 2024, Vesuvius did not engage in any greenhouse gas removal activities within its own operations or upstream or downstream value chain, nor did we finance any removal projects outside our value chain through the purchase of carbon credits.

Our projected future progress

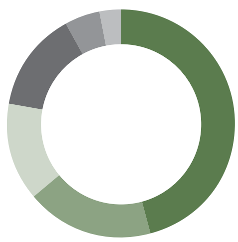
Factoring in the significant assumptions that underpin our net zero plan (see p48), we believe that we are on track to achieve the projected 100% reduction of our Scope 2 emissions by 2030 and the projected 50% reduction of our combined Scope 1 and Scope 2 emissions intensity by 2035. Having already converted most of our manufacturing sites to carbon-free electricity, the reduction of our CO_2e emissions intensity will be driven by progress in addressing Scope 1 emissions. Consequently, the pace of progress will slow down.

Electricity from non-CO_2 emitting sources (% of total)



2024 Scope 1 and Scope 2 CO_2e emissions per region (market-based) %

	2024	
Metric tonnes CO_2e	Metric tonnes	%
Africa	111,583	46
Europe and Middle East	42,866	18
USA, Mexico, Canada	33,866	14
China & NA	33,891	14
India & SA	12,323	5
South America	6,866	3



Notes:
– Includes the business of Universal Refractories, Inc. (Vesuvius Penn Corporation) which was acquired in 2021 and BMC (Yingkou YingWei Magnesium Co.,Ltd), which was acquired late 2022.
– The numbers are collated from 100% of entities within the Group's Operational Control Boundary.
– Further information on sources of data, scope of entities covered, calculation methodologies and progress can be found in the 2024 Sustainability Report which is available at: www.vesuvius.com.

Tackling climate change continued

Scope 1, Scope 2 and Scope 3 CO_2e emissions (market-based)[1,2]

In 2024, Vesuvius' total Scope 1, Scope 2 and Scope 3 CO_2e emissions were 2,003,560 metric tonnes.

	2024		2023	
Metric tonnes CO_2e	**Metric tonnes**	**%**	Metric tonnes[2]	%[2]
Scope 1 Process CO_2e emissions	**57,926**	**26.9%**	29,637	17.4%
Scope 1 Energy CO_2e emissions	**157,090**	**72.9%**	139,241	81.9%
Scope 1 Fugitive emissions	**575**	**0.3%**	1,037	0.6%
Total Scope 1 CO_2e emissions	**215,591**	**10.8%**	169,914	8.6%
Scope 2 CO_2e emissions (market-based)	**25,804**	**1.3%**	38,149	1.9%
Scope 3 CO_2e emissions	**1,762,165**	**88.0%**	1,777,008	89.5%
Total	**2,003,560**	**100%**	1,985,072	100%

1. The numbers are collated from 100% of entities within the Group's Operational Control Boundary.
2. The Scope 2 and Scope 3 emissions data for 2023 was re-evaluated during 2024, using an updated methodology and revised emissions factors from the International Energy Agency, and as a result some minor amendments have been made to these figures.

Vesuvius plc long-term energy consumption and energy intensity (aggregate of Scope 1 and Scope 2)[1,2,3]

	2024 vs 2019	**2024**	2023[3]	2019[3]
Total energy consumption (million kWh)		**963**	896	1,211
Energy consumption per metric tonne of product packed for shipment (kWh/MT)	**-14%**	**1,076**	1,054	1,252

Notes:
1. The numbers are collated from 100% of entities within the Group's Operational Control Boundary.
2. 2019 was selected as the baseline for all energy and GHG emissions data and targets, absolute and relative, as this was the last year of normal trading prior to the COVID-19 pandemic. Progress is measured against the 2019 performance.
3. Emissions numbers for 2019 and 2023 were re-evaluated using an improved approach in 2024, and as a result some minor amendments have been made. Further information on sources of data, scope of entities covered, calculation methodologies and progress can be found in the 2024 Sustainability Report which is available at: www.vesuvius.com.

Vesuvius plc statement of verification

Scope 1, Scope 2 and Scope 3 carbon footprint reporting and supporting evidence contained herein for the period 1 January 2019 to 31 December 2024 covering GHG emissions as CO_2e in metric tonnes, CO_2e intensity in metric tonnes of CO_2e per metric tonne of product packed for shipment, energy consumption in kWh and energy intensity in kWh of energy per metric tonne of product packed for shipment, location-based and market-based, were verified by Carbon Footprint Ltd in accordance with the ISO 14064 Part 3 (2019): Greenhouse Gases: Specification with guidance for the verification and validation of greenhouse gas statements.

A copy of the limited assurance statement can be found on our website: www.vesuvius.com.

In 2024, the Group's normalised energy consumption increased by 2.1% to 1,076 kWh per metric tonne of product packed for shipment (2023: 1,054). Location-based emissions increased by 11.4% to 0.341 metric tonnes of CO_2e per metric tonne of product packed for shipment (2023: 0.306) and market-based emissions increased by 10.2% to 0.270 metric tonnes of CO_2e per metric tonne of product packed for shipment (2023: 0.245).

In 2024, natural gas use increased by 1%, and electricity consumption by 1% whereas coal (a CO_2 intensive fuel and raw material used in dolime production) consumption grew by 76%, to 15,767 metric tonnes (2023: 8,974, 2022: 27,231 metric tonnes) driven by the increase of dolime production.

During 2024, the Group also consumed 364 cubic metres of diesel (+15% on 2023: 317) primarily in the operation of forklift trucks on its sites, and 28 cubic metres of fuel oil, a decrease of 83% (2023: 165). In total, 392 cubic metres of oil was used as fuel in 2024 (19% up on 2023: 482).

Greenhouse gas (GHG) reporting

We have reported to the extent reasonably practicable on all the emission sources required under Part 7 of the Accounting Regulations which fall within our Group Financial Statements. Statutory reporting is location-based according to the GHG Protocol.

All sites report their energy consumption and GHG emissions on a quarterly basis. Performance and variation are analysed, and improvement plans built accordingly.

The Group also meets all its obligations in relation to the Producer Responsibility Packaging Waste regulations and the Energy Saving Opportunity Scheme by which the UK implemented the EU Energy Efficiency Directive.

Global GHG emissions and energy consumption Location-based statutory reporting (Operational Control Boundary)[1,2,3,4,5,6]

Emissions and energy sources	UK and Offshore CO_2e '000 metric tonnes 2024	Global CO_2e '000 metric tonnes 2024	Proportion relating to the UK and Offshore Area	UK and Offshore CO_2e '000 metric tonnes 2023[6]	Global CO_2e '000 metric tonnes 2023[6]	Proportion relating to the UK and Offshore Area	UK and Offshore energy used '000 kWh 2024	Global energy used '000 kWh 2024	Proportion relating to the UK and Offshore Area	UK and Offshore energy used '000 kWh 2023	Global energy used '000 kWh 2023	Proportion relating to the UK and Offshore Area
Combustion of fuel and operation of facilities including fugitive emissions (Scope 1)												
	2.289	**216**	**1.1%**	2.150	170	1.3%	**11,943**	**764,552**	**1.6%**	11,343	699,011	1.6%
Electricity, heat, steam and cooling purchased for own use (Scope 2)												
	0.329	**90**	**0.4%**	0.339	90	0.4%	**1,848**	**198,497**	**0.9%**	1,905	196,612	1.0%
Total GHG emissions and energy												
	2.617	**305**	**0.9%**	2.489	260	1.0%	**13,791**	**963,048**	**1.4%**	13,248	895,622	1.5%
Change												
	5.1%	**17.3%**					**4.1%**	**7.5%**				

Vesuvius' chosen intensity measurement (location-based statutory reporting)[1,2]	Metric tonnes CO_2e per metric tonne of product packed for shipment				kWh of energy per metric tonne of product packed for shipment			
	UK and Offshore 2024	**Global 2024**	UK and Offshore 2023[6]	Global 2023[6]	**UK and Offshore 2024**	**Global 2024**	UK and Offshore 2023	Global 2023
Emissions and energy reported above normalised to metric tonnes CO_2e per metric tonne of product packed for shipment	**3.123**	**0.341**	3.441	0.306	**16,457**	**1,076**	18,315	1,054
Change	**-9.2%**	**11.4%**			**-10.1%**	**2.1%**		

	Metric tonnes of CO_2e per £m revenue			
Total GHG emissions as metric tonnes CO_2e per £m revenue (location-based)	**23.7**	**167.8**	20.3	134.9
Change	**16.7%**	**24.4%**		

1. Location-based Statutory Reporting of Global GHG emissions (metric tonnes of CO_2e) and energy consumption ('000 kWh). The numbers are collated from entities within the Group's Operational Control Boundary.
2. In reporting GHG emissions, we have used the GHG Protocol Corporate Accounting and Reporting Standard (revised edition) methodology to identify our location-based GHG inventory of Scope 1 (direct) and Scope 2 (indirect) CO_2e. We report in metric tonnes of CO_2 equivalent (CO_2e). We have used emission factors from the UK Government (Defra) and the IEA GHG Conversion Factors for Company Reporting 2024 in the calculation of our GHG emissions.
3. Our energy-related greenhouse gas (GHG) emissions, reported as carbon dioxide equivalents (CO_2e), include direct emissions of the three main GHGs (carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O)).
4. Process related emissions of the following in CO_2 equivalent and in metric tonnes are not significant: Direct methane CH_4 emissions and Direct nitrous oxide N_2O emissions.
5. Emissions of the following in CO_2 equivalent and in metric tonnes are not significant: Direct sulphur hexafluoride (SF_6) emissions; Direct HFC emissions; and Direct PFC emissions.
6. The emissions numbers for 2023 were re-evaluated during 2024, using an updated methodology, and as a result some minor amendments have been made to these numbers. Further information on sources of data, scope of entities covered, calculation methodologies and progress can be found in the 2024 Sustainability Report which is available at: www.vesuvius.com.

Tackling climate change continued

Scope 3 emissions

Vesuvius' Scope 3 CO_2e emissions, mainly upstream, contribute to a greater part of our total CO_2e emissions than our Scope 1 and Scope 2 emissions. Our products are used by customers whose processes emit significant amounts of CO_2. They serve to contain and protect liquid metal and manage its flow, but do not participate in the heating operations or chemical reactions that lead to CO_2 emissions. Emissions associated with the processing or use of our products are hence very limited. More specifically:

– Some products require drying or pre-heating prior to use by our customers. Emissions generated during these operations are included in the 'Processing of sold products' category
– Refractory materials do not require energy during their use; having undergone high-temperature processes during their manufacturing, they are inert and do not release any greenhouse gases during their use
– Some non-refractory products contain chemicals, which will be partially burnt during usage by our customers. Emissions due to the combustion of chemicals are included in the 'Use of sold products' category

Since 2021, we have undertaken a focused evaluation of emissions associated with raw materials, using publicly available average CO_2 emissions factors. We have also collected information on energy source, CO_2 emissions data and reduction plans from our raw materials suppliers as part of our Request for Quotation process.

We have begun to collect CO_2 emissions data relating to transportation from our forwarders in all regions. In 2024, the CO_2 emissions data that we received from our forwarders covered 26% of our transportation spend (upstream and downstream), and we were able to evaluate CO_2 emissions covering a further 61% of our transportation spend using operational data and Defra conversion factors. The remainder of our CO_2 emissions from upstream and downstream transportation (13%) was estimated based on spend and Defra conversion factors.

Various initiatives have been launched to reduce our Scope 3 CO_2 emissions, including returnable packaging, the electrification of company fleet vehicles and arrangements for collective commuting.

Our process for evaluating Scope 3 CO_2 emissions continues to evolve, as assessment techniques become more sophisticated. In 2023, this re-evaluation included adopting a more granular approach to our assessment of emissions from raw materials, where we more than doubled the number of factors used, to achieve more refined data on emissions from purchased goods.

Scope 3 emissions[1,2,3,4,5]

	2024		2023[5]	
Metric tonnes CO_2e	Metric tonnes	%	Metric tonnes	%
Purchased goods and services	**1,451,402**	**82%**	1,441,413	81%
Capital goods	**46,048**	**3%**	39,992	2%
Fuel- and energy-related activities (not included in Scope 1 or 2)	**39,473**	**2%**	37,088	2%
Upstream transportation and distribution	**28,516**	**2%**	39,086	2%
Waste generated in operations	**14,391**	**1%**	14,979	1%
Business travel	**9,887**	**1%**	11,443	1%
Employee commuting	**34,470**	**2%**	40,891	2%
Upstream leased assets	**0**	**0%**	0	0%
Downstream transportation and distribution	**57,897**	**3%**	80,896	5%
Processing of sold products	**19,250**	**1%**	14,924	1%
Use of sold products	**37,554**	**2%**	34,194	2%
End-of-life treatment of sold products	**23,276**	**1%**	22,103	1%
Downstream leased assets	**0**	**0%**	0	0%
Franchises	**0**	**0%**	0	0%
Investments	**0**	**0%**	0	0%
Total Scope 3 CO_2e emissions	**1,762,165**	**100%**	1,777,008	100%

1. The numbers are collated from 100% of entities within the Group's Operational Control Boundary.
2. Conversion factors for GHG emissions and energy used the 2024 UK Government GHG Conversion Factors for Company Reporting. Conversion factors for GHG emissions for electricity globally used the IEA Emission Factors 2024.
3. Calculation of Scope 3 GHG emissions used the Carbon Footprint Limited Sustrax system.
4. Scope 3 2024 Upstream subtotal 1,624,188 metric tonnes (92%) Downstream subtotal 137,977 metric tonnes (8%).
5. Scope 3 emissions data for 2023 was re-evaluated during 2024, using an updated methodology, and as a result some minor amendments have been made to these figures. Further information on sources of data, scope of entities covered, calculation methodologies and progress can be found in the 2024 Sustainability Report which is available at: www.vesuvius.com.

Our people

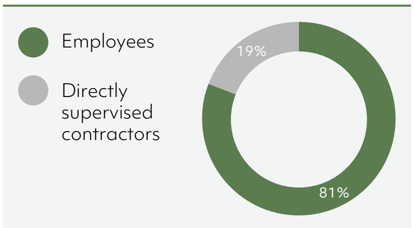
Our People and Culture Strategy aims to build an outstanding business by ensuring we have the individuals, skills and capabilities critical to the delivery of our strategy.

Vesuvius is a geographically and culturally diverse group, employing more than 13,000 people of more than 70 nationalities in 40 countries.

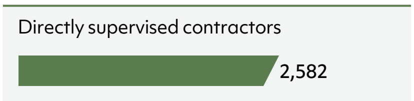
The underlying foundation for our People and Culture Strategy is our strong culture of delivering results in our diverse, entrepreneurial, decentralised organisation, where everyone is empowered to take action, working with like-minded people in a non-matrix environment.

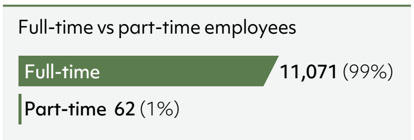
A flexible workforce

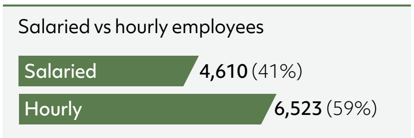
Our activity levels fluctuate based on customer demand. A variety of measures have been implemented to ensure our workforce is equally flexible. These include the employment of agency workers, overtime and flexitime agreements, and suspended employment.

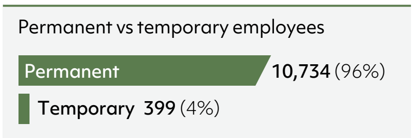


A significant proportion of our headcount is employed in customer locations. The length of this employment with Vesuvius is dependent on the continuation or renewal of contracts. In many countries, we employ workers via professional agencies. Whenever business is transferred by a customer from one supplier to another, this employment via agencies rather than direct employment provides workers with employment continuity, as it permits them to continue working for the customer whilst their services are transferred.









Talent attraction and development

Staying competitive in today's rapidly evolving world requires a keen focus on the attraction and development of appropriate talent. We balance a mix of high-quality external recruits with our strong internal talent pipeline to source these colleagues, and then provide continuous development to facilitate their success.

During recruitment for key talent we craft clear, well-defined success profiles for each role, and utilise multiple rounds of assessments, interviews, psychometric assessments and reference checks to secure top-tier talent. In 2024, we also launched a newly refreshed employer brand to strengthen our position in the market.

Internally, we have developed a robust system for tracking and evaluating performance effectiveness across all levels. This includes two comprehensive, Company-wide system-based performance processes: one focused on an overall performance review, where managers assess employees on key factors such as alignment with Vesuvius' core Values, achievement of results, and role-specific competencies; the second on reviewing year-end personal objectives, which are linked to individual goal achievement and career progression.

In addition, we hold mid-year performance reviews to ensure alignment, address any gaps, and refine development plans for the remainder of the year. These processes are vital in identifying skills gaps, talent risks, and opportunities for growth, enabling us to take corrective action where needed.

Training and development

Our leaders take responsibility for managing and developing their teams. Our Learning Management System provides a global hub for Vesuvius' online training courses. Mandatory training courses are automatically assigned to new joiners and completion statistics are easily reportable. Targeted training courses can also be allocated to employees in specific roles, e.g. modern slavery training for people in purchasing.

Our internal HeaTt training is aimed at the continuous technical development of Vesuvius employees. Courses range from entry to expert levels and are continuously updated to keep pace with developing technology and delivery methods, thereby guaranteeing that Vesuvius experts are at the forefront of technical innovation. They are a great way for our hugely experienced technical experts to pass on their knowledge to the next generation and ensure the sustainability of our know-how.

Our people continued

Global Mentoring programme

In 2024, Vesuvius continued its global mentoring programme for its top talent focusing on leadership and talent development. There are currently 23 mentees taking part in the 12-month programme, of which nine are women. Mentees learn from the experience and perspectives of a senior leader, including members of the Group Executive Committee in Vesuvius, creating an individual personal development plan to enhance their careers and leadership capabilities. The programme ensures internal knowledge transfer and builds a broader, deeper and more ready talent pool.

Global reward

Reward and recognition are integral components of our employee value proposition, enabling us to attract, engage and retain key talent and highly qualified employees. We are committed to operate reward and performance management systems which are transparent and objective.

Our management Annual Incentive Plans are measured against both Vesuvius' financial targets and personal performance, an incentive structure consistent with that of our Executive Directors. The Vesuvius Share Plan for Executive Directors and Group Executive Committee members encourages robust decision-making based on long-term goals rather than short-term gains and works to align the interests of participants with those of shareholders.

Global mobility

We believe that our global operations should be managed and staffed by local personnel. However, we also provide selected groups of employees with a range of international assignments. These assignments are usually for a limited period, most often three years.

International assignees do not come from one or two countries alone. We have a truly international mix of nationalities in our mobile population. Individuals move not only within a region, but also between regions. Our mobility programme shows that our assignee population is as diverse as our Group.

Employee engagement

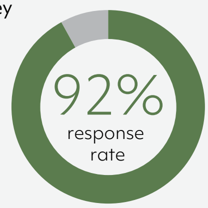
Vesuvius recognises that companies with highly engaged employees deliver better business outcomes. They have lower absenteeism, lower employee turnover, fewer safety incidents, better product quality, and higher productivity, sales and profitability. At Vesuvius, we regard engagement as critical to our ongoing success and we work hard to listen to our people and act when issues impacting engagement are identified.

We seek to understand and support all employees, including those who may be more vulnerable in the workplace by using anonymous methods of providing feedback such as our annual employee engagement survey – I-Engage and Speak Up. We measure the effectiveness of these tools by analysing response rates, tracking the percentage of employees participating each year and identifying trends in engagement across different departments and regions.

Employee engagement is a collective responsibility, especially for our management teams. As a principal tool to help nurture this engagement we have partnered with Mercer to undertake our annual I-Engage survey, which captures employees' perceptions and attitudes towards Vesuvius and their work. The survey results are compiled into team-specific reports, which managers discuss transparently with their teams. Together, they identify areas for improvement and develop practical action plans to deliver positive change to the work environment.

In 2024, we maintained a very high participation level with 92% of employees responding to the 38 questions. The overall level of engagement reduced slightly but still remained high, with safety and immediate manager engagement rated particularly positively, and survey follow-up noted as an area for improvement.

Respondents to our 2024 I-Engage survey



Internal communications

We continue to develop our internal communications programme to ensure we have a strong mix of channels to reach our diverse population. The Chief Executive regularly addresses the whole Group via Company-wide email and video, delivering strategic messages, and in 2024 held 12 interactive virtual sessions with the Senior Leadership Group to share business updates. Company news and announcements are regularly shared on the Group intranet, whilst screen savers are used to support major communication campaigns. We also utilise posters and site 'town hall' meetings for on-site communications.

Whenever possible, face-to-face communication is conducted at different levels of the organisation, providing the necessary opportunities for interactive Q&A sessions with business leaders.

Employee consultation and industrial relations

Vesuvius supports freedom of association and the right to collective bargaining. In all the countries in which we operate, the Group informs and consults local works councils and trade unions on matters concerning the Vesuvius business as required. These processes and procedures are regulated by local law and generate constructive dialogue between employee representatives and management, which provides benefits to our business. In addition to local employee representation, the Group operates a European Works Council (EWC) with elected representatives from the UK and each of the EU countries in which Vesuvius has employees.

Diversity and inclusion

As an organisation, Vesuvius has a global, multicultural operational and customer base, which we wish to reflect inside our organisation with a multicultural, diverse community of excellent professionals from all backgrounds. This starts by focusing on broad diversity of gender and nationality, with an aim to ensure that all employees and job applicants are given equal opportunity and that our organisation is representative of all sections of society where we operate. Vesuvius operates in 40 countries around the world, employing people with more than 70 nationalities, making us a truly diverse business.

We regard this diversity as a critical aspect of our success and future growth, as it allows us to access the widest range of skills and experience. Each employee is respected and valued, and as a result they are all able to give their best. All employees are given help, training and encouragement to develop their full potential and utilise their unique talents.

Overall responsibility for implementing the Group's Diversity and Equality Policy rests with the Executive Directors. The Nomination Committee monitors progress with meeting its objectives. At the end of 2024, the Senior Leadership Group (comprising c.150 senior managers) consisted of 27 nationalities located in 23 countries. 15% of our overall workforce were women, which was stable versus 2023.

Women now represent 21% of our Senior Leadership Group, a level that we consider is still too low, but which represents a significant improvement as compared with the level of 15% in 2019.

Diversity – 31 December 2024

	Female	Male	Gender not available[1]	Total	Female	Male
Board	4	5		9	44%	56%
Group Executive Committee members	2	6		8	25%	75%
Leadership roles reporting to members of the GEC	12	41		53	23%	77%
Directors of subsidiaries included in consolidation[2]	14	71		85	16%	84%
Senior Managers[3]	**28**	**118**		**146**	**19%**	**81%**
All other employees	1,645	9,339	3	10,987	15%	85%
Vesuvius employees	**1,673**	**9,457**	**3**	**11,133**	**15%**	**85%**
Directly supervised contractors	83	324	2,175	2,582		
Vesuvius employees and directly supervised contractors	1,756	9,781	2,178	13,715		

1. The Group had 2,582 directly supervised contractors who were contracted through third parties and for whom the Group does not hold detailed employment records.
2. Of the 85 employees who are directors of Group subsidiaries but not members of the GEC or direct reports of the GEC, 16% are women. This disclosure is made to comply with regulatory requirements. It includes directors of dormant companies. Some individuals hold multiple directorships.
3. Senior Managers as defined for the purposes of Section 414C(8)(c) include directors of the Company's subsidiaries.

The Board has noted the recommendation of the Parker Review that each FTSE 350 company should set a percentage target for senior management positions that will be occupied by ethnic minority executives in December 2027. The Company currently analyses management on the basis of nationality, which indicates a great deal of diversity in the senior management group, but not ethnicity. The Board has conducted a survey of ethnicity for senior management positions, but has determined that no ethnicity target should be set at this time.

Copies of the Board Diversity Policy and Group Policy on Diversity and Equality are available to view on the Vesuvius website: www.vesuvius.com. Further information on the Group's approach to promoting diversity can be found on pages 99–101.

Diversity and Equality Policy

- We are dedicated to encouraging a supportive and inclusive culture amongst our global workforce
- We aim to ensure that all employees and job applicants are given equal opportunity and that our organisation is representative of all sections of society where we operate. Each employee will be respected and valued and able to give their best as a result
- We are committed to providing equality and fairness to all in our employment and not providing less favourable reward, facilities or treatment on the grounds of age, disability, gender, marital or civil partner status, pregnancy or maternity, race, colour, nationality, ethnic or national origin, religion or belief, or sex, gender reassignment or sexual orientation
- We are opposed to all forms of unlawful and unfair discrimination

See the full policy on www.vesuvius.com for further details.

Our people continued

Health, safety and well-being at work

Safety is our top priority and our overriding commitment to health and safety is embedded throughout the organisation.

Our approach is to identify, eliminate, reduce or control all workplace risks, and an ongoing system of training, assessment and improvement is in place to focus on achieving this. We remain fundamentally committed to protecting the health and safety of employees, contractors, visitors, customers and any other persons affected by our activities.

We want to become a zero-accident company and are striving to become a best-in-class organisation for safety performance and leadership.

Health and safety governance

The Board has overall responsibility for health and safety-related matters and delegates authority for the management of the health and safety performance of the business to the Chief Executive. The Business Unit Presidents are in turn, responsible for the deployment of the Health and Safety Policy.

The Board receives regular information on every Lost Time Injury and key safety performance indicators. In addition, the Board carries out a biannual review of health and safety performance and each of the annual presentations of Business Unit strategy include health and safety.

Group safety audits

The Group operates a central safety auditing team of three auditors, each with more than ten years' experience, who report to the VP Sustainability. The team's main purpose is to verify the deployment and ongoing application of the Group's standards and policies in our locations, including our manufacturing sites, R&D facilities and the customer locations in which a significant number of our employees operate daily. Each audit also includes an assessment of the site's HSE leadership. During 2024, the team conducted 63 audits (2023: 66).

Following each audit, action plans are created by the site management teams to address any issues identified and work on completing these is assessed on a regular basis. The observations made during audits are used to improve the Group's training programmes and to enhance the Group's health and safety standards.

Sites are also encouraged to carry out self-assessments, based on the Group safety audit compliance checklist, to monitor their progress.

Safety audits and improvement opportunities

In 2024, 82% (2023: 83%) of our working population performed routine safety audits every month. This generated an average of ten (2023: nine) implemented safety improvement opportunities per person, resulting in an improvement in worker safety.

The audit programme involves employees at all levels – from the Group Executive Committee and safety specialists, through to local site management, employees and directly supervised contractors.

Lost time recordable injuries

Vesuvius operates a robust and comprehensive process for the timely reporting of medical incidents. We use more stringent definitions for Lost Time Injuries (LTIs) and 'severe accidents' than the definitions used by many regulatory bodies. All sites are required to report on all Recordable Injuries (aligned with the OSHA definition), to maintain the focus on safety. All LTIs and Recordables require a full investigation.

We believe that the long-term significant improvements in Lost Time Injury and Recordable Injury Frequency rates reflect a broader trend of underlying improvement for the Group and result from a strong management commitment to change.

2024 safety performance

Our Lost Time Injury Frequency Rate (LTIFR) of 0.52 per million hours worked in 2024 was lower than 2023 (0.60), but we recognise that there is more work left to do. Three employees suffered hand injuries and one a foot injury, requiring surgery and hospital stays, in 2024. We are actively taking steps to learn from these severe injuries and to improve our systems and procedures to prevent any similar occurrences.

Health and Safety Policy

We commit to:

- Abide by simple and non-negotiable standards
- Report transparently and thoroughly investigate any incident to learn, share and avoid repeats
- Undertake risk assessments to identify hazards, prioritise any deficiencies and correct them in an appropriate way, as well as to develop appropriate safe work procedures
- Ensure every business facility follows the agreed health and safety plans, committing to: reduce the frequency and severity of injuries; improve workstation ergonomics; prevent exposure to hazardous substances; and minimise the risk of occupational diseases
- Increase awareness about health and safety issues and provide training for all new employees and contractors
- Ensure every business facility has an appointed Health and Safety Manager

See the full policy on www.vesuvius.com for further details.

Lost Time Injuries

A responsible company

We seek to establish strong relationships with key stakeholders and support the communities in which we operate

Vesuvius is committed to making a positive contribution to society. As part of this, we focus on operating an ethical business with appropriate policies in place to ensure compliance with the regulations and laws in all our markets.

Our CORE Values

The Group's CORE Values convey the mindset and attitudes we expect each employee to show every day. They are at the heart of the culture of the Group, promoting our image to external stakeholders, and underpinning the commercial promise we provide to our customers.

The Values are reinforced through our performance management systems and are celebrated each year through our Living the Values Awards which select regional and global winners for each Value.

Vesuvius' CORE Values

Courage

- I systematically say, decide and do what is right for Vesuvius including when it is difficult, unpopular, or not consensual
- I express my opinions openly during discussions, but I also defend Group decisions once they've been taken, even if they do not correspond to my initial position
- I proactively take leadership responsibility on difficult projects and topics that are important to the Group's performance, motivated by the perspective of success rather than paralysed by the risk of personal failure

Ownership

- I am personally accountable for the consequences of my actions and for the performance of the Group in my area of responsibility or oversight, without blaming external circumstances or the actions of others
- I demonstrate an entrepreneurial spirit, looking for and seizing business opportunities and I immediately address problems that come up as soon as I become aware of them
- I manage the Group's money and resources as though they were my own

Respect

- I demonstrate respect for other people's ideas and opinions even if I disagree with them
- I welcome open debate. I listen to others, and foster esteem and fairness with customers, suppliers, co-workers, shareholders and the communities where we operate
- I communicate my objectives clearly and take time to explain all decisions. I behave with the highest level of integrity. I promote diversity at all levels of the Company

Energy

- I work hard and professionally in pursuit of excellence
- I constantly raise the bar and challenge the status quo. For me, the sky is the limit
- I lead by example, inspiring and motivating my team to go the extra mile. I promote a positive and energising work environment
- I continuously deliver outstanding customer experience and innovative solutions
- I never underestimate competitors and permanently strive to reinforce the Group's leadership position

Code of Conduct

Our Code of Conduct sets out the standards of conduct expected, without exception, of everyone who works for Vesuvius in any of our worldwide operations.

The Code of Conduct emphasises our commitment to ethics and compliance with the law, and covers every aspect of our approach to business, from the way that we engage with customers, employees, the markets and other stakeholders, to the safety of our employees and workplaces.

Everyone within Vesuvius is individually accountable for upholding its requirements. We recognise that lasting business success is measured not only in our financial performance, but in the way we deal with our customers, business associates, suppliers, employees, investors and local communities.

The Code of Conduct is displayed prominently at all our sites and is published in our 29 major functional languages. It is available to view at www.vesuvius.com.

We continue to enhance the policies that underpin the principles set out in the Code of Conduct. These assist employees to comply with our ethical standards and the legal requirements of the jurisdictions in which we conduct our business.

We communicate openly and transparently within the organisation, through 'town hall' meetings, Board and senior management visits, management feedback, performance evaluation, measuring employee engagement and responding to the feedback we receive. Critically, there is ongoing and consistent communication of our CORE Values and the principles of our Code of Conduct.

We engage staff across the Group in both general and targeted training, to ensure a consistent understanding of our policies and procedures.

The Code of Conduct covers eight key areas:

Code of Conduct

1. Health, safety and the environment
2. Trading, customers, products and services
3. Anti-bribery and corruption
4. Employees and human rights
5. Disclosure and investors
6. Government, society and local communities
7. Conflict of interests
8. Competitors

A responsible company continued

Compliance training

Compliance training gives our employees a clearer understanding of the scope of risks that exist as we conduct our business and gives context to how the Group expects each employee to respond to those risks.

The Board has set a target of at least 90% of targeted staff completing the annual Anti-Bribery and Corruption training. In 2024, 100% of the targeted staff completed this training.

Mandatory online training courses – 2024 participation	% of targeted audience completing course
Anti-Bribery and Corruption (annual)	100%
Gifts, Hospitality and Entertainment (onboarding)	96%
Modern Slavery	95%
Anti-Tax Evasion	100%
Data Protection	97%
Cyber Security Awareness – 7 Basic Modules	90%

Governance and policies

Vesuvius' compliance policies underpin the principles set out in our Code of Conduct. They are the practical representation of our status as a good corporate citizen, and they assist employees to understand and comply with our ethical standards and the legal requirements of the jurisdictions in which we conduct our business. They also give practical guidance on how this can be achieved.

Human Rights and Labour Policy

Our policy expressly prohibits forced, compulsory or child labour in any form and applies to both ourselves and those who wish to work with us.

Our other commitments include:
- **Health and safety:** to work towards our goal of zero injuries in the workplace
- **Freedom of association and right to collective bargaining:** to respect our workers' democratic rights to participate or not participate in trade unions, or other collective bargaining organisations, without fear of intimidation, pressure or reprisal.
- **Unlawful discrimination, harassment and abusive behaviours:** to ensure that each employee and potential employee is treated with fairness and dignity and that discriminatory practices, or unwelcome verbal or physical conduct are not tolerated
- **Remuneration:** to ensure that wages and benefits paid to employees shall meet legal or industry minimum standards
- **Discipline policies:** ensure proportionality of sanctions, with a range of potential disciplinary actions and procedural fairness

See the full policy on www.vesuvius.com for further details.

Human rights

The Group's Human Rights and Labour Policy reflects the principles contained within the UN Universal Declaration of Human Rights, the International Labour Organization's Fundamental Conventions on Labour Standards and the UN Global Compact, to which the Group is a signatory. The Policy sets out the principles for our actions and behaviour in conducting our business and provides guidance to those working for us on how we approach human rights issues. These principles have been integrated into the work of our procurement teams as we assess our suppliers and their business practices. The Policy was reviewed and updated in 2022.

Prevention of slavery

During 2024, we published our ninth Modern Slavery transparency statement outlining the Group's approach to the prevention of slavery and human trafficking in our business and supply chain. A copy of our latest statement is available to view on our website: www.vesuvius.com.

We have identified the following four industries that pose a higher risk of modern slavery for Vesuvius:

1. Mining and extractive industries (raw materials)
2. Textiles (personal protective equipment (PPE) and work clothing)
3. Transport and packaging
4. Maintenance, cleaning, agricultural work, and food preparation (contracted workers)

As our spend with mining and extractive industry suppliers is far greater than the other three industries, and the number and diversity of suppliers is also the greatest, we have been focusing our efforts on these industries. We have deepened our investigation of higher-risk raw materials, based on the studies carried out by Drive Sustainability and the Responsible Minerals Initiative on the responsible sourcing of materials in the automotive and electronics industries, with which our portfolio of raw materials shares many commonalities.

In 2024, we provided webinar training on modern slavery to our key purchasing staff and continued to use an online e-learning module to upgrade the training given to all supplier-facing staff. It provides key guidance on the 'red flags' associated with modern slavery to assist them in identifying these during supplier visits and accreditation.

See the Group's Statement on the Prevention of Slavery and Human Trafficking

www.vesuvius.com/en/sustainability/our-policies/statement-on-modern-slavery.html

Business ethics/anti-bribery and corruption and working with third parties

Vesuvius' Code of Conduct affirms our commitment to competing vigorously, but honestly, and not seeking competitive advantage through unlawful means. We conduct ourselves ethically in all public affairs activities, in alignment with local laws and regulations. We do not engage in unfair competition, exchange commercially sensitive information with competitors, or acquire information regarding a competitor by inappropriate means. When received for business purposes, we safeguard third-party confidential information and use it only for the purpose for which it was provided.

We engage with selected third-party representatives and intermediaries in our business. We recognise that they can present an increased bribery and corruption risk. Our procedure on working with third parties clearly outlines our zero-tolerance approach to bribery and provides practical guidance for our employees in identifying concerns and how to report them.

Vesuvius engages with third-party sales agents, many of whom operate in countries where we do not have a physical presence. Our employees' use of, and interaction with, sales agents is supported by an ongoing training programme for those who have specific responsibility for these relationships.

As part of our communication around anti-bribery and ethics, employees are actively encouraged to consult on ethical issues. They have open access to the Compliance Director and Legal function who provide support on a regular basis.

During 2024, the Group continued the due diligence review of our third-party representatives and intermediaries. We repeated the enhanced due diligence reviews of sales agents, custom clearance agents, distributors and logistics providers, undertaken in prior years.

During the year we completed due diligence on more than 2,000 counterparties worldwide. As a result of this process, we terminated relationships with 29 counterparties who did not meet our standards.

Anti-bribery and Corruption Policy

This Policy sets out the responsibilities for all Vesuvius directors, officers and employees, and those working for us, in observing and upholding our zero-tolerance position on bribery and corruption; and provides information and guidance to those working for us on how we recognise and deal with bribery and corruption issues.

The Policy covers the following areas of potential risk:
- Third parties
- Gifts, hospitality and entertainment
- Donations and sponsorship
- Facilitation payments
- Dealing with public officials
- Promotional activities
- Bidding and tendering
- Market access
- Outside interests

See the full policy on www.vesuvius.com for further details.

Responsible sourcing

Vesuvius recognises the crucial role that its suppliers play in creating value in the products and services that Vesuvius ultimately provides to its customers. In addition to the consistent and timely supply of materials, products and services which are of the highest quality, we expect our suppliers to operate in a manner that is appropriate, in terms of their ethical, legal, environmental and social responsibilities.

Principles

Overall, our objective is to encourage suppliers to implement a meaningful sustainability programme, embrace the UN Global Compact principles, evaluate and reduce our upstream CO_2 emissions and identify potential risks (and if necessary, address them) in our supply chain. The satisfaction of our customers' requirements, the safety and reliability of Vesuvius' products, and the efficiency of Vesuvius' internal processes are dependent on the reliability of its network of suppliers. Vesuvius is committed to ensuring that we utilise high-quality raw materials, secured through reliable and well-developed raw material suppliers. The principles of sustainable procurement are prescribed within the Vesuvius Sustainable Procurement Policy and supported by supplementary processes.

Sustainable Procurement Policy

We operate a Sustainable Procurement Policy which outlines key criteria for suppliers. The Policy uses the Group Procurement's 'Request for Quotation' (RFQ) process to engage a significant number of Vesuvius suppliers and is provided in conjunction with the Vesuvius Terms and Conditions of Purchase.

For suppliers to participate in the RFQ, they are obliged to accept and agree to the terms of the Sustainable Procurement Policy, as it forms an addendum to Vesuvius' standard contract clauses. Once accepted, it is the responsibility of the supplier to verify and monitor compliance against the Policy – both for their operations and those of any sub-contractors. The full policy is available on the Vesuvius website.

Since its inception in 2021, 305 active vendors, representing 66% of the raw material spend, have formally pledged to comply with the Policy.

Sustainable Procurement Policy

The Policy covers all suppliers of goods and/or services either used in our manufacturing processes and/or sold directly by us to customers, including Tolling and Resale suppliers. It applies to suppliers, their agents and their sub-contractors.

The major elements of the Sustainability Procurement Policy are:
- Employees and human rights
- Conflict minerals
- Ethical and compliant business practices
- Environment
- Quality
- Business continuity

See the full policy on www.vesuvius.com for further details.

A responsible company continued

Supplier sustainability assessments

As part of our sustainability agenda, Vesuvius has implemented a Supplier Sustainability Assessment programme, covering all suppliers of goods either used in our manufacturing processes and/or sold directly by us to customers, including Resale suppliers.

Vesuvius has partnered with an independent third-party service provider – EcoVadis – to rate our raw materials suppliers using a detailed set of criteria. These cover four themes and 21 criteria based on international standards: Labour and Human Rights; Ethics; Environment; and Sustainable Procurement.

In 2024, 141 employees from our procurement teams received specific training on supplier on-site sustainability and quality assessments (92% of the target group).

The Group has a target to assess at least 60% of our raw material spend by 2025. Participating suppliers were selected based on a number of criteria including:
- Category of raw material
- Availability of alternative sources
- Share of supplier revenue with Vesuvius
- Grades in previous assessments
- Whether the supplier was new
- Supply chain incidents

Since its launch, 269 suppliers have joined the programme, representing 58% of the total raw material spend. Fewer than 8% of the suppliers assessed did not reach Vesuvius' minimal EcoVadis score. We are requiring these suppliers to implement improvement actions within a three-year time frame. Progress will be monitored through routine evaluations and an annual reassessment. Across the crucial topics, the average total score of Vesuvius' suppliers was 54.2, compared to an industry standard of 47.8.

Supplier CSR and quality audits

Vesuvius conducts an annual Supplier Audit programme focusing on their Corporate Social Responsibility (CSR) practices, product quality and security of supply. The programme is led by the Group's Purchasing and Quality teams. The goal of the audits is to verify that our suppliers abide by fundamental principles regarding the environment and social practices, and reduce the number of quality issues that may affect our raw materials.

As part of this, we carry out on-site inspections, share expectations with our suppliers, identify risks and adapt our internal controls accordingly. We encourage our suppliers to improve their own processes and help them prioritise actions to achieve this. Commencing in 2022, a number of 'red flag' items have been included in our on-site verification questionnaire, especially addressing human rights issues, such as child or forced labour, for which immediate escalation and investigation is required in case any breach is detected.

In 2024, 123 audits were conducted (100% on-site) (2023: 157). No cases of human rights breaches were detected as part of the supplier audit checks. 14.6% of audited suppliers received grades below threshold (2023: 5.7%). Whenever suppliers fail to meet the required standards, either action is taken to support them to improve or our relationship with them is terminated.

Supplier sustainability assessment criteria

Environment
- Energy consumption and GHGs
- Water
- Biodiversity
- Local and accidental pollution
- Materials, chemicals and waste
- Product use
- Product end-of-life
- Customer health and safety
- Environmental services and advocacy

Labour and Human Rights
- Employee health and safety
- Working conditions
- Social dialogue
- Career management and training
- Child labour, forced labour and human trafficking
- Diversity, discrimination and harassment
- External stakeholder human rights

Ethics
- Corruption
- Anti-competitive practices
- Responsible information management

Sustainable Procurement
- Supplier environmental practices
- Supplier social practices

21 criteria based on international standards

ILO · UN Global Compact · GRI · ISO 26000

Our stakeholders and Section 172(1) Statement

Effective engagement with stakeholders is critical to the success of the Group

Vesuvius recognises that effective engagement with stakeholders is vital to the Group's success. Understanding the needs and priorities of key stakeholders, and building strong and positive relationships with them, lies at the heart of Vesuvius' business.

Section 172 of the Companies Act 2006 codifies this engagement, requiring the Board to promote the success of the Company over the long term for the benefit of members as a whole, whilst having regard to other key stakeholders' interests.

In performing its duties, the Board focuses on the sustainable success of the Group and the existence of a culture that supports this success. The Board recognises that, in seeking to maintain long-term profitability, the Group is reliant on the support of all of its stakeholders, including the Group's workforce, its customers, suppliers and the communities in which its businesses operate.

When taking key decisions the Board balances the competing interests of different stakeholders with an overriding focus on ensuring the long-term success of the Group. The Board confirms that it has acted in accordance with the Section 172 requirements throughout the year.

Examples of how the Board considered stakeholders' interests in some of the key decisions it took during 2024 are given below.

Acquisition of PiroMET

During the year the Board approved the acquisition of PiroMET, a Turkish business which supplies refractory materials and related application technologies. An agreement was signed on 15 November 2024 to acquire a 61.65% stake in the business. The Board believes that the acquisition will strengthen our Advanced Refractory customer offering in the fast-growing region of EEMEA, and will allow us to leverage PiroMET's expertise in robotics and gunning to drive further opportunities for the Group. We completed the purchase on 28 February 2025 and welcome PiroMET's employees to the Group. In approving the transaction, the Board considered the impact on the staff in the Group's existing businesses in Türkiye, and the greater opportunities that the acquisition could bring for them, as well as the benefits to the Group of an improved operating footprint, and the benefits to our customers from a wider product portfolio.

Share Buyback

In November 2024, the Board approved a further share buyback programme to purchase up to £50 million in value of the Company's shares, with the shares acquired to be cancelled to reduce the Company's share capital. The decision to launch a further share buyback was taken after a careful analysis of the strength of the Company's balance sheet, and the ongoing longer-term financial requirements of the business. The Board considered the views of the Company's shareholders and the impact that the purchase would have on other investors, concluding that it would send a positive signal that the Company was performing well, and that it would benefit all of the Group's stakeholders.

A further buyback was chosen over, for example, a tender offer or special dividend, reflecting the preference of shareholders and advice from brokers, as a structure that equally benefits all shareholders over a sustained period. Over the course of the programme, the buyback is expected to be modestly EPS accretive and as such will enhance TSR in the event that our trading valuation multiple is maintained. The impact of the buyback is recognised in the Company's budget and as such it is reflected in the Group's incentive targets.

Capital investment in new warehouse capacity – Skawina, Poland

In May, the Board approved investment in the construction of an automated central warehouse in the Skawina plant, to replace the existing disparate facilities. The new facility is expected to become operational in 2026. The project will deliver significant operational and logistical flow improvements and reduce costs. It will also allow for a significant reduction of inventories, leveraging the recently installed SAP A1 ERP and associated Warehouse Management system. The Board noted that the project would secure environmental benefits by eliminating the need for travel to the external warehouse, and would improve the efficiency and long-time viability of the site. The Board noted that whilst the automation of the warehouse would lead to a reduction in the number of forklift drivers required, doing this would improve safety at the site, by reducing overall forklift use.

Section 172 requirement	Find out more	Page
Consequences of any decision in the long term	At a glance Our purpose Our business model Why invest in Vesuvius?	2–5 12 12 and 13 14–23
Interests of employees	Our purpose Our stakeholders Our people Remuneration Policy	12 63 and 64 55–58 108
Fostering business relationships with suppliers, customers and others	Our purpose Our business model Why invest in Vesuvius? A responsible company Our stakeholders	12 12 and 13 14–23 59–62 63–66

Section 172 requirement	Find out more	Page
Impact of operations on the community and the environment	Our sustainability strategy and objectives Progress on our sustainability targets Tackling climate change A responsible company Our stakeholders	34 35 and 36 37–54 59–62 66
Maintaining high standards of business conduct	A responsible company Our stakeholders Corporate Governance Statement Directors' Report	59–62 63–66 80–82 135
Acting fairly between members	Our purpose Our stakeholders Corporate Governance Statement	12 63–66 80–82

Our stakeholders continued

Our stakeholders

Given the diversity of the Group, engagement with most stakeholders takes place locally or is managed by specialist Group functions. The Board maintains oversight of this engagement through its briefings on the dynamics of key relationships and stakeholder groups, and also engages directly as appropriate.

The Group's key stakeholder groups, reflecting those who have the biggest impact on the business, and our modes of engagement are outlined in the tables below.

Our people

Why we engage

With our decentralised management model, the dedication and professionalism of our people, their capacity to own their roles and their drive for results are the most significant contributors to Vesuvius' success.

We engage with our people, encouraging and rewarding high performance to create an environment where all can realise their individual potential.

Issues that matter to them

- Health and safety
- Development and retention
- Career opportunities
- Remuneration and recognition
- Diversity and inclusion
- Management support
- International mobility
- Sustainability performance

How the business engages

- Fundamental focus on health and safety and the care of all employees, with regular safety briefings, safety training, the thorough investigation of all safety incidents, daily focus on safety improvements and awards recognising excellent performance
- Continuing dialogue between employees and their managers, including the conduct of regular performance reviews
- We operate a competitive remuneration and benefits strategy, emphasising talent development with tailored career-stage programmes
- Living the Values and other award schemes celebrate individual achievements in the demonstration of our Values and processes
- We operate global communication mechanisms including an intranet and global email communications, alongside forums such as local 'town hall' meetings
- The Group recognises trade unions and operates local works councils, alongside its European Works Council
- Wide-ranging internal training is offered on key job-related issues, with programmes such as the Vesuvius University – HeaTt

How the Board engaged in 2024

- At every Board meeting the Board received a report on the Group's performance against health and safety KPIs and reviewed, in detail, the circumstances of any Lost Time Injuries that had been reported
- The Board reviewed the Group's strategy to attract talent to the business and reviewed the HR objectives for each Business Unit
- The Remuneration Committee was informed of global salary budgets and oversaw the Group's share compensation programmes
- The Nomination Committee reviewed senior management development and succession planning, and monitored the Group's progress on diversity objectives
- Carla Bailo served as the designated Non-executive Director responsible for workforce engagement. She oversaw the Board's engagement activities, including the programme of 21 site visits undertaken by Directors to meet Vesuvius employees 'on the ground' and to hear firsthand about their experiences
- The Board reviewed the results of the I-Engage survey and the follow-up actions proposed
- The Board reviewed the nature and volume of reports received by the confidential Speak Up helpline

Outcomes

- Safe, motivated workforce
- More attractive recruitment marketing to new recruits
- 17% employee turnover in 2024
- 92% response rate to I-Engage survey
- Greater understanding of views of the workforce

Customers

Why we engage

Engaging with, and listening to, our customers helps us to understand their needs and identify opportunities and challenges. Customer intimacy lies at the heart of our business model and collaborating with them enables us to deliver value using our expertise to improve the safety and efficiency of their manufacturing processes, enhancing their end-product quality and reducing their costs.

Issues that matter to them

- Health and safety
- Product quality and performance
- Value generation
- Innovation and provision of solutions
- Production efficiency
- Environmental performance

How the business engages

Our business model focuses on collaboration with customers to provide customised solutions. We employ highly skilled technical experts who understand our customers' needs, and can identify opportunities and solutions for them

We work with customers to improve the safety, energy efficiency, yield and reliability of their processes, and the quality of their products

We engage with customers on safety leadership and support their training requirements

We maintain senior-level dialogue with all key customers, and establish customer relationships on a global basis as required, complemented by a broad local servicing capability

We provide technical customer training and participate in industry forums and events

How the Board engaged in 2024

The Chief Executive maintained a regular dialogue with a range of the Group's key customers, holding face-to-face meetings with 12 of them

The full Board visited a key customer in China, as part of its off-site Board meeting

The Board received briefings on the Group's end-markets and the dynamics of the Group's relationships with its customers, including information on pricing discussions

At every Board meeting, the Board reviewed information on the Group's performance against key manufacturing quality targets and was provided with updates on actions undertaken to rectify any significant quality issues or customer complaints

The Board received updates on the steps being taken by the Group to respond to customers' ongoing requirements, and the research and development, marketing and new product launch strategies being actioned to respond to these

Outcomes

- Clear understanding of customers' challenges and requirements
- Collaborative customer relationships
- Investment in enhancement of existing products and development of new innovative products to support customers' needs
- Customer considerations are a key input into strategic planning
- Engagement on sustainability matters

Suppliers and contractors

Why we engage

Maintaining a flexible workforce through the use of contractors and cost-effective access to high-quality raw materials is vital to our success. Our suppliers and contractors are critical to our business.

Issues that matter to them

- Operational performance
- Responsible procurement
- Trust and ethics
- Payment practices

How the business engages

We employ a significant number of directly supervised contractors to work at our customer locations

We conduct regular visits to key suppliers

Senior-level relationships are built with all large suppliers

All suppliers/brokers for major raw materials have regular interaction with the Global Purchasing Team

Dedicated category directors build long-term relationships and product expertise for key raw materials

Our purchasing and supplier-facing staff receive training on modern slavery to assist them in identifying any issues

Vesuvius operates a Sustainable Procurement Policy which sets out the standards that suppliers must adopt in order to supply the Group. We conduct a rigorous and consistent supplier accreditation procedure to ensure compliance with these standards

How the Board engaged in 2024

The Chief Executive met with a number of key suppliers

The Board received a briefing on the Group's suppliers and regular updates on supply and purchasing dynamics, and pricing

The Board received updates on the strategy for logistics and the sourcing of raw materials together with key concerns and performance issues

The Board monitored the Group's compliance activities and approved the Group's annual Modern Slavery Statement

Outcomes

- The services of more than 2,500 directly supervised contractors were utilised in 2024
- 269 suppliers have been rated under our Supplier Sustainability Assessment programme
- 305 suppliers have pledged to comply with our Sustainable Procurement Policy
- We have a good understanding of the capability and capacity of key suppliers
- Suppliers have a clear understanding of Vesuvius' expectations as an ethical business
- Broader supply chain
- Engagement on sustainability matters

Our stakeholders continued

Investors

Why we engage

The support of our equity and debt investors, and continued access to funding, is vital to the performance of our business. We work to ensure that our investors and lenders have a clear understanding of our strategy, performance and objectives, recognising that supportive investors are more likely to provide the Company with funds for expansion. We engage with lenders to ensure that we have clear knowledge and awareness of market sensitivities and trends, and comply with our contractual obligations.

Issues that matter to them

- Shareholder value
- Financial and operational performance
- Strategy and business development
- Dividend and gearing policy
- Sustainability strategy and performance
- Governance
- Transparency and ethical behaviour

How the business engages

- Our Head of Investor Relations, Chief Financial Officer and Chief Executive hold regular meetings with key and prospective investors
- The Group Treasurer and CFO hold regular meetings with key personnel from banks and other lenders who provide the Group's debt funding
- The Group Treasury function maintains an ongoing dialogue with key relationship banks and other local banks in the countries in which Vesuvius operates
- The Group's Annual Report provides an overview of the Group's activities. Regular announcements and press releases are published to provide updates on the Group's performance and progress
- There is ongoing dialogue with the Company's analysts to address enquiries and promote the business

How the Board engaged in 2024

- The Chief Executive and Chief Financial Officer held meetings with key and prospective investors
- The Board approved the terms of the Group's revolving debt refinancing
- The Board discussed with its advisers, shareholders' perspectives on the Group's strategy and received presentations on market dynamics and value drivers
- The Board received copies of key analysts' notes issued on the Company
- The Chairman met with shareholders and potential new investors, and discussed the Group's strategy
- Ahead of the 2024 AGM, the Chairman contacted the Group's largest shareholders and governance agencies, to invite them to discuss any matters they wished to raise
- The Directors attended the AGM to meet with shareholders

Outcomes

- Development of the Group's strategy
- Long Term shareholder base
- Solid support for the Group's revolving debt refinancing
- £62.4m returned through our share buyback programme and £61.1m total dividends paid in 2024

Communities

Why we engage

We work to maintain positive relationships with the communities in which we operate. Our social responsibility activities complement our Values and we encourage our employees to engage with communities and groups local to our operations.

Issues that matter to them

- Career opportunities
- Operational performance
- Transparency and ethical behaviour
- Environmental performance

How the business engages

- We provide work experience and internships to local university students and school children
- We maintain contact with universities to identify local talent and our businesses attend careers fairs and provide student work placements and internships
- Many of our sites sponsor local charitable activities and participate in local volunteering initiatives
- We maintain clear oversight and control of the environmental impact of our production sites
- We have a clear strategy for carbon reduction in our manufacturing processes

How the Board engaged in 2024

- The Board received biannual updates on the Group's sustainability activities

Outcomes

- Development of future talent
- Positive contribution to local communities and charities
- Improved environmental sustainability of the Group's operations

Environmental agencies and organisations

Why we engage

Good environmental management is aligned with our focus on cost optimisation, operational excellence and long-term business sustainability. We engage with appropriate organisations to ensure that we are complying with regulatory requirements, and to publicise our performance.

Issues that matter to them

- Governance and transparency
- Operational performance
- Reporting on performance metrics
- Environmental performance

How the business engages

- Vesuvius is a signatory to the UN Global Compact
- We publish a full Sustainability Report online which can be accessed via Vesuvius' website
- We regularly engage with government agencies who visit our sites and carry out inspections
- We respond to environmental research as part of our customers' and suppliers' due diligence processes
- We engage with rating agencies and respond to environmental and social responsibility research and questionnaires

How the Board engaged in 2024

- The Board monitored progress on the Group's sustainability KPIs and reviewed longer-term plans on sustainability initiatives, including the journey to net zero
- The Board received biannual presentations from the VP Sustainability on the Group's progress against its sustainability targets and updates on its ESG ratings
- The Board and Audit Committee monitored the Group's progress with its TCFD compliance

Outcomes

- Positive ratings by a range of ESG organisations
- Sustainable business operations
- Supportive relationships with local government agencies

Risk, viability and going concern

The Group undertakes a continuous process to review and understand existing and emerging risks which might impact the Group's long-term performance.

How we manage risk

The Board exercises oversight of the Group's principal risks and reviews the way in which the Group manages those risks. As part of this process the Board: (i) understands which individuals within the business are responsible for managing each principal risk; and (ii) reviews and, where appropriate, updates, the Group's appetite for each principal risk and assesses the adequacy of the steps taken to mitigate them.

The Board takes overall responsibility for establishing and maintaining a system of risk management and internal control and for reviewing its effectiveness. The Group undertakes a continuous process to identify and review risk and this assessment undergoes a formal review at half-year and at year-end. The risks identified by the business are compiled centrally to deliver a coordinated picture of the Group's key risks. These risks are then reviewed by the Group Executive Committee.

An integral part of the Group's risk management process is for each Non-executive Director to contribute their view on the principal risks facing the Group, the risk appetite the Group should have for each of these risks and what emerging risks the Group might face in the future. These contributions are overlaid on the Group's initial assessment of risks to build a comprehensive analysis of existing and emerging risks. In this way, the Directors' views on each of the principal risks, and on emerging risks in general, are independently gathered and integrated into management discussions and any actions required.

The Group's risk process covers both financial and non-financial risks, and considers the risks associated with the impact of the Group's activities on employees, customers, suppliers, the environment, local communities and wider society.

The Directors undertake regular, individual site visits and they believe this direct engagement with employees is an effective way to hear firsthand about issues and concerns that exist in the business and also the potential risks that it faces. More details on the site visits undertaken in 2024 can be found on page 80.

During 2024, the Group built on the externally facilitated review of its risks performed in 2023. The review conducted in 2023 did not result in any material changes to the Group's principal risks and uncertainties. In 2024, in anticipation of the updates made to the UK Corporate Governance Code on ongoing effectiveness of risk management and internal control systems coming into force, the Group commenced a further review of its risk management processes, as well as further work to understand the mitigation that these provide of the Group's identified risks. This process is ongoing.

Changes to risk in 2024

We detail below changes during 2024 to the scale or nature of risks facing the Group. As noted in previous years, certain issues arose during the year that are reflected in the Group's principal risks. In each case, the business impact was limited by the mitigations already in place and by the Group's risk management processes. We also detail the emerging risks facing the Group to which we remain vigilant.

Risk: Complex and changing regulatory environment

2024 was a year in which geopolitical tensions continued to have the potential to adversely impact our business. In response to the continuing war in Ukraine, regulators in the UK, EU and USA, continued to expand the scope of financial and trade sanctions, imposing further prohibitions on trade with specific individuals and entities as well as on products and the provision of services. The impact of these incremental regulations was not material in 2024, and was closely monitored to ensure that we reflected any new developments in our business.

Similarly, the ongoing conflict in the Middle East continued to affect shipping in the Red Sea. This again had the potential to impact the cost and timing of certain inbound and outbound freight, and we worked closely with our intermediaries and insurers to understand and minimise the impact on our business.

Risk: Protectionism and globalisation

During the year we continued to pay close attention to wider geopolitical dynamics, as these could push certain of the countries in which we operate to adopt a more protectionist stance. As the change in administration in the United States approached, we continued to monitor the potential for significant changes in global and regional trading environments and how these might affect our products and supply chains.

Risk: Business interruption

Cyber security remains a critical component of our business interruption risk, and is an issue that continues to grow in its scope and sophistication. 2024 has seen a continued investment in our systems and processes, as well as further investment in training and awareness of cyber issues across the Group. As with all businesses, we continue to monitor trends and developments in system security threats that could have an effect on our ability to conduct our business.

Risk: People, culture and performance

The environment to attract and retain high-calibre people across all levels of our business continues to be increasingly competitive in many of our labour markets. As noted in 2023, this remains the case for manufacturing roles, which are adversely affected by changing demographics and shifting trends in the workforce. We also continue to see a reduction in the promotion of material science teaching within our developed markets, which may

Risk, viability and going concern continued

further reduce the availability of suitably qualified candidates going forward.

Risk: End-market risks

As anticipated, 2024 saw continuing volatility in our markets. Whilst this is lasting longer than we had anticipated, we believe that our end-markets of Steel and Foundry are structurally set to grow in the longer term.

2024 saw a significant increase in the volume of steel exported from China, which had a knock-on effect on production levels in other markets around the globe. There was significant pressure on steel-makers in the EU and UK which led the Group to increase monitoring of customers to manage debtor exposure and the risk of bad debt.

The Group is well placed to manage short-term impacts with its flexible manufacturing footprint, geographically diversified revenue streams and strong financial position.

Emerging risks

The emerging risk trends facing the Group did not materially change in 2024. The dynamics of our markets continue to develop, and the growth that we anticipate in the future will not always come from the markets that have served us well in the past. We will continue to focus on this emerging trend, investing in markets with high future growth and ensuring that our manufacturing footprint remains sufficiently dynamic and responsive to take advantage of changing growth opportunities.

This will be made more complex with the threat of increased protectionism, which could disrupt the established global trade dynamics and supply chains, and drive a more regional and local focus for governments and steel and foundry producers alike. Against this backdrop we have been focused on ensuring that we have the flexibility to provide solutions to our customers from the most efficient and effective location, reflected in our strongly geographically diversified operating base.

We remain focused on the increased use of artificial intelligence and automation in all elements of our business. We continue to develop our understanding of where AI can improve our products and allow us to offer new solutions to our customers.

We are also looking at the ways that it can streamline our own production methods and administration processes as part of our wider strategy on digitalisation, to ensure we leverage the benefits to the fullest extent whilst minimising any adverse impact.

We continue to monitor the transition we see to the increased use of non-ferrous metals in industry, particularly the automotive industry. Whilst the trends in ferrous casting are positive, trends in non-ferrous metal production and casting are also favourable, and we are focused – in R&D and elsewhere – on developing products that will enable us to benefit from the growth in alternative end-markets.

Consumers, employees and other stakeholders in many countries are increasingly focused on the impact of businesses on society and the environment. There is a growing regulatory demand on businesses for transparency in this area. Vesuvius already has a set of broad Environmental, Social and Governance (ESG) commitments and has long been focused on driving efficiency in our customers' processes, with our products now clearly seen as having environmental/climate benefits. However, the reporting obligations in this area and the external assurance required on this reporting are both expected to increase in cost and complexity in the coming years.

Further information on the Group's ESG commitments can be found in the Non-Financial and Sustainability Information Statement on pages 33–62.

Finally, we committed at the end of 2023 to make annualised cost savings of £30m by 2026. We have made excellent progress against this target in 2024. Part of this efficiency saving is enabled by the ongoing implementation of a new Enterprise Resource Planning (ERP) system in certain countries. The Group is aware of the challenges associated with an ERP implementation and will manage these closely to minimise the risk of business interruption and cost overruns and to ensure that the operational efficiencies envisaged are delivered on a timely basis.

All of these issues could represent disruptors to our business. We remain focused on each of them through our risk identification and management processes as well as on the management of any other new risks that emerge during 2025.

Principal risks

In 2024, the Board did not identify any new principal risks or any material changes to the Group's previously identified principal risks and uncertainties. These principal risks and uncertainties are set out on pages 72 and 73 and are those the Board considers to be most relevant in terms of their potential impact on the Group achieving its strategic objectives. Each principal risk could materially affect the Group, its businesses, future operations and financial condition, and could cause actual results to differ materially from expected or historical results. Principal risks are not the only ones that the Group faces or will face. Some risks are not yet known and some currently not deemed to be material could become so.

Cyber security

The processes and controls to manage the constantly evolving cyber security threat are a significant area of focus for the Group. Members of the GEC, Group IT and senior management meet regularly to manage operational cyber risks. These risks were thrown into sharp focus for the Group as a result of the cyber attack we suffered in February 2023.

The Board oversees the Group's control systems for managing cyber risk and together with the Audit Committee receives regular updates on the Group's activities in this respect.

Cyber risks are integrated within the Group's risk management processes and form part of its Business Continuity Plan (BCP). The Group also maintains a Disaster Recovery Plan to address any network, data centre or IT infrastructure issue. The Group's Incident Handling and Response Policy ensures we maintain appropriate visibility of all network infrastructure.

The Group takes a holistic approach to addressing cyber challenges, focusing on improving our IT infrastructure, including our operational technology environments, as well as our IT procedures and data governance. We run regular training programmes on cyber security and conduct regular cyber security risk assessments, including scenario analysis to mitigate the business impact of any downtime, and increase awareness of social engineering fraud and system access through poor security behaviour. We also perform in-house and externally conducted vulnerability/penetrative testing, comparing the results with industry benchmarks to improve our processes and undertake an ongoing external assessment of our cyber security resilience and maturity.

Climate change

The Group's risk management processes consider the potential impact of climate-related risks. The Group does not regard climate change itself to represent a material stand-alone risk to the Group's operations.

Whilst a significant proportion of the Group's revenue is generated from steel manufacture and automotive castings, industries that are under transition as a result of the focus on improving environmental performance, we believe these changes will, overall, be positive for the Group. The Group's business strategy is based on helping our customers improve their manufacturing efficiency and the quality of their products, thereby reducing their climate impact. We also envisage benefits for the Group from the acceleration of the energy transition, as this will create continued demand for the high-quality steel produced using Vesuvius' products and solutions.

One of the Group's principal risks is Environmental, Social and Governance criteria. This captures our sustainability performance and our customers' sustainability transition and recognises the impact Vesuvius can have on reducing the environmental impact of our customers. The Group recognises that climate change could present uncertainty for the Group in terms of increased regulation and the evolution of the geographical distribution of our customer base. Further information about the Group's consideration of climate-related risks and opportunities can be found in the Tackling climate change section of the Non-Financial and Sustainability Information Statement on pages 37–54.

Risk mitigation

Each principal risk is owned by specific members of senior management who actively manage the risk as well as contributing to the analysis of its likelihood and impact, and continually monitoring the process for mitigation. This analysis is reported to the Board. Risks are analysed in the context of our business structure which protects against certain of our principal risks with diverse currencies, a widespread customer base and local production matching the diversity of our markets. Additionally, we mitigate risk through employee training and our contractual terms. Our processes are not designed to eliminate risk, but to identify our principal risks and to mitigate them to a reasonable level in the context of delivering the Group's strategy.

Business continuity and insurance

In partnership with risk management advisers and our insurers, we seek to identify the most effective means of reducing or eliminating insurable risks, through risk management and the placing of insurance cover.

Our insurer property loss control programme is based upon insurer loss modelling and focuses on insured losses. The insurer's loss control engineers undertake a series of on-site inspections focused on machinery breakdown, fire, natural catastrophe and other property damage and business interruption risks. These surveys yield a series of loss-reduction recommendations. The execution of these recommendations is agreed with site management and followed through to completion.

In parallel, Vesuvius' own loss management programme focuses on strategic sites and sites that are not routinely covered by the insurer programme. Assisted by an independent consultant, we undertake property loss control and business continuity surveys using Vesuvius' bespoke risk and exposure-based protocol. These reports yield further risk reduction recommendations, and improvement actions are agreed and completed by site management.

To support the Group's loss control activities, risk management workshops are conducted covering loss prevention, emergency planning, crisis management and business recovery. Business continuity planning is also conducted to ensure there is sufficient resilience in the Group's manufacturing network to address individual supply interruptions.

Internal control

The Group's internal control system is designed to manage, rather than eliminate, the risks facing the Group and safeguard its assets. No system of internal control can provide absolute assurance against material misstatement or loss. The Group's system is designed to provide the Directors with reasonable assurance that problems are identified on a timely basis and are dealt with appropriately.

The Audit Committee assists the Board in reviewing the effectiveness of the Group's system of internal control, including financial, operational and compliance controls, and risk management systems. The key features of the Group's system of internal control are set out in the table on the next page.

Reviewing the effectiveness of risk management and internal control

The internal control system covers the Group as a whole and is monitored and supported by the Group's Internal Audit function, which conducts reviews of Vesuvius' businesses and reports objectively both on the adequacy and effectiveness of the system of internal control and on those businesses' compliance with Group policies and procedures. The Audit Committee receives reports from the Group Head of Internal Audit and reports to the Board on the results of its review.

The Group also conducts a self-certification exercise by which senior financial, operational and functional management certify the compliance, throughout the year, of the areas under their responsibility with the Group's policies and procedures, and highlight any material issues that have occurred during the year.

As part of the Board's process for reviewing the effectiveness of the system of internal control, it delegates certain matters to the Audit Committee. Following the Audit Committee's review of internal financial controls and of the processes covering other controls, the Board annually evaluates the results of the internal control and risk management procedures conducted by senior management. Since the date of this evaluation, there have been no significant changes in internal controls or other matters identified which could significantly affect them.

In accordance with the provisions of the UK Corporate Governance Code, the Directors confirm that they have carried out a robust assessment of the principal and emerging risks facing the Company, including those that threaten its business model, future performance, solvency or liquidity. They have also reviewed the effectiveness of the Group's system of internal control and confirm that any control weaknesses identified during the year and to the date of this report are being remediated.

Further detail regarding the Audit Committee's review of the effectiveness of the Group's risk management and internal control systems is contained in the Audit Committee report on pages 88-95.

Risk, viability and going concern continued

Key features of risk management and internal control

Strategy and financial reporting	Comprehensive strategic planning and forecasting process
	Annual budget approved by the Board
	Monthly operating financial information reported against budget
	Key trends and variances analysed and action taken as appropriate
Vesuvius GAAP	Accounting policies and procedures formulated and disseminated to all Group operations
	Covers the application of accounting standards, the maintenance of accounting records and key financial control procedures
Operational controls	Operating companies and corporate offices maintain internal controls and procedures appropriate to their structure and business environment
	Compliance with Group policies on items such as authorisation of capital expenditure, treasury transactions, the management of intellectual property and legal/regulatory issues
	Use of common accounting policies and procedures, and financial reporting software used in financial reporting and consolidation
	Significant financing and investment decisions reserved to the Board
	Monitoring by the Board of policy and control mechanisms for managing treasury risk
	Clearly delegated financial authority thresholds for capital expenditure, purchasing, customer contracts and hiring
	Health and safety audits
	Board review of product quality metrics
Risk assessment and management	Continuous process for identifying, evaluating and managing any significant risks
	Risk management process designed to identify the key risks facing each business
	Reports made to the Board on how those risks are managed
	Top-down risk identification undertaken at Group Executive Committee and Board meetings
	Board review of insurance and other measures used in managing risks across the Group
	The Board is notified of major issues and makes an annual assessment of whether risks have changed
	Ongoing assurance processes by the legal function and Internal Audit including the annual self-certification process
	Externally supported Speak Up whistleblowing helpline
Internal Audit	Reviews Vesuvius' businesses and reports on the adequacy and effectiveness of their systems of internal control and compliance with Group policies and procedures
	Agrees action plans for the resolution of any improvement actions identified by their audits, and monitors, with local management and the Business Unit Presidents, progress through until completion
	Reports to the Audit Committee on the results of each audit and provides regular updates on high-priority action items
	The Audit Committee discusses the key risks identified by Internal Audit
	The Group Head of Internal Audit conducts private meetings with the Audit Committee without management being present

Viability Statement

In accordance with the UK Corporate Governance Code, the Directors have assessed the viability of the Group over a three-year period to 31 December 2027, taking into account the Group's current position and the potential impact of the principal risks and uncertainties. The Directors have determined that three years is an appropriate period over which to provide the Viability Statement because this is the Company's planning cycle and it is sufficiently funded by financing facilities with average maturity terms of approximately four years. The projected cash flows for the next three years have been based on the latest Board-approved budgets and capital markets day financial projections.

In making this statement, the Directors have carried out a robust assessment of the principal risks that may threaten the business model, future performance, solvency and liquidity of the Group. This is embodied in the annual review of a three-year business plan which includes a review of sensitivity to 'business as usual' risks, such as profit growth and working capital variances, severe but plausible events and the impact these could have on the Group's debt covenants and available liquidity. The results take account of the availability and likely effectiveness of the mitigating actions that could be taken to avoid or reduce the impact or occurrence of the underlying risks. Whilst the review has considered all the principal risks identified by the Group, the following were selected for enhanced stress testing: an unexpected global supply chain disruption leading to increased lead times and business interruption due to the unplanned closure of a key production facility. The Group's prudent balance sheet management, flexible cost base able to react quickly to end-market conditions, access to long-term capital at reasonable cost and geographically diversified international businesses leave it well placed to manage these principal risks. In performing the stress testing, certain assumptions were made, including that supply chain disruption would lead to a need for increased inventory levels over multiple years; and the loss of a production facility would, after the recovery of production capacity, result in certain sustained customer losses. Any loan facility requiring refinancing was considered to be renewed ahead of its maturity date. The Group's committed syndicated bank facility of £385.0m, of which £203.0m was undrawn at the end of 2024, with maturity in August 2026, was replaced by a new committed syndicated bank facility of £475.0m with maturity in August 2029 (see Note 25.2.d). Under the enhanced stress testing, a potential breach of a covenant would only occur in the event of an unforeseen reduction in revenue of greater than 23%, without consideration of any remedial factors such as capital expenditure reduction. Accordingly, the Directors confirm that they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the three-year period to 31 December 2027. Furthermore, the Board believes that the Group continues to be well positioned for success in the longer term because of our exposure to long-term growing end-markets, our market-leading position that is supported by ongoing investment in innovation and R&D, our strong degree of customer intimacy with around a third of our employees working at customer facilities, and the focus we have on building quality teams with clear organisational responsibility.

Going concern statement

The Group's available liquidity stood at £389m at year-end 2024, down from £488m at year-end 2023. The Directors have prepared cash flow forecasts for the Group for the period to 30 June 2026. These forecasts reflect an assessment of current and future end-market conditions, which are expected to be challenging in 2025 (as set out in the 'outlook' statement in the Chief Executive's strategic review in this document), and their impact on the Group's future trading performance.

The Directors have also considered a severe but plausible downside scenario, based on an assumed volume decline and loss of profitability over the period. This downside scenario assumes:

- A decline in business activity level in 2025 and 2026 by 3% compared to 2024 performance
- A decline in profitability (Return on Sales) of 2.1% compared to 2024 performance
- Working capital as a percentage of sales in the downside case deteriorates by 1.0% vs 2024

On a full-year basis relative to 2024, this implies a c.23% decline in Trading Profit.

The Group has two covenants; net debt/EBITDA (under 3.25x) and an interest cover requirement of at least 4.0x. In this downside scenario, the forecasts show that the Group's maximum net debt/EBITDA (pre-IFRS 16 in line with the covenant calculation) does not exceed 1.9x, compared to a leverage covenant of 3.25x, and the minimum interest cover reached is 17x compared to a covenant minimum of 4x.

The forecasts show that the Group will be able to operate within its current committed debt facilities and show continued compliance with the Group's financial covenants. On the basis of the exercise described above and the Group's available committed debt facilities, the Directors consider that the Group and the Company have adequate resources to continue in operational existence for a period of at least 12 months from the date of signing of these financial statements and that there is no material uncertainty in respect of going concern. On 21 February 2025 the Group obtained a new committed syndicated bank facility of £475m reaching maturity in August 2029, replacing the previous one in place (see Note 25.2.d) with the same covenants. This is considered to be a non-adjusting event after balance sheet date. Accordingly, they continue to adopt a going concern basis in preparing the financial statements of the Group and the Company.

Viability process

Identify
Viability time horizon and risk analysis framework

Assess
Principal risks and stress scenarios

Model
Viability against risk scenarios, examining probabilities and impacts

Report
See Viability Statement

Principal risks and uncertainties

Risk	Potential impact	Mitigation
End-market risks Vesuvius suffers an unplanned drop in demand, revenue and/or margin because of market volatility beyond its control. Strategic Value alignment	**Unplanned drop in demand and/or revenue due to reduced production by our customers** **Margin reduction** **Customer failure leading to increased bad debts** **Loss of market share to competition** **Cost pressures at customers leading to use of cheaper solutions**	Geographic diversification of revenues Product innovation and service offerings securing long-term revenue streams and maintaining performance differential Increase in service and product lines by the development of measurement and mechatronic capabilities R&D includes assessment of emerging technologies Manufacturing capacity rationalisation and flexible cost base Diversified customer base: no customer is greater than 10% of revenue Robust credit and working capital control to mitigate the risk of default by counterparties
Protectionism and globalisation The Vesuvius business model cannot adapt or respond quickly enough to threats from protectionism and globalisation. Strategic Value alignment	**Restricted access to market due to enforced preference of local suppliers** **Increased barriers to entry for new businesses or expansion** **Increased costs from import duties, taxation or tariffs** **Loss of market share**	Highly diversified manufacturing footprint with manufacturing sites located in 24 countries Strong local management with delegated authority to run their businesses and manage customer relationships Cost flexibility Tax risk management and control framework together with a strong control of intercompany trading
Product quality failure Vesuvius staff/contractors are injured at work or customers, staff or third parties suffer physical injury or financial loss because of failures in Vesuvius products. Strategic Value alignment	**Injury to staff and contractors** **Product or application failures lead to adverse financial impact or loss of reputation as technology leader** **Incident at customer plant causes manufacturing downtime or damage to infrastructure** **Customer claims from product quality issues**	Quality management programmes including stringent quality control standards, monitoring and reporting Experienced technical staff knowledgeable in the application of our products and technology Targeted global insurance programme Experienced internal legal function overseeing third-party contracting
Complex and changing regulatory environment Vesuvius experiences a contracting customer base or increased transaction and administrative costs due to compliance with changing regulatory requirements. Strategic Value alignment	**Revenue reduction from reduced end-market access** **Disruption of supply chain and route to market** **Increased internal control processes** **Increased frequency of regulatory investigations** **Reputational damage** **Trade restrictions**	Compliance programmes and training across the Group Independent Internal Audit function Experienced internal legal function including dedicated compliance specialists Global procurement category management of strategic raw materials
Failure to secure innovation Vesuvius fails to achieve continuous improvement in its products, systems and services. Strategic Value alignment	**Product substitution by customers** **Increased competitive pressure through lack of differentiation of Vesuvius' offering** **Commoditisation of product portfolio through lack of development** **Lack of response to changing customer needs** **Loss of intellectual property protection**	Enduring and significant investment in R&D, with market-leading research A shared strategy for innovation throughout the Group, deployed via our R&D centres Stage-gate process from innovation to commercialisation to foster innovation and increase alignment with strategy Programme of manufacturing and process excellence Quality programme, focused on quality and consistency Stringent intellectual property registration and defence

Strategic Value alignment

Return on Sales | Free Cash Flow | Cost Savings | Sustainability

See more about **Our business model** on **p12 and 13**

Risk	Potential impact	Mitigation
Business interruption Vesuvius loses production capacity or experiences supply chain disruption due to physical site damage (accident, fire, natural disaster, terrorism), or other events such as industrial action, cyber attack or global health crises. Strategic Value alignment	**Loss/closure of a major plant temporarily or permanently impairing our ability to serve our customers** **Damage to or restriction in our ability to use assets** **Denial of access to critical systems or control processes** **Disruption of manufacturing processes** **Inability to source critical raw materials** **Loss of data, leading to confidentiality, regulatory and reputational issues**	Diversified manufacturing footprint Disaster recovery planning Business continuity planning with strategic maintenance of excess capacity Physical and IT access controls, security systems and training Cyber risks integrated into wider risk management structure Well-established global insurance programme Group-wide safety management programmes Dual sourcing strategy and development of substitutes
People, culture and performance Vesuvius is unable to attract and retain the right calibre of staff, fails to instil an appropriate culture or fails to embed the right systems to drive personal performance in pursuit of the Group's long-term growth. Strategic Value alignment	**Organisational culture of high performance is not achieved** **Staff turnover in growing economies and regions** **Stagnation of ideas and development opportunities** **Loss of expertise and critical business knowledge** **Reduced management pipeline for succession to senior positions**	Internal focus on talent development and training, with tailored career-stage programmes and clear performance management strategies Contacts with universities to identify and develop talent Career path planning and global opportunities for high-potential staff Internal programmes for the structured transfer of technical and other knowledge Clearly defined Values underpin business culture Group focus on enhancing gender diversity
Health and safety Vesuvius staff or contractors are injured at work or suffer mental health issues because of failures in Vesuvius' operations, equipment, policies or processes. Strategic Value alignment	**Injury to staff and contractors** **Health and safety breaches** **Lack of staff availability and operational downtime** **Inability to attract and retain the necessary workforce** **Reputational damage**	Active safety programmes, with ongoing wide-ranging monitoring and safety training Independent safety audit team Quality management programmes including stringent manufacturing process control standards, monitoring and reporting
Environmental, Social and Governance criteria Vesuvius fails to capitalise on the opportunity to help its customers significantly reduce their carbon emissions as environmental pressure grows on the steel industry or Vesuvius fails to meet the expectations of its various stakeholders including employees and investors. Strategic Value alignment	**Loss of opportunity to grow sales** **Loss of opportunity to increase margin** **Loss of stakeholder confidence including investors** **Reputational damage**	Continued development of our Sustainability initiative, which includes stretching targets focused on reducing the Group's energy usage, CO_2 emissions and waste, and increasing recycled materials R&D focus on products that assist customers to reduce carbon emissions and improve their own sustainability measures Skilled technical sales force to develop efficient solutions for our customers Globally disseminated Code of Conduct sets out standards of conduct expected and Anti-bribery and Corruption Policy adopted with zero tolerance regarding bribery and corruption Internal Speak Up mechanisms to allow reporting of concerns Extensive use of due diligence to assess existing and potential business partners and customers

The Strategic Report set out on pages 1–73 contains a fair review of our businesses, strategy and business model, and the associated principal risks and uncertainties. We also deliver a review of our 2024 performance and set out an overview of our markets and our stakeholders.

Details of our principles, and our people and community engagement, together with our focus on safety, are also contained in the Strategic Report.

Approved by the Board on 5 March 2025 and signed on its behalf by

Patrick André
Chief Executive